3.Quality of Teachers and Teaching

		No.	Details	Marks
3(a)	No. of teachers with Ph.D.(awarded)	45	List uploaded	
3(b)	No. of publications only in WoS/SCOPUS/PuB Med(UGC CARE Category-II)listed journals in the assessment year (List to be uploaded under mandatory disclosures)P1	53	Details uploaded	
	No. of publications only in UGC-CARE (Category-I) listed journals in the assessment year (List to be uploaded under mandatory disclosures)P2	49	List uploaded	
	No. of publications only in any referred journal other than the above indexing (with ISSN No.) in the assessment year (List to be Uploaded under mandatory disclosures)P3	36	List uploaded	
3(c)	(i) No. of publications in conferences in the assessment year (List to be uploaded under mandatory disclosures)			
	• Indexed by WoS/SCOPUS	12	List uploaded	
	• With ISBN Number	30	List uploaded	
	• Any other	-		
	(ii) No. of Patents Published/Granted	22	Published : 21, Granted : 1	
3(d)	No. of Books Authored/Edited Books/Book Chapters published with ISBN (List to be uploaded under mandatory disclosures)	82	List uploaded	
3(e)	Course/teaching plan with details of number of lectures on each unit of curriculum, in the assessment year	802	Details uploaded	
3(f)	No. of courses on Learning Management System(LMS)Software other than you tube, ppt, etc. (List to be uploaded under Mandatory disclosures)	802	Lexyta	
3(g)	Class rooms available with mounted projectors and ICT facilities (Geo tagged photos should be uploaded and available under mandatory disclosures)	44	Geo tagged photos uploaded	
3(h)	Percentage of teachers using ICT for teaching (having PPTs, Videos, etc.)	100%	Details uploaded	
	Marks (Maximum Marks: 100)			
	List of Total number of publications for the assessment year to be uploaded at the Website under mandatory disclosures			

MANAGEMENT EDUCATION & RESEARCH INSTITUTE

FACULTY LIST - ACADEMIC SESSION 2025-26

S.NO.	FIRST NAME	MIDDLE NAME	SURNAME	GENDER	EXACT DESIGNATION	PROGRAMME	QUALIFICATION	DATE OF JOINING	EXPERIENCE	TYPE OF APPOINTMENT
1	PROF. LALIT		AGGARWAL	MALE	PROFESSOR	MBA	PH.D, M.TECH, PGDPM, B.TECH	10/1/2004	32 YEARS	REGULAR
2	DR. DEEPSHIKHA		KALRA	FEMALE	PROFESSOR	MBA	Ph.D., M.PHIL, MBA, NET QUALIFIED	17/07/2006	18 YEARS	REGULAR
3	DR RAMAKANT		DWIVEDI	MALE	PROFESSOR	MBA	PH.D, M.Phil,	4/11/2024	20 YEARS	REGULAR
4	DR. PJS		PANNU	MALE	PROFESSOR	MBA	PH.D, M.PHIL	02/11/2025	22 YEARS	REGULAR
5	DR. GURPREET	KAUR	CHHABRA	FEMALE	ASSOCIATE PROFESSOR	MBA	Ph.D., MBA, PGDM, NET QUALIFIED	1/8/2014	16 YEARS	REGULAR
6	DR. STUTI	NARULA	MARKAN	FEMALE	ASST. PROFESSOR	MBA	Ph.D, Pursuing B.Ed., LLM, BALLB	1/9/2022	7 YEARS	REGULAR
7	DR KAMAL		CHANDEL	MALE	ASST. PROFESSOR	MBA	PH.D, M.A.	4/11/2024	7 YEARS	REGULAR
8	DR. NEHA		SHIVANI	FEMALE	ASST. PROFESSOR	MBA	PH.D., M.PHIL, NET, M.A.(ECO), B.ED., BA(H) BUSINESS ECO	4/1/2021	6 YEARS	REGULAR
9	DR. POOJA	SINGH	NEGI	FEMALE	ASST. PROFESSOR	MBA	Ph.D, B.Ed, M.Com	1/9/2022	10 YEARS	REGULAR
10	DR.MANOJ		KUMAR	MALE	PROFESSOR	BBA	Ph.D, B.TECH,MBA	15/7/2021	22 YEARS	REGULAR
11	DR. SANGEETA		GUPTA	FEMALE	PROFESSOR	BBA	PH.D, MBA, M.COM, MCA	1/10/2017	30 YEARS	REGULAR
12	DR. RASHMI		JHA	FEMALE	PROFESSOR	BBA	PH.D,. MSC(IT), BSC(H)	15/11/2021	18 YEARS	REGULAR
13	DR. MONIKA		SHARMA	FEMALE	ASSOCIATE PROFESSOR	BBA	Ph.D, MBA, MCA	12/11/2009	14 YEARS	REGULAR
14	DR. RICHA	SINGH	KAPOOR	FEMALE	ASSOCIATE PROFESSOR	BBA	Ph.D., M. COM	1/8/2016	12 YEARS	REGULAR
15	DR. SHIKHA		GUPTA	FEMALE	ASSOCIATE PROFESSOR	BBA	PH.D, FCA, M.COM	1/8/2019	10 YEARS	REGULAR
16	DR. ANAND		NANDWANI	MALE	ASSOCIATE PROFESSOR	BBA	Ph.D., UGC-NET, M.Phil, MBA, M.Com	31/07/2023	18 YEARS	REGULAR
17	DR SUNIL	KUMAR	DAS	MALE	ASSOCIATE PROFESSOR	BBA	Ph.D, Post Graduate (Mass Communication)	30/05/2023	35 YEARS	REGULAR

S.NO.	FIRST NAME	MIDDLE NAME	SURNAME	GENDER	EXACT DESIGNATION	PROGRAMME	QUALIFICATION	DATE OF JOINING	EXPERIENCE	TYPE OF APPOINTMENT
18	DR. S.S		MISRA	MALE	ASSOCIATE PROFESSOR	BBA	PH.D IN INTERNATIONAL POLITICS	11/9/2023	25 YEARS	REGULAR
19	DR. RICHA		GUPTA	FEMALE	ASSOCIATE PROFESSOR	BBA	PH.D, M.Sc. B.Ed	20/08/2024	16 YEARS	REGULAR
20	DR. MONIKA			FEMALE	ASST. PROFESSOR	BBA	PH.D. M.COM	11/8/2025	1 YEAR	REGULAR
21	DR ANIL	KUMAR	GREWAL	MALE	ASST. PROFESSOR	BBA	Ph.D,NET, MBA,MA(Economics), BCOM	18/11/2021	12 YEARS	REGULAR
22	DR. PARMJOT		SINGH	MALE	ASST. PROFESSOR	BBA	PH.D, PGDM (MKTG. MGT), M.A.	1/8/2018	2 YEARS	REGULAR
23	DR. SARITA		YADAV	FEMALE	ASST. PROFESSOR	BBA	Ph.D, Net Qualified, CTET Qualified, HTET, B.Ed	2/9/2022	13 YEARS	REGULAR
24	DR. PAWAN	KISHORE	JHA	MALE	ASST. PROFESSOR	BBA	Ph.D, M.E	09/09/2022	10 YEARS	REGULAR
25	DR SIMRANJEET	KAUR	BAGGA	FEMALE	ASST. PROFESSOR	BBA	PH.D, MBA, NET QUALIFIED, B.E.	03/03/2023	7 YEARS	REGULAR
26	DR. SURESH		JHA	MALE	ASST. PROFESSOR	BBA	Ph.D, M.Tech, B.Tech.	1/8/2024	15 YEARS	REGULAR
27	DR. CHAANDNI		GAUTAM	FEMALE	ASST. PROFESSOR	BBA	Ph.D, UGC-Net, MBA, B.Com(H)	3/8/2023	1 YEAR	REGULAR
28	DR. LALITA		YADAV	FEMALE	ASST. PROFESSOR	BBA	Ph.D, UGC Net, MBA, B.Sc.	31/07/2023	10 YEARS	REGULAR
29	DR. BEENA			FEMALE	ASST. PROFESSOR	BBA	Ph.D, M.Phil	9/4/2025	5 YEARS	REGULAR
30	DR. MAMTA			FEMALE	ASST. PROFESSOR	BBA	PH.D, M.COM	5/5/2022	4 YEARS	REGULAR
31	DR. TAPASH		DEY	MALE	PROFESSOR	B.COM(H)	Ph.D, EPMHRM, PGDHRM, MBA, M.COM	18/07/2022	25 YEARS	REGULAR
32	DR. MANDEEP		KAUR	FEMALE	ASSOCIATE PROFESSOR	B.COM(H)	Ph.D., MBA, PGDFM, M.COM	20/04/2015	16 YEARS	REGULAR
33	DR. KOMPAL		BARARA	FEMALE	ASSOCIATE PROFESSOR	B.COM(H)	Ph.D., M.COM, NET, JRF, B.COM (H)	7/1/2019	8 YEARS	REGULAR
34	DR SANGEETA			FEMALE	ASST. PROFESSOR	B.COM(H)	PH.D, MBA, M.COM	04/04/2023	4 YEARS	REGULAR
35	DR. RITU		AGGRAWAL	FEMALE	PROFESSOR	BCA	Ph.D. , M. PHIL, MCA, M.Sc. COMPUTER	13/08/2001	20 YEARS	REGULAR

S.NO.	FIRST NAME	MIDDLE NAME	SURNAME	GENDER	EXACT DESIGNATION	PROGRAMME	QUALIFICATION	DATE OF JOINING	EXPERIENCE	TYPE OF APPOINTMENT
36	DR. SUMIT		CHAUHAN	MALE	ASSOCIATE PROFESSOR	BCA	Ph.D,. MCA.	28/07/2004	18 YEARS	REGULAR
37	DR. RAKHEE		CHHIBER	FEMALE	ASSOCIATE PROFESSOR	BCA	Ph.D, MCA, MBA,NET QUALIFIED	1/9/2021	15 YEARS	REGULAR
38	DR. SACHIN		KUMAR	MALE	ASSOCIATE PROFESSOR	BCA	Ph.D, M.Phil, M.Tech, MCA, PDF in Computer Science	4/8/2023	20 YEARS	REGULAR
39	DR. SWAPNILA		ROY	FEMALE	ASSOCIATE PROFESSOR	BCA	PH.D, PGDBM, M.Sc., B.Sc.	28/08/2023	18 YEARS	REGULAR
40	DR PAYAL			FEMALE	ASST. PROFESSOR	BCA	Ph.D, M.Tech, B.Tech.	14/08/2023	3 YEARS	REGULAR
41	DR. S.K.		PANDEY	MALE	ASSOCIATE PROFESSOR	BA(JMC)	Ph.D, MJMC,M.A	16/07/2024	21 YEARS	REGULAR
42	DR. NUTAN		BHARTI	FEMALE	ASSOCIATE PROFESSOR	BA(JMC)	Ph.D, M.Phil	15/12/2021	27 YEARS	REGULAR
43	DR. MEENAKSHI		UNIYAL	FEMALE	ASST. PROFESSOR	BA(JMC)	Ph.D, MA (JMC), B.Com	24/07/2023	10 YEARS	REGULAR
44	DR. ARKIN		CHAWLA	FEMALE	ASST. PROFESSOR	BA(JMC)	PH.D,MJMC	15/07/2024	5 YEARS	REGULAR
45	DR. IRSHAD		AHEMAD	MALE	ASST. PROFESSOR	BA(JMC)	Ph.D, M.A.	1/7/2025	5 YEARS	REGULAR

No. of Publications only in Wos/SCOPUS-UGC care category II

S. NO.	NAME OF FACULTY	TOPIC	ISBN NO.
1	Dr. Neha Shivani	Unveiling the Mediating Role of Perceived Opportunity in Women Empowerment Determinants and Entrepreneurial Success	ISSN Number : 2229-7359
2	Dr. Simranjeet Kaur Bagga	Employee change readiness effect on employee engagement and organisational commitment in the Indian pharmaceutical sector: an empirical study	1478-8764
3	MS NISHA GARG	Medical Outsourcing Dilemma : the JJ Diagnostics Saga	ISBN NO.978-93-340-1274-3
4	Ms Preeti Verma	Navigating the Landscape :Addressing Challenges in Inclusive Education under NEP 2020	ISBN : 978-93-340-0528-8
5	DR SARITA YADAV	Scooby-Dooby : The start-up	ISBN NO.978-93-340-1274-3
6	Dr. Sarita Yadav & Dr. Pawan Kishore Jha	A Way forward to NEP 2020 : A Review	ISBN : 978-93-340-0528-8
7	DR SHEELA NARANG	E-HRM -Innovation or Irritation	ISBN NO.978-93-340-1274-3
8	MS SHWETA AHUJA	US Bank Collapse 2023 : A Repeat of 2008 Crisis	ISBN NO.978-93-340-1274-3
9	MS SHWETA AHUJA	Obstacles in Implementing Inclusive Educational Practices	ISBN : 978-93-340-0528-8
10	Dr. Neha Shivani	Enablers and determinants of Financial Performance of women entrepreneurs in India	0975 4415
11	DR. POOJA SINGH NEGI	MAXIMIZING LEAD GENERATION POTENTIAL	ISSN 0974-2093
12	Dr. Sheela Narang Wadhwa, Dr. Garima Bhardwaj, Dr. Arun Pratap Srivastava, Dr.Ritika Malik	AI-driven job insecurity and work performance: unveiling the mediating role of psychological well-being	Vol. 17, 2025.,Pages 3883-3894(2025)
13	Dr. Sheela Narang Wadhwa, Dr. Garima Bhardwaj, Dr. Arun Pratap Srivastava	LINKING PSYCHOLOGICAL WELL-BEING AND EMPLOYEE PRODUCTIVITY THROUGH WORK-LIFE INTEGRATION: A	ISSN 0973-1598
14	Dr. Arkin Chawla	Exploring the Role of Cinematic Techniques in Shaping Audience Emotions	ISSN(Online): 2226-0439
15	Dr. Gurpreet Kaur Chhabra	Exploring Covid-19's Impact On Mental Health In The Workplace: A Bibliometric Analysis	2025; 20(1):i3607.

16	Dr Lalita Yadav	HUMAN–AI SYNERGY AND EMPLOYEE RESILIENCE: UNDERSTANDING HR ANALYTICS IMPACT ON WELL-BEING IN	ISSN:1474-6743
17	Dr Lalita Yadav	Artificial Intelligence in HR Analytics: Ethical Implications and Strategic Value for Corporate India	ISSN:2096-2487
18	Dr Sarita Yadav	PREVALENCE OF OVERCONFIDENCE, OPTIMISM AND HERD IN INVESTOR'S PSYCHOLOGY: A BIBLIOMETRIC ANALYSIS	1581-5374, 1855-363X
19	Ms. Avsheen Kaur, Dr. Pooja Singh Negi	Fintech and SDGs: a bibliometric analysis of the nexus between digital finance and sustainability	ISSN: 2977-7631, DOI 10.1108/FDAR-06-2025-0006
20	Dr Sumit Chauhan & others	A study on AI recommended News suggestions promoting Selective Exposure and its effect on Cognition.	ISSN:1521-3900
21	Dr. S.K. Pandey	Analyzing the Role of WhatsApp 'Good Morning' Messages in Social Maintenance	ISSN: 1053-7899
22	Prof. (Dr.) Rashmi Jha	Disease Diagnosis for Healthcare System using Random Forest Machine learning	ISSN: 0009-7039
23	Ms Mansi Mathur	Role of NEP 2020 in Developing Skills and Generating Employment Opportunities	ISBN : 978-93-340-0528-8
24	Dr. Simranjeet Kaur Bagga	Sentiment Analysis in Employee Satisfaction and Retention Programs in Business	ISBN: 9798337305530
25	Ms Shweta Ahuja	A SYSTEMATIC REVIEW OF CYBER THREATS AND SECURITY CONTROLS IN DIGITAL PAYMENT ECOSYSTEMS	ISSN-2583-1062
26	Dr. Arkin Chawla	Lights, Camera and AI: Redefining the movie making landscape	ISSN number: 1053-7899

27	Dr. Deepshikha Kalra and Dr. Sarita yadav	A Sustainable Impact of NEP 2020 on Indian Education System with Future Prospects: A Perspective of Teachers in Higher Education	2348-3385
28	Dr. Pawan Kishore Jha, Naveen Kumar, R. C. Singh	Performance and Emission Analysis of a Homogeneous Charge Compression Ignition (HCCI) Engine Fueled with Compressed Natural Gas (CNG)	Accepted
29	Dr. Pawan Kishore Jha	AI-Driven Sustainability: A Review of Reinforcement Learning Techniques in Green Supply Chains	Accepted
30	Ms. Shikha Yadav, Shilpa Sharma, Jeevan Bala	Robust Color Image Watermarking Using Denoising Autoencoders: A Novel Approach for Digital Rights Management	ISSN number: 2320-317X
31	Ms. SHIKHA YADAV, SHILPA SHARMA, DR. RAHAMA SALMAN, RUBEENA M. AKHTAR , SAYYADA SARA BANU	ADAPTIVE DEEP LEARNING FRAMEWORK FOR ROBUST QR CODE WATERMARKING WITH NOISE-AWARE PRESERVATION	ISSN number: 1992-8645
32	Ms. Nisha Garg	The School-to-Prison Conveyor: Intervening Early and Preventing Criminalization of Youth	ISSN: 2349-6002
33	Mr. Ishwar Singh	The Impact of Foreign Direct Investment(FDI) and Foreign Institutional Investment(FII) on the Indian Stock Market-A Focus on the Bombay Stock Exchange(BSE)	24546283
34	Mr. Ishwar Singh	Statistical Role of CB-SEM Vs PLS-SEM in the Field of Social Science	ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume XII Issue VIII August 2025
35	Dr. Sheela Narang Wadhwa, Dr. Arun Pratap Srivastava, Dr. Garima Bhardwaj	Analysing the Role of HR in Mitigating AI-Driven Technostress in Digital Workplaces	Electronic ISBN:979-8-3315-7150-4
36	Dr. Beena	Strategic Shield: India's Role in Safeguarding Bhutan& Sovereignty against Chinese Encroachment	ISSN: 2230-8458.

37	Dr. Beena	"Quiet Diplomacy and Strategic Interests: India-Taiwan Engagement under Modi 3.0"	Vol CLIV, July-September 2025, No 641.
38	Dr. Arkin Chawla	THE ECONOMICS OF INDIAN FILM PRODUCTION: AN ANALYSIS OF THE MOTION PICTURE INDUSTRY	ISSN: 1578-8091
39	Ms. Mansi Mathur	Enhanced message delivery in opportunistic networks using decision trees	ISSN : 1551-7616
40	Dr. Pawan Kishore Jha	Supply Chain Management	ISBN : 978-93-340-8625-6
41	Mr. Sadanand Pandey	People-to-people contact between India and Central Asian Republics	ISBN : 978-93-340-8414-6
42	Ms. Shikha Yadav	Autonomus Network Orchestration : Leveragaing Machine Learning for Predictive Traffic Management and Dynamic Optimization	ISBN : 978-81-996028-8-5
43	Dr Monika Sehgal	Mapping the digital landscape: a bibliometric analysis of the role of digital marketing in customer engagement	ISSN: 2042-3853
44	Dr Monika Sehgal	A Comprehensive Analysis of Reconnaissance E-Commerce Dynamics and Purchase Behaviour of Rural Consumers	ISSN 2347-6435 (Online)
45	Dr Monika Sehgal	Customer engagement in digital marketing: an exploratory study on pathways to competitive advantage amongst online retailers: Indian evidence	ISSN: 1753-0814
46	Dr Monika Sehgal	Impact of Employee Welfare Facilities on the Job Satisfaction of Automobile Industry in India.	ISSN 2575-1379
47	Dr Monika Sehgal	Green Consumerism and CNG Cars: An Analysis of Trend and Growth Pattern of CNG Cars in India."	ISSN: 2349-6002
48	Dr Monika Sehgal	People, Personalisation, Engagement: Bridging Traditional and Digital Marketing in a New Era	ISSN 2583-1909 (Online)
49	Ms. Ankita Garg	CSR as A governance Mechanism: Evidence from emerging economies	ISSN: 2455-1627
50	Ms. Ankita Garg	Impact of packaging on consumer buying behavior: A Systematic Literature Review	ISSN: 2455-2070

51	Dr. Payal & Deepak Sharma	A Comprehensive Review on Advanced Wireless Sensor Networks:Applications, Challenges, and Future Research Directions	ISSN: 2319-7463,
52	Dr. Payal & Deepak Sharma	Visible Light Communication in Next-Generation Wireless Networks: Potentials, Architecture, and challenges	ISSN: 2319-7463,
53	Dr. Payal & Sonak Kapoor	Machine Learning for Improved Chlorophytum borivilianum Yield: ANNs and GPR in Macronutrient Modelling	ISSN: 1874-0707

NO . OF PUBLICATIONS ONLY IN UGC-CARE (CATEGORY - I) LISTED JOURNALS IN THE ASSESSMENT YEAR

S. NO.	NAME OF FACULTY	TOPIC	ISSN NO.
1	Dr Sumit Chauhan & others	A Study on the Effect of FOMO on Young Online Journalists	1526-4726
2	Dr Sumit Chauhan & others	Comparative Analysis of Artificial Intelligence and Diplomacy: Transforming Democratic Governance	1526-4726
3	Dr. Sangeeta & Others	The Research Supervisors Contribution in Doctoral Srudies at Government Vs. Private University of Delhi NCR	1540-3270
4	Dr. Sangeeta & Others	Evaluating Global Trends in the Study of Behavioural Finance: A Bibliometric Approach Using the Dimensions AI Database	1149 - 1155
5	DR. GURPREET KAUR CHHABRA	A STUDY ON THE GROWING IMPORTANCE OF STUDY ON HUMAN-COMPUTER INTERACTION	ISSN 0974-2093
6	DR. POOJA SINGH NEGI	ANALYZING THE FINANCIAL POSITION OF DELHI FINANCIAL CORPORATION OVER THE YEARS (INTRA FIRM COMPARISON)	ISSN 0946-5174
7	DR. SARITA YADAV	NATIONAL EDUCATION POLICY, 2020: CHALLENGES AND OPPORTUNITIES	ISSN 0974-2093
8	DR. SUMIT CHAUHAN	MERI JOURNAL OF MANAGEMENT & IT -STUDY OF IMPLECATION OF MANDATING PHONE NUMBER	ISSN 0974-2093
9	DR. POOJA SINGH NEGI	MAXIMIZING LEAD GENERATION POTENTIAL	ISSN 0974-2093
10	DR. RITU AGGARWAL	COMPARATIVE ANALYSIS OF DIFFERENT FRAUD DETECTION TOOLS AND TECHNOLOGY	ISSN 0974-2093
11	MS. MANSI MATHUR	BEYOND TECHNOLOGY: PUBLIC PERCEPTION	ISSN 0974-2093
12	MS. SHEELA NARANG	ADOPTION OF AI - CHATBOTS IN HRM: A DIGITAL COLLABORATION	ISSN 0974-2093
13	DR. SUMIT CHAUHAN	A STUDY ON CYBER SECURITY	ISSN 0974-2093
14	DR. SACHIN KUMAR	A STUDY ON AUGMENTED AND VIRTUAL REALITY IN EDUCATION	ISSN 0974-2093
15	PROF.(DR.)DEEPSHIKHA KALRA	NEW DEVELOPMENTS IN DIGITAL MGT. & HOW THEY EFFECT CUSTOMER BEHAVIOUR	ISSN 0974-2093
16	PROF.(DR.)DEEPSHIKHA KALRA	INDUSTRIAL REVOLUTION 5.0 AND ITS IMPACT ON ECONOMY	ISSN 0974-2093
17	DR. SACHIN KUMAR	REGRESSION-BASED SMART AGRICULTURE PREDICTION	ISSN : 2395-5287

18	DR. GURPREET KAUR CHHABRA	FOSTERING SOFT SKILLS FOR ACHIEVING SUSTAIBABLE DEVELOPMENT GOALS (SDGs) : BRIDGING THE HUMAN AND TECHNOLOGY ELEMENTS	ISSN : 2654-0985
19	DR. SHIKHA GUPTA	EMPOWERING THE FUTURE WORKFORCE: THE IMPACT OF AI ON EDUCATION AND SKILL DEVELOPMENT	ISBN NO.979-8-3315-4158-3
20	DR. SHEELA NARANG	HUMAN-ROBOT SYNERGY: TRANSFORMING HRM IN THE DIGITAL ERA	ISSN : 1463-7154
21	DR. RASHMI JHA	ROBIN675 - AN EVALUTION INDEX SYSTEM BASED ON STUDENTS' BEHAVIOUR CHARACTERISTICS BASED ON DATA MINING TECHNOLOGY	ISSN : 0432-9876
22	DR. RASHMI JHA	DEVELOPMENT OF KNOWLEDGE DISCOVERY FROM DATA MINING IN HUMAN RESOURCE APPLICATION	ISSN NO. 2278-0181
23	DR. ANAND NANDWANI	THE ECONOMIC DYNAMICS OF FOREIGN DIRECT INVESTMENT IN RETAIL SECTOR	ICMSTR-2024
24	DR.SUMIT CHAUHAN	MER JOURNAL OF MGT. & IT-STUDY OF IMPLECATION OF MANDATING PHONE NUMBER	ISSN 0974-2093
25	DR. POOJA SINGH NEGI	MAXIMIZING LEAD GENERATION POTENTIAL	ISSN 0974-2093
26	PROF.(DR. DEEPSHIKHA KALRA	NEW DEVELOPMENTS IN DIGITAL MKTG & HOW THEY AFFECT CUSTOMER BEHAVIOUR	ISSN 0974-2093
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30	MS. SHEELA NARANG	ADOPTION OF AI-CHATBOTS IN HRM : A DIGITAL COLLABORATION	ISSN 0974-2093
31	DR. SUMIT CHAUHAN	A STUDY ON CYBER SECURITY	ISSN 0974-2093
32	MS. RITU SAWANNI	Tech-Driven Sustainability	ISBN : 978-81-991376-1-5
33	DR. GURPREET KAUR CHHABRA	Factors Influencing the Prescription Behaviour of Doctors-An Insight for the Pharmaceutical CRM Strategy Formulation,	ISSN - 2455 2267.
34	Dr.Pooja Singh Negi	Impact Of Organisational Culture Paradigm On Workplace Sustainability	ISSN NO.245 4-6801
35	Dr. Gurpreet Kaur	Factors Influencing The Prescription behaviour of doctor - - An Insight For The Pharmaceutical Cm Strategy Formulation	ISSN No. 2455 2267
36	DR. ANAND NANDWANI	Social System Reforms to Achieve Global Sustainability	ISBN - 979-8896739098

37	MS. PREETI VERMA	Intelligent Transformation : The Integration of AI in Leadership Developmment Programs	ISBN : 979-8-3315-4158-3
38	CMA Ajay Jain	The Influence of Green Banking Practices on Environmental Performance : A study of Indian Banks and the Role of Green Financing	ISSN : 0973-0095
39	Ms. Nisha Garg	Gender in Media and Market : Issues and Perspectives	ISSN : 2581-8503
40	Dr. Stuti Narula Markan	Fundamental Rights in Indian and International Perspective : A comparative and contemporary analysis	ISBN : 978-81-987955-7-1
41	Dr. Shikha Gupta	Corporate Communication in the Modern Era : Strategies, Relevance and Practices for the Business World	ISBN : 978-81-986332-7-9
42	Dr. Pooja Singh Negi	Financial Distress vs. Financial Strength: A Comparative Study of Delhi and Kerala Financial Corporations	0972-8686
43	Ms Shweta Ahuja & Dr Kanika Mittal	The Impact of Artificial Intelligence on Fraud Deterction in Digital Banking:An Empirical Study	ISSN-1526-4726
44	Ms. Preeti Verma	Green Marketing (GM) Strategies and their Influence on Brand Loyalty & Corporate Image	ISSN 2323-5233
45	Dr. Neha Shivani	Analysis of Customer' satisfaction towards self service Technologies in Delhi-NCR	Vol XCVI, No. 13, ISSN no:0972-0766
46	Mr. Ishwar Singh	Make in India : A Platform to Grow Business in India	ISSN : 2348-9367
47	Dr. Neha Shivani	Impact of Online services on the customer purchasing behavior and satisfaction derived from online	ISSN : 2229
48	Prof. (Dr.) Ritu Aggarwa l, Saurabh Pal	Multi-machine learning Binary Classification, Feature Selection and Comparison Technique for Predicting Death Events Related to	ISSN : 0975 2366
49	Dr. Anil Kumar Grewal	A Comparative Study on Awareness of Society Regarding Waste Management Practices in Jind and Mahendragarh Districts in Haryana	ISSN : 2277 - 9809

REFEREED JOURNAL WITH ISSN NO.

S. NO	NAME OF FACULTY	TOPIC	ISSN NO.
1	Dr.Shikha Gupta, Manasvi Pilani, Sakshat Sharma	The Double Edged Sword: Fintech Growth and its Cybersecurity Challenges	0976-3562
2	Dr. Gurpreet Kaur Chhabra	A Study on the Growing Importance of Study on Human-Computer Interaction	Volume 16, issue-2, ISSN 0974-2093
3	Dr. Simranjeet Kaur Bagga	Role of Artificial Intelligence in Augmented Reality and Virtual Reality	ISSN-0974-2093
4	Dr. Gurpreet Kaur Chhabra, Rashika Rawat	Indian Management Wisdom:A Case of Ancient Trade Routes	ISSN-0974-2093
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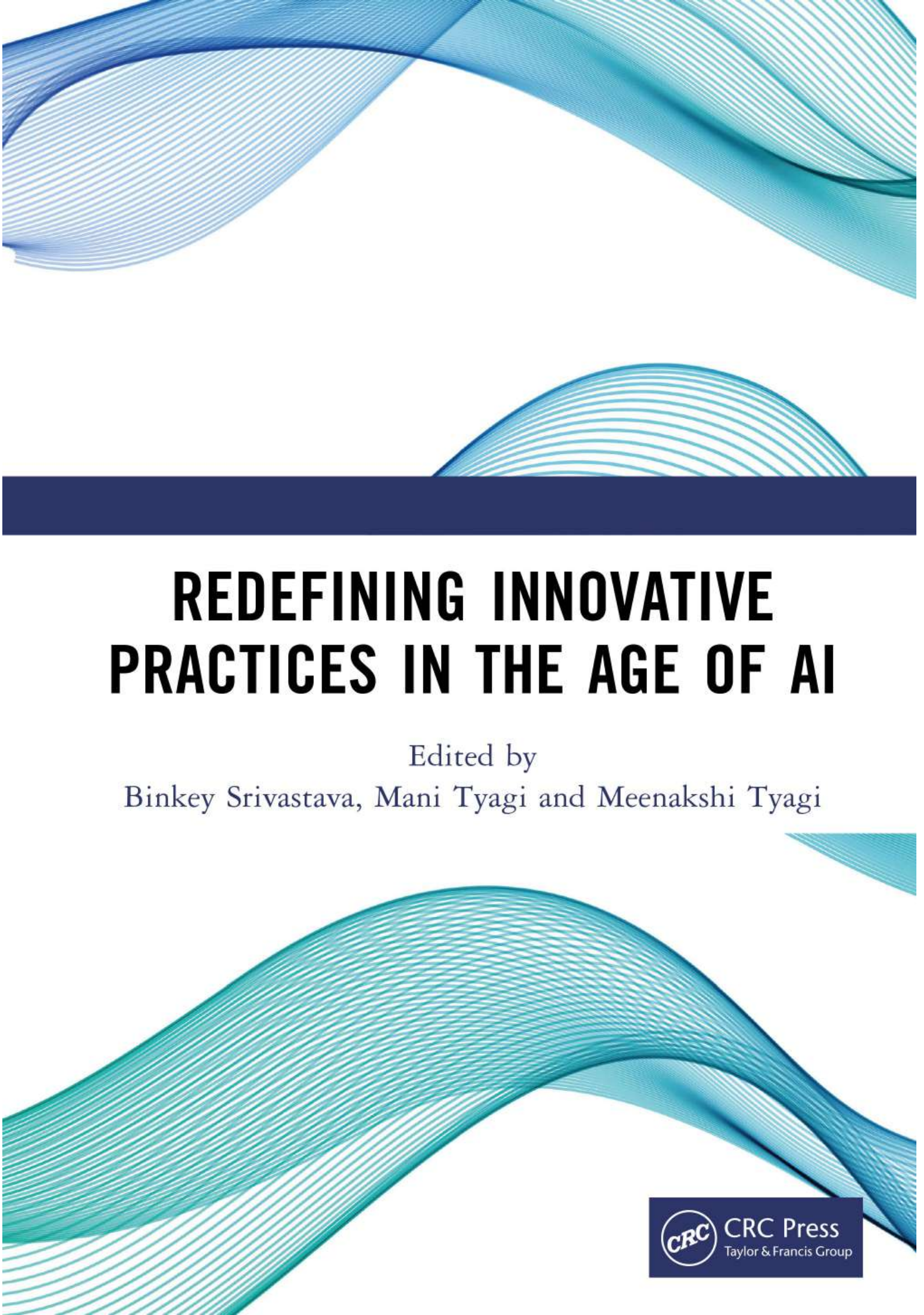
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Edited by

Binkey Srivastava, Mani Tyagi and Meenakshi Tyagi
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Preface

It gives us immense pleasure to present the proceedings of the International Conference on Redefining innovative practices in the Age of AI (ICRIPI-2K25) held on 27–28 June 2025, organized by School of Management, KIET Group of Institutions, Delhi NCR Ghaziabad This conference brought together academicians, researchers, industry practitioners, and students from across disciplines to share their insights, research findings, and innovative practices in the field of AI in Business Strategy and Innovation Machine Learning, Applications across Industries Ethical, Social, and Regulatory Issues in AI, AI in Healthcare, Education, and Public Policy, Big Data Analytics and Intelligent Systems, AI-Driven Digital Transformation, Sustainable Innovation through AI, Human-Centered AI and Responsible Innovation, AI in Creativity, Arts, and Media Robotics, Automation, and Future of Work, AI for Smart Cities and Urban Innovation, Challenges and Opportunities in AI, Startups Cybersecurity and Risk Management in the AI Era, Recent trends in application of AI.

The central theme of the conference, "The transformative impact of Artificial Intelligence across disciplines and industries", reflects the growing importance of interdisciplinary research and collaborative knowledge creation in addressing the challenges of our rapidly changing world. The papers included in this volume represent a wide spectrum of topics and perspectives, ranging from theoretical explorations to applied research and case studies, thereby enriching both academic scholarship and professional practice.

We believe these proceedings will serve as a valuable reference for researchers, academicians, policymakers, and professionals seeking to understand current trends and emerging directions. Each paper has undergone a rigorous review process to ensure quality, originality, and relevance.

We take this opportunity to express our sincere gratitude to all the authors for their contributions, the reviewers for their constructive feedback, and the members of the organizing and technical committees for their tireless efforts. We are also thankful to our partners and supporters, especially CRC Press, a Taylor & Francis Group for facilitating the successful publication of these proceedings.

We hope that the knowledge shared through this volume will inspire further inquiry, collaboration, and innovation in the times to come.

Dr. Binkey Srivastava (Conference Chairperson and Editor)
Dr. Mani Tyagi and Dr. Meenakshi Tyagi (Conference Conveners and Editors)



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Acknowledgements

I take this opportunity to express my heartfelt gratitude to all those who have contributed to the successful organization of the International Conference on Redefining innovative practices in the Age of AI (ICRIPI 2025) held on 27–28 June 2025 and the preparation of these proceedings.

First and foremost, I extend my sincere thanks to all the authors for their valuable research contributions and for choosing this conference as a platform to share their work. Their enthusiasm and scholarly inputs have enriched the quality of this volume.

I am deeply indebted to the members of the Review Committee and Editorial Board, whose rigorous evaluation and constructive feedback ensured the academic quality and relevance of the papers published herein.

My deep appreciation goes to the distinguished keynote speakers, session chairs, panelists, and delegates whose participation and insights made the deliberations meaningful and impactful.

I gratefully acknowledge the invaluable support of the Honorable Management of KIET Group of Institutions, whose commitment to fostering academic excellence has made this conference possible. My sincere thanks are due to the Executive Director of KIET Dr. Manoj Goel for providing strategic direction, encouragement, and continuous motivation throughout the journey. I also extend our appreciation to the Director (Academics), KIET Dr. Adesh Pandey for offering academic leadership and constructive guidance, which played a vital role in the successful organization of this event. Their combined efforts and support have been central to the smooth conduct of the conference and the timely completion of these proceedings.

Special thanks are due to the Organizing Committee, faculty members and student volunteers who worked tirelessly behind the scenes to ensure the smooth execution of the conference.

I also extend my thanks to our publication partner CRC Press, Taylor & Francis, for their cooperation in bringing out this volume in a timely manner.

Finally, I am grateful to all participants, sponsors, and well-wishers for their trust, enthusiasm, and constant encouragement, which have been the true driving forces behind the success of this conference.

Dr. Binkey Srivastava
(Conference Chairperson and Editor)



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With over 25 years of experience in administration, teaching, research, and consultancy, she has made significant academic contributions, authoring more than 90 papers in esteemed national and international journals, conferences, and seminars, many of which are indexed in Scopus and ESCI. She has also authored several books; one of her books is listed at The Harvard Book Store. She has received grants from various government agencies for her research endeavors. In addition to her research, she has guided numerous scholars from both private and state universities. Dr. Srivastava actively participates in the academic community as an advisory member and reviewer for several national and international journals.

Mani Tyagi is a Professor in the Department of Management Studies at KIET Group of Institutions, Ghaziabad, India, with over 22 years of academic and administrative experience. She holds a Doctorate Degree in Commerce and a Master's Degree in Business. She has presented more than 50 papers in national and international conferences, also published papers in journals of repute. In addition to pursuing her academic interests, Dr. Mani is active in management consulting as well as executive and organizational development. She has contributed extensively to curriculum development, outcome-based education, and quality assurance in higher education. Dr. Tyagi has served in key roles such as NBA Coordinator and Convener of multiple International Conferences. Her research focuses on entrepreneurship, digital pedagogy, and educational innovation, and she has published extensively in SCOPUS-indexed journals and International edited books. She has also been invited as a keynote speaker and panelist at international forums in India, Bangladesh, and Uzbekistan. Her academic pursuits are deeply aligned with the UN Sustainable Development Goals (SDGs 4 and 5), especially in promoting equitable, high-quality education and women empowerment.

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Chapter

Challenges and strategic levers in the formation of AI startups

By K. Sharma, N. Tripathi, P. Taylor, J. Tyagi, M. Rohila, Anand Nandwani

Book Redefining Innovative Practices in the Age of AI

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ABSTRACT

This paper summarizes the intense rise of AI startups, the problems they are facing & also the upcoming opportunities that are coming in their path. The new venture getting interrupted at a fast pace in uncertain markets with the assistance of breakthroughs in the area of machine learning, NLP and computer vision. Despite the momentum, shortage of backing, ethical concerns, the unavailability of high-quality data, the potential of biased models, preventive huge facilities, and vague regulatory guidelines are the barriers. This paper deals with fact-based information and real-life situations that will work as success factors in this field. This paper also analyzes the modification in investor trust, the adoption structure of the industry and the effect that international associations have on their strategical decisions and also the impact on open-source community, accelerators of startups, and government regulations can have on AI entrepreneurship and stimulate sustainable development. The paper also engages the impact on open-source community, accelerators of startups, and government regulations can have on AI entrepreneurship and stimulate sustainable and responsible development.

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Dr. SK Pandey, is a senior journalist who has worked 18 years with Hindustan Times Group and over 14 years in media education. He has authored three books and translated Deepak Chopra's Seven Spiritual Laws of Success into Hindi. A bi-lingual and versatile media professional, he is a voice-over artist and scriptwriter affiliated with Doordarshan and All India Radio. Dr. Pandey is a well known content creator, author, poet, and motivational speaker. With over 1,000 articles published in newspapers and magazines, he has also contributed more than 20 research papers to national and international journals, presented over 25 conference papers, and attended more than 20 FDPs and workshops, His accolades include the International Council for Journalists Award (2023), Certificate of Excellence Award for the documentary Dental Fluorosis (2020) and National Research Award (2019). Dr. Pandey continues to make significant contributions to journalism, media education, and scholarly research in India.

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First Edition

Media in the Digital Age
Trends, Tools, and Cultural Impact

Dr. SK Pandey

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TRENDS, TOOLS, AND CULTURAL IMPACT



Dr. SK Pandey

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Media in the Digital Age: Trends, Tools, and Cultural Impact

By

Dr. SK Pandey
HoD,
Journalism and Mass Communication

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2025

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About the Book

Media in the Digital Age: Trends, Tools, and Cultural Impact is a comprehensive exploration of how media has transformed in response to digital technologies. The book offers an in-depth understanding of the digital media landscape by examining both its technical foundations and its broader cultural implications. It is structured into eight chapters, each focusing on a key dimension of digital media—from its evolution and technological tools to ethical challenges and shifting patterns of consumption.

Beginning with a historical overview of media transitions, the book discusses the characteristics of digital communication and the integration of media platforms. It further delves into digital journalism, the rise of citizen blogs, social media influence, political discourse, and online communities. Readers are introduced to concepts such as user-generated content, influencer marketing, analytics, and immersive storytelling. The book also presents critical insights into policy, regulation, censorship, and the role of governments in shaping the digital media space.

Special attention is given to globalisation, diversity, language shifts, and ethical dilemmas, such as fake news, cyberbullying, and surveillance. Each chapter is supported with relevant examples and analytical perspectives to help readers contextualise and understand complex issues.

This book is suitable for undergraduate and postgraduate students of media studies, communication, journalism, digital marketing, and cultural studies. It also serves as a resource for media practitioners and researchers looking to stay updated on digital trends and challenges in a globalised world.

Preface

The rapid evolution of technology has dramatically transformed the way media is created, distributed, and consumed. From the dominance of newspapers and broadcast television to the rise of social media and on-demand platforms, the digital age has redefined the very nature of communication. This book, Media in the Digital Age: Trends, Tools, and Cultural Impact, is born out of a desire to understand these profound changes. It is designed for students, media professionals, educators, and curious minds who wish to explore the modern media landscape and its implications on society.

This text delves into the shift from traditional to digital media, the emergence of immersive technologies, the reconfiguration of journalism, and the power of user-generated content. It also critically examines challenges such as misinformation, data privacy, digital ethics, and content regulation. The goal is to provide a balanced view that reflects both the opportunities and responsibilities that come with digital media.

Writing this book has been a journey through the past, present, and future of media. It involved analysing real-world case studies, emerging trends, and theoretical frameworks. I hope that readers will find this work insightful and relevant to the dynamic and ever-evolving media environment.

I extend my gratitude to those who inspired and supported this endeavour. May this book serve as a guide to navigating and critically engaging with the digital media world.

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CHAPTER 1 Evolution of Media in the Digital Era

Learning Objective

In this chapter, readers will explore the transformation from traditional to digital media systems. They will understand how technological advancements have reshaped communication formats and media practices. The chapter highlights key features of digital communication. It also traces a timeline of major media transitions. Readers will learn about the convergence of various media platforms.

1.1. Shift from Traditional to Digital Media

The shift from traditional to digital media signifies a profound change in the creation, distribution, and consumption of information. Traditional media include newspapers, radio, & television, which provide restricted engagement and predetermined programming schedules. On the other hand, digital media offers immediate access, interaction, and worldwide reach. This transformation has been caused by advancements in internet technology, mobile use, and social media platforms. As digital media expands in prominence, it transforms industries, communication practices, and audience behaviour. The

change symbolises society's shifting inclination for rapid, adaptable, and customised material.

1. Instant Accessibility

Digital media allows people to access news, movies, and entertainment instantly from any device. In contrast to traditional media, there is no need to await planned transmissions or printed publications. Real-time information facilitates faster and more effective communication. This on-demand accessibility aligns with contemporary lives and professional settings. It improves convenience and ensures consumers remain informed throughout the day.

2. Two-Way Communication

A primary distinction is that digital media facilitates interactivity, in contrast to traditional unidirectional communication. Users can like, comment, share, or generate their own material online. This encourages feedback, interaction, and community development. It furthermore assists organisations and content makers in comprehending their customers more effectively. Traditional media lacks interactivity, providing no direct means to engage with the content. Digital platforms provide bidirectional communication.

3. Cost Efficiency

Digital media is far more economical than traditional media for both producers and consumers. No expenses related to printing, physical distribution, and broadcasting infrastructure are incurred. Small enterprises and individuals may

disseminate material or advertise items at a negligible cost. This affordability facilitates more inclusion of different perspectives and innovators. It facilitates the rapid execution and modification of campaigns. The economic examination enhances the accessibility and scalability of digital media.

4. Global Reach

Traditional media often has regional or national constraints, but digital media is globally accessible. A single message, video, or story may be disseminated to global audiences within seconds. This worldwide connectedness facilitates commercial growth, cultural interchange, and social consciousness. It also ensures equitable visibility for material, regardless of its source. The unbounded characteristic of digital media amplifies its influence and possibilities. It unites individuals from various regions of the globe.

5. Personalisation of Content

Digital platforms use algorithms and data to provide content according to individual user tastes. This customisation ensures that consumers encounter more relevant news, advertisements, and media. It enhances pleasure and decreases the time allocated to information retrieval. Traditional media is incapable of delivering this personalised experience. Consequently, digital material seems more captivating and beneficial. This focused delivery enhances user experience & business results.

6. Measurable Performance

Digital media provides instruments to monitor engagement, viewership, clicks, & user behaviour immediately. This enables artists and marketers to assess the efficacy of their material precisely. In contrast to traditional media, which depends on guesses or polls, digital analytics provide definitive facts. These insights enhance plans, identify target audiences, and elevate outcomes. It enhances the responsiveness and efficacy of digital marketing. Precise monitoring enhances the appeal of advertisements and enterprises.

1.2. Characteristics of Digital Communication

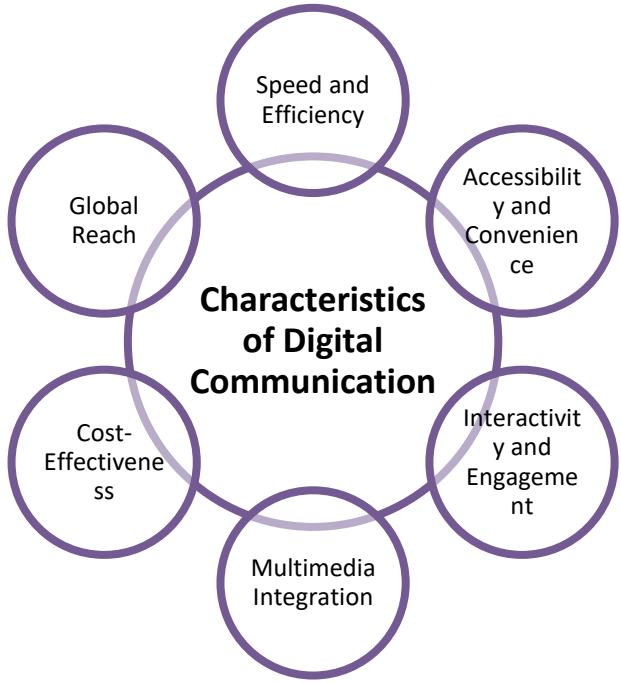


Figure 1.1 Characteristics of digital communication

Digital communication is a branch of electronics that deals with the transfer of data in digital form. The transmission of such signals is essential because the original data is typically analogue in nature. A basic digital communication system involves processes such as signal transmission, encoding, modulation, and decoding.

1. Speed and Efficiency

Digital communication enables the instantaneous transmission and reception of communications, regardless of location. Email, chat, and video conferencing provide instantaneous communication worldwide. This speed augments efficiency and decision-making in both professional and personal contexts.

In contrast to traditional mail, there is no delay required. Information may be rapidly disseminated, modified, or transferred with minimal effort. The immediacy of digital technologies makes them essential for imperative communication.

2. Accessibility and Convenience

Digital communication tools are available at any time and from any location with internet connectivity. Laptops, smartphones, and tablets provide mobile connectivity for consumers. This adaptability is particularly advantageous in distant work or distance education contexts.

Communication is no longer constrained by geographical location or temporal boundaries. Messages, documents, and changes may be accessed immediately from cloud storage

and inboxes. This accessibility facilitates both official and casual communications. It ensures users remain connected with minimum exertion.

3. Interactivity and Engagement

Digital communication encourages active engagement through likes, comments, replies, and live conversations. It transforms unilateral communication into a bilateral or even multilateral discourse. Social media channels, discussion forums, or webinars augment involvement. Users are not only passive receivers; they are also active participants in the discourse.

This engagement creates enhanced connections and communities. It also offers prompt replies and comments, enhancing clarity.

4. Multimedia Integration

A crucial aspect of digital communication is the capacity to amalgamate text, pictures, audio, and video. This multimedia strategy enhances the appeal and comprehensibility of communications. Visuals and auditory elements enhance the reinforcement of essential concepts and augment recall.

Presentations, infographics, or video communications are often used in digital contexts. It accommodates various learning techniques and audience inclinations. Integrating formats enhances communication efficacy and influence. The use of multimedia enhances the inventiveness and charm of the material.

5. Cost-Effectiveness

Digital communication substantially reduces expenses in comparison to conventional methods such as print and postal services. Numerous internet platforms provide free or inexpensive messaging, phone, and conferencing services. Companies may save expenses on travel and printed documents by using emails & video conferencing.

Cloud storage replaces cumbersome physical archives, hence diminishing operating expenses. Social media marketing is more cost-effective than television or print advertisements. Digital communication is often more cost-effective for people. These savings make digital tools appealing to all users. Affordability is thus a significant benefit.

6. Global Reach

Digital platforms eliminate geographical limitations and enable seamless global connectivity. Messages can be transmitted to audiences across multiple countries within seconds. This global connection plays a vital role in international trade, education, and social networking, encouraging cultural exchange and cross-border collaboration.

Individuals can collaborate with teams in various time zones and stay informed about global developments. Tools such as webinars and live streaming allow real-time interaction with international audiences. This broadened reach enhances the effectiveness and influence of communication, fostering global participation and inclusivity.

1.3. Timeline of Key Media Transitions

The history of human communication is intricately tied to the development of media technologies. Each stage in the evolution of media marks a significant transformation in the way individuals and societies transmit, preserve, and interpret information. These transitions are not merely technological milestones but also cultural and societal revolutions that reshaped how people engage with knowledge, power, and community. From oral traditions rooted in memory and storytelling to digital networks enabling instant global interaction, the progression of media forms a critical framework for understanding the growth of civilisation and the diffusion of ideas. This section explores the major phases in media evolution, situating each within its historical context and emphasising its broader implications for human communication.

1. Oral Communication (Prehistoric Era – c. 3000 BCE)

The earliest form of human communication was oral, relying on speech, gesture, and memory. In pre-literate societies, oral traditions served as the principal mechanism for preserving history, laws, customs, and cultural values. This form of communication was inherently communal and performative, requiring the presence of both speaker and listener within a shared space and time. Knowledge was passed from one generation to another through stories, songs, myths, and proverbs, often performed during rituals or communal gatherings. While oral communication allowed for emotional nuance and personal interaction, it

was limited by the impermanence and subjectivity of memory.

- Storytelling served as a tool for moral instruction and cultural continuity.
- Community elders or spiritual leaders were typically the custodians of knowledge.
- Transmission was highly localised and dependent on human presence.

2. Written Communication (c. 3000 BCE – 15th Century)

The invention of writing revolutionised the way information was recorded and shared. Early writing systems, such as Sumerian cuneiform and Egyptian hieroglyphs, emerged primarily for administrative, religious, and commercial purposes. Writing enabled the preservation of ideas across time and space with far greater accuracy than oral methods. Over centuries, alphabets and scripts became more accessible, and writing was adopted for a broader range of purposes including literature, philosophy, and law. The written word introduced a degree of permanence and formality to communication, facilitating the growth of complex institutions such as governments, religious systems, and educational establishments.

- Written documents allowed laws and treaties to be standardised and enforced.
- Literacy became a tool of power, often restricted to elites such as priests and scribes.

- Manuscript culture, especially in medieval Europe and the Islamic world, preserved vast bodies of knowledge.

3. Print Media (15th Century – 19th Century)

The development of the printing press by Johannes Gutenberg in the mid-15th century marked the advent of mass communication. Movable type allowed for the rapid reproduction of texts, dramatically lowering the cost of books and increasing the spread of literacy. The print revolution decentralised the control of information from religious and political elites and contributed to key social movements such as the Protestant Reformation, the Renaissance, and the Enlightenment. Newspapers, pamphlets, and printed books became key instruments for public discourse, education, and political mobilisation.

- Information could now reach a broad and dispersed audience with relative ease.
- The printing press laid the groundwork for modern education and scientific progress.
- National languages and literatures flourished as print culture spread.

4. Electronic Media (19th Century – Mid-20th Century)

The invention of electronic communication devices heralded a new era of immediacy in information transmission. The telegraph, developed in the early 19th century, allowed messages to be sent almost instantaneously across vast

distances. This was followed by the development of the telephone, radio, and eventually television. These media dramatically transformed both personal and mass communication. Radio and television, in particular, became dominant tools for entertainment, news broadcasting, and state propaganda. For the first time, a single message could be broadcast simultaneously to millions of people.

- Radio fostered the emergence of a shared national or cultural identity.
- Television became central to family life and cultural consumption.
- Governments and corporations utilised these platforms to shape public opinion.

5. Digital Media (Late 20th Century – Present)

Digital media has fundamentally altered the landscape of communication, ushering in an era of connectivity, interactivity, and user empowerment. The development of computers, the internet, and mobile technologies enabled data to be created, shared, and consumed in real-time across the globe. Unlike earlier media, digital platforms facilitate two-way communication and allow individuals to produce and disseminate content. Social media, email, blogs, and digital news portals have transformed the dynamics of public discourse, collapsing traditional hierarchies between producers and consumers of information.

- Communication is now fast, multimedia-rich, and globally accessible.

- Individuals can participate in digital democracy and cultural production.
- The line between public and private communication is increasingly blurred.

6. Convergent and Interactive Media (21st Century)

The current media landscape is characterised by convergence—the merging of previously distinct media technologies into integrated digital platforms. Smart devices combine text, audio, video, and interactivity, allowing for an immersive and participatory communication experience. Platforms such as YouTube, podcasts, and interactive games blur the boundaries between entertainment, education, and social engagement. Moreover, developments in artificial intelligence, virtual reality, and augmented reality are poised to redefine how we perceive and interact with media.

- Audiences are now active participants in shaping media content and narratives.
- Global media networks support real-time collaboration and knowledge-sharing.
- Personalised media experiences are driven by algorithms and data analytics.

1.4. Integration of Media Platforms

The term "integration of media platforms" describes how different media—print, broadcast, digital, & social—converge and work together to produce cohesive, networked

systems. Due to this integration, material may be created, shared, and accessed on many platforms at once or in succession, giving consumers pleasant experiences and content producers a wider audience. Platform integration is becoming more and more necessary in today's digital-first society due to shifting customer behaviour, competitive advantage, and technology advancements.

1. Forms of Media Integration

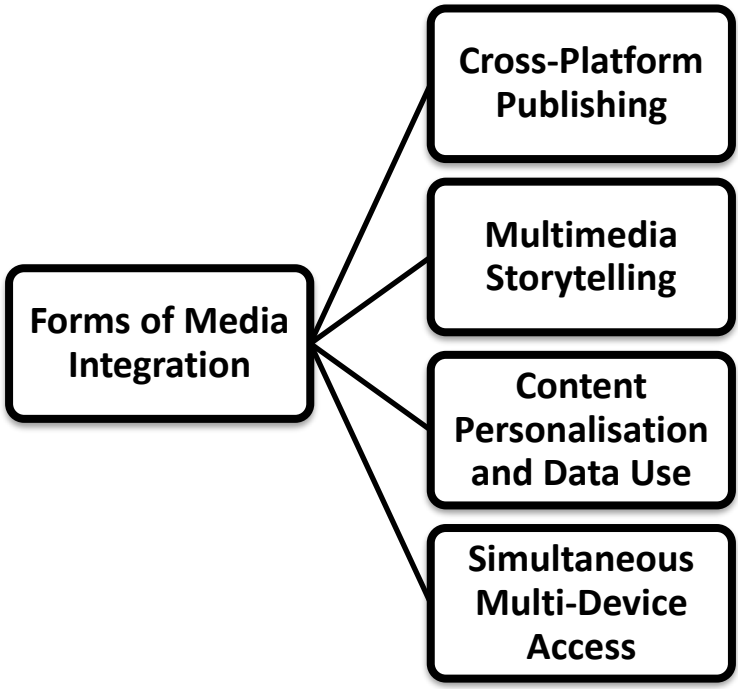


Figure 1.2 Forms of Media Integration

a. Cross-Platform Publishing

This involves creating content that is concurrently made available on many platforms. A single news item may be summarised in a newsletter, debated in a live stream, shared on Twitter, and reported on a website. Wider coverage and interaction are ensured by customising each version to the audience and format of the platform.

b. Multimedia Storytelling

These days, stories are told in a variety of media, including interactive maps, voice-over movies, and text with infographics. This improves user understanding and engagement. Particularly for those with different tastes or disabilities like limited literacy or visual impairment, multimedia material is more accessible.

c. Content Personalisation and Data Use

User data is often used by integrated media systems to customise content. Algorithms use browser history or preferences to suggest articles, videos, or items. Consistent user experiences are produced by integration, allowing this data to move across platforms.

d. Simultaneous Multi-Device Access

These days, people can start reading a news piece on their phone, continue on their laptop, or conclude by viewing a relevant video on their smart TV. Media integration allows for smooth device switching without sacrificing progress or context.

2. Benefits of Media Integration

The following are various benefits of media integration:

a. Expanded Audience Reach

Content producers may reach a wide range of people with different media preferences by being active across many channels. While youngsters are more likely to use social media & streaming applications, elderly viewers may still like television or newspapers.

b. Enhanced Engagement

Participation from users is encouraged via integrated media. Social media comments have the power to shape future content. Live streaming enables engagement in real-time. The audience feels more devoted to the brand or publication as a result of this interaction.

c. Consistency in Messaging

A consistent message is maintained across various media with the use of integrated platforms. Political campaigns, awareness campaigns, crisis communication, & branding all depend on this. Credibility may be affected by inconsistent or mixed messaging across platforms.

d. Efficiency and Cost-Effectiveness

Time and resources may be saved by reusing and reshaping material for several platforms by integration. Marketers and journalists may develop a single core message & modify it for many platforms, including print, online, mobile, and television.

e. Real-Time Feedback and Analytics

Integrated media platforms enable real-time user input and continuous monitoring of content performance. Through data analytics tools, creators can refine their strategies by tracking metrics such as views, shares, comments, and the duration of user engagement across various platforms.

3. Challenges of Media Integration

The following are various challenges of media integration:

a. Technical Compatibility Issues

As media material is exchanged across many platforms and devices, maintaining technological compatibility becomes a significant concern. Every platform has unique requirements, ranging from loading times and interactive features to file formats and screen resolution.

Technical know-how, responsive design, and specialist tools are needed to modify the material to meet all of these requirements. Unreadable text, misaligned images, or broken functionality might all be the consequence of inadequate adaptation. Users may get irritated and have a bad experience as a result of these technological issues. Furthermore, platform-specific limitations may make integration more difficult. Performance and accessibility of information depend on compatibility across all devices.

b. Content Overload and Fragmentation

Audiences are inundated with material from many sources on a wide variety of channels in the digital age. Users get

material overload as a result of this continuous flood, making it challenging to sort and concentrate on what is really important. The audience's attention is divided when businesses distribute information across all platforms without a unified approach.

Due to overload, users may notice disconnected messages or completely disregard them. Effective impact measurement is hampered by this clutter, which also reduces engagement rates. Additionally, it reduces memory and dilutes the brand's message. A well-rounded approach to material is necessary to prevent consumers from being overloaded.

c. Quality Control

It's challenging to provide consistent quality across several media channels. On a smartphone, something that is nice on a TV screen could appear crowded or inefficient. In a similar vein, lengthy stories that are appropriate for print may need to be condensed and made simpler for social media.

It is essential to ensure that each version of the information retains its visual integrity, relevancy, and clarity. Credibility may be harmed by any breakdown in quality control, including low picture resolution, grammatical mistakes, or imprecise messages. Audiences quickly develop opinions on material based on how it is presented. Upholding good standards across all platforms promotes constant communication and helps to establish confidence.

d. Privacy and Data Security

To provide personalised and applicable content experiences, media integration often depends on user data. However, there are significant privacy and security issues with collecting and managing this data across platforms. Users anticipate that their data will be safely kept and managed ethically.

Sensitive information across many platforms may be exposed by a single breach in the integrated system, with the risk of legal repercussions and eroding user confidence. Businesses must abide by data protection regulations and provide all relevant information regarding the collection, sharing, and use of user data. Maintaining public trust in media integration requires the implementation of effective cybersecurity safeguards and moral data practices.

Chapter Summary

This chapter explored the profound transformation in media forms and communication practices brought about by the shift from traditional to digital platforms. It traced the historical progression from print and broadcast media to internet-based systems, highlighting how digital technologies have revolutionised the production, dissemination, and consumption of content. The chapter began by contrasting the one-way nature of traditional media with the interactive, participatory features characteristic of digital communication. This transition has fundamentally altered the media landscape, enabling greater user engagement and real-time feedback mechanisms.

A detailed account of the defining characteristics of digital communication was provided, including convergence, interactivity, hypertextuality, and mobility. The chapter then offered a chronological overview of key technological developments that have influenced media evolution—from the advent of the World Wide Web to the rise of social media, streaming platforms, and mobile devices. This timeline underscored how digital innovation has steadily expanded the speed, reach, and diversity of media experiences.

Finally, the chapter examined the growing integration of media platforms, where content flows seamlessly across television, internet, and mobile domains. Such convergence

has led to new forms of storytelling and audience engagement, as well as challenges in regulation and control. Overall, the chapter laid a conceptual foundation for understanding the digital media environment in contemporary society.

Assessment question

1. What are the major differences between traditional and digital media?
2. Explain how digital communication differs in characteristics from traditional communication.
3. Describe the key stages in the timeline of media evolution.
4. What factors led to the shift from traditional to digital media?
5. How has the integration of media platforms affected content delivery?
6. Discuss the role of technology in transforming media formats.
7. What are the main advantages of digital media?
8. How has audience behaviour changed due to digital media?
9. What are the key challenges faced during the digital media transition?
10. Explain with examples how multiple media platforms now work in convergence.

CHAPTER 2 Digital Media Technologies and Tools

Learning Objective

In this chapter, readers will gain insights into the tools that power digital media today. They will examine the role of social media, mobile devices, and smart technologies. The chapter covers streaming and on-demand media platforms. It introduces interactive and immersive media experiences. Readers will explore how these tools shape content creation and user interaction.

2.1. Overview of Social Media Platforms

Online services and programs known as social media platforms let users produce, share, and engage with information in addition to creating online communities. These platforms are now an essential part of contemporary communication and engagement, impacting the way that people, companies, governments, and organisations engage with their audiences. Social networking networks provide a wide range of digital expressions, from simple text postings to excellent videos, live streaming, or purchasing connections.

Social media sprang to prominence in the early 2000s, with platforms such as Friendster, MySpace, and, later,

Facebook. After that point, the diversity and complexity of social media platforms have rapidly increased.

These platforms are designed with user interaction and participation in mind. They make it easier to communicate instantly, share ideas, have fun, and even become involved in activism. Platforms including Instagram, YouTube, Twitter (X), WhatsApp, or TikTok are used by billions of people worldwide today for a variety of reasons, such as social networking, content consumption, career advancement, and business.

1. Types of social media platforms

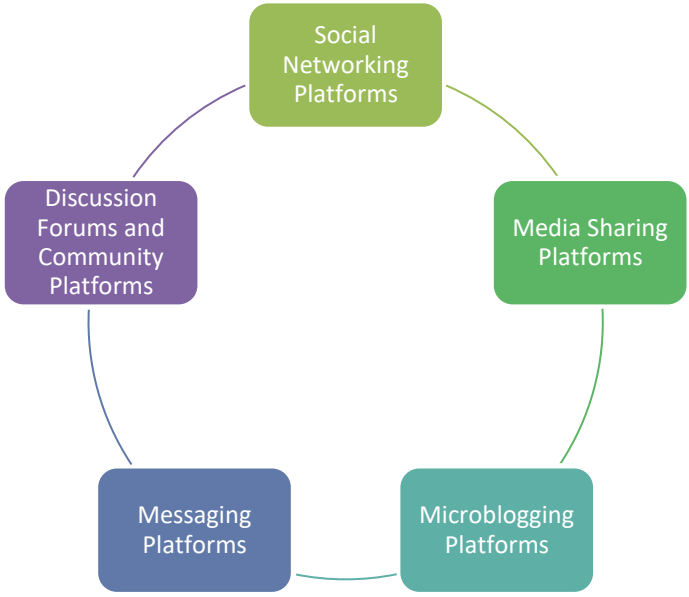


Figure 2.1 Types of social media platforms

a. Social Networking Platforms

Platforms for social networking are mainly intended to bring people together and build connections. LinkedIn and Facebook are two examples. These platforms let users establish networks based on their personal or professional interests, exchange messages, share updates, and create profiles.

Through group participation, likes, comments, and shares, they encourage engagement. Users follow sites or events, join communities, and maintain contact with colleagues and friends.

b. Media Sharing Platforms

Media-sharing platforms emphasise the production and dissemination of visual and auditory information. Instagram, YouTube, & Snapchat offer prominent examples. Users submit photographs, videos, live broadcasts, & reels for others to see and engage with.

These platforms are visually orientated and promote creativity with editing tools, filters, & effects. Numerous producers use them to cultivate fans and generate revenue from their material.

c. Microblogging Platforms

Microblogging providers allow users to publish brief updates, messages, and media excerpts. Twitter, now rebranded as X, serves as the most prominent example. These platforms are recognised for instantaneous information

dissemination and are frequently utilised for news, public discourse, and trending subjects.

Users participate in the reciprocal following, content reposting, and interaction through comments or likes. It is particularly used by journalists, activists, or public figures for rapid dissemination of data.

d. Messaging Platforms

Messaging systems provide personal and group communication, including text, voice, and video functionalities. WhatsApp, Messenger, Telegram, & Signal fall into this category. These systems facilitate individual chats, disseminate messages, transmit audio notes, conduct video calls, and allow file sharing.

Some also provide commercial versions for customer service & marketing. They provide private, encrypted communication & are preferred for their rapidity and ease.

e. Discussion Forums and Community Platforms

These platforms are organised around topic-based groups and discussion threads. Quora and Reddit are typical examples. Participants interact with in-depth discussions, exchange expertise, and pose queries in certain sub-forums or groups.

Community members usually monitor content, and interaction or upvotes determine exposure. These platforms encourage in-depth discussions, the exchange of advice, and information gathered by crowdsourcing.

2. Functions of social media platform

The following are various functions of social media platforms:

a. Communication and Connectivity

A fundamental purpose of social media platforms is to connect individuals irrespective of geographical location. They provide instruments for messaging, and commenting, as well as live interactions, facilitating real-time dialogues. Users maintain communication with friends, family, and colleagues by text, audio, or video.

These systems further provide group conversations, communities, and broadcasting functionalities. Social media transcends boundaries of space and time, facilitating seamless contact.

b. Content Creation and Sharing

Social media allows users to generate and disseminate diverse material such as photographs, videos, blogs, as well as live broadcasts. Platforms such as Instagram, and YouTube flourish due to user-generated content. Users articulate viewpoints, exhibit skills, or chronicle daily experiences.

Companies also use content to advertise their goods and services. The available tools—filters, editing functionalities, and effects—enhance the visual attractiveness of the material.

c. Information and News Dissemination

Social media functions as a primary conduit for disseminating news, updates, or real-time information. News organisations, governmental bodies, and independent individuals disseminate material to promptly inform the public. Platforms such as Twitter are particularly used for delivering breaking news & crisis updates.

Individuals may monitor credible sources to be informed about global or local occurrences. Hashtags facilitate the monitoring of trending subjects and social movements.

d. Marketing and Advertising

Companies use social media platforms are strategic tools for digital marketing and brand enhancement. Companies use features like sponsored posts, targeted advertisements, and influencer partnerships to engage certain client groups. Platforms aggregate user data to provide customised advertising. LinkedIn, Facebook, and Instagram all provide statistics to assess advertising efficacy and audience behaviour.

This makes social media an economical means for outreach & engagement. Businesses engage directly with customers through comments and messaging.

e. Networking and Community Building

Social media helps the formation of networks and participation in groups centred on common interests or objectives. LinkedIn facilitates connections among professionals, but

Reddit & Facebook Groups allow discussions among individuals with shared interests. These communities provide assistance, cooperation, and the exchange of knowledge.

Users may follow, tag, and approve others, thus enhancing their social profile. This function facilitates personal development and professional enhancement.

3. Limitations of social media platforms

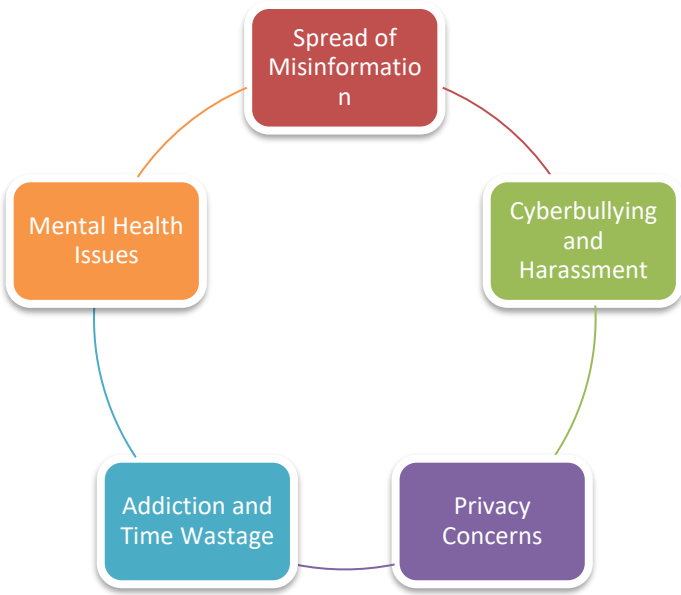


Figure 2.2 Limitations of social media platforms

a. Spread of Misinformation

The pace at which false information is disseminated on social media is one of its primary disadvantages. People often distribute material without checking its veracity, which causes inaccurate or deceptive claims to spread.

Conspiracy theories, disinformation, and viral rumours may readily influence public opinion.

Specifically during elections, medical crises, or natural catastrophes, this has dire repercussions. Misinformation may lead to negative conduct, societal instability, or fear.

b. Cyberbullying and Harassment

Social media platforms often turn into venues for online abuse and cyberbullying. Without worrying about the repercussions, people utilise fictitious or anonymous profiles to disparage, threaten, or insult others. As a consequence, victims—particularly teenagers—may suffer from anxiety, fear, or sadness. Persistent abuse can reduce self-esteem and, in extreme situations, cause self-harm.

Platforms provide blocking and reporting features, however answers are sometimes insufficient or delayed. Trolls return with new accounts by taking advantage of weaknesses.

c. Privacy Concerns

As users unintentionally submit personal information that may be collected, saved, and sold, privacy is a serious issue on social media. Numerous platforms utilise this information to recommend content and display customised ads. Yet this calls into doubt data ownership and permission.

Users often don't know who can access their information or how it's being utilised. Private information might be made

available to hackers in the event of a data breach. This is leading to an increase in financial fraud and identity theft.

d. Addiction and Time Wastage

Social media is designed to keep users interested for extended amounts of time, which may result in addictive behaviour. Without noticing it, people watch, browse, and respond to postings for hours on end. This often takes the place of time intended for work, education, exercise, or social engagement.

Attention continues to be drawn to notifications, endless feeds, and trending topics. Overuse like this might result in reduced efficiency and procrastination. Additionally, it could interfere with sleep and lead to a lack of physical activity. Although screen time monitoring is available on several platforms, consumers seldom ever utilise it.

e. Mental Health Issues

Excessive use of social media, especially when users compare their lives to others, may have a detrimental effect on mental health. Images of prosperity, beauty, and lifestyle that have been carefully chosen might make people feel inadequate or unworthy. Anxiety and reliance are promoted by a constant desire for likes, comments, or acceptance.

Fear Of Missing Out (FOMO), cyberbullying, and negative remarks may all exacerbate mental suffering. This may eventually lead to mental disorders including despair and

loneliness. Young users are especially at risk due to their evolving sense of self.

2.2. Role of Mobile and Smart Devices

The emergence of mobile and smart devices has profoundly transformed the digital landscape, becoming central to how individuals interact with information, services, and one another. These devices—ranging from smartphones and tablets to smartwatches, wearables, and IoT-connected gadgets—have evolved into indispensable tools that support communication, productivity, entertainment, and personal well-being. Their influence spans personal, professional, and institutional domains, making them key agents in the process of digital transformation.

Crucially, mobile and smart devices enable on-the-go connectivity, allowing users to remain linked to digital ecosystems irrespective of time or place. This portability, coupled with immense computational power and app integration, allows for dynamic engagement with digital content and services. As societies become increasingly digitised, the role of such devices continues to expand, reshaping not only individual behaviours but also institutional operations and societal norms. The sections below examine in detail the multifaceted functions of mobile and smart devices.

1. Transforming Communication Practices

Mobile and smart devices have revolutionised communication by making it instant, versatile, and accessible across

vast distances. Traditional modes of interaction—such as landline calls or face-to-face meetings—have been replaced or supplemented by digital channels supported by these devices. With tools such as voice calls, messaging apps, emails, and video conferencing, communication has become more efficient and inclusive.

These devices facilitate both synchronous communication (e.g., live video chats) and asynchronous exchanges (e.g., recorded messages or emails), allowing individuals to tailor their communication based on urgency and availability. This flexibility is especially valuable in multinational organisations and multicultural contexts, where time zones and language preferences vary.

- Messaging platforms such as WhatsApp, Signal, and Telegram support rich-text and multimedia interactions.
- Applications like Zoom, Google Meet, and Microsoft Teams enable remote conferencing and hybrid work arrangements.
- Voice assistants and speech-to-text tools enhance accessibility and real-time responsiveness.

2. Enabling Seamless Access to Information

A cornerstone of the digital age is the democratisation of information, and mobile devices play a vital role in this. Equipped with internet access, search engines, and cloud integration, these devices enable users to access educational

materials, global news, academic journals, and real-time updates anytime and anywhere. This constant connectivity empowers users to make informed decisions and engage in continuous learning.

In educational contexts, mobile devices support digital classrooms, interactive learning applications, and e-books. Learners can attend virtual classes, submit assignments, and participate in discussions via mobile platforms. Similarly, professionals use their devices to access industry reports, company data, and policy updates, thereby ensuring that their decisions are grounded in current knowledge.

- Mobile apps such as Khan Academy, Duolingo, and Coursera make learning mobile-friendly and interactive.
- News aggregators and digital publications allow users to customise information feeds.
- Cloud-based platforms like Google Drive and OneDrive enable remote access to shared documents and collaborative workspaces.

3. Facilitating Application-Based Services Across Sectors

Smart devices support an expansive range of application-based services that span across sectors such as healthcare, finance, commerce, transportation, and governance. These applications enhance user convenience and operational efficiency, often reducing the need for physical infrastructure or human intervention.

In the realm of banking, for instance, mobile apps allow users to conduct secure transactions, manage accounts, and receive instant notifications. Similarly, in healthcare, patients can consult doctors through telemedicine apps, access medical records, and track their fitness through wearables. Government services have also been digitised, with mobile platforms enabling citizens to access e-governance tools, pay taxes, or lodge public grievances.

- E-commerce platforms such as Amazon, Flipkart, and Meesho offer mobile-optimised shopping experiences.
- Ride-sharing and navigation apps like Uber, Ola, and Google Maps rely on real-time GPS integration.
- Health and wellness apps, including Practo and HealthifyMe, support preventive care and remote consultations.

4. Enhancing Professional Productivity and Remote Work

The evolution of mobile devices has dramatically altered professional environments, particularly with the rise of hybrid and remote working cultures. These devices allow users to manage tasks, collaborate with teams, attend virtual meetings, and access digital workspaces regardless of location.

With the integration of project management tools, calendar syncs, and cloud services, smart devices enable professionals to maintain productivity outside traditional

office settings. Moreover, security features such as biometric authentication, encrypted communication, and virtual private networks (VPNs) ensure that sensitive work data remains protected.

- Tools like Slack, Trello, and Notion support task tracking and team collaboration.
- Email clients and calendar applications facilitate time management and scheduling.
- File-sharing services like Dropbox and Google Workspace streamline document access and editing.

5. Advancing Personal Health, Lifestyle, and Wellbeing

Beyond professional and informational functions, smart devices have significant applications in personal health and lifestyle management. Wearables such as smartwatches and fitness bands track vital statistics, monitor sleep patterns, and provide data-driven insights into daily habits. These devices are increasingly integrated into health systems, allowing users to share data with healthcare professionals for more personalised care.

Smart home integrations further enhance convenience and efficiency in daily life. Devices can automate lighting, control appliances, manage energy consumption, and enhance home security. The growing presence of voice-activated assistants facilitates hands-free interaction, especially useful for individuals with limited mobility.

- Fitness trackers like Fitbit and Apple Watch promote physical activity and heart health monitoring.

- Apps like Calm and Headspace support mental wellness through guided meditation and stress relief exercises.
- IoT-enabled home systems (e.g., Alexa, Google Nest) automate and personalise living environments.

6. Enriching Social and Cultural Engagement

Smart devices are essential enablers of modern social and cultural life. Through social media platforms, content creation tools, and streaming services, users can express themselves, build communities, and participate in global discourses. These devices offer a space for both consumption and creation, allowing users to shape cultural narratives and share diverse perspectives.

Moreover, smart devices bridge geographical gaps, enabling diasporic communities to remain connected to their cultural roots. They also provide marginalised groups with a voice, allowing for inclusive representation in the digital public sphere. Social campaigns, viral challenges, and grassroots movements often begin and spread through mobile-first platforms.

- Platforms like Instagram, TikTok, and YouTube allow real-time content sharing and audience engagement.
- Streaming services (e.g., Spotify, Netflix) personalise entertainment based on user preferences.

- Mobile devices foster digital citizenship through civic participation and activism.

2.3. Streaming and On-Demand Media

The evolution of digital media has given rise to one of the most transformative phenomena in modern communication: streaming and on-demand media. These technologies have fundamentally changed how content is distributed, consumed, and monetised. Unlike traditional broadcast systems, which deliver content according to fixed schedules through terrestrial or cable infrastructure, streaming and on-demand services operate via the Internet and offer users unprecedented control over what, when, and how they access audio-visual content. This paradigm shift has not only revolutionised entertainment but has also altered educational delivery, professional communication, and public engagement.

Streaming media refers to the real-time transmission of content where data is continuously sent from a server to a user's device, allowing playback to begin almost instantly without full download. On-demand media, by extension, allows users to access and select specific content from extensive digital libraries at their convenience. The increasing availability of broadband internet, mobile devices, and cloud-based services has facilitated the widespread adoption of these technologies across the globe. Together, they represent a cornerstone of the digital communication revolution, with far-reaching implications

for media consumption habits, content production, and user engagement.

1. Expanding Access and Convenience

One of the most notable contributions of streaming and on-demand media is the democratisation of access. Users are no longer dependent on scheduled programming or limited local channels. Instead, they can access vast repositories of content—ranging from films, music, and podcasts to educational tutorials and documentaries—anytime and from virtually anywhere.

This accessibility is facilitated by digital platforms such as Netflix, YouTube, Spotify, Amazon Prime Video, and Disney+, which provide global access to both mainstream and niche content. Users can stream content on mobile phones, tablets, laptops, and smart TVs, eliminating the constraints of time and location. Such convenience aligns with modern lifestyles that demand flexibility and instant gratification.

- Users can resume content from where they left off, across multiple devices.
- Offline download options on platforms like Netflix and Spotify allow access during travel or in low-bandwidth areas.
- Regional and language-specific content offerings enhance cultural inclusivity and user relevance.

2. Personalisation, Interactivity, and User Autonomy

Streaming and on-demand platforms are characterised by a high degree of user personalisation. Algorithms powered by artificial intelligence analyse users' behaviour, watch history, preferences, and even time-of-day patterns to recommend tailored content. This customisation transforms the user into an active participant in the content selection process, enhancing satisfaction and engagement.

Moreover, users have complete control over their viewing or listening experience. They can pause, rewind, fast-forward, or skip content entirely. This contrasts with traditional broadcasting, where the audience had to conform to the broadcaster's schedule and pacing. The result is a media environment that values individual choice, customisation, and interactivity.

- Algorithms recommend new content based on previous user behaviour and genre preferences.
- User-created playlists and watchlists improve navigation and content discovery.
- Some platforms allow users to rate, review, or share content, contributing to a participatory culture.

3. Disrupting Traditional Media Models

Streaming and on-demand technologies have significantly disrupted the traditional media landscape. Television networks, cinemas, radio stations, and cable providers have

had to adapt to declining audiences and changing revenue models. The dominance of linear broadcasting is steadily giving way to flexible, subscription-based, or ad-supported models that prioritise user experience and direct-to-consumer distribution.

Production houses and independent creators now increasingly produce content specifically for digital streaming, bypassing traditional release windows such as cinema premieres or network scheduling. This has led to a surge in high-quality web series, short films, indie documentaries, and exclusive original content that cater to diverse tastes and emerging cultural themes.

- Services like Netflix and Amazon Prime fund original content that bypasses traditional distributors.
- Many films and series are now released exclusively online, reaching global audiences without theatrical screening.
- The media industry has shifted from advertising-driven to subscription and data-driven business models.

4. Supporting Education, Skill Development, and Professional Training

Beyond entertainment, streaming and on-demand platforms play an increasingly significant role in the field of education and professional development. Institutions and

educators use these platforms to deliver virtual lectures, tutorials, webinars, and recorded seminars. Learners can access materials at their own pace, which is particularly beneficial for adult learners, working professionals, and geographically isolated communities.

Platforms such as YouTube EDU, Khan Academy, Coursera, and edX provide streaming access to lessons, courses, and academic discussions across disciplines. Similarly, corporate environments use streaming tools for employee onboarding, training sessions, and knowledge dissemination.

- Learners can rewind and revisit difficult concepts, improving retention and understanding.
- Subtitles, multi-language audio tracks, and closed captions make learning inclusive.
- Companies use video-based training to improve consistency and scalability in professional development.

5. Influencing Cultural Trends and Social Engagement

Streaming and on-demand media are also reshaping popular culture and social interaction. Viral videos, trending shows, and widely shared music often originate on streaming platforms and gain traction through social media integration. These platforms allow real-time audience feedback, where views, comments, and shares contribute to a content's visibility and popularity.

The rise of "binge-watching" entire seasons in one sitting, the popularity of reaction videos, and the emergence of influencer-driven content illustrate how users engage more deeply with media. Audiences no longer consume content passively—they participate in shaping cultural narratives, fan communities, and online discourses.

- Platforms such as TikTok and YouTube promote user-generated content and interactive challenges.
- Streaming series can generate global cultural phenomena and online discussions.
- Viewership data is used by platforms to commission new content based on user demand and viewing patterns.

6. Addressing Challenges and Future Outlook

Despite its many advantages, streaming and on-demand media also present challenges. Issues such as digital addiction, algorithmic bias, content over-saturation, and the decline of local broadcasters have sparked debate among scholars and policymakers. Furthermore, concerns regarding data privacy, content regulation, and the monopolisation of media power by a few tech giants remain pressing.

Nevertheless, the future of streaming media looks increasingly dynamic. Innovations in 5G technology, artificial intelligence, augmented reality (AR), and virtual reality (VR) are expected to enhance the quality,

interactivity, and immersion of streamed content. Educational institutions, cultural organisations, and governments are likely to integrate streaming more deeply into their communication strategies.

- Smart recommendations may be improved using real-time biometric feedback and eye-tracking.
- Interactive storytelling formats and immersive VR streaming are on the rise.
- Public broadcasters are adapting by launching their own on-demand services (e.g., BBC iPlayer, PBS Digital).

2.4. Interactive and Immersive Media

Interactive and immersive media have emerged as defining technologies of the digital age, reshaping how individuals engage with content, environments, and each other. Distinct from traditional media formats, which typically follow a one-way transmission model, these advanced media systems offer bidirectional, real-time engagement. They empower users to make decisions, explore environments, manipulate digital objects, and even co-create narratives—thus fostering deeper psychological involvement and sensory stimulation.

Technologies such as virtual reality (VR), augmented reality (AR), mixed reality (MR), motion sensing, and artificial intelligence lie at the core of these media innovations. With the support of powerful computing hardware, mobile

connectivity, and software integration, interactive and immersive media have gained widespread traction across fields such as education, medicine, advertising, tourism, architecture, and entertainment. This section examines the fundamental principles, applications, and emerging debates surrounding these technologies through multiple detailed lenses.

1. Understanding the Shift from Passive Reception to Active Participation in Media

Traditional media consumption was largely passive, requiring users to receive pre-structured information with limited control or influence over the content. In contrast, interactive and immersive media invite users into the process of meaning-making by requiring active input, decisions, and exploration. This transformation has not only changed user expectations but has also necessitated a complete rethinking of content design and narrative architecture.

Whereas earlier media offered a single perspective to a mass audience, interactive platforms provide non-linear, dynamic experiences tailored to individual preferences. Immersive environments further extend this shift by positioning users within a simulated 3D or mixed-reality space that mimics physical presence, thereby enhancing emotional connection and cognitive immersion.

- Users make narrative choices in interactive fiction and games, altering story outcomes.

- 360-degree media allow users to look in any direction, enhancing realism and autonomy.
- Educational simulations immerse learners in historical events, scientific processes, or cultural environments.

2. Exploring Core Technologies Driving Immersive and Interactive Media Formats

The delivery of interactive and immersive content depends upon a suite of cutting-edge technologies. These systems work in tandem to simulate physical interaction, spatial presence, and sensory input, forming a seamless interface between digital and physical realms. Each technology contributes unique affordances that shape user experience and application.

- Virtual Reality (VR) creates entirely simulated digital spaces via headsets (e.g., Oculus, HTC Vive) that replace the user's real-world surroundings.
- Augmented Reality (AR) overlays digital elements onto real-world environments through smartphones or AR glasses (e.g., Apple Vision Pro, Microsoft HoloLens).
- Mixed Reality (MR) blends real and virtual worlds interactively, allowing users to manipulate virtual objects anchored in the real environment.
- Haptic feedback systems simulate tactile sensations, while motion sensors track gestures, gaze, and body movement for enhanced realism.

Together, these technologies redefine immersion—not only visually or audibly but physically and psychologically—enhancing the impact of digital media.

3. Facilitating Deep Engagement through Emotional and Cognitive Immersion

One of the most compelling aspects of immersive media is its capacity to evoke intense emotional responses and cognitive engagement. Traditional forms of media tend to engage users passively, but immersive experiences place users 'inside' the narrative or environment, heightening emotional resonance and attention.

Research shows that immersive environments increase empathy, particularly when users embody characters from different social or cultural backgrounds. Similarly, educational content delivered in immersive formats promotes better retention of information by engaging learners in active discovery rather than passive reception.

- VR storytelling fosters empathy by placing users in the perspective of refugees, patients, or marginalised voices.
- Museums and galleries use AR to allow visitors to engage more personally with artefacts.
- Simulated decision-making scenarios in training improve critical thinking and problem-solving skills.

4. Integrating Immersive Media into Classroom Pedagogy and Lifelong Learning

Education is among the sectors most transformed by interactive and immersive media. Digital learning environments enriched with AR and VR tools allow learners to visualise abstract concepts, explore distant locations, and practise real-world scenarios within safe, virtual contexts.

Unlike traditional didactic methods, immersive learning is experiential, catering to diverse learning styles. It enables kinesthetic learners to interact physically with content, while visual and auditory learners benefit from layered multimedia elements. Teachers also gain the ability to customise content and track learner progress using embedded analytics.

- Students can virtually explore ancient civilisations, space missions, or biological systems.
- AR flashcards and apps allow interactive engagement with complex diagrams and models.
- Vocational education employs immersive simulations to practise hands-on tasks like welding, nursing, or mechanical repairs.

5. Revolutionising Professional Training Through Safe Simulations and Virtual Scenarios

Professional development has benefited substantially from the adoption of immersive simulations. Sectors such as aviation, medicine, defence, and engineering use VR and

MR to simulate real-life tasks, emergency responses, or high-risk scenarios—thus reducing training costs and improving preparedness.

These technologies allow learners to experiment, fail, and retry within consequence-free environments, resulting in better muscle memory and performance confidence. Additionally, artificial intelligence can be layered onto simulations to provide adaptive feedback or respond dynamically to user choices.

- Medical students can practise surgical procedures using VR simulations with real-time physiological data.
- Emergency services use disaster simulation environments to train for fires, floods, or mass-casualty events.
- Pilots undergo flight training in VR-enabled cockpits that replicate diverse weather and technical conditions.

6. Enabling Immersive Marketing, Retail, and Consumer Engagement Strategies

The commercial sector has harnessed immersive technologies to enhance customer experience, product visualisation, and brand storytelling. AR allows consumers to preview products in their physical space before purchasing, while VR can transport them into branded worlds or virtual showrooms.

Such strategies increase user confidence, reduce product returns, and elevate brand recall. Interactivity also promotes stronger emotional engagement, transforming marketing from persuasion to participation.

- Furniture retailers offer AR previews of items in the user's living space.
- Fashion brands use virtual try-ons through smart mirrors and AR apps.
- VR brand experiences include interactive launches, immersive product narratives, and 3D tours.

7. Redefining Art, Narrative, and Audience Participation in the Digital Sphere

Immersive media have prompted artists, filmmakers, and cultural institutions to experiment with new forms of creative expression. Interactive installations respond to viewer presence, immersive theatre breaks the fourth wall, and VR films invite viewers to inhabit the world of the narrative.

These formats decentralise authorship and shift some degree of narrative agency to the audience. As users explore environments or influence the outcome of stories, they become co-creators rather than passive observers. This has led to the development of emergent storytelling and transmedia narratives.

- Interactive exhibits in galleries respond to sound, movement, or gaze.

- Immersive documentaries allow viewers to navigate through multiple storylines or perspectives.
- AR-enhanced books and comics blend text with motion graphics and 3D imagery.

8. Recognising the Ethical Implications, Design Challenges, and Psychological Impact

Despite their many affordances, interactive and immersive media also pose ethical, psychological, and technical challenges. Extended immersion may lead to disorientation, motion sickness, or detachment from reality. Moreover, the psychological intensity of these experiences raises concerns about desensitisation, emotional manipulation, and user dependency.

Ethical design principles must guide the development of content to ensure it is accessible, inclusive, and respectful of user data. Privacy risks are heightened as eye-tracking, voice input, and biometric data are collected to enhance user experience. In addition, content developers must consider accessibility for users with disabilities and provide alternatives where immersive technologies are unsuitable.

- Ethical standards are needed to govern immersive content for children and vulnerable users.
- Designers must avoid reinforcing stereotypes or presenting manipulative narratives.
- Accessibility features—such as captions, voice control, and adjustable environments—must be integrated from inception.

Chapter Summary

This chapter explored the technologies and tools that constitute the backbone of contemporary digital media. It began with an overview of major social media platforms, examining their structural features, user demographics, and roles in content dissemination and community formation. Platforms such as Facebook, Instagram, Twitter, and YouTube were considered in terms of both their global reach and their impact on media habits, identity performance, and cultural exchange.

The chapter then turned to the significance of mobile and smart devices, which have facilitated the emergence of a constantly connected society. These devices have transformed media access, enabling real-time content sharing and personalised consumption. The mobility and ubiquity of smartphones have reshaped journalism, advertising, and social interactions, while also raising concerns around surveillance and screen dependency.

Streaming and on-demand media were discussed as revolutionary shifts in content consumption. Services like Netflix and Spotify were analysed for their role in disrupting traditional broadcasting models, introducing algorithmic recommendations and reshaping audience expectations around immediacy and control. Additionally, the chapter addressed the rise of interactive and immersive media, including virtual reality, augmented reality, and gamified platforms, which challenge conventional narratives and deepen user engagement.

Overall, the chapter offered a detailed account of how digital media technologies and tools are reshaping the production, delivery, and reception of content in the digital age.

Assessment question

1. What are the main features of popular social media platforms?
2. How do mobile devices contribute to the spread of digital content?
3. Describe the role of smart devices in modern communication.
4. What are the benefits and drawbacks of streaming media?
5. Compare streaming and on-demand media with traditional broadcasting.
6. Explain the concept of interactive media with examples.
7. How does immersive media enhance user experience?
8. What technological tools are used in creating immersive content?
9. How have user expectations evolved with digital media tools?
10. Discuss how accessibility is improved by mobile and smart technologies.

CHAPTER 3
Journalism in the Digital Context

Learning Objective

In this chapter, readers will examine how journalism has evolved in the digital age. They will explore online news production and new methods of content distribution. The chapter discusses the rise of citizen journalism and blogging. It introduces ethical concerns and challenges in digital news credibility. Readers will also consider how digital media has changed newsroom dynamics. This chapter offers a critical view of journalism's digital transformation.

3.1. Online News Production and Distribution

The digital revolution has profoundly altered the production, distribution, and consumption of news. No longer confined to the rigid formats of print newspapers or fixed television bulletins, news has become a dynamic, continuous flow of multimedia content available on demand and across platforms. In today's landscape, news production is no longer the sole domain of established organisations; it includes a broader ecosystem of independent journalists, citizen reporters, bloggers, and algorithmically curated feeds. Digital tools now support

every stage of the editorial workflow—from sourcing and verifying information to publishing and monitoring audience response.

This decentralised structure, while democratising access to information, has also introduced new complexities: editorial strategies must now align with platform algorithms, financial models must adapt to declining ad revenues, and the credibility of journalism must be defended in a sea of misinformation. This section explores these transformations in detail, providing insight into the processes, technologies, and ethical implications that define modern online journalism.

1. The Digital-First Approach: Redefining the Workflow of Modern Newsrooms

Digital-first journalism reflects a shift in priorities from print or broadcast editions to online platforms as the primary channels for news delivery. This transformation demands a radical reorganisation of newsroom operations, prioritising immediacy, flexibility, and multi-platform adaptability. Rather than working to fixed print deadlines, journalists now operate in real-time, with live updates, iterative publishing, and rolling coverage as the norm.

Content is no longer produced sequentially but collaboratively. Journalists, editors, visual designers, and social media managers work in tandem from the outset, ensuring that stories are optimised for mobile reading, social sharing, and search engine performance. The

integration of content management systems (CMS), digital asset libraries, and cloud-based collaboration tools has increased the speed and agility of newsrooms considerably.

- Digital dashboards provide continuous metrics, allowing editors to make data-driven decisions about when to publish, how to frame headlines, and whether stories require follow-up or expansion.
- Multimedia editors curate visuals, charts, and videos simultaneously, creating layered experiences that go beyond linear storytelling and increase reader retention.

2. Platform-Specific News Tailoring: Optimising Content for Varied Digital Spaces

In the digital era, each platform has developed its own culture, visual language, and user expectations. Consequently, content must be tailored not only in terms of subject and tone but also in terms of technical presentation. News that performs well on one platform may fail entirely on another if not appropriately adapted.

For instance, Twitter demands brevity and immediacy, favouring sharp, attention-grabbing phrasing, while Instagram requires high-impact visuals with succinct captions. YouTube and TikTok prioritise compelling short-form videos, necessitating a different set of creative and journalistic skills. This fragmentation forces journalists to be platform-literate and responsive to constantly evolving algorithmic priorities.

- Headlines are reformulated multiple times for different platforms, balancing SEO requirements with emotional appeal or trending hashtags.

- Video editors repurpose the same footage into landscape, square, or vertical formats depending on whether the content is intended for websites, Facebook, or mobile apps like TikTok.

3. The Rise of Live Reporting and Breaking News Culture in Digital Journalism

Live reporting has become a staple of digital journalism, made possible by mobile technology, wireless connectivity, and user expectations for real-time coverage. News outlets now maintain live blogs, livestreams, and "breaking news" alerts throughout the day, providing continual updates as stories develop.

This immediacy has transformed audience expectations and newsroom routines alike. Reporters must now be trained to provide accurate information under pressure, often from chaotic or evolving situations. The trade-off between speed and accuracy remains a significant ethical and practical challenge, particularly in high-stakes reporting contexts such as protests, disasters, or political events.

- Live blogging allows for a chronological unfolding of events, incorporating direct quotes, official updates, user reactions, and embedded media in a single continuously updated thread.

- Field reporters use smartphones and portable broadcasting kits to stream live video, respond to audience questions, and provide commentary while on the move.

4. Audience Metrics and Data-Driven Decision-Making in Editorial Strategy

Editorial judgement has always guided journalism, but in the digital age, it is increasingly supplemented—and sometimes influenced—by detailed analytics. Metrics such as page views, average time on page, bounce rate, and reader engagement levels now inform story placement, headline structure, and even topic selection. While this data can help newsrooms better understand their audiences, it also raises concerns about the potential prioritisation of popularity over substance.

Stories that perform poorly on social media may receive less editorial attention, regardless of their social or investigative value.

- Real-time analytics dashboards are standard tools, helping news editors optimise headlines and monitor the virality of developing stories.
- Editorial meetings often incorporate audience data, using it to evaluate the success of content strategies and identify areas for improvement or expansion.

5. Subscription Models, Crowdfunding, and Reader-Supported Journalism

As advertising revenues decline—especially for outlets that

rely heavily on programmatic ads—news organisations have turned to alternative financial models. Subscription-based paywalls, voluntary reader donations, and crowdfunding for specific investigative projects have emerged as viable options, though each presents distinct challenges.

Reader-supported models can foster a stronger sense of community and accountability between publishers and audiences. However, these models must also navigate issues of exclusivity and access, ensuring that important information remains available to the broader public.

- Some outlets offer metered paywalls, which allow limited access to articles before requiring a subscription, maintaining a balance between free access and revenue generation.

- Journalistic crowdfunding campaigns often attract funding for underreported stories, such as environmental issues or grassroots political movements, empowering journalists to pursue work free from commercial pressures.

6. News Aggregators, Curated Feeds, and the Role of Artificial Intelligence in Content Distribution

Artificial intelligence and machine learning technologies have revolutionised how news is distributed. Aggregators such as Google News, Apple News, and Flipboard use algorithms to curate headlines and organise them into

personalised feeds based on user behaviour and preferences.

While this model increases user convenience and engagement, it also presents risks of ideological filtering and exposure to only a narrow range of sources. Moreover, news producers often have limited control over how their stories are presented on third-party platforms.

- News algorithms can prioritise engagement over balance, resulting in a preference for stories that generate clicks or outrage, regardless of accuracy or relevance.
- Publishers often adapt their metadata and article tags to meet the criteria set by aggregators, aiming for increased visibility and audience reach.

7. Mobile-First Journalism and the Shift to Portable News Consumption

With smartphones becoming the dominant device for accessing news, journalism has had to adapt to a mobile-first logic. This entails more than technical optimisation—it requires rethinking story structure, headline brevity, multimedia formatting, and even article length.

Users on mobile devices often consume news in short bursts, during commutes or breaks. Thus, stories must be instantly engaging, easily navigable, and compatible with touchscreen interfaces. Notifications, location-based updates, and offline reading capabilities are also central to mobile engagement.

- Responsive design ensures seamless functionality across screen sizes, resolutions, and operating systems.
- Push notifications deliver high-priority headlines to users in real-time, increasing direct traffic and brand loyalty.

8. Multimedia Convergence and the Blending of Journalism with Digital Storytelling Techniques

Digital journalism increasingly fuses various media formats to produce immersive storytelling experiences. Text-based narratives are supplemented with video, data visualisations, audio clips, and interactive graphics to provide deeper insight and aesthetic variety.

This convergence not only broadens the journalistic toolkit but also attracts a more diverse audience. Users can engage with a story through reading, watching, listening, or interacting—whichever suits their preference or accessibility needs.

- Multimedia long reads combine interviews, photographs, and scroll-triggered animations, guiding the user through a narrative in an engaging, layered fashion.
- Podcasts, explainers, and explainer videos offer digestible versions of complex issues, particularly popular among younger audiences or non-native readers.

9. Combatting Fake News, Deepfakes, and the Erosion of Trust in Digital News

Digital journalism must contend with a parallel information economy marked by disinformation, manipulated media, and malicious content. The viral nature of false stories—especially when amplified by bots or emotionally charged headlines—undermines trust in legitimate journalism.

Combatting this requires technological solutions, collaborative fact-checking, and public education. Journalistic institutions must also reinforce their credibility through transparent practices, such as corrections policies, source disclosure, and explanatory reporting.

- Fact-checking networks now partner with platforms, flagging misleading content and issuing warnings to users before sharing.
- Media literacy programmes are essential, especially in educational institutions, to teach critical reading, source evaluation, and bias recognition in the digital space.

10. Ethical Dilemmas and Professional Responsibility in the Online News Ecosystem

The speed and scope of digital news create unique ethical challenges. Journalists must decide how to responsibly use public social media posts, balance individual privacy with the public interest, and navigate the blurred boundaries between reporting and opinion.

Additionally, there is growing concern over the psychological impact of news exposure, especially in times of crisis. Responsible reporting now includes trigger warnings, content advisories, and sensitivity to audience mental health.

- Journalists must exercise caution when reporting on trauma, avoiding sensational imagery and ensuring dignity for victims.
- Ethical frameworks are being revised to account for the persistent availability of digital content and its long-term consequences for individuals mentioned in stories.

3.2. Citizen Journalism and Blogs

The transformation of the media landscape in the digital era has witnessed the emergence of powerful grassroots communication models, most notably citizen journalism and blogs. Traditionally, journalism was a professional pursuit conducted within formal institutions—newspapers, broadcasting houses, and press agencies—governed by editorial standards, ethical codes, and professional training. However, the accessibility of internet publishing tools, smartphones, and social media has democratised the means of news production, enabling individuals without formal journalistic affiliations to participate in the documentation, analysis, and dissemination of information.

Citizen journalism allows ordinary individuals to report on events, often as eyewitnesses, particularly in contexts where

professional media are absent, restricted, or censored. Similarly, blogs offer platforms for self-publication, ranging from personal narratives to socio-political critique, expert commentary, or investigative reporting. These alternative modes of communication have played significant roles in movements for transparency, activism, and social change. However, their growth also raises serious questions about accuracy, credibility, legality, and ethical responsibility. This section delves into the origin, development, influence, and limitations of citizen journalism and blogs within the evolving ecosystem of digital media.

1. The Digital Origins and Democratic Impulse Behind Citizen Journalism

Citizen journalism emerged as a direct consequence of digital access. With smartphones, inexpensive internet, and social media platforms, individuals began reporting real-time events that would otherwise go undocumented. These accounts have provided crucial visibility to social issues, political protests, and humanitarian crises, especially in regions where mainstream media face censorship or operate under political pressure.

What distinguishes citizen journalism is not just its technological basis, but its democratic impulse: it embodies the idea that **anyone** can be a witness, a documenter, and a communicator of newsworthy events. It challenges the monopoly of professional journalists over public discourse, allowing diverse voices to speak directly to audiences.

- In politically repressive countries, where journalists are routinely surveilled or censored, citizen journalists often become the only source of reliable information for both local and international audiences.
- Grassroots activism—particularly during movements like the Arab Spring, Black Lives Matter, or the anti-CAA protests in India—was heavily documented and disseminated by citizens using mobile phones and social media, sometimes at great personal risk.

2. Tools, Technologies, and Modalities of Participation

The technical infrastructure enabling citizen journalism is largely based on everyday digital devices—smartphones, affordable video-editing software, blogging platforms, and free social media services. These tools allow the rapid recording, editing, and publishing of content with minimal professional training. Many citizen journalists use social media platforms such as Facebook, X (formerly Twitter), YouTube, and TikTok to post live updates, share video footage, or mobilise community responses.

Some go beyond casual sharing to build followings, brand their pages, or collaborate with advocacy groups. This transition from spontaneous contribution to semi-professional reporting represents a continuum of engagement that blurs the boundaries between citizen and professional journalism.

- Mobile journalism (MoJo) kits, including portable microphones, lighting rigs, and stabilisers, are now widely used by advanced citizen reporters to produce high-quality visual content.
- Blogging platforms such as WordPress, Medium, and Substack offer citizens and freelance writers a space for reflective commentary, political critique, and long-form journalism.

3. Blogs as Personal, Political, and Professional Media Spaces

Blogs initially gained popularity as digital diaries—informal spaces for self-expression. Over time, they evolved into influential platforms for public discourse, especially in areas neglected by mainstream media. Today, blogs span genres from fashion and technology to politics, education, and human rights. They offer a flexible format that accommodates long-form writing, multimedia integration, and direct engagement with readers through comment sections.

While many blogs remain personal and anecdotal, others are now viewed as trusted sources of niche expertise. Scholars, independent analysts, activists, and whistleblowers have turned to blogging as a means to bypass editorial restrictions and reach specific communities with uncensored, direct messages.

- Academic blogs extend research beyond journal paywalls, allowing scholars to summarise findings

or engage with contemporary debates in accessible formats.

- Alternative media blogs provide in-depth analysis of underreported topics, often foregrounding minority voices, critical theory, or activist perspectives absent in corporate media outlets.

4. Tensions Around Credibility, Accuracy, and Verification

Despite its democratic appeal, citizen journalism and blogging face criticism concerning the absence of standardised verification practices, editorial oversight, and accountability. The speed with which content is produced and shared—especially during crises—often precludes fact-checking, leading to the risk of misinformation. Additionally, personal bias, lack of context, or incomplete reporting can skew public understanding of events.

However, audiences are not passive consumers. They increasingly engage critically, seeking corroboration across multiple sources. Moreover, many citizen journalists have developed rigorous habits of documentation, including timestamped videos, geolocation, and sourcing protocols.

- False claims or doctored content from citizen sources have, at times, gone viral before being corrected—raising questions about platform responsibility and media literacy.
- Credible citizen journalists often link supporting evidence, such as official documents, maps, or

datasets, to lend transparency and trustworthiness to their reports.

5. Symbiosis and Friction Between Citizen Journalism and Traditional Media

Professional newsrooms now routinely source material from citizen journalists, especially for on-the-ground visuals and real-time updates. At the same time, they provide important layers of verification, analysis, and legal protection. This dynamic represents both a collaborative relationship and a point of tension: while citizen content enhances reach and immediacy, it can also challenge the authority and narrative framing of professional outlets.

Some organisations have formalised this collaboration through crowd-sourced journalism initiatives, "call for stories" campaigns, and open submissions. Others remain cautious, citing concerns about objectivity and reliability.

- Agencies such as Reuters and the BBC maintain dedicated user-generated content (UGC) teams, responsible for verifying, licensing, and crediting material from civilians.
- Hybrid models are emerging, where citizen reporters receive mentorship or training in journalistic ethics, improving their impact and reducing professional scepticism.

6. Legal Risks, Safety Threats, and Censorship

Citizen journalists and bloggers often work without the

protections afforded to recognised media personnel. This exposes them to a range of risks—from online harassment and doxxing to imprisonment or state surveillance. In authoritarian regimes, even social media posts may be construed as subversion or sedition, leading to arrests or legal action.

Additionally, many citizen journalists and bloggers lack awareness of media law, including defamation, copyright, and source protection. Their vulnerability is exacerbated by the absence of institutional support, legal counsel, or press credentials.

- High-profile cases, such as the imprisonment of bloggers in China, Egypt, or Iran, underscore the precarious position of independent reporters.
- Training in digital security, encryption, and legal rights is increasingly essential for those operating outside formal journalistic institutions.

7. Empowerment, Voice, and the Challenge of Fragmentation

Citizen journalism and blogging contribute profoundly to media pluralism. They provide platforms for marginalised **communities**, amplify regional issues, and enable diasporas to remain connected with homeland affairs. In doing so, they often challenge dominant media narratives, introduce new vocabularies of resistance, and expand public understanding.

However, this very diversity also creates fragmentation of the public sphere. With countless voices and conflicting interpretations, audiences may find it difficult to discern truth, trustworthiness, or shared frames of reference.

- Digital inclusion has allowed Indigenous, LGBTQ+, disabled, and rural voices to flourish, making visible their experiences, stories, and knowledge systems.
- Fragmented media ecosystems, while rich in diversity, demand new forms of critical media literacy, enabling audiences to navigate competing truths and evaluate authenticity.

Citizen journalism and blogs represent two of the most influential forces reshaping modern media. By breaking down barriers to entry and decentralising information flows, they have enabled a more participatory, pluralistic, and responsive form of journalism. Their contributions are especially significant in contexts of repression, censorship, or institutional failure, where professional journalism cannot operate freely or fully.

Yet, with this empowerment comes responsibility. The proliferation of unverified or biased content, the risk of legal jeopardy, and the fragmentation of audience trust all present significant challenges. Moving forward, strengthening the role of citizen journalism and blogging within the broader media landscape will require efforts to foster ethical practices, digital literacy, legal safeguards, and respectful collaborations with traditional institutions. Only

then can these grassroots media practices fulfil their democratic potential while contributing meaningfully to an informed and equitable public sphere.

3.3. Digital News Ethics and Credibility

In the fast-paced world of digital media, ethics and integrity are more vital than ever. The instant dissemination of information by websites, blogs, & social media has increased the need to maintain truth, impartiality, and transparency. Digital publications must adhere to ethical norms to preserve public confidence and prevent the dissemination of disinformation. Credibility depends not just on accurate reporting but also on the sourcing, presentation, and rectification of inaccuracies in news.

3.3.1. Digital News Ethics

Digital News Ethics is the collection of moral principles and professional norms that regulate the production, dissemination, and consumption of news on digital platforms. As digital media becomes the predominant news source for many individuals, ethical issues like truth, fairness, privacy, and responsibility have become more complex.

The rapidity and expansiveness of internet platforms have made the preservation of journalistic integrity more difficult but essential. Ethical digital journalism allows the dissemination of reliable information to the public. It protects individual rights and maintains the integrity of media institutions.

1. Accuracy and Verification

Digital journalism necessitates rapidity, although not at the expense of veracity. Ethical digital journalism necessitates that journalists authenticate information before dissemination. Disseminating inaccurate or incomplete data undermines credibility. Journalists must use reliable sources and carefully verify information. Immediate repairs should be implemented when mistakes arise. This approach maintains public confidence and professional integrity.

2. Objectivity and Fairness

Digital journalism must provide impartial reporting devoid of personal prejudice. Journalists are required to impartially convey all perspectives of a narrative and avoid sensationalism. Ethical reporting necessitates the distinction between facts and views. It also entails providing equitable representation to all voices, particularly those who are disadvantaged. News should not cater to political or commercial agendas. It must instead help the public with integrity and neutrality.

3. Respect for Privacy

Due to the readily available personal data online, safeguarding privacy is crucial. Journalists must refrain from disclosing sensitive material without permission. Ethical reporting safeguards the identity of susceptible persons. It also guarantees that the material does not damage or exploit individuals. Privacy, even when pertaining to the

public interest, must be managed with caution. Responsible journalism reconciles the public's access to information with the preservation of human dignity.

4. Transparency and Accountability

Ethical digital media outlets must transparently disclose their editorial procedures. Journalists must reveal conflicts of interest and publicly rectify errors. Interacting with reader input and being accountable for material enhances credibility. Transparency fosters trust between the media & its audience. It allows the public to hold the media responsible. Accountable media ownership is also crucial in this setting.

5. Avoidance of Plagiarism

Plagiarism is a significant ethical violation in digital journalism. Journalists must guarantee that every material is either original or appropriately attributed. Replicating text, photos, or videos without proper credit contravenes journalistic ethics. Ethical media honours intellectual property & creative efforts. Using quotations or data requires explicit sources. This fosters honesty and deters the replication of immoral information.

6. Responsible Use of Headlines and Thumbnails

Clickbait headlines or misleading imagery might draw visitors but mislead them. Ethical journalism uses headlines that accurately represent the narrative. Exaggerated or sensational titles decrease credibility. Journalists should refrain from using emotions to enhance click rates.

3.3.2. Digital News Credibility

Digital news credibility is the degree of confidence and trustworthiness associated with online news material by the audience. The proliferation of digital media has rendered false news, disinformation, and altered material prevalent issues. Credibility ensures that the information disseminated is accurate, well-researched, and conveyed with integrity.

It is essential for preserving the reputation of news organisations and sustaining public confidence. Elements include transparency, accuracy, source reliability, and journalistic ethics together to enhance the credibility of digital journalism. In an era when anybody may disseminate information online, the establishment and preservation of credibility is essential.

1. Accuracy of Information

Factual accuracy is one of the most important components of reliable digital journalism. A trustworthy source is indicated by validated information and well-studied material. The public's confidence and the outlet's reputation are harmed by inaccurate or misleading information. Before publishing, journalists must verify the facts and quickly fix any mistakes that arise. Readers expect information and headlines to be genuine. Long-term credibility is built on consistency in truthful reporting.

2. Use of Reliable Sources

Reliable and validated sources are essential to credible

Internet news. Incorporating quotes from authorities, eyewitnesses, and specialists gives the story more legitimacy. Sources that are ambiguous or anonymous should be treated with caution and openness. Reliable source improves reader confidence and the news outlet's reputation. Verification from many sources improves factual correctness. Ethical journalism stays away from conjecture and backs up statements with facts.

3. Transparency of News Production

When news agencies are open and honest about their methods, their credibility rises. Building public trust requires being transparent about the article's author, collecting data methods, and any conflicts of interest. Honesty about edits, sponsorships, and mistakes is valued by readers. It's also crucial to clearly designate advertising and opinion reports. Accountability and professionalism are shown by transparency.

4. Editorial Independence

Freedom from economic or political constraints is crucial to the credibility of digital journalism. Editorial independence ensures that owners, sponsors, or political organisations have no control over the content. Public perception is distorted and trust is reduced by biased reporting. Fair analysis and objective information are presented by independent media. It puts the public interest first and opposes censorship. A reliable source upholds its journalistic values.

5. Consistency in Quality and Style

Maintaining all information similar in terms of language, tone, and standards increases trust and recognition. Credibility is shown by well-written content, expert editing, and appropriate organisation. Readers may get confused or misled by frequent mistakes or uneven presentation. Reporting that is consistent shows that the publication appreciates professionalism and clarity. Reader loyalty is increased by a constant editorial voice. It displays the dependability and discipline of the company.

6. Timely and Relevant Updates

Competent news sources promptly update and correct as necessary. Maintaining material up to date demonstrates a dedication to accountability and honesty. Ethical news outlets update their stories to reflect new information as it becomes available. Misinformation may result from removing information or from ignoring changes. Trust is built by honest and frequent updates. Readers depend on sources that remain current and reliable.

7. Audience Engagement and Feedback

Encouraging reader comments and responding to issues may help build trust and credibility. The publication prioritises public input, as seen by its interactive comment sections, correction forms, and social media reactions. Interacting with the audience also facilitates the rapid detection and correction of mistakes. Open communication

creates a devoted readership of knowledgeable people. A trustworthy platform constantly learns, grows, and listens.

3.4. Impact on Newsrooms and Reporters

The digital revolution has significantly changed the operations of newsrooms and the responsibilities of reporters. As conventional media transitions to digital formats, journalists are required to operate more swiftly, embrace emerging technology, and communicate with consumers on many platforms. Newsrooms have evolved to be more dynamic, increasingly depending on digital technologies for content generation, editing, and delivery. Journalists now have increased demands to provide real-time information, multimedia narratives, and social media material, all while upholding journalistic integrity.

1. Shift to Digital Platforms

Newsrooms have evolved from print-centric operations to digital-first settings. This shift necessitates that journalists adjust to digital publication platforms, search engine optimisation strategies, and multimedia narratives. Conventional deadlines have been supplanted by regular updates. Journalists must now operate in real-time and accommodate a continuous news cycle. This digital focus has concurrently diminished the capacity for comprehensive investigative articles. Speed often replaces depth.

2. Increased Workload and Multitasking

Modern journalists are anticipated to assume several responsibilities, including writing, editing, recording, and

disseminating material on social media platforms. This multitasking exacerbates their workload and heightens stress levels. Journalists are required to operate cameras, document interviews, and disseminate stories under stringent deadlines. Numerous journalists now provide material for websites, mobile applications, and social media concurrently. The distinction between the reporter and the content provider has become indistinct. This may compromise the integrity of reporting. Efficiency often supersedes contemplation.

3. Real-Time Reporting Pressure

The desire for immediate news has created a high-pressure atmosphere for journalists. They are anticipated to disseminate news rapidly, often with little opportunity for verification. Errors committed impulsively may undermine credibility. The urge to be first often overcomes the need for accuracy. Live blogging, tweeting, or real-time video updates have become standard practice.

4. Greater Audience Interaction

Digital media facilitates direct engagement between journalists and viewers through comments, shares, and messaging. This may promote accountability and transparency, but it also invites online abuse and criticism. Reporters are often evaluated based on both their professional output and their online views and presence. They need to set personal and professional limits on social media.

5. Use of Data and Analytics

Newsrooms increasingly depend on audience data to inform programming selections. Reporters are anticipated to comprehend measures such as page visits, engagement duration, and bounce rates. These data affect the selection and presentation of reports. Popularity may surpass public interest in editorial decisions. Journalists are urged to compose attention-grabbing headlines and content. This transition alters the value of news. Editorial judgement is often augmented—or substituted—by data trends.

6. Economic and Job Insecurity

The development of digital media has resulted in the loss of conventional income streams such as print advertisements. Numerous newsrooms have reduced their size or ceased operations, resulting in employment instability for reporters. Freelancing and gig-based employment have become more prevalent, sometimes accompanied by reduced compensation and reduced safeguards. Journalists encounter ambiguity over professional advancement and economic security.

7. Emphasis on Multimedia Skills

Reporters are now required to have a diverse array of technological competencies, including video editing, graphic design, podcasting, or mobile journalism. The use of multimedia enriches the narrative but requires more training and effort. Newsrooms favour adaptable reporters

capable of operating across several mediums. This transition has blurred the distinction between journalists and content makers.

Chapter Summary

This chapter examined the evolving landscape of journalism within the digital environment, highlighting the changing norms, practices, and challenges faced by news professionals and institutions. It began with an exploration of online news production and distribution, focusing on how digital platforms have enabled instantaneous publication, global reach, and audience interactivity. The chapter also discussed how digital infrastructures have altered the news cycle, prioritising speed, virality, and continuous updates over traditional editorial processes.

Attention was then directed to the rise of citizen journalism and blogging, which have democratised news creation but also raised concerns about verification, professionalism, and misinformation. While blogs and amateur reporting platforms offer diverse perspectives, they also operate outside conventional regulatory frameworks, leading to a complex redefinition of journalistic authority.

The chapter distinguished between digital news ethics and digital news credibility. It addressed issues such as fact-checking, transparency, plagiarism, and the responsible use of user data. Digital credibility was examined in terms of trust, source verification, and audience perception in an era where clickbait and disinformation are prevalent.

Finally, the impact on newsrooms and reporters was considered, with particular attention to the pressures of constant content production, audience metrics, and

platform dependency. The chapter provided a critical lens for understanding journalism's adaptation to the fast-evolving digital media ecosystem.

Assessment question

1. How has online news production transformed journalism?
2. Describe the process of online news distribution.
3. What are the advantages of citizen journalism?
4. How do blogs contribute to independent reporting?
5. Explain the ethical responsibilities of digital journalists.
6. What factors affect digital news credibility?
7. How has the role of reporters changed in digital newsrooms?
8. What tools are used for fact-checking online news?
9. How does user-generated content impact journalism?
10. Discuss the challenges of maintaining journalistic standards online.

CHAPTER 4
Social Media and Public Discourse

Learning Objective

In this chapter, readers will understand the influence of social media on shaping opinions and beliefs. They will explore its role in political dialogue and mobilisation. The chapter examines digital activism and how online platforms support social movements. Readers will gain insights into identity formation within online communities. It explores the connection between discourse and digital engagement. The chapter highlights the power of social media in public communication.

4.1. Influence on Opinion Formation

Social media has become known as a predominant influence in moulding global public opinion. With billions of daily users, sites such as Facebook, Instagram, X (Twitter), & YouTube provide immediate access to news, trends, and perspectives. These digital environments let users exchange ideas, interact with the material, and be influenced by others, sometimes in real-time.

The interactive and algorithmic characteristics of social media significantly influence individuals' perceptions of

events, belief formation, and decision development. Consequently, social media not only mirrors views but also actively influences them. Its influence on opinion formation is extensive and significant.

1. Rapid Information Spread

Social media facilitates the rapid dissemination of information to extensive audiences. A single message or video may achieve virality within minutes, shaping perspectives on contemporary events or societal problems. This swift distribution circumvents conventional media filters and immediately connects people.

Consequently, individuals often develop beliefs based on first perceptions before the verification of facts. In several instances, the rapidity of distribution supersedes the precision of the information. This may result in impulsive assessments and emotionally motivated responses.

2. Echo Chambers and Filter Bubbles

Algorithms on social media platforms tend to show users content similar to what they've previously liked or engaged with. This creates echo chambers where users are mainly exposed to opinions that match their own. Over time, this reinforcement limits exposure to alternative views and deepens polarisation.

Users may start believing their views are universally accepted. Such digital environments reduce critical thinking and increase intolerance toward differing perspectives. This significantly shapes opinion formation in a biased manner.

3. Role of Influencers and Public Figures

Influencers and popular celebrities often possess millions of followers & can affect opinions with a single post. Their perspectives on politics, health, lifestyle, and social concerns often have more significance than those of conventional specialists. Their influence becomes intimate and convincing as followers trust and identify with their persona.

This type of effect is significant, particularly among younger demographics. It disguises the distinction between opinion & endorsement.

4. Emotional Appeal and Virality

Content that provokes intense emotions—such as wrath, pleasure, or fear—is more prone to sharing and engagement. The architecture of social media promotes the prominence of emotionally charged postings in users' feeds.

Emotionally compelling messages shape people's perspectives more rapidly than rational or equitable talks. Individuals often form beliefs that are not based on facts but rather influenced by the emotional response produced by a post.

5. Peer Influence and Social Proof

Social media sites exhibit likes, shares, & comments, which indicate popularity and approval. When a message or concept receives substantial endorsement from others,

individuals are more inclined to embrace that perspective themselves.

This phenomenon is referred to as social proof, as it greatly impacts the development of opinions. Individuals are inclined to believe opinions that seem to be socially supported by peers or followers. The fear of opposing peers also deters dissent. Consequently, peer influence gradually moulds personal opinions over time.

6. Misinformation and Fake News

Misinformation and disinformation proliferate on social media owing to insufficient content control. Incorrect assertions on politics, science, and health may proliferate rapidly and influence public opinion before the issuance of corrections.

Individuals often establish convictions based on headlines and visuals without verifying sources. Once misinformation is internalised, rectification becomes challenging. This deceives substantial populations and reduces confidence in authenticated information.

4.2. Role in Political Communication

Social media has revolutionised political communication by providing a direct, rapid, and participatory platform for politicians, parties, & individuals. Platforms such as X (Twitter), Instagram, YouTube, and Facebook have replaced conventional one-way communication with interactive two-way interaction, enabling voters to reply, enquire, and mobilise.

Politicians use social media to disseminate messages, influence public opinion, and curate their image without the mediation of traditional media gatekeepers. It has evolved into a forum for political debate, action, and discussion among residents. While technology facilitates democratic engagement, it concurrently poses concerns such as disinformation and division.

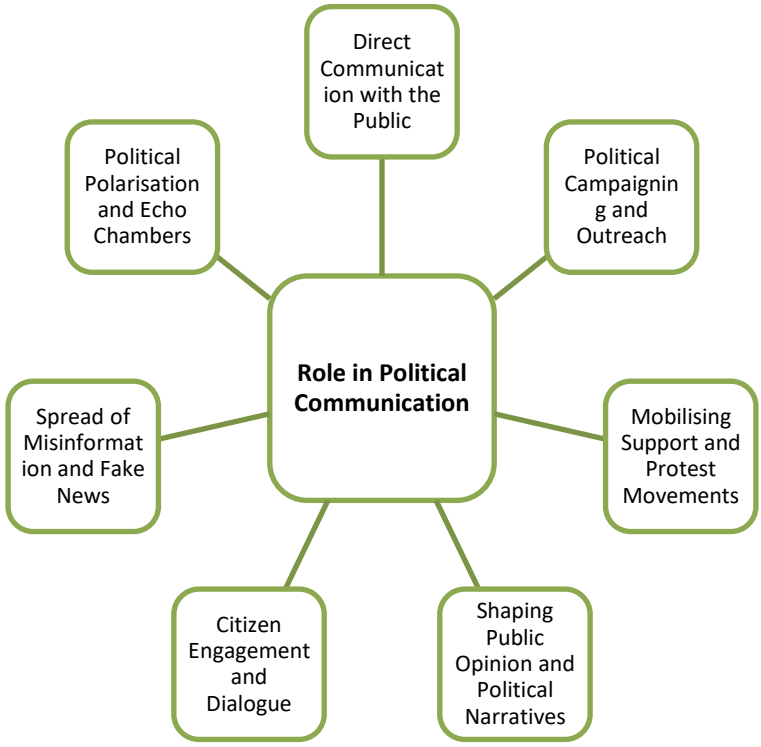


Figure 4.1 Role in political communication

1. Direct Communication with the Public

Social media enables politicians & political parties to engage directly with the public, circumventing conventional media channels. This provides them with more control over their message & image.

They can react to occurrences immediately and disseminate information in real-time. Consequently, voters get unmediated information from political leaders. It creates a feeling of closeness and approachability. This direct method improves transparency and voter participation.

2. Political Campaigning and Outreach

Social media has emerged as an essential instrument for political campaigns and voter engagement. Campaign teams use targeted advertisements, hashtags, or viral content to engage certain groups. These platforms facilitate candidates' connections with youthful, educated voters who may not interact with traditional media.

Campaigns may assess engagement by reactions, shares, and likes. This input informs marketing strategy and message. It simultaneously reduces campaign expenses and enhances reach.

3. Mobilising Support and Protest Movements

Social media is essential for organising political movements & inspiring popular support. Activists and proponents use it to organise demonstrations, disseminate information, and collect signatures.

Hashtags and viral content may rapidly focus attention on problems and injustices. This internet activism may exert pressure on authorities and influence political agendas. Grassroots efforts often gain popularity through social media. It allows ordinary individuals to engage in political transformation.

4. Shaping Public Opinion and Political Narratives

Social media influences political narratives & public opinion through continuous postings, videos, and conversations. Politicians & parties use it to advocate for their ideas, justify acts, or criticise adversaries. Emotional or contentious content often garners more attention, shaping perceptions of problems.

Influencers and digital producers also shape the story. The rapid formation of public opinion might affect elections or policy discussions. It makes social media an effective tool for political engagement.

5. Citizen Engagement and Dialogue

Social media facilitates public participation in political discourse and the unrestricted expression of opinions. Individuals may interrogate leaders, criticise policies, or engage in political discourse. This encourages democratic discourse and awareness.

Electorate members see an increased engagement in the political process. Leaders who address public issues

cultivate enhanced confidence. This participation enhances transparency and adaptability in government.

6. Spread of Misinformation and Fake News

A significant drawback of social media in political communication is the dissemination of disinformation. Fabricated news, altered films, and deceptive postings may skew public comprehension. Political parties and interest groups may use fake accounts to disseminate misinformation.

This compromises informed decision-making amongst voters. Disinformation may tarnish reputations and affect electoral results. Resolving this problem is a difficulty for both platforms and government agencies.

7. Political Polarisation and Echo Chambers

Social media often exacerbates political polarisation by presenting users with material that aligns with their preexisting ideas. Algorithms generate echo chambers that only disseminate like perspectives.

This reduces exposure to many perspectives and cultivates intolerance. Intense internet discourse and personal attacks exacerbate differences.

4.3. Digital Activism and Social Movements

Digital activism means the use of digital technology, particularly social media platforms, to advocate for, organise, and bolster political and social movements. It

empowers individuals and collectives to cultivate awareness, galvanise supporters, and sway public opinion independent of conventional media or organisations.

Contemporary social movements include hashtags, viral videos, online petitions, and live streaming to emphasise issues such as human rights, climate change, racial justice, & gender equality.

Digital activism has encouraged marginalised voices, fostered global unity, and made advocacy more accessible and rapid. Nonetheless, it encounters obstacles such as disinformation, online abuse, and digital spying.

4.3.1. Digital Activism

Digital activism, or online activism, denotes the utilisation of digital tools and technologies—particularly social media as well as internet platforms—to effectuate social, political, or environmental change. It has transformed the practice of activism in the 21st century, enabling individuals to coordinate, communicate, & mobilise from any location globally.

In contrast to conventional activism, which often depended on personal presence, demonstrations, or printed resources, digital activism excels in accessibility, rapidity, and extensive reach. Hashtags, viral videos, digital petitions, live broadcasts, and social media campaigns have become prevalent tools of activism. Digital activism empowers people and communities, boosting the voices of those often marginalised in popular discourse.

1. Forms of digital activism



Figure 4.2 Forms of digital activism

a. Hashtag Campaigns

Among the most well-known types of online activism are hashtag campaigns. Activists provide a collective voice to certain issues by grouping messages under a single hashtag.

To increase worldwide awareness and foster online solidarity, movements including #BlackLivesMatter, #MeToo, & #FridaysForFuture use hashtags. These tags facilitate rapid information dissemination, event planning, and discussion

monitoring. They make activism readily searchable and accessible. Individuals may thereby participate in broader social conversations.

b. Online Petitions

Online petitions are used to ask organisations or authorities to take action or make changes. Users may develop and sign petitions on a variety of topics, from environmental challenges to human rights, using platforms like Change.org & Avaaz. Thousands or even millions of people sign these petitions, and they often go viral.

They are often utilised to influence decision-makers and provide a clear indication of popular support. Social media sharing and promotion of petitions increase their reach. This strategy enables people to take part in campaigns throughout the world.

c. Viral Content and Memes

Memes, short films, infographics, and animations are often used by activists to convey ideas in an original and approachable manner. Viral material may clarify complicated topics for a larger audience and is very shareable.

A strong video and a well-created meme, for instance, might arouse strong emotions and start a dialogue. Such material engages viewers who may not be typical activists and spreads quickly. This approach works especially well with young people since it is amusing and visually appealing. It transforms regular social media usage into raising awareness.

d. Digital Fundraising and Crowdfunding

Fundraising through platforms such as GoFundMe, Ketto, and Milaap has become a vital strategy within digital activism. These campaigns provide essential financial support for a wide range of purposes, including social initiatives, protest coordination, legal defence, and urgent medical needs.

Activists frequently promote these fundraisers via social media to broaden their reach and attract a larger pool of donors. The immediacy and transparency of digital fundraising often lead to swift and widespread financial contributions. This method empowers individuals from any geographical location to support causes they care about. Moreover, crowdfunding fosters a sense of solidarity, as people unite around shared objectives and collective action.

e. Live streaming and Real-Time Coverage

Activists may use live recordings to document injustices, demonstrations, and events as they occur. Real-time audience interaction is possible on platforms like Facebook Live, Instagram Live, & YouTube.

By showcasing unfiltered, unfiltered realities, livestreaming promotes transparency and guards against media manipulation. Even those who are unable to make it in person are encouraged to watch and take part virtually.

2. Advantages of digital activism

The following are various advantages of digital activism:

a. Wider Reach and Accessibility

Digital activism allows messages to be disseminated to global audiences in only minutes. Participation is open to anyone with internet access, regardless of their location or background. This inclusion allows people from underprivileged or isolated groups. In contrast to conventional activism, it eliminates obstacles to participation. Consequently, more voices can be articulated and magnified.

b. Cost-Effective Mobilisation

Organising internet campaigns needs less financial resources than physical demonstrations. Activists may generate significant material with free or inexpensive methods. Social media platforms provide complementary venues for idea exchange, event organisation, and awareness promotion. This affordability enables continuous lobbying. It equalises opportunities for underfunded initiatives.

c. Real-Time Communication and Updates

Social media or messaging applications facilitate the immediate dissemination of information. Activists may promptly react to breaking news, organise demonstrations, or challenge disinformation in real-time. This speed maintains campaigns' dynamism and relevance. It also enhances collaboration among advocates. Real-time updates improve responsiveness and foster community interaction.

d. Anonymity and Safety

Digital activism provides a degree of anonymity that protects people in oppressive contexts. Activists may

express thoughts, disseminate material, or coordinate activities anonymously. This reduces the risk of harassment, surveillance, and apprehension. It ensures that fear does not suppress dissent. Anonymity facilitates safer involvement with complicated problems.

e. Creative and Engaging Content

Digital platforms facilitate the use of movies, memes, infographics, & interactive content to capture attention. These innovative methods make intricate subjects more comprehensible and intriguing. Visually engaging material enhances the likelihood of sharing and discourse. It also recruits younger, technologically adept audiences. Creativity enhances the efficacy of digital advertisements.

3. Criticisms of Digital Activism

The following are various criticisms of digital activism:

a. Slacktivism and Superficial Engagement

Digital activism is sometimes condemned for promoting "slacktivism," when individuals participate by superficial activities such as liking, sharing, or commenting, without substantial engagement. These gestures can promote the semblance of involvement, however, they rarely yield substantial real-world effects.

Activists express concern that such interaction supplants direct action, such as volunteering or demonstrating. Although visibility improves, tangible progress may be

constrained. This undermines the efficacy of genuine action. It compromises transforming movements into transient internet trends.

b. Spread of Misinformation

The rapid dissemination of internet material renders digital activism susceptible to the proliferation of unconfirmed or deceptive information. In their haste to generate awareness, activists may disseminate dramatic or false information that becomes viral.

This disinformation may undermine a movement's credibility and perplex its followers. The rectification of disseminated erroneous information is hard and takes time. This allows opponents to challenge the movement's validity. Adversaries may use disinformation strategies to undermine efforts.

c. Online Harassment and Trolling

Digital activists, especially women, LGBTQ+ folks, and minorities, often face online harassment and trolling. Hostile words, threats, and harassment can force people and compel them to retreat from activity.

This detrimental climate compromises secure and unrestricted engagement. Although several platforms try to provide moderation, many ones inadequately provide appropriate safeguards. The psychological impact of such harassment can be profound. It undermines various perspectives and reduces the inclusiveness of digital action.

d. Digital Divide and Inequality

The disparity in internet access and digital literacy engenders a digital gap that restricts participation in online activism. Individuals in rural, economically poor, or technologically challenged areas may face exclusion.

Consequently, their perspectives are often marginalised in digital efforts. This engenders a distorted perspective, whereby the most prominent viewpoints originate from affluent internet users. Activism becomes more exclusive and less representative of wider social needs. It may overlook fundamental facts.

e. Short Attention Spans and Trend Dependency

The fast evolution of digital platforms results in a rapid transition of public attention from one issue to another. Movements may attract significant attention temporarily but face challenges in maintaining prolonged participation. As trends reduce, significant causes are at risk of being overlooked before yielding tangible results. This inconsistency impedes sustained advancement and policy reform.

4.3.2. Social Movements

Social movements are coordinated efforts by collectives to attain or oppose changes in society, politics, the economy, and culture. In the digital era, these movements have progressively depended on online platforms as well as technology to organise, connect, and mobilise people worldwide.

Digital activism has revolutionised the functioning of social movements by facilitating expedited coordination, expanded involvement, and enhanced exposure. It facilitates the amplification of disadvantaged voices, promotes transnational solidarity, and allows the immediate contestation of power systems.

1. Functions of Social Media in Social Movements

The following are various functions of social media in social movements:

a. Raising Awareness and Spreading Information

Public education regarding social problems that may not get enough attention in traditional media is greatly aided by social media. Infographics, films, documents, and personal narratives are all tools used by activists to educate audiences and clarify difficult issues. Empathy, comprehension, and enthusiasm for the cause are created by this. It makes it possible to provide serious issues prompt attention. Achieving significant change often begins with awareness.

b. Mobilising Support and Coordinating Action

The real-time event, protest, and campaign planning is made possible by social media. To discuss whereabouts, timetables, and safety advice, platforms like WhatsApp, Telegram, or X (Twitter) are employed. As a result, extensive coordination is possible without depending on conventional infrastructure. Mobilisation happens more quickly, effectively, and widely. It assists in transforming virtual assistance into physical action.

c. Amplifying Marginalised Voices

Social media offers a voice to people and groups that conventional media often ignores. It gives under-represented voices a direct platform to communicate their viewpoints and experiences to the global community. Stereotypes are dispelled, prevailing narratives are challenged, and unity is created. Storytelling from the heart creates emotional bonds with the audience. Amplification makes social movements more inclusive and more represented.

d. Creating Global Solidarity and Networking

Global solidarity around common causes is promoted by social media, which links activists or supporters across boundaries. International people may benefit from one another's challenges, tactics, and achievements. Movements often inspire like activities in other areas, causing a chain reaction of events. Online communities are created that support activism over time. Solidarity increases social movements' credibility and effect.

e. Pressuring Authorities and Institutions

Viral postings, popular hashtags, and widespread online interaction may put pressure on organisations, businesses, and governments to act. When an issue receives a lot of attention, decision-makers are compelled to speak out about it. Calls for reform are made stronger by public outcry, boycotts, and online petitions. As a result, there is

responsibility and an institutional reaction. Social media is thus an effective tool for popular pressure.

2. Benefits of Digital Support in Social Movements

The following are various benefits of digital support in social movements:3

a. Global Reach and Instant Connectivity

Social movements can instantly reach a worldwide audience with the help of digital assistance. Updates, videos, and messages have the potential to spread widely and inspire unity across borders. This raises awareness and focuses attention on regional problems on a global scale. Supporters from many nations can advocate or make contributions online. The movement's power and pressure are increased by its broad reach.

b. Low-Cost and Resource-Efficient

The cost of organising campaigns or demonstrations is reduced by digital platforms. Activists don't need costly supplies or big physical places to arrange activities, disseminate information, and rally support. Access to advocacy is facilitated by low-cost or free tools. Due to its cost-effectiveness, even small organisations may have a significant influence. It encourages sustained, long-term activism.

c. Greater Inclusivity and Participation

Online activism provides opportunities for persons who are

unable to participate in physical events due to distance, disability, and safety concerns. It makes it possible for more people of all ages, genders, and socioeconomic levels to participate. Anyone with an internet connection may make a significant contribution to the cause. Inclusivity increases the democratic and representational nature of movements. It ensures that more opinions are respected and heard.

d. Real-Time Updates and Rapid Response

Activists can react rapidly to important concerns or breaking news due to social media. Real-time updates facilitate action coordination and inform supporters. At crucial times, this speed helps in gaining momentum. Rapid communication improves public participation and readiness. It maintains the movement's energy and vitality.

e. Evidence Collection and Public Documentation

Digital platforms are tools for sharing witness testimonies, documenting situations, and preserving photographic evidence. Legal assistance, media attention, or awareness-raising initiatives might all make use of this material. It prevents event manipulation and offers transparency. The movement's credibility is strengthened by digital recordings. They also act as a historical repository for contemplation in future generations.

3. Challenges Faced by Digital Social Movements

The following are various challenges faced by digital social movements:

a. Online Censorship and Content Removal

In several nations, authorities and social media sites suppress digital activity by deleting content, suspending user accounts, and blocking politically sensitive hashtags. During periods of protest or civil upheaval, platforms such as Facebook or Twitter may be limited or prohibited to restrict the dissemination of dissent.

This suppression restricts freedom of speech and reduces the prominence of crucial concerns. It discourages dissenting voices that challenge power or promote human rights. The removal of content might disrupt the communication between organisers & supporters. This significantly restricts the capacity to mobilise and distribute information.

b. Misinformation and Disinformation Campaigns

Inaccurate or deceptive information poses a significant risk to digital social movements. Adversaries, provocateurs, or political entities may intentionally disseminate misinformation, manipulated visuals, or skewed truths to confuse public understanding. Such initiatives erode faith in the cause and divert attention from important issues.

The rapid dissemination of disinformation makes containment and rectification challenging. Supporters may become fragmented, while ambivalent viewers may entirely disengage. Such attacks may undermine movements and exacerbate division.

c. Digital Surveillance and Privacy Threats

Activists involved in digital movements often face monitoring from governmental entities and major technology businesses. Each click, post, or communication is subject to tracking, storage, and eventual use as evidence. In authoritarian regimes, digital monitoring is used to identify dissidents, resulting in arrests, employment termination, and threats to personal safety.

Advanced technology may reveal the identities of anonymous users by metadata analysis. The apprehension of monitoring deters individuals from engaging in internet activism. It engenders a chilling effect that causes people to hesitate in expressing their ideas.

d. Lack of Digital Literacy

Digital activism presupposes that users possess the knowledge to access, comprehend, and use online platforms efficiently; however, this is not universally true. A significant number of individuals, particularly among rural, elderly, and economically poor demographics, possess insufficient abilities to traverse the digital realm.

They may lack the knowledge to participate in internet campaigns, use hashtags, and discern reputable sources. This engenders a disparity whereby only the technologically proficient can engage comprehensively. Consequently, perspectives of disadvantaged or offline populations may be excluded. The movement grows more exclusive and more focused on urban areas.

e. Short-Term Engagement and Trend Dependency

Social media thrives on trends or rapidly changing information, making sustained advocacy difficult. Numerous digital efforts get swift notice by viral postings or trending hashtags; yet, this enthusiasm often dissipates just as rapidly. Without continuous participation, significant policy reform or societal effect becomes challenging.

Individuals may transition to the subsequent trendy topic, neglecting significant factors. Activists must consistently strive to maintain relevance and visibility. This causes burnout and redirects energy away from long-term planning.

4.4. Online Communities and Identity

The digital revolution has transformed the ways in which humans interact, communicate, and establish their identities. A significant advancement in this change is the emergence of online communities.

These virtual organisations, often established around common interests, experiences, or objectives, provide a distinctive platform for connection that transcends geographical and cultural limitations. In these situations, people articulate their identities, pursue a sense of belonging, and examine facets of their self-concept—often with more freedom than in tangible contexts.

The interplay between online communities or identity is intricate and multifaceted, providing avenues for self-expression, personal development, and social interaction,

while also presenting issues about authenticity, exclusion, or privacy.

1. Expression of Personal Identity

People are allowed to express facets of their identities in online forums that may not be publicly acknowledged in their offline lives. Through their identities, biographies, avatars, postings, and images, people may explore their potential or artistically convey who they are. Personal identity formation and reinforcement are facilitated by this form of self-expression.

In receptive settings, digital channels often promote transparency and genuineness. Online expressiveness may be more restrained and deliberate than in-person conversations. It allows people to openly express their interests, attitudes, and ideas.

2. Formation of Group Identity

Through shared experiences, values, and interests, online communities help people develop a strong feeling of belonging. In order to identify their digital culture, members often embrace a shared vocabulary, style, or set of standards. These common characteristics strengthen a feeling of belonging and make people feel connected.

Group identity boosts group purpose and confidence. Members benefit from feeling supported and affirmed by like-minded people. Increased participation and loyalty are often the outcome of this togetherness. Community

relationships are strengthened by group identification, whether in activist spaces, support groups, or fandoms.

3. Anonymity and Safe Exploration

The ability to remain anonymous is one of the main characteristics of online communities as it allows members to explore their identities without worrying about criticism. Sensitive subjects including gender, sexuality, mental health, and personal trauma may be freely discussed. This is especially crucial for those who live in hostile or conservative situations.

Being anonymous promotes honest self-expression and emotional safety. Users may experiment with many facets of their identities at their own speed. Self-awareness and personal development are fostered by this kind of investigation.

4. Representation and Inclusivity

Online communities are more inclusive than many physical settings because they often display a diverse variety of identities and perspectives. People who belong to marginalised groups, such as members of the LGBTQ+ community, people with disabilities, or members of ethnic minorities, may find places where their experiences are valued and acknowledged. One gains self-assurance and pride in their identity as a result of this depiction.

It additionally encourages empathy and informs others. In online communities, inclusivity encourages respect for one

another and cultural understanding. When people's identities are respected, they are more likely to build lasting connections.

5. Identity Validation and Support

It may be quite gratifying to get encouraging comments and emotional support from peers in virtual forums. People get a sense of being seen, heard, and valued, which increases confidence and self-worth. User experiences may be shared, assistance can be sought, and difficulties can be overcome in supportive settings.

This type of affirmation helps in the development of a solid and sound identity. It gives people comfort in knowing they are not the only ones going through difficult times. Community members' support may inspire resilience and self-improvement. Trust and meaningful connections are promoted by identity support.

6. Multiple Identities Across Platforms

People may maintain many versions of themselves on different platforms thanks to the digital world. For instance, a person may display a creative or anonymous identity on Reddit, a professional one on LinkedIn, and a social one on Facebook. People may exhibit various aspects of their personalities depending on the situation because of this flexibility.

Additionally, it allows users to modify their content and communication style based on the target audience and goal.

Taking care of many identities may be powerful and a reflection of the complexity of actual life. It also requires a certain amount of digital knowledge and literacy, however. Keeping these identities in balance enables people to move through different social settings. It demonstrates the complexity of contemporary identity.

Chapter Summary

This chapter explored the multifaceted role of social media in shaping public discourse and democratic engagement. It examined how platforms such as Twitter, Facebook, and Instagram have become arenas for the expression of opinions, political debate, and the mobilisation of public sentiment. The chapter began by analysing the influence of social media on opinion formation, noting how algorithms, echo chambers, and micro-targeted content can reinforce pre-existing beliefs and polarise audiences.

The role of digital media in political communication was then assessed. Social media has enabled politicians, parties, and activists to bypass traditional gatekeepers and engage directly with constituents. While this promotes immediacy and outreach, it also fosters the spread of propaganda, misinformation, and performative engagement.

A dual focus on digital activism and social movements followed. The chapter differentiated between hashtag activism and sustained online organising, noting how digital platforms have facilitated global movements such as #MeToo and Black Lives Matter. However, challenges such as censorship, surveillance, and digital burnout were also highlighted.

The chapter concluded with an analysis of online communities and identity formation. Social media fosters shared identities through groups and forums but also invites issues of performativity, exclusion, and online

harassment. Overall, the chapter presented a critical understanding of how social media mediates civic engagement and public debate.

Assessment question

1. How does social media influence opinion formation?
2. What is the impact of digital media on political communication?
3. Define digital activism with examples.
4. How do social movements utilise digital platforms?
5. What are the benefits and risks of online political discussions?
6. How do online communities shape identity?
7. Discuss the role of hashtags in digital activism.
8. What is the significance of viral content in public discourse?
9. How can social media encourage civic participation?
10. In what ways does digital discourse differ from traditional public forums?

CHAPTER 5 Content Creation and Digital Marketing

Learning Objective

In this chapter, readers will learn about the growing impact of user-generated content in the digital world. They will explore the rise of influencer culture and brand promotion online. The chapter introduces techniques for digital storytelling. It also explains how analytics inform content strategies. Readers will examine how to engage audiences effectively. This chapter connects creativity with marketing intelligence.

5.1. User-Generated Content

The proliferation of digital platforms has significantly redefined the traditional boundaries between producers and consumers of media. Among the most transformative developments in this space is the rise of User-Generated Content (UGC)—any form of content, such as text, images, videos, reviews, or social media posts, that is created by users rather than by official brands, professionals, or media institutions.

In the realm of content creation and digital marketing, UGC plays a pivotal role in reshaping consumer engagement,

brand strategy, and online authenticity. It fosters participatory cultures, allows audiences to co-create brand narratives, and provides marketers with cost-effective and credible promotional materials. UGC is particularly powerful because it combines organic audience interest with the viral potential of digital distribution. In an environment saturated with commercial messaging, content generated by peers is often perceived as more relatable, trustworthy, and persuasive.

The following sections examine UGC from multiple dimensions—its forms, strategic functions, advantages, challenges, and broader impact on marketing and digital content ecosystems.

1. Defining and Categorising User-Generated Content

User-generated content refers to any form of unpaid, unsponsored content voluntarily created and shared by individuals online. It encompasses a diverse range of formats including, but not limited to, written reviews, social media posts, unboxing videos, product tutorials, memes, testimonials, blogs, and forum discussions. UGC can be spontaneous or prompted through brand-led campaigns encouraging user participation.

While some content is created independently of brand initiatives, other forms are generated in response to hashtag challenges, contests, or requests for feedback. The participatory culture enabled by digital platforms blurs the line between creators and consumers, making UGC a rich, multifaceted element of the digital marketing landscape.

- **Informational UGC**: Includes reviews, tutorials, and testimonials that assist other users in decision-making.

- **Creative UGC**: Includes fan art, parody videos, personalised hashtags, and remix culture.

- **Collaborative UGC**: Involves users in co-creating campaigns or submitting content for brand contests or features.

2. Strategic Role of UGC in Digital Marketing Campaigns

UGC has emerged as a powerful marketing tool that complements traditional brand messaging with authentic user experiences. By integrating UGC into digital campaigns, brands benefit from enhanced credibility, wider reach, and greater audience trust. Social proof—the idea that people are more likely to engage with a product if others have done so—drives the effectiveness of UGC.

Many companies actively solicit UGC by creating branded hashtags, running photo contests, or featuring user posts on official channels. This encourages users to become brand ambassadors, voluntarily promoting products through personal narratives.

- Brands like Coca-Cola's "Share a Coke" campaign and Apple's "Shot on iPhone" initiative invited users to showcase their own experiences, significantly boosting engagement and brand loyalty.

- User reviews and ratings on platforms like Amazon, TripAdvisor, or Zomato serve not only as decision-making aids for consumers but also as valuable feedback mechanisms for businesses.

3. UGC as a Cost-Effective and Scalable Content Resource

Creating fresh, high-quality content at scale can be resource-intensive for businesses. UGC offers a scalable solution by transforming customers into a decentralised content production force. Since the content is created voluntarily, it reduces marketing costs while providing a continuous stream of authentic materials.

Moreover, UGC is inherently diverse and culturally varied, reflecting a wide array of user experiences and perspectives that brand-created content may not capture. This makes it particularly effective for global campaigns or brands targeting diverse consumer segments.

- Start-ups and small businesses often rely on UGC due to budget limitations, using customer photos or testimonials as promotional assets.
- Large brands increasingly curate UGC galleries on their websites or social platforms, refreshing their content without substantial investment in creative production.

4. Enhancing Engagement and Fostering Community through UGC

UGC fosters deeper brand-audience engagement by

creating a sense of inclusion and co-ownership. When users see their content acknowledged, reposted, or featured by a brand, it enhances their emotional connection and loyalty. This interaction helps create brand communities where users share stories, provide feedback, and build social capital.

In this context, UGC becomes more than a marketing tactic—it serves as a relational tool that strengthens community bonds and fosters two-way communication.

- Brands that feature user content on their Instagram stories or homepages generate significantly higher user retention and interaction rates.
- Communities formed around shared content, such as travel photography hashtags or fitness challenges, create long-term engagement rather than one-time transactions.

5. Risks, Challenges, and Ethical Considerations

While UGC offers numerous benefits, it also presents several challenges. Content quality can be inconsistent, and not all user-generated material aligns with brand values. There is also the potential for inappropriate, offensive, or misleading content to be associated with the brand if not properly moderated. Legal and ethical issues around consent, intellectual property, and privacy must also be carefully managed. Using UGC without explicit permission, or failing to credit creators appropriately, can result in reputational damage and legal consequences.

- Brands must develop clear UGC usage policies, outlining guidelines for submission, consent, and content standards.

- Content moderation systems, both automated and human-driven, are essential to ensure that brand platforms remain respectful, inclusive, and aligned with the company ethos.

6. The Influence of UGC on Consumer Behaviour and Purchase Decisions

User-generated content significantly influences consumer trust and buying decisions. Studies show that users are more likely to purchase products that have been reviewed or recommended by peers, particularly when visual content such as photos or video demonstrations is involved.

This influence is especially pronounced among younger demographics, such as Millennials and Gen Z, who often rely on social media and peer opinion over traditional advertising.

- UGC serves as a form of digital word-of-mouth, increasing the perceived reliability of products and services.

- Visual UGC on product pages, such as customer-uploaded images or videos, can increase conversion rates by helping potential buyers visualise real-life use.

5.2. Influencer Culture and Branding

In the digital age, **influencer culture** has emerged as a dominant force in shaping branding strategies, consumer behaviour, and online communication norms. Rooted in the democratisation of content creation afforded by platforms such as Instagram, YouTube, TikTok, and Twitch, influencer culture refers to the rise of individuals who build loyal followings by consistently producing content, engaging with audiences, and crafting distinctive personal narratives. These influencers function simultaneously as cultural intermediaries, trendsetters, and brand ambassadors. Their power lies in their perceived authenticity and relational proximity to followers, which gives them a unique persuasive capacity often unmatched by traditional celebrities or corporate campaigns.

As the boundaries between personal identity and commercial promotion increasingly blur, influencers have come to represent the fusion of the self as both a subject and a brand. They are at once producers and products—curating lifestyles, aesthetics, and values that are meticulously packaged and strategically communicated.

In this ecosystem, branding is no longer confined to corporations; it is embedded in how individuals represent themselves online. The following sections explore how influencer culture shapes branding, marketing, and digital identities through diverse dimensions—economic, technological, cultural, and ethical.

1. Historical Emergence and Growth of Influencer Culture

Influencer culture evolved from the early 2000s with the rise of personal blogs and platforms such as YouTube, where individuals began documenting aspects of their lives or sharing expertise. Initially perceived as a form of digital hobbyism, these activities gradually amassed large audiences.

As follower numbers grew, so did the recognition of their commercial potential. By the mid-2010s, influencers had become central figures in digital marketing, offering targeted access to niche communities and high levels of user engagement.

Their influence was further amplified by platform-specific affordances such as Instagram's visual-centric interface, TikTok's viral algorithm, and YouTube's monetisation structures. These tools enabled ordinary users to achieve fame and commercial viability without relying on traditional media or celebrity culture. This shift represented a decentralisation of cultural authority, as power moved from institutional gatekeepers to networked individuals.

- The shift from celebrity endorsement to influencer marketing reflects a broader cultural preference for relatability over aspirational distance.
- Social media's participatory design allows influencers to build loyal communities by interacting directly with audiences in real-time.

2. Influencers as Personal Brands: Identity, Narrative, and Visual Aesthetics

Influencers exemplify the concept of the self-as-brand. This involves the continuous construction and performance of a carefully crafted identity that aligns with particular values, interests, or aesthetic sensibilities. Whether it is the minimalist wellness coach, the high-fashion traveller, or the tech-savvy gamer, influencers embody narrative coherence—presenting a lifestyle that is visually and thematically consistent across posts, videos, and collaborations.

The branding here is both visual and ideological. From colour palettes and typography to tone of voice and storytelling choices, every aspect of an influencer's content is part of a broader branding effort. Importantly, these identities are shaped not only by personal interest but also by audience expectations and algorithmic pressures.

- Personal branding strategies often include media kits, curated feeds, signature hashtags, and branded slogans, all designed to signal professionalism and coherence to potential sponsors.
- Visual consistency and narrative authenticity are key to cultivating trust, which in turn fuels audience retention and brand deals.

3. Influencer Marketing and the Transformation of Brand Strategy

Businesses increasingly incorporate influencer marketing into their overall brand strategy due to its effectiveness in

reaching fragmented and sceptical audiences. Traditional advertising—characterised by polished production and mass appeal—often lacks the intimacy and credibility that influencers offer. Influencer marketing provides brands with the opportunity to embed their message within the influencer's personal story, thereby enhancing perceived relevance and trustworthiness.

Influencer partnerships vary in form and duration, from single sponsored posts to long-term ambassador roles. Some collaborations go further, involving co-branded product lines or exclusive launches. The key appeal for marketers lies in peer-to-peer recommendation, which is considered more persuasive than brand-originated messaging.

- Nano-influencers (1,000–10,000 followers) often generate higher engagement within localised or niche communities and are more affordable for small businesses.
- Influencer-generated content often outperforms branded content in terms of reach and engagement, particularly when integrated seamlessly into personal narratives.

4. Monetisation Models and the Influencer Economy

Influencers monetise their platforms through multiple revenue streams, including sponsored content, affiliate marketing, brand ambassadorships, merchandise sales, premium content subscriptions (e.g. Patreon), and even NFTs.

This diversification enables influencers to operate as small-scale entrepreneurs or "contentpreneurs," often managing their own teams, contracts, and digital infrastructure.

As influencers grow, they may engage management agencies to negotiate deals and shape brand positioning. However, monetisation also introduces pressures to maintain engagement, grow followers, and remain consistently visible—all of which can lead to creative fatigue or ethical compromises.

- Brand partnerships are often determined by engagement metrics such as likes, shares, impressions, and audience demographics.
- Platforms like YouTube and TikTok offer ad-revenue sharing, allowing influencers to earn directly from content performance, though income can fluctuate significantly.

5. Ethical Dilemmas and Regulatory Responses

The commercialisation of influencer content has sparked concerns about transparency, authenticity, and consumer manipulation. Many influencers do not clearly disclose when a post is sponsored, which can mislead followers into believing promotional content is organic. This has led to increased scrutiny from regulatory bodies such as the Advertising Standards Authority (ASA) in the UK and the Federal Trade Commission (FTC) in the United States.

Beyond disclosure, influencer culture has been criticised for promoting unrealistic lifestyles, excessive consumerism,

and even disinformation. Ethical influencer practice requires not only legal compliance but also responsibility toward followers—especially younger, impressionable audiences.

- The UK's ASA mandates that any paid content be clearly marked with "#ad" or "Paid Partnership", though enforcement remains variable.
- Emerging codes of ethics in influencer marketing include commitments to transparency, truthfulness, inclusivity, and mental well-being.

6. Algorithmic Influence and the Performance of Relatability

Platform algorithms significantly shape influencer visibility and branding practices. Content is rewarded or penalised based on engagement signals such as likes, watch time, comments, and shares. Influencers often adapt their style, format, and content rhythm to fit algorithmic trends, which can lead to homogenisation or formulaic presentation.

At the same time, influencers must maintain a performance of relatability—appearing approachable, honest, and "just like us"—even when managing commercial deals and maintaining curated personas. This tension between performance and authenticity lies at the heart of influencer branding.

- Trending content formats (e.g., "get ready with me", challenges, or day-in-the-life vlogs) are often dictated by algorithmic reward structures.

- Algorithmic suppression, or "shadow banning", disproportionately affects marginalised influencers and shapes which voices are elevated or hidden in public discourse.

7. Cultural Influence and Global Dissemination of Influencer Branding

Influencer culture is not just a marketing phenomenon but a cultural force that shapes aesthetics, values, identities, and social norms. Influencers act as global taste-makers, spreading fashion trends, linguistic styles, body ideals, and moral discourses across borders. The global reach of platforms means that influencers in one part of the world can influence consumer behaviour and cultural practices in another.

In non-Western contexts, local influencers often reinterpret global branding logic in culturally specific ways, leading to hybridised forms of influencer branding that reflect both globalisation and local tradition.

- Indian, Korean, and Brazilian influencers, for example, often merge traditional symbols with modern branding, creating culturally resonant and globally marketable identities.
- Influencers are increasingly involved in social advocacy, championing causes such as climate action, mental health awareness, and LGBTQ+ rights—thereby broadening their role from marketers to cultural leaders.

5.3. Digital Storytelling Techniques

Digital storytelling is the practice of using digital technologies and multimedia components to narrate a story, communicate a message, or captivate an audience. It integrates conventional narrative techniques with technologies like video, imagery, audio, animation, & interactive media. Used in education, marketing, journalism, & social media, it enables producers to convey narratives in immersive, innovative, and captivating manners. These methods make complex concepts comprehensible and remembered. Effective digital storytelling engages attention, generates emotion, and encourages action in the digital era.

1. Visual Imagery and Design

Visual components, including photos, colours, typefaces, and layouts, are essential for creating compelling digital narratives. They immediately establish the tone and ambience, often communicating meaning more effectively than the written word. Powerful graphics may elicit emotions, capture attention, and direct viewers' focus on the information.

Through pictures, infographics, and animations, they facilitate the comprehension of abstract topics. Aesthetic consistency strengthens brand or message identification. The considerate design also improves readability & viewer comfort.

2. Narrative Structure

A well-organised narrative ensures continuity and

coherence, leading listeners through a distinct beginning, middle, and conclusion. This conventional narrative structure includes an exposition to establish the context, a conflict and challenge to generate intrigue, and a resolution to provide a meaningful conclusion. Structure enhances emotional pace and facilitates the efficient organisation of thoughts.

In its absence, the narrative may seem disjointed or uninspiring. Digital storytelling is enhanced by the use of subplots, suspense, or unexpected elements to maintain engagement. A robust framework makes complex communications comprehensible.

3. Multimedia Integration

The integration of video, music, text, images, and animations enriches the narrative experience by stimulating several senses. This combination of media forms caters to many learning styles—visual, aural, or kinaesthetic. Videos depict action, voiceovers provide emotion, and music establishes the ambience.

Visuals and words provide precision and intensity. Multimedia components must be meticulously selected to ensure that each contributes meaningfully to the story. Excessive media may distract rather than educate. When equilibrated, they provide a profound, immersive atmosphere that maintains audience engagement.

4. Personalisation and Authentic Voice

Digital narratives characterised by a personal tone and

genuine voice profoundly connect with viewers. Storytellers who convey authentic experiences, feelings, or perspectives foster relatability and trust. First-person narratives immerse users in the storyteller's realm, developing closeness and authenticity.

This authenticity differentiates actual narratives from fabricated information. It reveals the human element behind the message, enhancing its memorability. A uniform voice also reinforces brand or creative identification. The voice establishes the emotional tone, whether it is amusing, uplifting, or vulnerable.

5. Interactive Elements

Interactivity converts the audience from passive observers into engaged participants. Elements such as interactive buttons, surveys, assessments, and sliders promote inquiry and informed decision-making. This involvement enhances user happiness and prolongs interaction with the information.

Interactive storytelling may evolve according to user input, resulting in individualised experiences. The information becomes more remembered, particularly when users see their contributions as significant. These attributes facilitate learning, feedback, & emotional engagement.

6. Emotional Appeal

Evoking emotion is one of the most potent instruments in digital storytelling. Emotions such as joy, grief, rage, or inspiration establish a profound connection between the

narrative and the audience. It fosters empathy, contemplation, and initiative. Components such as music, tempo, personal narratives, or pictures may enhance emotional resonance.

Emotionally charged narratives are more prone to dissemination and retention. They also have a greater impact on attitudes and actions than only factual material.

7. Platform Optimisation

Each digital platform comes with its own audience behaviour, technical limits, and content preferences. Successful digital storytelling adapts its format to suit each platform—short-form for TikTok, visual-heavy for Instagram, long-form for YouTube or blogs. Platform optimisation ensures the story reaches the right audience in the most effective way.

It includes adjusting the length, tone, design, and posting time. A one-size-fits-all approach can reduce engagement and reach. Tailoring stories per platform enhances visibility and viewer response.

5.4. Analytics and Audience Engagement

In the digital communication ecosystem, **analytics and audience engagement** have become indispensable to understanding, refining, and sustaining the success of digital content and campaigns. The digitisation of media has enabled unprecedented access to behavioural data, transforming how content creators, marketers, influencers,

and businesses make decisions. Analytics refers to the collection, measurement, and interpretation of user data in order to evaluate the effectiveness of digital initiatives. It serves as both a diagnostic and predictive tool—allowing creators not only to assess past performance but also to anticipate future trends and needs.

Audience engagement, in contrast, refers to the depth and quality of interaction that users exhibit when encountering digital content. It is not merely about passive viewership but about how users respond, participate, and form relationships with content over time. Engagement may take various forms, including likes, shares, comments, click-throughs, watch duration, and even user-generated responses. In combination, analytics and engagement provide a comprehensive picture of how content functions in the digital sphere—what draws attention, sustains interest, fosters loyalty, and converts attention into action. The following sections explore how these elements work together to shape effective communication strategies in digital environments.

1. The Shift from Intuitive to Data-Driven Strategy in Digital Environments

Historically, media production and marketing decisions were often guided by intuition, experience, or audience sampling techniques. However, the digital revolution has ushered in a new paradigm where decisions are increasingly grounded in measurable data. Data-driven strategy enables precision in content planning, campaign execution,

and audience targeting. Through real-time insights, organisations and individuals can adapt their digital outputs in response to user preferences, engagement patterns, and platform-specific trends.

Rather than relying on assumptions about what audiences want, creators now use empirical evidence to shape every aspect of the content journey—from topic selection to publication timing and format optimisation.

- Real-time dashboards allow digital managers to track user responses immediately after posting content, enabling quick course correction or reinforcement.
- Predictive analytics can forecast content performance or user churn by recognising behavioural patterns in user engagement data.

2. Understanding Core Engagement Metrics

Engagement metrics provide essential indicators of how audiences interact with digital content. These metrics are often categorised according to visibility, interaction, and conversion. When used collectively, they offer nuanced insight into the user experience and the content's effectiveness in achieving communication goals.

Key engagement metrics include

- **Reach and Impressions**: Reach refers to the number of unique users who see content, while impressions count the total number of times the content is

displayed, including repeated views. These metrics help gauge visibility.

- **Likes, Shares, and Comments**: These interactive metrics reflect the audience's emotional and cognitive response. While likes indicate passive approval, shares signify content resonance, and comments reflect deeper engagement.
- **Click-Through Rate (CTR)**: Calculated by dividing the number of clicks on a hyperlink by the number of impressions, CTR reflects how compelling the call-to-action or link is to users.
- **Watch Time and Completion Rates**: Particularly important in video content, these show how long users stay engaged and whether they consume content to the end.
- **Bounce Rate and Exit Rate**: These metrics reflect whether users engage beyond the landing page or leave quickly, often indicating whether content aligns with user expectations.

3. Platform-Specific Analytics Tools and Their Utility

Each major platform offers its own suite of analytics tools tailored to content performance on that platform. Understanding these tools is crucial for tailoring content strategies to platform-specific user behaviours.

- Facebook Insights provides data on reach, post engagement, follower demographics, and page

views, helping creators optimise posts and track growth.

- Instagram Insights offers breakdowns on story views, follower activity, post saves, and interaction metrics, informing decisions on posting times and visual aesthetics.
- YouTube Analytics includes watch time, subscriber change, audience retention graphs, and traffic sources, enabling creators to refine video pacing and SEO strategies.
- Google Analytics tracks website traffic, user pathways, session durations, and conversion goals, making it essential for digital campaigns with web-based landing points.

These platform tools enable highly granular tracking of audience behaviour, revealing not only what users engage with but when, how often, and on which devices.

4. Enhancing Engagement Through Data-Informed Content Strategy

Analytics does not merely measure engagement—it shapes it. Data can inform when to post, how to format content, what language to use, and which visuals resonate most with specific segments of an audience. Over time, a data-informed content strategy allows creators and marketers to test hypotheses, monitor effectiveness, and iterate accordingly.

This iterative, feedback-driven model ensures that content remains relevant, timely, and optimally positioned within the attention economy.

- Content calendars informed by historical engagement patterns help determine the ideal times and days to publish for maximum visibility.
- A/B testing (or split testing) enables content producers to trial different versions of the same asset—such as headlines, thumbnails, or copy—to determine which version performs better before full deployment.

5. Personalisation and Segmentation for Deeper Audience Connection

A major advantage of digital analytics is the capacity to personalise content. By segmenting audiences based on demographics, location, behaviour, or preferences, creators can tailor content to different groups for greater resonance. Personalised experiences significantly improve engagement, as audiences are more likely to respond positively to content that feels directly relevant to their needs or identity.

This segmentation is essential not only for marketing but also for educational, political, and social messaging campaigns that seek to influence thought and behaviour.

- Email marketing platforms, such as Mailchimp, use analytics to segment audiences and customise message content, tone, and timing.

- Dynamic content personalisation on websites enables real-time adaptation of homepage visuals or article recommendations based on user history.

6. Predictive Analytics and Behavioural Targeting

Beyond descriptive analytics, predictive analytics uses machine learning algorithms to forecast user behaviour, enabling proactive content delivery and audience targeting. Predictive systems evaluate prior data patterns to determine the likelihood of future actions—such as making a purchase, subscribing to a newsletter, or abandoning a platform.

Behavioural targeting draws on this predictive logic to deliver tailored ads or content to users most likely to engage, converting potential interest into concrete outcomes.

- Retargeting campaigns, which use cookies and behaviour tracking to deliver follow-up ads to users who previously engaged but did not convert, are a direct result of behavioural data modelling.
- Lookalike audience features, offered by platforms like Meta and LinkedIn, use existing audience data to identify new users with similar behavioural profiles for targeted expansion.

7. Challenges and Ethical Considerations in Engagement Analytics

While analytics offers powerful tools for enhancing audience engagement, it also raises ethical concerns. Issues

of user privacy, consent, data ownership, and algorithmic bias must be carefully considered. There is a growing demand for transparency in how user data is collected and used, particularly following global data scandals and the introduction of regulatory frameworks such as the General Data Protection Regulation (GDPR) in the EU.

Furthermore, an overreliance on engagement metrics can distort content priorities—favouring virality over value, sensationalism over accuracy, or popularity over substance. Ethical digital practice thus requires a balance between data utility and user rights.

- Ethical frameworks in digital analytics increasingly emphasise informed consent, data minimisation, and user opt-outs.
- Platform accountability is becoming a legal requirement, as governments push for audits of algorithmic decision-making and greater user control over personal data.

Chapter Summary

This chapter provided a comprehensive overview of content creation practices and their intersection with digital marketing strategies. It began by discussing the rise of user-generated content (UGC), which has blurred the boundaries between producers and consumers.Platforms like YouTube, TikTok, and Instagram enable ordinary users to become content creators, influencing trends, shaping discourse, and monetising their outputs. The chapter then explored the emergence of influencer culture, where individuals with niche or mass followings serve as intermediaries between brands and audiences. Influencers operate as both cultural and commercial actors, engaging in branding, sponsorships, and storytelling that appeal to targeted demographics. Their authenticity, visibility, and perceived relatability make them valuable assets in contemporary marketing. Digital storytelling techniques were also addressed, with an emphasis on narrative design, emotional engagement, and cross-platform integration. Stories are now crafted not only for entertainment but also to foster community, build brand identity, and drive social engagement. Finally, the chapter examined analytics and audience engagement tools. Metrics such as likes, views, shares, click-through rates, and sentiment analysis are used to evaluate content performance and refine strategies. These data-driven approaches empower marketers to personalise content and optimise outreach, though they also raise ethical questions around manipulation and privacy.

Assessment question

1. What is user-generated content and why is it important?
2. How does influencer culture shape branding strategies?
3. What are the key elements of digital storytelling?
4. How is branding achieved through digital platforms?
5. What role do analytics play in content planning?
6. How can audience engagement be measured digitally?
7. Explain the relationship between content quality and user interaction.
8. What are the risks associated with influencer marketing?
9. How has content creation changed with digital tools?
10. Describe the impact of social media on brand loyalty.

CHAPTER 6 Media Regulation and Policy

Learning Objective

In this chapter, readers will explore the legal structures governing digital media use. They will understand content moderation practices and the accountability of platforms. The chapter addresses censorship and freedom of expression. It highlights how laws shape what can be published or removed. Readers will also examine the role of regulatory bodies in maintaining digital standards. This chapter links law, ethics, and media control.

6.1. Legal Framework for Digital Media

The legal framework for digital media defines the laws, regulations, and standards that regulate the development, distribution, or consumption of digital information. As digital platforms proliferate, legislation is required to establish accountability, safeguard user rights, and uphold ethical standards.

These frameworks tackle concerns like copyright, data privacy, cybercrime, defamation, and media control. They facilitate the equilibrium between freedom of speech and the need to prevent damage or misuse. In a changing digital

landscape, strong rules and regulations are crucial for ethical media conduct.

1. Regulatory Principles Governing Digital Media

The following are various regulatory principles governing digital media:

a. Freedom of Expression with Responsibility

In order for people and organisations to exchange thoughts, perspectives, and information, freedom of speech is an essential element of digital media. The privilege must be used sensibly, however, as it is not unlimited. Legal restrictions may apply to content that encourages violence, hate speech, or inaccurate data. Regulatory frameworks ensure that freedom does not harm morality, public order, or other people's rights. Digital platforms need to strike a balance between moderated ethical material and free discussion.

b. Protection of Intellectual Property Rights

Integrating creative material like music, films, essays, and photos is common in digital media. Intellectual property rules are enforced to protect creators' rights and prevent illegal use. These consist of patent, trademark, and copyright rights. Digital platforms recognise and uphold ownership rights due to regulatory norms. Penalties or material removal may follow violations.

c. Privacy and Data Protection

Digital media must abide by privacy laws because of the

massive volumes of user data that are gathered online. The collection, storage, and use of personal data are governed by laws such as the General Data Protection Regulation (GDPR) in Europe. Regulatory principles demand accountability, transparency, and consent from platforms and content producers. Users need to be aware of their privacy options and data rights. These steps ensure moral digital media activities and build confidence.

d. Prevention of Harmful and Illegal Content

Regulatory frameworks seek to inhibit the dissemination of material that is unlawful, detrimental, or unsuitable. This includes child exploitation material, deception, terrorist propaganda, and encouragement to violence. Legislation allows governments and regulatory authorities to monitor, identify, or remove such material. Platforms are often obligated to provide systems for reporting and solving problems. These restrictions safeguard susceptible groups & maintain social order.

e. Ensuring Accessibility and Non-Discrimination

Digital media legislation provides equitable access to data and services for all users, irrespective of physical ability, geographic location, or socioeconomic background. Principles of fairness and equity inform platform design, content dissemination, and user experience. This includes offering different media, subtitles, or language alternatives for varied audiences. Regulatory initiatives ensure no group is marginalised or unjustly targeted within the digital landscape.

2. Laws and Policies Impacting Digital Content

Following are various laws and policies impacting digital content:

a. Copyright and Intellectual Property Laws

Copyright rules safeguard creative works in the digital realm, including music, books, photographs, and videos. The exclusive rights of content producers to reproduce, distribute, and change their work are protected by these laws.

Punishment or legal action may result from infractions like piracy or unauthorised sharing. Policies often mandate that platforms put in place procedures for identifying material, such as digital rights management or takedown notifications. These rules promote innovation and safeguard the income of inventors.

b. Data Protection and Privacy Laws

Digital platforms' collection, storage, and use of personal data are governed by laws such as the Information Technology Act in India and the General Data Protection Regulation (GDPR) in Europe. These regulations require platforms to function with consent, accountability, and transparency, and they provide users the freedom to govern their data.

The consequences of any neglect, unauthorised access, or data breach may be severe. These rules are essential for preserving moral online conduct and gaining the confidence of users.

c. Cybercrime and Information Technology Laws

Digital offences including identity theft, cyberbullying, hacking, and online fraud are covered under cyber laws. These laws specify what constitutes a crime and what users' and service providers' obligations are.

For instance, India's Information Technology Act, 2000, offers a legislative framework to address cyber threats. Content that encourages or facilitates cybercrime is either prohibited or subject to regulations. Platforms must assist authorities with their enquiries.

d. Defamation and Content Liability Laws

Defamation laws protect people and organisations from inaccurate or harmful material that is posted online. Digital platforms, bloggers, and content producers must refrain from disseminating unsubstantiated or damaging claims. Many nations have laws that acknowledge both civil and criminal defamation. Platform liability, or whether a platform may be held accountable for user-generated material, is also determined by policies.

Conditional protection is granted under safe harbour rules, such as those included in Section 230 of the U.S. Communications Decency Act, provided that platforms adhere to moderation criteria.

e. Content Regulation and Broadcasting Codes

Standards for digital material, particularly in the areas of journalism, entertainment, and advertising, are established

by regulating agencies in several nations. Age ratings, disclaimers, and content warnings for sensitive content may be mandated by policies.

For instance, guidelines for online publishers & intermediaries are outlined in India's Digital Media Ethics Code. Broadcasting codes ensure that information is truthful, and civil, and doesn't encourage violence or hate. These rules protect digital media's impartiality, quality, and public interest. Platform bans, penalties, or content removal can arise from non-compliance.

6.2. Content Moderation and Platform Responsibility

As digital platforms increasingly mediate public discourse, social interaction, and information exchange, the regulation of online content has become a critical concern in both policy and academic circles. Once viewed merely as neutral intermediaries, platforms such as Facebook, YouTube, Instagram, Reddit, and X (formerly Twitter) now operate as powerful gatekeepers of digital speech. Their reach extends across borders and cultures, giving them unprecedented influence over what people see, say and believe. In this context, content moderation—the practice of managing user-generated content to uphold community standards and legal compliance—has evolved into a central pillar of platform governance. It includes everything from removing offensive posts and suspending abusive users to labelling misinformation and curating search results.

Yet content moderation is not merely a technical or operational task; it is deeply political and ethical. It intersects with issues such as freedom of expression, algorithmic bias, digital rights, state censorship, and corporate responsibility. While platforms claim to uphold principles of free speech and open dialogue, they also routinely remove or demote content based on opaque criteria, automated decisions, or economic interests. This raises serious concerns about accountability, transparency, and the potential overreach of private actors in shaping public narratives.

Governments, civil society groups, and international organisations have thus begun to call for clearer regulations, more inclusive governance models, and greater protections for users. As this landscape continues to evolve, the dual themes of content moderation and platform responsibility remain foundational to understanding the future of digital communication.

1. The Scope and Purpose of Content Moderation

Content moderation refers to the structured processes by which digital platforms review, filter, and manage user-generated material to ensure it aligns with their terms of service, local laws, and ethical norms. It serves multiple purposes: protecting users from harmful content (such as hate speech, violent extremism, or misinformation), maintaining community integrity, and preventing legal liability. Moderation can occur at various stages—before content is posted (pre-moderation), after publication (post-

moderation), or continuously (ongoing moderation using algorithms).

Different types of content that are typically moderated include:

- Explicit violence and incitement to terrorism
- Harassment, cyberbullying, and hate speech
- Misinformation and disinformation campaigns
- Pornography, child exploitation, and illegal activities

The scope of moderation has widened as platforms are increasingly expected to prevent not just illegal content but also "legal but harmful" material, such as body-shaming or politically misleading posts, which complicates the normative boundaries of moderation.

2. Methods of Content Moderation: Automation and Human Oversight

Modern content moderation employs both human moderators and automated systems. Artificial Intelligence (AI) tools, including machine learning and natural language processing, are commonly used to identify patterns, flag harmful content, and even remove posts at scale. These tools can act rapidly, especially in high-volume environments, but they often lack contextual understanding—particularly in languages or cultures with limited data representation.

To address this limitation, human moderators—often working under challenging conditions—are tasked with making nuanced decisions. They review flagged content, apply community guidelines, and handle appeals. Yet this labour is frequently outsourced to low-wage workers in developing countries, raising ethical concerns around worker exploitation, psychological trauma, and inadequate training.

Key points of concern include

- **Accuracy vs speed**: Automated tools are fast but error-prone; human review is nuanced but slower.
- **Bias in algorithms**: Machine learning models may reflect cultural or racial biases present in training data.
- **Moderator well-being**: Constant exposure to distressing content impacts mental health.

3. Legal and Regulatory Frameworks

As the influence of digital platforms has grown, so too has governmental interest in regulating content moderation. Initially, platforms enjoyed wide protection under laws like Section 230 of the U.S. Communications Decency Act, which shielded them from liability for third-party content. However, growing concerns over election interference, online radicalisation, and abuse have prompted tighter oversight.

Several jurisdictions have introduced formal regulatory frameworks

- The European Union's Digital Services Act (DSA) requires transparency in moderation decisions and mandates the timely removal of illegal content.
- Germany's Netzwerkdurchsetzungsgesetz (NetzDG) compels platforms to delete hate speech within 24 hours of notification.
- India's IT Rules (2021) demand the traceability of messages and the appointment of grievance officers for redress.

These regulations aim to ensure that platforms act responsibly without undermining fundamental rights. However, they also risk enabling state censorship or imposing burdens that favour larger, well-resourced platforms over smaller competitors.

4. Ethical and Political Challenges

Content moderation is inherently value-laden and politically sensitive. Decisions about what is acceptable speech are shaped by cultural norms, commercial interests, and political pressures. Platforms may be accused of:

- Over-moderating content from marginalised groups, activists, or political dissidents
- Under-moderating harmful content due to fear of backlash or loss of user engagement

- Inconsistency in enforcing rules, especially across regions or languages

Moreover, the commercial logic of platform capitalism incentivises virality and engagement—often at the expense of accuracy or civility. This creates a fundamental conflict between ethical moderation and profit motives. It also raises critical questions about power: who decides what speech is permissible, and on whose terms?

5. Platform Responsibility and Future Directions

Beyond moderation, platforms are increasingly being held responsible for fostering healthier digital environments. This involves proactive measures such as redesigning algorithms to reduce the spread of harmful content, partnering with fact-checkers and civil society groups, and improving digital literacy among users. Transparency reports, user appeals systems, and external audits are becoming standard expectations.

Emerging recommendations for more responsible platforms include

- Greater transparency in moderation guidelines and decision-making processes
- User rights to contest moderation decisions through appeals or independent oversight
- Collaboration with local communities and experts to contextualise moderation practices

- Ethical design of recommendation systems to minimise harm and polarization

The future of content moderation lies in shared governance models that involve governments, civil society, users, and tech companies working together to create a safer, more equitable digital space. Balancing free speech, safety, and accountability remains a delicate but essential endeavour in the digital age.

6.3. Censorship and Freedom of Expression

The relationship between censorship and freedom of expression has long been a focal point of legal, political, and philosophical debate. In the twenty-first century, this tension has intensified due to the transformative power of digital communication technologies. The internet once envisioned as a free and borderless space for democratic participation, has evolved into a highly regulated and surveilled environment. Social media platforms, search engines, and online news portals—though privately operated—now function as the principal arenas of public discourse. Within these digital spaces, the interplay between freedom and control has become increasingly complex, shaped by state interventions, corporate policies, community standards, and algorithmic systems.

Freedom of expression, often heralded as the cornerstone of democratic society, enables individuals to participate in political life, voice dissent, seek truth, and cultivate personal and cultural identity. It is enshrined in multiple

international legal instruments, including Article 19 of both the Universal Declaration of Human Rights (UDHR) and the International Covenant on Civil and Political Rights (ICCPR). However, this right is not unlimited; it may be subject to restrictions necessary to protect national security, public order, morality, or the rights of others. These permissible limitations, though carefully circumscribed in theory, are frequently manipulated in practice—particularly in digital contexts where enforcement mechanisms are opaque, transnational, and unregulated.

Censorship in the digital age is no longer confined to visible acts of state repression such as banning books or imprisoning journalists. It now encompasses a spectrum of mechanisms including shadow-banning, demonetisation, algorithmic filtering, internet shutdowns, and subtle forms of coercion exercised by both governments and tech corporations. Content that is controversial, politically sensitive, or subversive can be effectively rendered invisible—either through formal censorship laws or through platform-specific moderation strategies that are hidden from public view. This presents a dual challenge: protecting users from harmful content while safeguarding the expressive freedoms that underpin democratic life.

Given the multifaceted nature of this issue, a nuanced exploration is required—one that accounts for traditional legal frameworks, emerging digital trends, and the ethical dilemmas posed by technological mediation. The following sections examine key dimensions of censorship and

freedom of expression, emphasising the need for balanced, rights-based governance models that preserve the integrity of public discourse in the digital era.

1. Classical and Contemporary Definitions of Censorship

Censorship has historically been understood as the suppression of speech, images, or information by an authority, usually on grounds of political control, religious orthodoxy, or moral propriety. This classical model, rooted in authoritarian control, remains relevant in many global contexts. However, in digital societies, censorship takes on newer, more complex forms—often enacted not through direct bans, but via technological tools and private governance.

In contemporary usage, censorship includes

- Pre-emptive filtering, where keywords or themes are blocked before content is uploaded.
- Shadow-banning, which reduces the visibility of content without informing the user.
- Economic silencing, through demonetisation or deplatforming of critical voices.
- Legal harassment, including the strategic use of defamation or cybercrime laws to silence dissent.

This evolving definition suggests that censorship is no longer solely about prohibition; it also involves the manipulation of visibility, accessibility, and legitimacy—often in subtle and legally ambiguous ways.

2. Governmental Censorship and Digital Authoritarianism

Governments remain among the most powerful agents of censorship, particularly in contexts where democratic accountability is weak or absent. In such cases, digital platforms are either co-opted or coerced into removing content that challenges state authority. From blocking social media during protests to arresting online activists, authoritarian regimes employ digital tools to consolidate power and suppress dissent.

Notable examples include

- China's Great Firewall, which filters content, censors search results and restricts access to foreign websites.
- Russia's internet sovereignty laws, granting the state control over online traffic.
- Myanmar and Iran's internet shutdowns during political upheaval or protests.
- India's increasing use of takedown notices to suppress political criticism or sensitive journalism.

These practices, while often justified in the name of national security or social cohesion, erode civil liberties and hinder the democratic potential of digital communication.

3. The Role of Private Platforms in Regulating Speech

In the digital age, private technology companies have emerged as powerful gatekeepers of expression. Platforms

like Meta (Facebook and Instagram), Google (YouTube), TikTok, and X (formerly Twitter) determine what content is visible, monetisable, or permissible. Although they claim neutrality, their moderation policies often reflect commercial, political, and cultural biases.

Concerns about corporate control include

- Lack of due process, with users often unaware of why content is removed or accounts suspended.
- Commercial censorship, where platforms prioritise advertiser-friendly content over critical or political material.
- Algorithmic bias, with automated systems disproportionately targeting certain languages, regions, or identity groups.
- Opaque moderation systems, where enforcement appears inconsistent or arbitrary.

This privatisation of censorship raises serious questions about accountability, especially as these companies operate globally but are regulated only locally—or, in many cases, not at all.

4. Legal Frameworks and International Standards

Freedom of expression is protected under several international legal frameworks, most notably Article 19 of the UDHR and the ICCPR. These instruments affirm that everyone has the right to hold opinions and to seek, receive, and impart information without interference. However,

they also permit certain limitations, provided these are clearly defined, proportionate, and necessary in a democratic society.

Legal mechanisms to address censorship include

- National constitutions that guarantee press freedom and access to information.
- Human rights courts, such as the European Court of Human Rights, which adjudicate violations of expressive freedoms.
- Transparency laws, requiring governments and platforms to disclose the rationale for censorship or takedowns.
- Freedom of information (FOI) regimes, allowing citizens to request government-held data.

Despite these frameworks, enforcement remains uneven, and many states exploit vague or overbroad laws—such as those targeting "fake news" or "cyberterrorism"—to silence criticism.

5. Balancing Freedom of Expression and Harm Prevention

Freedom of expression is not an unfettered right; it must be balanced against other legitimate interests, including protection from harm, respect for privacy, and the maintenance of public order. Online platforms are frequently called upon to remove content that is abusive,

threatening, or misleading—particularly when it targets marginalised communities.

This balancing act involves

- Moderating hate speech and harassment, especially based on race, gender, sexuality, or religion.
- Curbing misinformation and disinformation, particularly related to health, elections, or conflict.
- Preventing incitement to violence, including terrorism or communal unrest.
- Regulating child exploitation and non-consensual sexual material.

The challenge lies in ensuring that such moderation is applied proportionately, without stifling legitimate expression or allowing powerful actors to silence dissenting views under the guise of public interest.

6. Censorship of Marginalised and Minority Voices

Ironically, some forms of censorship—particularly algorithmic and community-enforced—disproportionately affect the very voices that most need protection. LGBTQ+ communities, indigenous activists, political dissidents, and ethnic minorities often find their content removed, de-ranked, or shadow-banned under ambiguous guidelines. This reflects systemic biases embedded in content policies, data sets, and moderation practices.

Key problems include

- Lack of cultural sensitivity in moderation teams and AI training data.
- Disproportionate content flagging by hostile users or online mobs.
- Language barriers, which lead to errors in non-English content moderation.
- Exclusion from appeals processes, often inaccessible to users in the Global South.

Protecting freedom of expression thus requires more than neutrality—it demands active support for the inclusion and visibility of historically silenced voices.

7. Resistance, Circumvention, and Digital Activism

Despite efforts to control digital expression, individuals and groups continue to resist censorship through creative and technical means. Digital activism has evolved alongside censorship, employing tools that circumvent restrictions and mobilise support across borders.

Common tactics include

- Use of VPNs and proxy servers to bypass geo-blocking or firewalls.
- Encrypted messaging apps like Signal or Telegram for secure communication.

- Satirical and coded language to evade automated detection.
- Global advocacy campaigns, drawing attention to censorship through international solidarity.

These efforts illustrate that censorship, while pervasive, is not insurmountable. Digital spaces remain contested, and activists continue to assert expressive rights through innovation and collective resistance.

8. Towards a Rights-Based Model of Digital Governance

To address the challenges posed by digital censorship, a rights-based approach to internet governance is essential. This involves centring human rights principles—such as transparency, accountability, equality, and participation—in both state regulation and corporate policy. It also requires the creation of global norms that transcend national borders while respecting cultural diversity.

Principles of a rights-based model include

- Multi-stakeholder governance, involving states, tech firms, civil society, and users.
- Independent oversight bodies, such as content moderation tribunals or ombudsmen.
- Mandatory transparency reporting, detailing takedown requests, algorithmic impacts, and appeals.

- Digital literacy programmes, empowering users to understand and advocate for their rights online.

Such a framework would not eliminate censorship, but it could help ensure that limitations on expression are legitimate, proportionate, and democratically accountable.

6.4. Role of Government and Regulatory Bodies

In the increasingly complex ecosystem of digital communication, governments and regulatory bodies have come to occupy a pivotal position in shaping the boundaries of online speech, media integrity, data governance, and platform accountability. Once relegated to the margins of internet governance, the state has reasserted itself as a key actor in regulating digital environments—often in response to growing public concern over misinformation, online abuse, data privacy violations, and the unchecked power of technology companies. The digital public sphere, while enabling unprecedented democratic participation, has also exposed society to new forms of harm, manipulation, and exclusion. As a result, both national governments and international regulatory institutions have moved to assert jurisdiction over the rules, standards, and responsibilities governing digital content and conduct.

However, the role of state and regulatory institutions in digital governance is marked by a fundamental tension. On one hand, governments are expected to safeguard fundamental rights, promote public interest, and ensure the rule of law in digital spaces. On the other hand, excessive

regulation may result in state overreach, political censorship, and the erosion of democratic freedoms—particularly where institutional checks are weak or where laws are drafted in vague or expansive terms. Furthermore, the borderless nature of digital media presents profound jurisdictional challenges. Platforms operate transnationally, but laws are enacted nationally, often leading to legal fragmentation, regulatory inconsistency, and conflicts of interest.

The rise of regulatory bodies—ranging from independent commissions to supranational entities like the European Union—reflects an effort to formalise oversight of digital activities. These institutions are tasked with defining legal norms, enforcing compliance, protecting users, and ensuring that both public and private actors adhere to ethical and legal standards. In the following sections, the multifaceted roles of governments and regulatory authorities are examined, with an emphasis on their evolving functions, challenges, and impact on the broader digital landscape.

1. Legislative Functions: Drafting and Enacting Digital Laws

Governments play a fundamental role in shaping the legal architecture of the digital realm through the formulation of statutes and regulations. These legal instruments establish the rules for data protection, content moderation, cybersecurity, platform liability, and freedom of expression.

Legislation may address broad policy goals or target specific areas of concern such as online hate speech, cybercrime, or disinformation.

Examples of influential digital laws include

- The EU's Digital Services Act (DSA), which imposes duties on large platforms to remove harmful content and publish transparency reports.
- India's Information Technology Rules (2021), requiring intermediaries to appoint grievance officers and ensure the traceability of messages.
- Germany's NetzDG, compelling platforms to take down illegal content within 24 hours or face substantial fines.

While legislative action can enhance accountability and user safety, poorly drafted or overly broad laws may restrict civil liberties, particularly when legal definitions of "harmful" or "unlawful" content are vague or open to interpretation.

2. Regulatory Oversight and Monitoring Mechanisms

In addition to lawmaking, governments and independent regulators are responsible for monitoring digital activity and enforcing compliance with existing regulations. Regulatory bodies are typically tasked with overseeing telecommunications, broadcast media, digital platforms, and data usage. Their mandate includes issuing licenses, conducting audits, and imposing penalties for violations.

Core regulatory functions include

- Monitoring platform compliance with legal and ethical standards.
- Reviewing takedown procedures to assess fairness and legality.
- Auditing algorithms and AI systems for bias and transparency.
- Supervising data protection practices under national or international frameworks.

Regulatory bodies such as Ofcom in the United Kingdom, the Data Protection Commission in Ireland, and the European Commission's digital task forces exemplify the institutionalisation of digital oversight. The effectiveness of such bodies depends heavily on their independence, legal mandate, technical expertise, and political insulation.

3. Balancing Regulation with Democratic Freedoms

A core challenge for governments and regulators is to strike a balance between protecting users and preserving fundamental democratic freedoms. Heavy-handed regulation can easily morph into censorship, especially when laws are used to target dissent, suppress political opposition, or curtail journalistic activity. Democratically legitimate regulation must be grounded in legal certainty, proportionality, and transparency.

Key democratic safeguards in digital regulation include

- Public consultation in the drafting of new laws and codes.
- Judicial oversight to review censorship and surveillance measures.
- Appeals mechanisms for users affected by takedowns or sanctions.
- Protection of whistleblowers and journalists, who often operate in legally ambiguous zones.

Without such safeguards, regulation risks undermining the very freedoms it purports to protect.

4. Addressing Platform Power and Corporate Accountability

Governments are increasingly called upon to address the disproportionate power of large technology firms, especially in areas such as content curation, data monopolisation, and digital advertising. Regulatory interventions are necessary to ensure that corporations do not become unaccountable arbiters of speech or exploit personal data for unchecked economic gain.

Policy responses include

- Antitrust measures, such as breaking up monopolies or imposing data-sharing obligations.

- Mandated transparency, requiring companies to publish moderation guidelines and enforcement statistics.
- Algorithmic accountability, through independent audits and public explanations of content-ranking mechanisms.
- Data sovereignty laws, enabling national control over locally generated data.

Such interventions represent a shift from laissez-faire approaches to digital markets toward a more interventionist model of corporate governance rooted in public interest.

5. International Coordination and Transnational Governance

Given the global reach of digital platforms, no single government can effectively regulate digital content or practices in isolation. Increasingly, states are cooperating through bilateral treaties, multilateral agreements, and international institutions to develop common standards and address shared challenges.

International governance frameworks include

- The Budapest Convention on Cybercrime, which facilitates cross-border cooperation.
- The EU's General Data Protection Regulation (GDPR), which has become a global benchmark for privacy.

- UN initiatives on digital inclusion, internet governance, and human rights in the digital age.

However, international coordination is often hampered by differing legal traditions, cultural norms, and strategic interests. There is ongoing debate about whether global digital governance should be centralised in intergovernmental organisations or remain decentralised among stakeholders.

6. Regulating Artificial Intelligence and Emerging Technologies

As AI technologies increasingly mediate content moderation, decision-making, and user engagement, regulators face new challenges in ensuring accountability, fairness, and non-discrimination. Governments and regulatory bodies are developing new legal and ethical frameworks to manage these technologies before they become ungovernable.

Core regulatory issues around AI include

- Bias and discrimination in algorithmic decision-making.
- Explainability and transparency of AI systems.
- Human oversight in high-risk applications like facial recognition or predictive policing.
- Safety standards for autonomous technologies and machine learning tools.

The proposed EU AI Act is an example of an ambitious regulatory attempt to classify and govern AI systems based on risk categories, with higher requirements for more intrusive applications.

7. Protecting Citizens' Digital Rights and Promoting Literacy

Beyond punitive or corrective roles, governments and regulators must actively promote citizens' rights and capacities in the digital environment. This includes ensuring universal internet access, safeguarding personal data, and empowering users through education and awareness.

Proactive measures include

- Digital literacy programmes to equip citizens with skills to identify misinformation, understand privacy rights, and navigate online risks.
- Legal aid and redress for victims of online abuse or data breaches.
- Accessible complaints mechanisms, especially for vulnerable users such as children, the elderly, or persons with disabilities.
- Promotion of open government data, enabling transparency and innovation.

An inclusive digital society requires more than regulation; it demands active investment in the rights, resources, and resilience of its users.

8. Challenges and Future Directions in Digital Regulation

Despite their growing importance, regulatory bodies face numerous structural and operational challenges. These include limited resources, political interference, technical knowledge gaps, and jurisdictional conflicts. Moreover, in some states, regulatory frameworks are weaponised for partisan interests or to suppress civil liberties. The future of digital regulation will therefore depend on institutional reform, international cooperation, and public engagement.

Future priorities may include

- Strengthening institutional independence of regulators from political or corporate influence.
- Harmonising global standards, especially around human rights and platform governance.
- Enhancing civic participation in regulatory design and policy formation.
- Building regulatory capacity, including technical expertise, enforcement tools, and adaptive frameworks.

The role of governments and regulatory bodies will only grow as digital technologies continue to evolve. Ensuring that this role is exercised with legitimacy, fairness, and transparency will be critical to building democratic and equitable digital societies.

Chapter Summary

This chapter examined the legal, institutional, and ethical dimensions of digital media regulation. It began by outlining the legal framework for digital media, including intellectual property laws, defamation standards, and data protection acts that govern online content and user rights. The fluid and transnational nature of digital communication poses significant challenges for enforcing these laws across jurisdictions.

The chapter then explored the issue of content moderation and platform responsibility. Social media companies and digital service providers face mounting pressure to regulate harmful content, hate speech, and misinformation. While self-regulation models have evolved, inconsistencies in moderation practices and algorithmic censorship have sparked debates on accountability, transparency, and freedom of expression.

Censorship and freedom of expression were analysed as interconnected themes. The chapter evaluated how governments and corporations control online content under the pretext of national security, morality, or commercial interest. It highlighted the tension between protecting public interest and safeguarding civil liberties in the digital sphere.

The role of government and regulatory bodies was discussed with reference to institutional frameworks, policy interventions, and global governance initiatives. The

chapter concluded by emphasising the need for balanced regulation that addresses risks while preserving democratic values. Overall, it presented a nuanced understanding of the regulatory complexities inherent in digital media governance.

Assessment question

1. What legal frameworks exist for governing digital media?
2. How do content moderation policies work on social platforms?
3. What is the role of platforms in managing user content?
4. How is censorship exercised in digital spaces?
5. Discuss the legal rights related to freedom of expression online.
6. What challenges exist in regulating global digital content?
7. How do government policies influence media platforms?
8. What ethical issues are involved in content moderation?
9. How can regulations affect user creativity?
10. Discuss the role of regulatory bodies in media governance.

CHAPTER 7 Cultural Shifts and Media Consumption

Learning Objective

In this chapter, readers will examine how digital media has changed audience behaviour. They will explore global content trends and media consumption habits. The chapter investigates online representation and digital diversity. It discusses how communication and language evolve in digital spaces. Readers will consider how culture and media interact in the online world.

7.1. Changing Habits in Media Usage

The consumption of media has seen a substantial transition in recent years. Due to the rapid progression of digital technology and extensive internet accessibility, conventional media such as television, radio, and newspaper circulation are progressively being supplanted or augmented by digital platforms.

Contemporary audiences choose on-demand material, interactive forms, and customised feeds via smartphones, social media, or streaming services. These evolving habits signify a transition towards enhanced convenience, rapidity, and user autonomy, transforming the methods by

which knowledge and enjoyment are received and disseminated in contemporary culture.

1. Evolving Patterns of Media Consumption

Evolving pattern of Media Consumption includes:

a. Rise of Digital Platforms

As digital platforms have grown, print and broadcast media's influence has decreased. These days, people choose to use websites, apps, or social media to get news, entertainment, or educational information. Users may interact with material at any time and from any location due to this change, which increases flexibility and mobility. A wider variety of sources and quicker updates are provided by the internet. Digital media has thus taken over as the main consuming method, particularly among young people.

b. Preference for On-Demand Content

On-demand offerings including YouTube, Netflix, and podcasts are becoming more popular as viewers abandon set schedules. The demand for individualised experiences where viewers choose what, when, and how they want to watch is reflected in this development. On-demand systems, in contrast to conventional TV, let users stop, repeat, or skip programs. The expectations and consumption patterns of the audience have been reshaped by this independence. It additionally supports flexible lives and multitasking.

c. Increased Mobile Usage

Smartphones are the most widely used device for media access. They are perfect for social networking, streaming, and surfing because of their mobility, internet access, and simplicity of use. Shorter, more visually appealing content forms that work well on mobile displays are the result of this trend. This mobile-first audience is provided by social media platforms such as Instagram, TikTok, or X (formerly known as Twitter). The inclination towards mobile use has impacted advertising tactics and website design.

d. Interactive and Participatory Media

Audiences now actively participate with, comment on, share, and produce information rather than passively consuming it. Users may react in real-time to news and entertainment on social media platforms as well as discussion boards. Personal expression and community involvement are encouraged by this participatory culture. Today, a significant portion of media consumption consists of user-generated material, such as memes and vlogs.

e. Decline in Traditional Media Loyalty

People now absorb material from a variety of sources rather than being more devoted to a particular media organisation or channel. Algorithms on digital platforms provide consumers with a combination of mainstream and independent perspectives. This expands perspectives but may also lead to echo chambers. The practice of examining headlines or brief segments has supplanted extensive

newspaper reading. As attention spans reduce, media organisations strive for rapid engagement.

2. Factors Influencing Shifts in Media Preferences

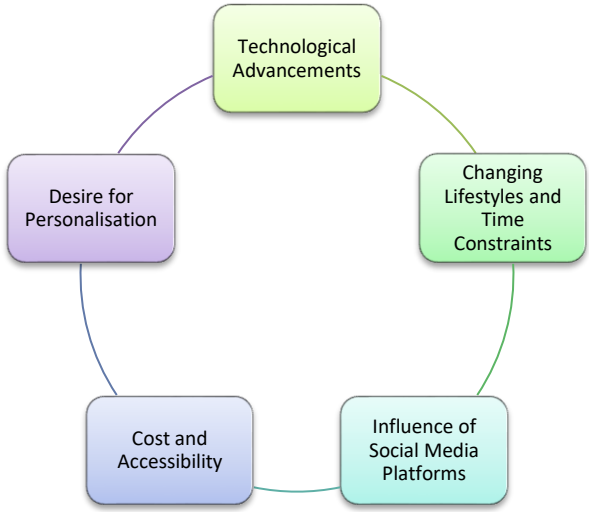


Figure 7.1 Factors Influencing Shifts in Media Preferences

a. Technological Advancements

The rapid development of digital technology has significantly influenced shifts in media tastes. High-speed internet, cellphones, and smart televisions have made media access more easy and efficient. Users may now stream material, get news, or engage online without temporal or spatial limitations.

These technologies moreover accommodate various forms, encompassing video, audio, or interactive material. Consequently, individuals are drawn to platforms that provide complex functionalities.

b. Changing Lifestyles and Time Constraints

Modern existence is rapid, allowing less opportunity for conventional media mediums. Individuals like material that is readily accessible during brief intervals or while in transit. On-demand and concise material aligns well with these lifestyles, providing flexibility and autonomy.

Longer pieces or planned transmissions often seem unfeasible. This transition is particularly evident among professionals and students.

c. Influence of Social Media Platforms

Social media has revolutionised the methods by which individuals find and interact with media content. Platforms like Facebook, X, Instagram, or YouTube provide customised feeds according to user activity. They enhance media interactivity and encourage community engagement.

Trends, news, & entertainment often achieve availability by social sharing. The social components of liking, commenting, and distributing enhance user engagement.

d. Cost and Accessibility

Economical data plans, complimentary applications, and inexpensive subscriptions have made digital media more accessible than ever before. In contrast to conventional media, which sometimes necessitates purchasing newspapers and subscribing to cable services, several internet outlets are either free or inexpensive.

This economic aspect significantly influences consumer choice, particularly in emerging nations. The availability of digital material across multiple platforms enhances its use. Individuals are more inclined to embrace systems that provide value at a reduced cost.

e. Desire for Personalisation

Audiences increasingly anticipate material customised to their preferences and habits. Algorithms help media sites in providing news, programs, music, and videos according to user engagement. This customised experience augments happiness and maintains user engagement. Conventional media lacks this degree of personalisation, resulting in a transition towards digital substitutes.

Personalisation helps in sifting through the excessive amount of accessible information.

7.2. Globalisation of Digital Content

The globalisation of digital content refers to the transnational production, distribution, and consumption of media facilitated by digital technologies. Unlike earlier eras in which content was largely confined by national borders, the internet and digital platforms have enabled media to circulate globally with unprecedented speed and scale. Streaming services, social media platforms, e-commerce sites, and user-generated content portals have reconfigured the flow of cultural products, making digital content a central force in shaping global identities, economies, and discourses. This shift has enabled individuals in one part of

the world to access music, films, articles, memes, games, and news from another with ease, often in real-time.

However, the globalisation of digital content is not a neutral or evenly distributed process. It raises questions about cultural homogenisation, linguistic dominance, digital imperialism, and uneven access to production and distribution networks. While global platforms have provided opportunities for cross-cultural communication and the international visibility of diverse voices, they have also amplified the dominance of certain languages—particularly English—and perpetuated the global hegemony of media giants concentrated in the Global North. Furthermore, global content circulation exists alongside local laws, national censorship policies, and linguistic barriers, leading to tensions between universal access and sovereign control.

This section explores the dynamics of globalised digital content, examining both its transformative potentials and its structural inequalities. It considers how content travels, who controls its dissemination, and what implications this has for cultural diversity, media governance, and digital citizenship in a rapidly interconnected world.

1. The Digital Infrastructure of Global Content Circulation

The infrastructure enabling global content dissemination consists of high-speed internet networks, data centres, cloud storage systems, and global content delivery

networks (CDNs). These technical systems facilitate the near-instantaneous transmission of data across borders, allowing users worldwide to stream videos, access news, or upload personal media with minimal latency.

Key enabling platforms include

- YouTube, which allows global video sharing across cultures and languages.
- Netflix and Amazon Prime, which distribute entertainment globally through licensing and original productions.
- Meta's platforms (Facebook, Instagram, WhatsApp), which foster transnational personal and public communication.
- Spotify and Apple Music, which offer international access to music libraries.

While these infrastructures appear global, they are often under the control of a few powerful tech conglomerates, leading to questions about monopolistic control, data sovereignty, and the geopolitical implications of centralised content gateways.

2. Cultural Exchange and Hybridisation

One of the most celebrated outcomes of globalised digital content is the expansion of cultural exchange. Individuals and communities can now access and engage with media from other cultures more freely than ever before. This cross-

border interaction has encouraged the hybridisation of cultural forms—where global and local elements are blended to produce new styles, genres, and narratives.

Examples of cultural hybridisation include

- The global popularity of Korean pop (K-pop**)**, which blends Western pop aesthetics with Korean cultural elements.
- African music genres such as Afrobeats, gaining international followings via platforms like YouTube and TikTok.
- Cross-cultural culinary content, where chefs and food bloggers fuse traditional recipes from multiple cultures.

While such hybridisation may lead to creative innovation and mutual understanding, it also raises concerns about cultural appropriation, superficial representation, and the dilution of indigenous practices.

3. Linguistic Dominance and the Marginalisation of Local Languages

Despite the apparent diversity of global content, English continues to dominate as the primary language of digital platforms, especially in the realms of search, video content, academic publishing, and software development. This linguistic centrality has both practical advantages and exclusionary consequences.

Implications of English-language dominance

- Easier global visibility for content produced in English, leading to wider reach and monetisation.
- Underrepresentation of indigenous and minority languages, which may lack technical support for input, translation, or recognition.
- Barriers to digital participation for non-English-speaking users, particularly in rural or underdeveloped regions.
- Algorithmic bias, where platform search and recommendation engines favour English-language content.

Addressing these disparities requires investment in language localisation, open-source translation tools, and policies that promote digital multilingualism.

4. Content Regulation in a Borderless Environment

The global flow of content often clashes with national laws and cultural norms. Content that is legal and acceptable in one country may be banned or considered offensive in another. This creates challenges for both governments and platforms in regulating content across jurisdictions.

Challenges include

- Content takedown requests from governments that wish to block material deemed politically sensitive, blasphemous, or immoral.

- Inconsistent content moderation, where platforms apply varying standards across countries, often privileging regions with higher revenue.
- Data localisation requirements, which mandate that certain content or user data remain within national borders.
- Conflicting legal frameworks, especially concerning hate speech, misinformation, and defamation.

Navigating these conflicts requires greater clarity in content governance, transparent global content standards, and improved mechanisms for cross-border legal cooperation.

5. Uneven Access to Digital Production and Participation

Although digital platforms are theoretically open to anyone with internet access, in practice, there are sharp inequalities in who creates and profits from global content. Users in the Global South often face infrastructural, economic, and linguistic barriers that limit their ability to participate equally in global digital culture.

Examples of digital inequality

- Limited access to high-speed internet in rural and low-income areas.
- Lack of technical literacy or access to digital tools for content creation.
- Unequal monetisation opportunities, with creators from the Global North more likely to secure brand deals or sponsorships.

- Algorithmic invisibility, where content from non-Western regions is less likely to be promoted or discovered.

Efforts to democratise digital participation must address these structural barriers, ensuring more inclusive pathways for content creation, discovery, and remuneration.

6. Global Digital Platforms and Cultural Hegemony

The dominance of a few global platforms in shaping cultural consumption has led some scholars to speak of "digital cultural imperialism." This refers to the way Western—particularly American—values, aesthetics, and norms are embedded within the algorithms, business models, and content policies of leading tech companies.

Manifestations of cultural hegemony include

- Algorithmic preference for Western beauty standards, humour, or political narratives.
- Platform moderation policies that do not account for cultural nuance, leading to the censorship of marginalised communities.
- Market-driven content priorities, which favour entertainment and viral content over educational or activist material.

This hegemony can flatten global culture into a homogenised digital mainstream, risking the marginalisation of alternative, subversive, or local content.

7. Opportunities for Cross-Border Solidarity and Advocacy

Despite these challenges, globalised digital content has enabled new forms of transnational solidarity and social movement-building. Activists, educators, artists, and journalists can now collaborate across borders, using shared platforms to amplify causes, document abuses, and mobilise change.

Examples of global advocacy through digital content

- #MeToo and #BlackLivesMatter, which gained international momentum through viral content and user mobilisation.
- Climate justice campaigns, where activists across continents share narratives, resources, and protest strategies.
- Crowdsourced journalism, where citizen reporters document and distribute local stories for global audiences.

These examples highlight the potential of globalised content to advance justice, visibility, and collective action—provided that access remains open and inclusive.

7.3. Representation and Diversity Online

Representation in digital media is not merely a matter of who is visible, but also how individuals and groups are portrayed, interpreted, and legitimised through online content. In the digital era, where media production and

consumption are decentralised and interactive, online representation plays a crucial role in shaping collective identities, cultural narratives, and political discourses. The internet has opened new avenues for historically marginalised communities to assert their presence, challenge stereotypes, and build transnational solidarities. Simultaneously, however, digital spaces often replicate and even intensify the biases, exclusions, and power dynamics present in offline society.

Diversity online refers not only to the presence of various racial, gender, sexual, linguistic, and cultural identities, but also to the multiplicity of voices, perspectives, and experiences that inform digital content and discourse. Ideally, the Internet offers an egalitarian environment for inclusive expression. Yet, structural inequalities—such as algorithmic bias, unequal access to resources, online harassment, and linguistic centralisation—continue to limit authentic representation and equitable participation. Moreover, representation online is not static; it is continually negotiated through platform design, user engagement, moderation policies, and broader socio-political forces.

This section investigates the patterns, problems, and possibilities of representation and diversity in online environments. It aims to unpack the ways in which digital platforms reinforce or resist dominant narratives, and to explore how marginalised groups navigate, subvert, or transform digital spaces to claim visibility, dignity, and voice.

1. The Politics of Visibility in Digital Platforms

Online visibility is a contested space where power is exercised through algorithmic amplification, platform policies, and audience interaction. While the internet has enabled greater self-representation for marginalised communities, visibility does not always translate into empowerment. Often, increased visibility invites scrutiny, surveillance, or abuse, rather than recognition or inclusion.

Dynamics of visibility include

- Algorithmic visibility, where platform algorithms promote certain types of content (e.g. sensational, marketable, or emotionally provocative).
- Performative representation, where minority identities are showcased for aesthetic diversity without structural support or inclusion.
- Tokenism, where one or few representatives are included to symbolically fulfil diversity without substantive change.
- Hypervisibility and backlash, particularly for Black women, trans creators, or queer activists, whose digital presence is both prominent and targeted.

Understanding visibility as both a form of access and vulnerability is essential to critically assessing digital representation.

2. Racial and Ethnic Representation in Online Media

The internet has facilitated both the spread of racial justice discourse and the persistence of racial stereotyping. While movements such as #BlackLivesMatter have thrived online, racist tropes, whitewashing, and cultural appropriation also circulate widely across platforms. Mainstream content often reflects dominant racial ideologies, marginalising non-white narratives unless strategically amplified by activists or independent creators.

Concerns regarding racial representation include

- Underrepresentation of people of colour in media leadership and platform development roles.
- Stereotypical portrayals, particularly in viral content or algorithmically suggested material.
- Digital blackface and cultural exploitation, where non-Black users appropriate Black culture for entertainment or profit.
- Shadow-banning or removal of content related to racial injustice under vague moderation guidelines.

Improving racial equity online requires conscious platform design, community-led moderation strategies, and investment in diverse content ecosystems.

3. Gender Representation and Feminist Digital Spaces

Digital media has offered new platforms for feminist thought, storytelling, and mobilisation, enabling women and gender minorities to share experiences and contest

patriarchal norms. However, online spaces remain rife with gendered violence, exclusion, and objectification. Women, especially those from marginalised backgrounds, often encounter misogyny, harassment, and doxxing when asserting their voices online.

Key themes in gendered representation include

- The male gaze in visual platforms such as Instagram or TikTok, where women are often portrayed through objectifying lenses.
- Cyberfeminist interventions, where digital tools are used to subvert gender norms and amplify feminist politics.
- Online misogyny and incel culture, which propagate gender-based hate and ideological extremism.
- Feminist content moderation, demanding that platforms take gendered abuse seriously while safeguarding expressive freedoms.

Creating equitable digital spaces for gender minorities entails both systemic regulation and community empowerment.

4. LGBTQ+ Visibility and Queer Representation Online

The digital realm has been pivotal for LGBTQ+ individuals to connect, organise, and express identity, particularly in contexts where offline spaces are hostile or inaccessible. Online platforms have enabled queer storytelling, peer

support, and the creation of alternative publics. Yet, this visibility also exposes LGBTQ+ users to targeted harassment, censorship, and misrepresentation.

Key issues include

- Censorship of LGBTQ+ content, especially in conservative jurisdictions or under ambiguous "community standards."
- Pinkwashing, where brands or institutions superficially embrace LGBTQ+ imagery without material support or inclusion.
- Platform bias, where queer content is disproportionately flagged or demonetised, particularly if it involves non-normative bodies or sexualities.
- Digital archives and storytelling, where LGBTQ+ histories and narratives are preserved and circulated through independent online projects.

To foster inclusive representation, platforms must develop culturally sensitive policies, support queer creators, and resist heteronormative algorithmic structures.

5. Algorithmic Bias and the Role of Platform Design

Representation online is not determined solely by user content, but also by the technological infrastructures that govern content visibility, recommendation, and monetisation. Algorithms, while appearing neutral, often reflect and reproduce societal biases due to the data sets they are

trained on and the commercial objectives they are designed to serve.

Common manifestations of algorithmic bias include

- Disproportionate removal of non-white or non-Western content, especially in cases involving activism or satire.
- Favouring conventionally attractive or able-bodied individuals in visual ranking systems.
- Language bias, where English-language content is promoted over others.
- Data-driven discrimination, particularly against users whose engagement metrics fall outside normative commercial patterns.

Challenging algorithmic bias requires transparency, participatory audits, and the inclusion of marginalised voices in tech development and governance.

6. Digital Storytelling and the Emergence of Counterpublics

While dominant narratives persist, digital media also enables the formation of counterpublics—alternative discursive spaces where marginalised groups produce and circulate content that challenges mainstream representations. These spaces allow for self-definition, collective memory, and political resistance, and are often forged through blogs, hashtags, video channels, and community platforms.

Examples include

- #DisabledAndCute, a campaign celebrating disability pride against ableist stereotypes.
- Indigenous media collectives, using digital tools to preserve language, share oral histories, and challenge settler-colonial narratives.
- Queer YouTube channels, creating educational, humorous, or activist content for LGBTQ+ audiences.
- Diasporic storytelling, where migrant communities share hybrid identities and transnational experiences.

Such counterpublics are vital in resisting digital marginalisation and expanding the range of voices that shape online discourse.

7.4. Impact on Language and Communication

The digital revolution has profoundly transformed human language and modes of communication. As digital technologies have become ubiquitous across social, professional, and educational spheres, language itself has evolved to adapt to the pace, interactivity, and visuality of digital platforms. While the spoken and written word remains central, online communication is now increasingly multimodal, ephemeral, and shaped by the technical architecture of social media interfaces, messaging

applications, and algorithmic systems. The nature of discourse online is influenced not only by linguistic creativity but also by character limits, algorithmic visibility, user interface design, and the socio-cultural norms of particular platforms. Consequently, digital media have altered both how language is used and how meaning is constructed, distributed, and interpreted.

These changes have led to the emergence of new dialects, hybrid vernaculars, and forms of visual-linguistic expression such as emojis, GIFs, memes, and hashtags. While some lament the decline of traditional grammar and orthography, others view these developments as evidence of linguistic innovation and adaptability. Moreover, digital communication has contributed to both linguistic diversity and linguistic inequality. On the one hand, speakers of minority languages have used digital tools to revitalise and promote their linguistic heritage; on the other, the global dominance of English and a handful of other languages has resulted in the marginalisation of countless others online. Thus, digital technologies both expand and constrain the possibilities of linguistic expression and cross-cultural communication.

This section explores the complex and multifaceted impact of digital media on language and communication, examining how digital environments reshape grammar, vocabulary, linguistic hierarchy, and interpersonal interaction. It investigates the cultural and communicative consequences of this transformation and considers how

digital literacies are emerging as essential tools for effective and ethical communication in the twenty-first century.

1. Evolution of Digital Language and Emergence of New Vernaculars

Digital communication has given rise to novel forms of linguistic expression that blend oral and written traditions. Text messaging, online chatting, and social media posts have generated a hybrid mode of communication that is informal, immediate, and often context-dependent.This new digital vernacular frequently abandons traditional punctuation, spelling, and syntax in favour of brevity, playfulness, and speed. Acronyms, abbreviations, phonetic spelling, and the incorporation of visual elements like emojis are now integral to how people express tone, emotion, and intent.

Such transformations are not indicative of linguistic deterioration but rather reflect a dynamic adaptation to the constraints and affordances of digital media. For instance, platforms like Twitter (now X), with character limits, have historically encouraged linguistic economy and creative rephrasing.

Similarly, messaging apps promote conversational fluidity, blending synchronous and asynchronous dialogue in ways that mimic oral interaction while retaining written formality. The result is a richly expressive and context-sensitive mode of communication that reflects the immediacy and multimodality of digital life.

2. The Dominance of English and Linguistic Inequality

While digital platforms have the potential to accommodate multilingualism, the global dominance of English in online spaces remains a significant barrier to linguistic equity. English is the primary language for coding, interface design, search engine optimisation, and platform communication. As a result, content produced in English is often more visible, monetisable, and algorithmically favoured than material in other languages. This privileging contributes to the underrepresentation of non-English languages and the erosion of linguistic diversity.

The situation is further exacerbated by the lack of localisation features for many platforms, which fail to support input in minority scripts or provide adequate translation tools. In educational and professional domains, English has become the default medium of communication, reinforcing existing global hierarchies and limiting the participation of non-English speakers in key digital discourses. Thus, while the Internet offers opportunities for global dialogue, it also reinforces linguistic inequalities that mirror broader geopolitical and economic disparities.

3. Language Preservation and Digital Revitalisation Movements

Despite the dominance of English, digital platforms have also become crucial tools for language preservation and revitalisation. Communities seeking to maintain or revive endangered languages have embraced the Internet as a

space for documentation, instruction, and cultural transmission. Through blogs, YouTube channels, social media pages, and digital archives, speakers of indigenous and minority languages are recording oral histories, producing educational content, and fostering intergenerational learning.

These digital efforts often complement offline initiatives, creating hybrid language communities that operate both locally and globally. Moreover, the use of digital tools enables linguistic innovation, where traditional forms are adapted to modern contexts without losing their cultural specificity. In some cases, digital engagement has led to increased visibility and institutional support for threatened languages. Thus, the internet, when used strategically, can serve as both a repository and a revitalising force for linguistic heritage.

4. Multimodality and the Visual Turn in Communication

Digital communication is increasingly defined by its multimodal nature, in which text is combined with images, sounds, and interactive elements to create layered and dynamic meaning. Emojis, memes, GIFs, stickers, voice notes, and reaction images have become essential components of online discourse, offering users alternative modes for expressing affect, sarcasm, humour, and solidarity. This shift reflects a broader "visual turn" in communication, where linguistic meaning is augmented, and sometimes displaced, by visual cues.

This transformation has profound implications for how individuals interpret and engage with information. Communicative literacy now involves not only decoding written language but also understanding the cultural conventions, aesthetic symbols, and digital grammar of visual media. For instance, a single meme can carry nuanced political commentary, while an emoji can drastically alter the tone of a message. The fusion of text and image has created a new semiotic landscape in which meaning is co-constructed through layered signifiers. While this allows for expressive richness, it also introduces the risk of miscommunication, particularly across cultural or generational boundaries.

5. New Norms of Interpersonal Communication

Digital media have reshaped norms of interpersonal communication by altering expectations around availability, response time, emotional expression, and boundaries. The immediacy and ubiquity of messaging platforms have fostered a culture of perpetual connectivity, in which users are expected to be continuously present and responsive. This dynamic can lead to communication fatigue, anxiety over perceived delays or silences, and the blurring of personal and professional boundaries.

Moreover, digital communication encourages the performance of emotion through typographic features, punctuation, and visual elements. Expressive norms vary across platforms—what is acceptable on Instagram may

seem inappropriate in email communication—requiring users to navigate complex, context-specific etiquette. The proliferation of public and semi-public communication spaces, such as comment threads and story replies, further complicates the distinction between private and public interaction. These evolving norms reflect broader changes in social relationships, mediated by digital tools that simultaneously facilitate intimacy and surveillance.

Chapter Summary

This chapter explored how digital media have transformed cultural practices and modes of media consumption. It began by analysing changing habits in media usage, noting the shift from passive, linear consumption to active, on-demand, and personalised experiences. Mobile devices, streaming services, and social media have redefined when, where, and how audiences engage with content.

The chapter then discussed the globalisation of digital content, highlighting how cultural products circulate across borders with unprecedented speed. This global flow has fostered transnational audiences, hybrid cultural expressions, and greater visibility for non-Western content. However, it also raises concerns about cultural homogenisation, algorithmic preference for dominant languages, and the marginalisation of local voices.

The theme of representation and diversity online was examined through critical engagement with issues of visibility, inclusivity, and bias. The chapter considered how digital spaces both empower marginalised voices and reproduce structural inequalities, depending on platform governance, audience reception, and algorithmic design.

Finally, the impact of digital media on language and communication was addressed. The rise of emojis, memes, internet slang, and multimodal messaging signals a shift in linguistic expression. While these trends reflect creativity and adaptability, they also complicate meaning-making

and raise questions about digital literacy and linguistic equity. The chapter thus offered a rich account of digital media's cultural ramifications.

Assessment question

1. How have media consumption habits changed in recent years?
2. What drives the globalisation of digital content?
3. How is cultural diversity represented online?
4. Discuss the impact of media on language evolution.
5. What role does digital media play in shaping identity?
6. How does online representation influence minority voices?
7. What is the effect of digital platforms on traditional cultures?
8. How does global content affect local consumption patterns?
9. What are the pros and cons of globalised media?
10. How has communication style shifted due to digital interaction?

CHAPTER 8 Ethics and Challenges in the Digital Age

Learning Objective

In this chapter, readers will explore the ethical concerns emerging in today's digital media environment. They will examine the dangers of fake news and misinformation. The chapter highlights data privacy and issues related to digital surveillance. It addresses the effects of online harassment and cyberbullying. Readers will also learn how to balance innovation with responsibility. This chapter promotes ethical awareness in digital participation.

8.1. Misinformation and Fake News

In the digital era, misinformation and disinformation have become significant ethical and social dilemmas. The simplicity of online material dissemination facilitates the fast dissemination of incorrect or inaccurate information by social media, websites, or messaging systems.

This reduces public confidence, distorts reality, and can cause real harm. The matter presents moral issues for both content authors and users. Addressing disinformation requires critical analysis, digital literacy, and ethical media practices.

1. Speed of Information Spread

Digital channels facilitate immediate dissemination of news, whether accurate or inaccurate, worldwide. This velocity often surpasses fact-checking and editorial control. Consequently, misinformation may be disseminated to millions prior to the implementation of corrections.

The contagious quality of material amplifies the effects of disinformation. Once disseminated extensively, incorrect narratives become hard to rectify. This poses a continuous challenge to media morality and responsibility.

2. Manipulation for Political or Financial Gain

Disinformation is often deliberately fabricated to sway political perspectives or generate advertising money. Deceptive headlines and manipulated visuals are used to influence public opinion or create discord.

This technique capitalises on emotions & confirmation bias. It challenges democratic processes & public debate. Ethical journalism is crucial for countering these strategies and preserving the integrity of information.

3. Decline in Trust Towards Media

Frequent exposure to disinformation undermines public trust in news organisations and digital media. Individuals may find it challenging to differentiate between credible and deceptive sources. This scepticism undermines the media's function as a reliable source of truth.

In severe instances, it results in cynicism or the acceptance of conspiracy ideas. Rebuilding confidence requires openness, verification of facts, and adherence to ethical reporting standards.

4. Impact on Public Health and Safety

During occurrences such as the COVID-19 pandemic, misinformation incited fear, uncertainty, and opposition to health protocols. Erroneous remedies, vaccination fallacies, and conspiracy theories proliferated extensively on the internet. This misconception presented significant risks to public safety and health.

All producers and platforms have an ethical obligation to avert damage. Prompt action and awareness initiatives are essential in these circumstances.

5. Role of Algorithms and Echo Chambers

Social media algorithms regularly perpetuate users' pre-existing opinions by consistently presenting like material. This creates echo chambers that exacerbate disinformation and restrict alternatives.

Users may only encounter material that corresponds with their beliefs, regardless of its veracity. Ethical issues emerge with the prioritisation of participation above veracity by platforms. Resolving this problem necessitates modifications in algorithm design & enhancement of user awareness.

6. Need for Media Literacy and Ethical Responsibility

Combating fake news depends on educating users to think critically and verify information. Media literacy empowers individuals to identify reliable sources, question content, and avoid spreading falsehoods.

Ethical responsibility also lies with influencers, journalists, and tech companies. Promoting accurate information and calling out misinformation can help create a more informed and responsible digital society.

8.2. Data Privacy and Digital Surveillance

The proliferation of digital technologies has brought about a radical transformation in the way personal data is collected, processed, and utilised. Every interaction with digital platforms—be it a casual web search, a social media post, a biometric login, or a voice command to a smart device—leaves behind a data trace. While such data may appear harmless or even beneficial when considered in isolation, its aggregation and analysis over time allow for the construction of detailed behavioural profiles that reveal intimate aspects of an individual's life. In this context, **data privacy** emerges not merely as a technical concern but as a fundamental human right, integral to personal autonomy, freedom of expression, and democratic integrity.

In parallel, **digital surveillance**—the systematic monitoring of online behaviour—has become a key instrument for both corporations and state actors. Corporations seek to

anticipate consumer needs and maximise profit through predictive analytics, while states utilise surveillance tools for purposes ranging from crime prevention and immigration control to social scoring and political monitoring. In both cases, the lines between voluntary participation and coercive observation become increasingly blurred. The capacity for constant monitoring reshapes social relations, generates chilling effects, and consolidates control in the hands of those with access to technological infrastructure and algorithmic decision-making systems.

This section undertakes a comprehensive analysis of the intertwined issues of data privacy and surveillance, exploring their technical foundations, commercial logics, regulatory dilemmas, and social consequences. It seeks to emphasise not only the threats posed by unchecked surveillance but also the urgent need for transparent, equitable, and rights-respecting approaches to data governance in the digital age.

1. Surveillance Capitalism and Behavioural Profiling

The logic of **surveillance capitalism** is predicated on transforming personal experiences into data commodities that can be bought, sold, and acted upon. Corporations engage in this process through the unobtrusive extraction of user data across digital platforms, often under the guise of personalisation or service improvement.

- Companies such as Google, Meta, and Amazon track user activity across websites and devices

through cookies, location services, app integrations, and smart assistants**.** These technologies enable seamless yet invasive data collection, extending well beyond the immediate platform to capture broader digital behaviour. For instance, Google's advertising ecosystem tracks users across millions of third-party websites, often without explicit user knowledge, enabling the company to construct comprehensive behavioural maps.

- These behavioural profiles are monetised through targeted advertising systems that predict what a user is likely to buy, believe, or support**.** Such predictions are not passive but actively shape user experience by filtering the content one sees. If a user is predicted to be receptive to a particular ideology, product, or lifestyle, the platform algorithm may selectively reinforce those views or choices, thereby narrowing the user's informational horizon and increasing susceptibility to manipulation.

The commodification of user data thus not only undermines privacy but subtly recalibrates agency, altering how individuals interact with information, form opinions, and make decisions.

2. State Surveillance and the Politics of Security

Governments have embraced digital surveillance under the banner of national security, crime detection, and public health, yet such practices are frequently opaque and lacking in democratic accountability. The securitisation of data

collection allows for the expansion of state power into realms of life once considered private.

- Mass surveillance programmes such as PRISM, exposed by Edward Snowden, revealed the extent of state access to private communications through partnerships with tech companies**.** These revelations disclosed that intelligence agencies like the NSA systematically intercepted data from emails, voice calls, video chats, and social media posts, often without judicial oversight, leading to a global outcry over privacy violations and the misuse of surveillance powers.

- Governments employ facial recognition, biometric databases, phone metadata collection, and predictive policing technologies—often targeting specific communities under the guise of risk management. For example, the use of facial recognition technology by law enforcement disproportionately affects communities of colour, who are more likely to be misidentified due to biased training data. Predictive policing tools, meanwhile, reinforce racial profiling by targeting neighbourhoods with historically higher arrest rates—often reflecting systemic bias rather than objective risk.

These forms of surveillance have significant implications for civil liberties, including the right to protet, the freedom to organise, and the protection of marginalised groups from state overreach.

3. Datafication of Everyday Life

The datafication of human activity has extended to virtually every domain of existence, including health, education, employment, mobility, and emotion. This transformation reflects a belief that all aspects of life can be rendered legible and actionable through quantification.

- Wearables and fitness apps collect biometric data, which is sometimes shared with employers or insurance companies**.** While users may intend to track their personal health, this data can be repurposed to determine insurance premiums, assess worker productivity, or even predict future medical conditions—raising questions about consent, data sharing, and the limits of corporate access to bodily information.
- Smart home devices monitor speech, behaviour, and environmental patterns, often sending this data to cloud servers for processing. Voice assistants such as Amazon's Alexa or Google Home not only respond to user queries but also record ambient sound, which can be accessed by third parties or subpoenaed in legal cases. This creates an ever-listening environment where domestic privacy is compromised.
- Social media platforms encourage users to share personal experiences, feelings, and relationships, creating vast archives of affective and relational data. Posts, photos, likes, and messages are analysed

to gauge emotional states and relational ties, allowing companies to model user sentiment and predict future engagement.

Together, these practices reveal how digital tools increasingly act as interfaces for behavioural monitoring and emotional extraction, even in the most intimate spheres of human life.

4. Algorithmic Discrimination and Data Injustice

Algorithmic systems used in digital surveillance are not neutral. They often reflect and reproduce the biases embedded in the data on which they are trained and the social environments from which they emerge. As such, surveillance technologies frequently operate as mechanisms of data injustice.

- Credit scoring algorithms may disadvantage individuals based on race, neighbourhood, or past financial instability, without providing explanations or recourse**.** Such systems treat historical data as neutral evidence of creditworthiness, ignoring the structural inequalities that shape financial access and penalising individuals for systemic disadvantage.
- Automated content moderation can disproportionately silence users from marginalised communities if linguistic or cultural expressions are misclassified as harmful. For example, African-American Vernacular English (AAVE) or indigenous terms

may be flagged as offensive, leading to the suppression of authentic expression and the erasure of minority cultures from digital spaces.

- Predictive policing tools often reinforce racial profiling by targeting communities historically over-policed, thus perpetuating cycles of surveillance and mistrust. These systems draw on arrest records and geographic crime data to forecast "high-risk" areas, resulting in heightened police presence and surveillance in already vulnerable communities.

Such outcomes illustrate how digital surveillance can entrench rather than challenge social hierarchies, necessitating a critical reassessment of algorithmic governance and its implications for justice and equity.

5. Consent, Transparency, and Informed Choice

In the digital economy, the notion of **informed consent** is frequently reduced to a legal formality rather than a meaningful ethical principle. Most users are unaware of what they agree to when accepting terms of service, and the design of digital platforms often discourages critical engagement with privacy settings.

- Terms of service are often lengthy, complex, and legally dense, discouraging meaningful user engagement or scrutiny**.** Users typically accept these terms by default, driven by the desire to access services quickly, without understanding the extent or duration of data collection involved.

- Consent is frequently bundled—users cannot access the service without agreeing to extensive data collection, making consent a precondition rather than a free choice**.** This undermines the principle of voluntariness, as individuals are coerced into participation simply to function in digital society.
- Data sharing between third parties occurs behind the scenes, making it difficult for individuals to track or revoke the circulation of their personal information**.** This creates a secondary market for user data, where information is bought and sold across opaque networks, with minimal oversight and accountability.

Such practices reveal a profound asymmetry between data subjects and data controllers, eroding the individual's ability to understand, contest, or opt out of surveillance.

6. Resistance, Regulation, and the Right to Privacy

In response to growing public concern, legal frameworks and advocacy movements have emerged to defend data privacy and curb the excesses of surveillance. These initiatives aim to reassert individual rights, promote transparency, and establish normative boundaries for digital governance.

- The European Union's General Data Protection Regulation (GDPR) has become a global benchmark, requiring companies to seek explicit consent, minimise data collection, and offer users the right to

access, correct, or delete their data. The GDPR also imposes substantial penalties for non-compliance, creating legal and financial incentives for more ethical data practices.

- Activist groups such as the Electronic Frontier Foundation and Privacy International advocate for stronger digital rights, transparency, and corporate accountability. These organisations engage in public education, legal action, and policy advocacy to promote digital justice and protect vulnerable populations from surveillance harms.

- Privacy-enhancingltechnologies—including encrypted messaging apps, VPNs, and browser extensions—allow individuals to mitigate exposure, although these are not always accessible to all. Tools such as Signal, Tor, and DuckDuckGo help users avoid data tracking and preserve anonymity, but they require a level of technical literacy and infrastructure not available in all regions.

Ultimately, protecting privacy in the digital age demands not only regulatory enforcement but also a cultural shift towards valuing data dignity, ethical design, and participatory governance.

8.3. Online Harassment and Cyberbullying

Online harassment is the use of digital platforms—such as social media, emails, forums, and messaging applications—to incessantly target, threaten, intimidate, or degrade an

individual. It may manifest in several ways, such as hate speech, doxing (dissemination of private information), stalking, and the transmission of unpleasant texts. Cyberbullying is another type of online harassment, primarily affecting children or adolescents, characterised by actions aimed at humiliating, threatening, or isolating the victim.

The two acts are intentional and prolonged, often characterised by power disparities in which the harasser leverages anonymity or technical means to inflict damage. In contrast to conventional bullying, cyberbullying and internet harassment can persistently accompany the victim at all times, making escape from the abuse difficult.

1. Forms of Online Harassment and Cyberbullying

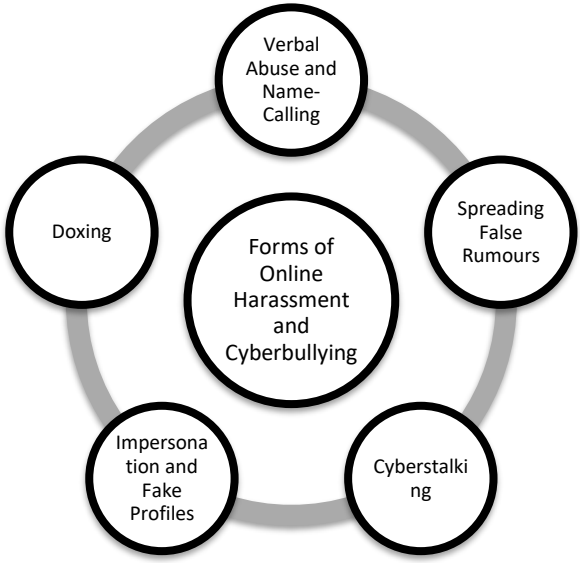


Figure 8.1 Forms of Online Harassment and Cyberbullying

a. Verbal Abuse and Name-Calling

Verbal abuse is a prevalent kind of internet harassment when people are subjected to injurious, derogatory, or abusive words. This often transpires in comment sections, direct messages, and postings.

The language used may be sexist, racist, homophobic, and overtly hostile. Its objective is to frighten, demean, or incite the victim. Such assaults may inflict emotional anguish and undermine self-esteem.

b. Spreading False Rumours

Disseminating or fabricating false material about someone online is a detrimental method of undermining their reputation. These rumours may pertain to an individual's private life, character, or conduct. They are often disseminated via social media postings, anonymous forums, and group conversations.

Upon dissemination, inaccuracies may rapidly proliferate, irrespective of their veracity. Victims may endure social ostracism, anxiety, and depression as a consequence. This type of bullying is hard to rectify once the disinformation is disseminated broadly.

c. Cyberstalking

Cyberstalking is persistent surveillance or intimidation of an individual online, resulting in anxiety or unease. It may include monitoring an individual's online behaviour, dispatching persistent unsolicited communications, or infiltrating their personal accounts.

The stalker often uses personal information to intimidate or coerce the target. This conduct is invasive and psychologically disturbing since it infringes upon the victim's privacy.

d. Impersonation and Fake Profiles

Impersonation transpires when somebody fabricates a fraudulent internet character to mislead or ridicule another individual. This may include using another individual's identity, images, or personal information to establish social media accounts.

These counterfeit accounts are used to disseminate disinformation, perpetrate harassment, or participate in fraudulent activities. Victims may experience perplexity, humiliation, or a deterioration of trust among their peers. This kind of abuse is often used to undermine credibility or relationships. Removing such accounts may require much time and effort.

e. Doxing (Publishing Private Information)

Doxing is the act of disclosing an individual's private or sensitive information online with their permission. This may include addresses, telephone numbers, email identifiers, or even financial information.

Doxing often subjects persons to tangible risks such as harassment, theft, and stalking. It is often designed to coerce or penalise the victim. The material may be disseminated extensively and archived indefinitely online.

2. Impact of Online Harassment and Cyberbullying on Victims

Following are the impact of online harassment and cyberbullying on victims:

a. Emotional and Psychological Distress

Online harassment victims often experience dread, despair, anxiety, and depression. Constant exposure to demeaning remarks, threats, or public humiliation might make one feel hopeless.

Many victims suffer from increased self-doubt and reduced self-worth. Long after the bullying has stopped, these psychological impacts may still be there. In extreme situations, victims could need mental health assistance or therapy. While the harm is inside, it is extremely painful and enduring.

b. Social Withdrawal and Isolation

In an effort to prevent further injury, victims could start minimising social situations both in person and online. They often experience peer embarrassment, judgment, or misunderstanding. They may get unhappy as a result of this disengagement, which makes it more difficult for them to establish or maintain relationships.

They may refrain from openly expressing themselves out of fear of being singled out again. Social isolation has the potential to contribute to mental discomfort over time. Breaking the pattern of exclusion becomes challenging.

c. Decline in Academic or Professional Performance

Students who experience cyberbullying often exhibit decreased motivation, focus, and academic performance. In a similar vein, working professionals could struggle to maintain concentration, fulfil deadlines, or participate in group projects.

Online harassment impairs productivity and cognitive function by causing stress and focus. Disengagement and absenteeism are frequent results. In severe situations, victims may quit their jobs or quit school to avoid the abuse.

d. Physical Health Issues

The psychological effects of cyberbullying might show up as physical symptoms such as headaches, sleeplessness, exhaustion, and changes in appetite. Long-term stress may impair immunity, increasing disease susceptibility.

Particularly typical causes of sleep problems include worry and fear of retaliation. Additionally, some victims could self-harm or adopt inappropriate coping strategies. The psychological toll of abuse gets worse by the physical consequences.

e. Damage to Reputation and Public Image

A victim's reputation may be seriously damaged when false rumours, intimate photos, or disparaging information are circulated online. Career prospects, academic status, and interpersonal connections may all be affected by this harm.

Due to the internet's viral nature, information may become viral quickly and stay available for years. On the basis of false information, victims may be evaluated by their peers, employers, and the general public.

8.4. Balancing Innovation with Responsibility



Figure 8.2 Balancing Innovation with Responsibility

In the digital era, innovation propels advancement in technology, media, & communication. Nonetheless, significant innovation requires ethical accountability. While novel tools and platforms provide convenience and creativity, they may also introduce concerns like privacy violations, disinformation, and digital exploitation. Harmonising

innovation with accountability guarantees that advancement serves societal interests without inflicting damage. It requires meticulous planning, control, and user cognisance.

1. Ethical Use of Technology

Technological innovation should be governed by ethical standards that safeguard human rights & dignity. Developers and corporations have to consider the societal ramifications of their goods. This encompasses the prevention of abuse, the assurance of justice, and the avoidance of damage. Responsible innovation respects user privacy & encourages inclusion. Ethics must be included in the design stage.

2. Protecting User Privacy

Protecting user privacy becomes essential as digital technologies gather vast volumes of personal data. Organisations must exhibit transparency about data acquisition and use. Innovation must not compromise user trust or safety. Strong privacy regulations and secure systems exemplify responsible innovation. Individuals have the right to authority over their personal information.

3. Combating Misinformation

Innovative tools such as social media may disseminate misinformation rapidly. Tech businesses are obligated to provide tools that identify and mitigate disinformation. Algorithms need to prioritise precision above mere

participation. Instructing users to authenticate sources is of similar significance. Responsible innovation involves the protection of truth within digital environments.

4. Ensuring Accessibility and Inclusion

Innovation must benefit all individuals, especially those with impairments and members of marginalised groups. Creating accessible platforms guarantees equitable opportunities and engagement. Inclusive innovation eliminates obstacles and caters to varied needs. It represents social responsibility in the digital era. Technology should enable everyone, not only a select few.

5. Minimising Environmental Impact

Technological advancement often requires substantial energy and resources. Responsible innovation takes into account the ecological impact of gadgets, data centres, or digital waste. Green technology and sustainable design methodologies are crucial. Innovation must correspond with global environmental objectives. An accountable strategy safeguards the world for future generations.

6. Regulating Harmful Content

Innovative platforms have to prevent the dissemination of detrimental material, including hate speech and cyberbullying. This entails establishing explicit standards, content oversight, and responsibility. Innovation has to prioritise user safety & psychological well-being. Tolerating unregulated misuse diminishes the advantages of digital

advancement. Responsibility requires action, not only awareness.

7. Encouraging Transparent Practices

Transparency in technological operations promotes user confidence and responsibility. Organisations need to reveal the operational mechanisms of algorithms and the processes behind decision-making. Transparent communication prevents manipulation and ensures equity. Responsible innovation prioritises transparency above confidentiality. Transparency supports ethical & user-centric digital ecosystems.

Chapter Summary

This chapter explored the ethical dilemmas and emerging challenges associated with digital media usage, regulation, and design. It began by addressing the proliferation of misinformation and fake news, identifying how algorithmic amplification, economic incentives, and reduced gatekeeping have contributed to the widespread dissemination of false content. The chapter underscored the implications for public trust, democracy, and informed citizenship.

Attention then turned to data privacy and digital surveillance, examining how personal data is extracted, analysed, and commodified by both corporate entities and state actors. The chapter highlighted the emergence of surveillance capitalism, the erosion of consent, and the disproportionate impact of data-driven profiling on vulnerable communities.

Online harassment and cyberbullying were also explored as pressing social harms facilitated by anonymity, virality, and weak moderation. The chapter considered the psychological, legal, and social consequences of digital abuse, particularly for women, LGBTQ+ individuals, and marginalised groups.

Finally, the chapter reflected on the need to balance innovation with responsibility. As digital media continue to evolve, ethical design, transparent regulation, and user education must be prioritised. The chapter concluded by

affirming that ethical engagement with digital technologies is essential for fostering inclusive, accountable, and sustainable digital futures.

Assessment question

1. What are the major ethical concerns in digital media today?
2. How does misinformation spread through digital platforms?
3. What strategies help combat fake news online?
4. Discuss the importance of data privacy in media use.
5. What are the risks associated with digital surveillance?
6. How does cyberbullying affect online users?
7. What legal measures exist to prevent online harassment?
8. How can innovation be balanced with social responsibility?
9. What role does digital literacy play in safe media use?
10. What are the ethical responsibilities of digital content creators?

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The Magic of Marketing

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Dr. Anand Nandwani

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Social System Reforms to Achieve Global Sustainability

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Preface

Global sustainability is not a singular goal, but a composite vision that demands the transformation of multiple social systems—economic, environmental, political, technological, and cultural. The book *Social System Reforms to Achieve Global Sustainability* explores this multifaceted challenge by assembling a diverse range of scholarly perspectives, grounded in policy innovation, human rights, equity, and systems thinking. As humanity confronts complex global crises such as climate change, resource depletion, gender inequality, and unsustainable development practices, this volume provides pathways rooted in justice, inclusivity, and resilience.

Each chapter in this collection offers critical insights into how institutions, communities, and governance systems can reorient themselves to foster sustainable futures. The common thread across the chapters is a shared commitment to social reform—not as a reactive process, but as a proactive and strategic necessity. From empowering farmers through intellectual property reform to leveraging AI for inclusive governance and redefining localization in global equity, the chapters bridge theory and practice to illuminate the structural shifts required for long-term sustainability.

This book is designed to guide scholars, policymakers, practitioners, and students in understanding the systemic interconnections among social justice, environmental stewardship, and sustainable development. It encourages readers to question dominant paradigms, embrace alternative knowledge systems, and pursue sustainability not merely as a policy goal, but as a transformative societal ethos.

CHAPTER OVERVIEW

Chapter 1

Explores how agroecological transitions can be achieved through empowering farmers and reforming intellectual property laws. A human rights-based approach is proposed to promote seed sovereignty, traditional knowledge systems, and biodiversity through collective stewardship.

Chapter 2

Examines how artificial intelligence reinforces or mitigates gender inequality. The chapter outlines both the threats posed by algorithmic bias and opportunities offered by inclusive design and feminist technology movements, advocating for intentional, equity-driven AI governance.

Chapter 3

Analyzes how evolving cultural and social norms influence sustainability. Using the STEEP framework, it introduces the concept of 'societal levers' and the 'ripple effect' of values to institutionalize environmental priorities within mainstream norms.

Chapter 4

Investigates how economic reforms can drive the transition to a circular economy. It focuses on sustainable consumption, resource efficiency, and international policy models to promote reduced waste and equitable growth aligned with SDGs 12 and 13.

Chapter 5

Critically assesses the history and current efforts toward achieving gender equality. It highlights the structural and ideological barriers that persist and proposes essential policy shifts as catalysts for a more sustainable and just future.

Chapter 6

Traces the evolution of global environmental treaties and evaluates their effectiveness. The chapter critiques the limitations of diplomatic systems and emphasizes civilian pressure and compliance mechanisms to enhance global environmental governance.

Chapter 7

Engages in a philosophical inquiry into sustainability, distinguishing it from the broader goal of resource preservation. It questions prevailing assumptions and asserts that sustainability, while important, is one of several pathways to intergenerational resource continuity.

Chapter 8

Proposes a model for inclusive and intelligent governance that harnesses AI, blockchain, and digital tools to optimize policy, enhance institutional legitimacy, and address global challenges—including climate change and space governance.

Chapter 9

Highlights the role of exhibitions and experiential learning in promoting sustainability through entrepreneurship. It argues for integrating these methods in education to develop critical thinking, planning skills, and economic responsibility among younger generations.

Chapter 10

Presents localization as a foundational strategy for achieving global equity and sustainable development. The chapter advocates for decentralized governance, AI-driven decision-making, and financial sovereignty to restructure international development paradigms.

Chapter 11

This chapter examines microalgae as a dual-purpose resource for bioenergy and food security within a circular economy framework. It highlights their potential to meet Sustainable Development Goals (SDGs) by reducing pollution, conserving resources, and fostering green communities through algorefinery systems.

Chapter 12

Focusing on the Philippines, this chapter discusses how empowering adolescents through reproductive health education addresses national crises like teenage pregnancy and promotes social sustainability, aligning with legal reforms, inclusive policies, and the SDGs.

Chapter 13

This chapter explores how consumer behavior shapes sustainability outcomes within circular economy models. It proposes behavioral shifts, policy frameworks, and emerging technologies like IoT and blockchain to enhance sustainability through reuse, recycling, and reduced consumption.

Chapter 14

Analyzing small heritage towns, this chapter identifies indicators for sustainable socio-economic development and cultural preservation. It offers frameworks to guide heritage-based entrepreneurship, community empowerment, and integrated innovation for local resilience.

Chapter 15

This chapter underscores the pivotal role of sustainable finance in advancing environmental goals. It explores tools like green bonds and carbon credits, institutional frameworks, and policy incentives for directing capital toward green technologies and low-carbon transitions.

Chapter 16

Through qualitative insights from Filipino educators, this chapter evaluates the influence of school administrators on sustainable education. It emphasizes capacity building, community involvement, and ethical leadership to support educational sustainability in public schools.

Chapter 17

Proposing a legal-ecological synthesis, this chapter advocates integrating environmental principles into law. It emphasizes adaptive governance, the rights of nature, and ecosystem-based management to foster ecological sustainability across legal systems.

Chapter 18

This chapter examines how business innovation—including digitalization, CSR, and circular models—can transform social systems. It promotes long-term sustainability by shifting business priorities from profit maximization to inclusive, regenerative strategies.

Chapter 19

Green chemistry is presented as a transformative tool in reducing industrial environmental impact. The chapter outlines its principles and examines its influence on public policy, resource efficiency, and health, advocating for its mainstream adoption in sustainability agendas.

Chapter 20

This chapter applies behavioral economics to promote sustainable consumption. It explores cognitive biases, social norms, and digital interventions, offering a framework for systemic change involving policy, community, and organizational transformation.

Chapter 21

Addressing sustainability literacy, this chapter proposes transformative educational models combining curriculum reform, digital tools, and lifelong learning. Through mixed methods, it provides actionable strategies to cultivate global sustainability competencies.

This book brings together diverse scholarly perspectives, innovative methodologies, and actionable insights that reflect the multifaceted nature of sustainability. From biorefineries and behavioral economics to education, law, finance, and green chemistry, each chapter contributes a unique lens through which we can understand and address the urgent environmental, social, and economic challenges of our time. By bridging disciplines and fostering global collaboration, the authors collectively highlight that sustainability is not a singular pursuit but a shared responsibility requiring systemic transformation, inclusive policies, and empowered communities.

As readers engage with the insights and frameworks offered throughout this volume, they are encouraged to reflect on the interconnectedness of the challenges we face and the collaborative spirit needed to build a resilient and equitable future. This book serves not only as a resource for academic exploration but also as a call

to action—for educators, policymakers, innovators, and global citizens alike—to champion sustainable development in all sectors of society.

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Chapter 1
Agroecological Transformation Through Farmers' Empowerment and IP Reform:
A Human Rights–Based Approach

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ABSTRACT

The transition to agroecology is essential for achieving sustainable food systems, biodiversity conservation, and climate resilience. However, dominant intellectual property (IP) regimes often marginalize small-scale farmers by restricting seed sovereignty and traditional knowledge systems. By recognizing farmers' rights to seeds, knowledge, and fair market access, IP policies can shift from corporate-driven monopolization to collective stewardship models. The chapter advocates for a multi-stakeholder approach that integrates legal, economic, and ecological dimensions, ensuring that farmers' empowerment is at the core of agroecological transitions. By embedding human rights in IP governance, policymakers can foster more just, resilient, and biodiversity-rich food systems, ultimately advancing the global movement for agroecological transformation. This chapter argues that a human rights-based approach to IP reform can empower farmers as key agents of agroecological transformation.

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INTRODUCTION

Modern food and agricultural systems successfully meet worldwide demand for food. However, high-external input, resource-intensive agricultural systems have resulted in widespread deforestation, water scarcity, biodiversity loss, soil depletion, and significant greenhouse gas emissions (Calicioglu et al, 2019). Despite recent advancements, hunger and extreme poverty remain major worldwide concerns. Poverty reduction efforts are hampered by persistent inequities. Agroecology combines ecological and social principles to design and manage food and agricultural systems (Food, 2018). The goal is to optimize interactions among plants, animals, humans, and the environment, while also considering social factors for a sustainable and equitable food system (Prabhu et al., 2015). Agroecology is not a recent invention. This concept has been present in scholarly literature since the 1920s and is reflected in family farming techniques, grassroots sustainability initiatives, and global public policy (Gallardo-López et al., 2018). Recently, agroecology has gained attention from international and UN entities. Polyculture, crop diversity, and integrated pest control are all agroecological principles that contribute to increased food security and nutrition. Agroecology promotes carbon sequestration, soil health, and greenhouse gas reductions, resulting in more climate-resilient farming systems (Vikas & Ranjan, 2024).

Agroecological farming, which is unknown to individuals who view agriculture and ecology as different subjects, refers to farming for the purpose of creating food, employment, and economic benefits, as well as cultural, social, and environmental benefits (Bisht et al., 2022). Furthermore, agroecology empowers farming communities as change agents, addresses the core causes of issues in unsustainable agricultural systems in an integrated manner, and provides holistic and long-term solutions to alter the food and agricultural systems (Fiore et al., 2024). Indigenous seeds have traditionally been passed down through the generations by farmers. Their protection of native seed varieties is essential to preserving agricultural biodiversity and advancing ecological sustainability (Clancy & Vernooy, 2016). The production of native seeds has decreased as a result of the broad use of hybrid and genetically modified seeds, which are frequently pushed by big agribusinesses. Despite the fact that these commercial seeds necessitate high-input farming systems, they are frequently promoted as being more productive. Significant obstacles include laws that prioritize commercial seed production above the preservation of native seeds and a dearth of financial incentives for farmers to cultivate native crops. In light of the above perspective, the author links agroecological transformation to human rights and intellectual property reforms. It also advocates for a human rights-based framework for farmers' empowerment.

Chapter 2
AI and Gender Inequality: Challenges, Opportunities, and Pathways to Equity

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ABSTRACT

AI is not equally beneficial to all genders, as bias is reinforced through flawed algorithms, lack of diversity, and unequal access. This chapter investigates how both deepening and addressing gender inequality can be achieved through the use of artificial intelligence. AI is critiqued by a variety of feminists who showed how AI works against marginalized women, such as in hiring, healthcare, and facial recognition. The global digital divide further hinders women's ability to access the AI advances. First, it is biased hiring tools, discriminatory facial recognition and labor market polarization where AI automation poses a threat to jobs that tend to be held by women. However, AI also offers opportunities for equity through inclusive design, gender-sensitive policies, and grassroots initiatives. Feminist Tech movements, bias mitigation tools, and gender-responsive regulations may hamper the digital divide. The chapter argues that intent from the start is required for AI equity governance to

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avoid exacerbating marginalization and help build a more just technological future.

1. INTRODUCTION

The rapid proliferation of Artificial Intelligence (AI) technologies has changed economies, governance and social intercourse, causing most people to work, communicate or make decisions in a totally different way (Abbas Khan et al., 2024). AI powered automation has morphed industries and led to increased efficiency and therefore productivity and financial efficiency. Around the globe governments are bringing AI into public administration, forces of law and order, and the formulation of policy, and as a result decisions based on data are being made on an unprecedented scale (Valle-Cruz et al., 2020). AI algorithms are increasingly determining how we interact with each other and how we experience the web, influencing how we consume media, and determining whom we should meet and how we should do so. But the benefits for AI promised progress have not come equitably, according to gender, and the equity, fairness, and inclusivity in technological development was not achieved (Yu, P.K. 2020).

According to Badwal, 2024 AI has the potential to be forward thinking and bring the world closer together, its design, enactment and regulation tend to mirror and reflect biases ingrained in society, the likes of which revolve around gender, race and an individual's class (Gebru, T. 2020). Due to AI being created in social and historical contexts of power imbalances, amongst them, gender disparities are commonly inscribed into AI systems. Biased hiring algorithms that prefer male candidates and facial recognition technologies that falter on women and people of color are not neutral AI. Instead, it reinforces many of the existing societal hierarchies such as patriarchal norms, racial inequalities and economic divisions (Crawford, 2021; Noble, 2018). Not incidental, these biases are the product of the ways AI is designed, trained and deployed. When machine learning models are trained with such datasets, they will replicate the old discriminatory patterns which the datasets portray and amplify it further (Veale & Binns, 2017).

This chapter seeks to open a space for asking questions about gender in relation to AI systems, and about how technology not only intervenes in and can magnify existing inequities and inequalities, but can also be a site of commitment to enacting the equalities gender, race, and class materialist feminist political traditions explore. However, the gender inequities in AI are not limited to programmatic bias in the code itself; such biases are deeply embedded in structural problems within the actual technology sector (Scatiggio, 2020) such as the underrepresentation of women and other marginalized people in the research, development, and creation of AI related policies and practices (Stypinska, 2023). If, however, one does not seek

Chapter 3
Cultural and Social Norms Supporting Sustainability

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ABSTRACT

In contemporary markets and societal norms, critical ecosystem services for a sustainable future are often externalised. 'Societal levers' legal, market, and social mechanisms shape resource managers' behavior and societal expectations, institutionalising evolving values. Using the STEEP framework (social, technological, economic, environmental, political), we analyse how emerging concerns become shared and transform into societal levers, reshaping norms. For influence, concerns must resonate across societal sectors and STEEP dimensions. We propose a 'ripple effect' of values to accelerate the integration of environmental concerns into mainstream norms, institutionalising them as societal levers. This approach aligns societal values with ecosystem preservation, fostering a sustainable future.

INTRODUCTION TO SOCIETAL LEVERS AND SUSTAINABILITY

Sustainability and ecosystem services are key to ensuring healthy ecosystems in the long run, and involve ensuring that natural resources are used in a way that meets current needs while preserving the ability of future generations to meet their own needs. Sustainability is the ability to be maintained at a certain rate or level in environmental, economic and social dimensions through a variety of aspects of life. Provisioning, regulating, cultural, and supporting services are all aspects of

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ecosystem services adequate for maintaining environmental health. Sustainability, an umbrella term, relates to the provision of multiple ecosystem services, and sustainability and ecosystem services interact in complex ways.

Definition of Sustainability

- The ability to continue means not to exhaust the Earth so that environmental quality and human well-being can be preserved for forthcoming generations.
- It covers three major angles: environmental, economic, and social, which should be considered equal in order to accomplish sustainability (Gonzalez-Redin et al., 2024) (Goymer, 2014).
- The term "sustainability" is often associated with sustainable development – that is, meeting the needs of the present without compromising the ability of future generations to meet theirs (Diepenmaat et al., 2020).

The Role of Ecosystem Services in Long-term Environmental Health

- Ecosystem services are human benefits derived from an ecosystem ranging from food provision, climate regulation, nutrient cycling, and recreational opportunities (Thiemann et al., 2022).
- Loss of biodiversity and ecosystem services can have serious consequences for human health/our survival and economic activities (Goymer, 2014).
- There is a need to understand the complex interactions of social, economic and ecological systems and formulate policies that promote ecosystem services conservation and sustainable use in an integrated framework (Everard et al., 2014) (Peter, 2020).
- Societal levers, such as market-based instruments, legislation, and social norms, can support or hinder the delivery and management of ecosystem services so that they align with sustainability values and goals (Everard et al., 2016) (Everard et al., 2014).

Societal Levers and Sustainability

- Societal levers mechanisms that draw societal norms and behaviors toward sustainability by embedding pro-environmental values
- They include legal instruments, economic incentives, and social norms and practices that inform resource governance and shape societal norms (Everard et al., 2016) (Everard et al., 2014).

Chapter 4
Fostering Circular Economy:
Economic Reforms for Sustainable Consumption and Resource Efficiency

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ABSTRACT

Moving toward a circular economy from a linear system represents our best strategy to handle global issues which include declining resources and environmental destruction and excessive consumption. This chapter investigates how economic reforms promote circular economy concepts by specifically analyzing sustainable consumption together with resource efficiency. Experimental data from current consumer patterns together with state-of-the-art policy development techniques and international benchmarking methods enables this study to discover methods for both conserving resources and reducing waste. This chapter delivers practical guidance which enables governments and business entities and stakeholders to create circular economy principles for their national and worldwide economic strategies while helping fulfill Sustainable Development Goals 12 and 13. The published findings support the development of sustainable economic growth practices along with just resource sharing systems.

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INTRODUCTION

For more than several decades the linear economic system known as "take make dispose" has reigned over world economies while simultaneously depleting resources and damaging ecosystems and producing enduring consumption problems (Geissdoerfer et al., 2017). The present model demonstrates inherent inefficiency because it needs continuous resource removal then creates substantial waste that produces both climate change and biodiversity destruction (Kirchherr et al., 2017). The circular economy (CE) introduces significant transformative capabilities by emphasizing resource efficiency together with waste reduction and sustainable usage practices.

CE develops a nonstop circular system of resource management which keeps materials and products within active use cycles for remanufacturing and recycling purposes thus reducing dependence on raw natural resources and limiting environmental destruction (Ellen MacArthur Foundation, 2020). Economic reforms speed up the shift toward circular economies by creating systems which give rewards along with governance approaches to encourage companies and consumers to practice sustainability (Ghisellini et al., 2016). Through government initiatives of tax benefits and EPR regulations and funding of green technologies governments establish conditions for circular economy adoption (OECD, 2016). International collaborations with multi-stakeholder initiatives play a vital role in achieving global circular economy strategy harmonization according to Prieto-Sandoval et al. (2018).

This paper aims to explore the role of economic reforms in fostering a circular economy, with a focus on sustainable consumption and resource efficiency. By examining global best practices, policy innovations, and economic incentives, the research will identify actionable strategies for transitioning from a linear to a circular economic model. The study also evaluates the social, economic, and environmental benefits of CE and highlights the challenges that need to be addressed for effective implementation. Through a comparative analysis of case studies from leading CE nations such as the Netherlands, Finland, and Japan, the paper provides insights into successful economic reform strategies and their potential for broader application.

LITERATURE REVIEW

Scholars throughout recent decades observe the circular economy (CE) as a crucial system for attaining sustainability while it has undergone substantial development. Kirchherr et al. (2017) explain CE operates as a waste-free system which maintains product persistence and supports active regeneration systems. The circular economy operates differently from the traditional linear economy since it maintains a "take-make-dispose" system that causes resource exhaustion along with environ-

Chapter 5
Gender Equality:
A Catalyst for Global Sustainable Future

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ABSTRACT

The paradox between inborn sexual identity and socially constructed gender identity existed throughout history. Unfortunately, gender identity got predominance over sexual identity in the context of patriarchy and religious beliefs. Even when all religions affirm the equality of both sexes, they demand the subordination of women. This continues to exist even in modern society. From the 19th century onwards, there were various efforts to address gender disparity that took place under the initiatives of feminism, human rights and women's rights movements. The United Nations in the second half of the 20th century advanced many attempts for the realization of gender equality. However, the present data shows that it will still take another 131 years to achieve gender equality. In this perspective, the chapter critically examines the attempts for gender equality and proposes certain policy changes and essential requirements for its true realization in view of sustainable future.

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1 INTRODUCTION

Sex and gender are two confusing and complex terms that divide society for a good period. Although sex and gender are entirely different concepts, societal misunderstandings led to their presentation in equal terms. Sex denotes an individual's biological identity, whereas gender is a socially imposed construct (Reale et al., 2021). Both males and females are equal in dignity, value, and rights, but physiologically different. The World Bank (2018) identified 28 legal gender differences; we do not enter such a detailed discussion. Our focus in this chapter is limited to the gender difference between men and women. Subscribing to the gender theory over physiological differences, the patriarchal society affirmed that men have more powers and privileges in society than women (Carbajal, 2018). This patriarchal influence was visible in almost all religions and cultures to different degrees. Accordingly, women were always sidelined from the mainstream of society and left without any basic rights and privileges.

The present globe gives more emphasis on the aspirations of gender equality thanks to human rights movements and feminist initiatives. The United Nations (UN) primarily focused on gender equality with the third goal of the Millennium Development Goals (MDGs). Although some progress has been made, it has not fully realized its objective. Hence, the Sustainable Development Goals (SDGs) in its fifth goal affirmed gender equality as not only a fundamental human right but as a vital foundation for a peaceful, prosperous, and sustainable world (UNDESA, n.d.). Both these endeavors from the part of the UN contributed to an increasing awareness among people about the importance of gender justice in the society. Gender equality cannot be thought of without adhering to the principle of gender justice and the 21st century's aspirations of gender equality revolve around the core idea of gender justice (Clavero & Galligan, 2021).

There has been laudable progress in the efforts to achieve gender equality. Many women world leaders, company CEOs, professionals, scholars, and researchers affirm that women have equal potential to contribute to societal growth. However, there are still countries, especially in the developing world, where women are discriminated on the basis of their gender in many ways and in different zones. They are subjugated as mere properties of men claiming that the religious or societal principles demand so. Some societies still place a lot of restrictions on the freedom of women showing bias towards their gender. The UN's 2030 agenda of a global sustainable future will not be realizable without the actual realization of gender equality. Gender equality basically stands for equality of all genders. But for the purpose of this chapter, we restrict ourselves to the equality of women in various areas of social life as they are the most discriminated gender throughout.

Chapter 6
Global Guardians: The Framework of Environmental Treaties

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ABSTRACT

Global warming and environmental issues are current issues whose threat is coupled with actual economic problems. Environmental and social costs are often rising inside the country as its economy grows, where they strive to maintain acceptable living standards and decrease the volume of emissions. Hence, the nations have their oversized role to play in decision making or decisions of a global nature depending on the size of their economy. The analysis of climate change and its impacts entails calling for a paradigm shift and focusing on obligations recognition and compliance through civilian pressure rather than on the politically skewed international political diplomacy systems. The goal of the study is therefore to review the chronological progression of international environmental agreements from early protocols to contemporary, Outline the key factors that have facilitated change in the agreements and evaluate how effective these agreements have been in meeting their goals.

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INTRODUCTION

Global environmental challenges including climate change, biodiversity loss, and transboundary pollution require global solutions. International environmental agreements (IEAs) are means of cooperation and shared goals and accountability frameworks for these challenges. However, the effectiveness of these agreements has been vastly different, with strong relationships to scientific evidence, geopolitics, and enforcement. This paper is a literature review of IEAs, their progression, and their drivers of change, with effectiveness as the central focus of the review.

The world faces an urgent requirement for worldwide collaboration following planetary ecosystem deterioration and the climate emergency that persists. International environmental agreements (IEAs) serve as essential instruments which help solve environmental challenges that span through national borders including biodiversity erosion and ocean pollutions as well as greenhouse gas release and ozone layer destruction. Humans have established these diplomatic agreements because environmental problems exceed national boundaries while requiring international collaboration. Their development has involved splendid achievements along with enduring restrictions due to scientific engineering alongside geopolitical and economic matters and grassroots environmental campaigns. The analysis focuses on historical development alongside vital motivational elements and performance assessments of international environmental agreements to understand their influence on worldwide environmental leadership frameworks.

Global environmental issues including climate change and deforestation and plastic pollution transcend geographic boundaries because they operate at nationwide and international levels. Environmental challenges go beyond state borders which requires systems that unite national objectives with worldwide sustainability. At the 1972 Stockholm Conference on the Human Environment the world established foundational international environmental law principles while founding the United Nations Environment Programme (UNEP) for global coordination (Sohn, 1973). After the Stockholm Conference IEAs have expanded in number to target problems such as toxic waste trade (Basel Convention, 1989) and desertification (UNCCD, 1994). These agreements prove ineffective because they face three fundamental problems which include insufficient enforcement capabilities, conflicting national sovereignties and unequal distribution of resources.

IEA evolution showcases a fundamental dispute between two theoretical perspectives which bracket market-oriented administrative modifications against comprehensive change strategies targeting essential causes of overexploitation and social inequality. The analysis tracks the timeline of IEAs and their changing elements to demonstrate their success and challenges in environmental conservation.

Chapter 7
In "Sustainability" We Trust?
The Need for a New Approach to Resource Preservation

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ABSTRACT

Sustainability is a buzzword that has gained traction around the world. It is linked to, or synonymous with, environmental, social and governance (ESG) principles. The advocacy for sustainability has led many individuals, corporations and governments to incorporate ESG principles into their operations and processes and communicate to stakeholders how they are meeting sustainability expectations and its role in the value creation process in society. Despite these strides, a critical mind would ask some important philosophical questions: Does "society" need sustainability? The answer is yes. Is the sustainability agenda good for the world? The answer is yes. But is sustainability the only way to conserve environmental, social and governance resources to make it available for the present and future generations? The answer is no. This article discusses sustainability and argues that sustainability is a way to achieve the goal of resource preservation and continuity for the present and future generations, but it is not the only way.

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1. INTRODUCTION

Many countries and multinational firms all over the world have joined the shift towards sustainability which emerged from the COP26, the Paris climate agreement and other climate consortiums as well as the United Nation's advocacy for a more sustainable and equal world. Sustainability is a concept that encourage and promote the use of existing resources in ways that preserve these resources for the present and future generations (Kuhlman and Farrington, 2010). Sustainability aims to ensure that we do not over-deplete today's resources and prevent future generations from accessing these resources if they need them to meet their own needs. Sustainability is widely practiced and measured through the application of the environment, social and governance (ESG) concept (Babcicky, 2013). For example, firms use several ESG methodologies to measure their sustainability performance and to communicate to stakeholders how they are meeting sustainability expectations (Delai and Takahashi, 2011; Babcicky, 2013). Countries are also taking into account ESG considerations in their budgetary allocations, fiscal implementation and development efforts in order to demonstrate their commitment to reducing damage to the environment and to improve lives (Olafsson et al, 2014; Hege et al, 2019). This ESG-styled sustainability approach to the preservation of resources for the present and future generations has some benefits. It reduces the emission of carbon and other harmful substances into the environment, and it encourages global partnership to combat man-made induced climate change events (Abbass et al, 2022). Concurrently, it has also created some problems which reduces its attractiveness as a flawless and perfect solution for resource preservation for present and future generations. These problems are highlighted in the subsequent paragraphs.

2. WHY A NEW APPROACH TO RESOURCE PRESERVATION IS NEEDED

One, we live in an unequal world. There is unequal access to economic opportunities, unequal access to vital information and there is widening income inequality in many communities, cities and countries around the world. For many people, this inequality is a major source of poverty because when people lack access to vital information about available income-generating opportunities, they won't be able to take advantage of such opportunities to rise above poverty. As people remain poor, their priority is to survive. They will rely on cheap fossil fuel energy to meet their subsistence needs and rely on traditional means of waste disposal which pollutes the environment. More importantly, if poor people and people at the bottom of the pyramid have not met their basic needs, it will be very difficult for sustainability

Chapter 8
Inclusive and Intelligent Governance:
Enabling Sustainability Through Policy and Technology

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ABSTRACT

Governance in the 21st century and beyond is transforming through digitalization, AI, and evolving socio-political dynamics. This chapter explores inclusive and intelligent governance, integrating technological foresight, policy adaptability, and participatory democracy to create resilient, anticipatory systems. It examines AI-driven decision-making, blockchain-enabled governance, and predictive analytics in optimizing regulatory frameworks while addressing algorithmic bias, cybersecurity risks, and digital exclusion. The chapter highlights decentralized governance, participatory budgeting, and multi-stakeholder engagement to strengthen institutional legitimacy. Governance-driven sustainability is introduced, embedding climate-responsive policies and economic resilience. Expanding beyond Earth, it examines space governance, analyzing sovereignty, jurisdiction, and AI-assisted interplanetary policy. Concluding with a governance optimization framework, it proposes regulatory fluidity, AI-driven decision systems, and institutional efficiency as principles for future governance.

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FOUNDATIONS OF INCLUSIVE AND INTELLIGENT GOVERNANCE

Conceptualizing Governance in the 21st Century

Governance, in its most fundamental sense, is the institutional structuring of authority, decision-making, and resource allocation within societies. Traditionally, governance was bound to state-centric, hierarchical models, where administrative bureaucracies functioned as the primary engines of policy formulation and execution. However, the 21st century has precipitated a paradigm shift, compelling governance structures to evolve beyond their historical constraints.

The forces driving this transformation are manifold: technological acceleration, globalization, shifting social contracts, climate crises, and the rise of algorithmic governance. The growing complexity of contemporary governance challenges necessitates a departure from rigid, bureaucratic governance models toward adaptive, data-driven, and multi-stakeholder governance systems. In this emergent model, governance is no longer a static function of the state but a dynamic and networked process that involves private sector actors, civil society organizations, decentralized digital infrastructures, and AI-enhanced decision-making. The transition from traditional governance to inclusive and intelligent governance represents the fundamental restructuring of governance logic itself: from hierarchical control to distributed coordination, from reactive policy-making to anticipatory governance, and from analog decision-making to algorithmic precision.

This chapter establishes the conceptual and theoretical foundation for this transformation, tracing the evolution of governance models and illustrating how AI-driven governance, inclusive decision-making mechanisms, and sustainability imperatives must converge to create resilient and future-ready governance systems.

Theories of Governance

Governance scholarship has long been shaped by diverse theoretical frameworks that explain the institutional evolution of governance systems, their effectiveness, and their legitimacy. Three dominant governance paradigms frame the contemporary debate:

1. **Institutionalism** – As advanced by North (1990) and Fukuyama (2011), institutionalism posits that governance systems are shaped by historical legacies, institutional path dependencies, and social norms. Institutions that fail to adapt to new social and technological realities risk obsolescence, necessitating governance innovation and structural reform.

Chapter 9
Integrating Sustainability Through Entrepreneurship and Exhibition Experiences: Enhancing Lifelong Learning Pathways

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ABSTRACT

Sustainability is key for the future survival. It the responsibility of every human being to make world sustainable. The big responsibility is on the young and upcoming generations. To inculcate this value among the younger minds higher education is the effective platform. The chapter emphasises the importance of three concepts here i.e. sustainability through entrepreneurship, exhibition as a way of experimental studies and lifelong learning. It highlights how exhibition can contribute to sustainability via entrepreneurship. The learning experiences adds the value to the lifetime. The various entrepreneurial qualities can be developed through exhibition like critical thinking, collaboration, strategic planning etc. The chapter also encounters the challenges and opportunities faces and available in this context Ultimately, chapter advocates for exhibition as a valuable method for promoting economic sustainability and as a powerful medium for fostering lifelong learning

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1. INTRODUCTION

The book chapter aims to focus the attention on exhibition as an effective way for lifelong learning and a source for entrepreneurial sustainability. It explores how the integration of lifelong learning and entrepreneurial sustainability can be fostered through exhibitions, offering students opportunities to engage in practical learning experiences that support both entrepreneurship and sustainability.

The major concern of every nation is to become sustainable in all aspects, be it social, environmental or economic. These are the three pillars of sustainability, popularly known as ESG (Environmental, Social and Governance). (GROUP, 2024)The environmental aspect of sustainability considers the making our natural environment sustainable for the future generation. It can be CO2 emission, conserving natural environment, or reducing the burden on natural resources. The social sustainability focused on the reduction of the social issues and creating the fair and equal social environment for all. The governance criteria considers the fair business practices and generating the entrepreneurs and entrepreneurship spirit.

The chapter concentrates on the economic sustainability as a source for the Entrepreneurship. The question here is how we can inculcate the values of sustainability. It can be done through various ways like strong governmental rules, through education, collaboration at enforcing it every sector of the economy.

Higher education is one of the key ways to inculcate the sustainable values. To pass the sustainable values amongst the citizen young minds with structures higher education policies and activities will help in the utmost way. Higher education organization is the major role to play in the sustainability. It helps to create the mindset of the generation to take stronger and sustainable decisions. (P., June 2021)

To inculcate the values of sustainability education system helps a lot. The Higher education system includes diverse stakeholders. As it can address the challenges to these stakeholders. This can be done through the systematic and structured learning process, which will help the students to implement the learning at a personal and social level. (Baumber, 2022)

In higher education, sustainability can be introduced through the curriculum. If the conventional/ transitional method is used to deliver these values, then it might fail to introduce and implant the values of sustainability. (Wang & Li, 2023).

So, modern methods other than board and chalk are more appreciable. Such modern methods includes experiential styles of learning like field work, co-programing, project-based learning and exhibitions.

The exhibitions (as a way of experiential learning) play the crucial role in learning complex terms in fun way and students can learn it and can implement it for lifetime.

This chapter aims to integrate the sustaibility thought exhibition as a source of experiential learning, which creates and enhances the pathways for lifelong learning.

Chapter 10
Localization and Global Equity:
The Missing Link for Sustainable Development

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ABSTRACT

This chapter examines localization as a structural imperative for achieving global equity and sustainable development. While international commitments have long emphasized the need to shift power and resources to local actors, localization remains constrained by centralized financial governance, compliance-heavy regulatory frameworks, and donor-driven priorities. This chapter challenges the prevailing paradigm, arguing that by integrating AI-driven decision-making, decentralized financial mechanisms, and anticipatory policy frameworks, localization can move beyond dependency models and become the foundation of a more equitable global governance system. The discussion explores the intersection of localization with climate adaptation, digital governance, and financial sovereignty, positioning it as the missing link for sustainable development. The chapter presents a bold, intelligence-driven vision for localization, providing a governance-first roadmap for policymakers, donors, and institutions to reimagine development finance, regulatory models, and decision-making structures.

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INTRODUCTION: RETHINKING LOCALIZATION FOR THE FUTURE

Localization, in its conventional discourse, has been framed as an operational adjustment—an effort to transfer resources and responsibilities to local actors within a broader international governance structure. Yet, this interpretation is fundamentally insufficient. Localization is not merely a process of shifting resources downward within pre-existing hierarchies; it is a reconfiguration of governance itself. It is an anticipatory, intelligence-driven transformation—one that must be strategically integrated into global governance systems to enable sustainable, equitable development and challenge the deeply entrenched inequities that define the international aid system.

Despite decades of policy discussions advocating for localization, it remains structurally constrained by centralized governance models, financial dependency, and risk-averse donor frameworks. The persistence of these barriers is not a reflection of inadequate capacity at the local level, but of systemic resistance to the redistribution of power and resources. Traditional models of localization have been operationalized within static, compliance-driven paradigms, where local actors are permitted to engage but rarely to lead.

Localization, when framed solely as a reform agenda, has failed to deliver meaningful structural change. Global institutions, including the Grand Bargain's pledge to allocate at least 25% of humanitarian funding directly to local and national actors, have failed to meet their commitments, with direct local funding stagnating at 3.1% as of 2020 (OECD, 2021). The reasons for this failure are neither accidental nor purely financial; they are governance failures, revealing an entrenched unwillingness to relinquish control over decision-making power. Localization, therefore, cannot be pursued as a gradual reform within the existing system—it must be positioned as an intentional restructuring of governance sovereignty.

This chapter asserts that localization must evolve into a governance-first paradigm—one that is intelligence-driven, anticipatory, and structurally embedded in AI-enhanced decision-making, decentralized finance, and adaptive regulatory frameworks. The era of localization as an administrative function must end; in its place, a model of governance optimization must emerge—one that treats local actors not as recipients of delegated power but as primary architects of policy, finance, and governance structures.

The relationship between localization and global equity must be made explicit. Localization is not simply a development strategy; it is a mechanism for redistributing governance authority and financial sovereignty within the global system. The failure to fully implement localization reflects a broader failure of global governance—one in which economic and regulatory dependencies have structurally locked Global

Chapter 11
Microalgal Biorefinery: A Way Towards Sustainability and Circular Economy.

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ABSTRACT

This chapter investigates the potential of microalgae biorefineries as a sustainable approach to tackling global food security issues while fostering a circular economy. Microalgae, which are already being used to produce renewable energy sources like biodiesel, bioethanol, biohydrogen, and biogas, also offer a promising low-cost food source due to their rapid growth rates. The chapter addresses the challenges faced by the global microalgal market and examines the role of microalgae in achieving the United Nations Sustainable Development Goals (SDGs). The chapter indicate that microalgae play a significant role in both directly and indirectly supporting these SDGs. Additionally, microalgae contribute to the development of green communities by minimizing pollution, conserving natural resources, and promoting a sustainable environment. This chapter emphasizes the crucial role of algorefinery in advancing global sustainability initiatives and underscores their importance in enhancing the circular economy - Industrial Symbiosis.

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1. MICROALGAE GLOBAL MARKET

Microalgae cells, some of the earliest life forms on our planet, have undergone billions of years of evolution, leading to a remarkable complexity and diversity that enables a variety of applications. These microorganisms are photosynthetic and autotrophic, existing as either unicellular or multicellular forms, and they thrive in both freshwater and saltwater environments. Their sizes range from just a few micrometers to several hundred micrometers, and they are composed of lipids, proteins, carbohydrates, and other compounds. Generally, the chemical formula for microalgae is $CO_{0.48}H_{1.83}N_{0.11}P_{0.01}$, with key components including lipids (7–23%), carbohydrates (5–23%), and proteins (6–52%) (Borowitzka, 2013). The exact chemical composition of microalgae varies significantly depending on the species and the conditions in which they are grown. These tiny organisms can be found in a wide array of environments and are relatively cost-effective to cultivate. There are approximately 80,000 species of microalgae, with around half being extensively researched for commercial uses. Microalgae are primarily divided into three main groups: rhodophytes (red algae), chlorophytes (green algae), and cyanobacteria (green-blue algae), which also encompass diatoms (Oliveira et al., 2022).

Microalgae have been beneficial to humans since ancient times, primarily as a source of nutrition. Although the significance of microalgae in biological processes has been recognized for centuries, systematic cultivation of microalgae began only in the 1950s (Burlew, 1953). The field of microalgal biotechnology is a relatively new area of research that has seen rapid growth, paralleling the swift development of supply units and products derived from microalgae. This field encompasses both eukaryotic microalgae and prokaryotic cyanobacteria. Since 2005, there has been a notable increase in publications and research activities related to microalgae (Garrido-Cardenas et al., 2018). This trend aligns with the rising market value of microalgae-derived products and the expansion of production facilities (Forján et al., 2015). The global microalgae market was valued at around USD 3.4 billion in 2020, during the pandemic, and is projected to grow at a compound annual growth rate (CAGR) of 4.3%, reaching USD 4.6 billion by 2027 (Ahmad et al., 2023). This growth is largely due to the increasing recognition of microalgae as a sustainable source of food and energy.

Microalgae biofuels have the potential to challenge and possibly replace the fossil fuel industry, which is valued at $2.1 trillion, explaining the heightened interest from various industries (Curtin et al., 2019). Additionally, microalgae are being explored as a potential source of biofertilizers, biochemicals, and biochar for wastewater treatment (Khoo et al., 2021). Given their versatility across numerous fields and industries, microalgae represent a crucial resource.

Chapter 12
Pathways to a Sustainable Future Through Adolescent Reproductive Health Empowerment

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ABSTRACT

Adolescent reproductive health education is crucial in addressing the rising prevalence of teenage pregnancies in the Philippines, which has been recognized as a national emergency. Limited knowledge of sexual health and low contraceptive use among Filipino youth exacerbate socio-economic challenges, including poverty, unemployment, and environmental strain. This chapter explores the role of adolescent reproductive health in fostering sustainability by examining legal frameworks, educational strategies, and implementation barriers. Aligning with the United Nations Sustainable Development Goals, the chapter highlights the need for inclusive policies, youth-friendly healthcare services, and interdisciplinary approaches to empower adolescents in making informed reproductive health decisions.

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INTRODUCTION

The Philippines faces a significant challenge in addressing the increasing prevalence of teenage pregnancies, as it was dubbed a *national and social emergency* by the National Economic and Development Authority in 2019 (Cordero, 2024). This alarming growth affects the Philippine population, exacerbating pressing issues such as rising unemployment, higher poverty rates, limited housing opportunities, overcrowded transportation systems, overwhelmed healthcare and educational institutions, and sanitation and pollution crises (Patton et al., 2020). A probable cause of this issue is that only 37.8% of Filipino females aged 19-45 had adequate knowledge on sexual health, and only 28.57% used contraceptives (Palomeno et al., 2024). These challenges hinder the nation's progress toward sustainable development, underscoring the need for a multifaceted approach to empower Filipino youth through comprehensive adolescent reproductive health education. This book chapter explores the critical role of adolescent reproductive health in fostering sustainability, highlighting legal frameworks, educational strategies, and societal barriers while proposing actionable solutions to create a sustainable future (Philippine Legislator's Committee on Population and Development, Inc., 2024).

Adolescents represent a powerful demographic capable of driving transformative change when equipped with accurate reproductive health knowledge (Azzopardi et al., 2024). Empowering Filipino youth to make informed decisions about their sexual and reproductive health is a vital step toward achieving sustainable development. Through comprehensive sexuality education, adolescents can gain insights into population dynamics, wise decision-making on sexuality, and the cultural, societal, and moral implications of contraceptive use (Keiting et al., 2021). Additionally, the promotion of delayed childbearing can enhance stability, reduce economic strain, and alleviate environmental pressures (Van der Heijde, 2020). By fostering informed and responsible decision-making, adolescent reproductive health education aligns with broader sustainability goals, enabling adolescents to contribute meaningfully to societal progress.

Existing Philippine laws and policies provide a foundation for adolescent reproductive health. The Responsible Parenthood and Reproductive Health Act (RA 10354) is a cornerstone legislation seeking comprehensive reproductive health services and education (Philippine Congress, 2012). While these laws represent significant progress, there remain gaps in their implementation, particularly in reaching marginalized populations such as those in extreme poverty, indigenous peoples groups, and persons with disabilities. Creating mechanisms to address these gaps is essential for ensuring that adolescent reproductive health programs are inclusive and effective in promoting sustainability.

Chapter 13
Redefining Consumer Behaviour in a Circular Economy:
Strategies for Sustainable Living

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ABSTRACT

The circular economy is a central solution for addressing resource scarcity, environmental degradation, and unsustainable consumption. The chapter investigates consumer behavior's impact on the practices of the circular economy. It presents fundamental circular economy principles: reduction, reuse, recycling and compares them with the disadvantages of the conventional linear approach. It discusses the ways in which consumer behavior leads to unsustainability and identifies potential for change through circular business models such as product-as-a-service, shared platforms, and circular supply chains. The chapter discusses government policies that lead to circular activities, as well as economic, cultural and infrastructural challenges and the strategies necessary to tackle them. Recommendations involve

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consumer education, use of technologies such as blockchain and IoT and promoting stakeholder collaboration. Emerging trends like circular design thinking, and bio-plastics are examined for their ability to disseminate sustainable practices across the world.

1. INTRODUCTION

Consumer behaviour in a circular economy is complex as it seeks to understand the interaction of individuals with sustainability practice and circular business models. Changeover to a circular economy requires consumers to adopt behaviours of sustainability-first buying- that is, purchasing durable, repairable, and recyclable products. However, even though there is growing awareness, some of the continuing challenges such as intention-behaviour gaps and infrastructural barriers still require multi-sector collaboration for enlightened consumption (Abulkhair, 2025).

1.1 Overview of Consumer Behaviour And Its Impact On Sustainability

The consumer behaviour affects sustainability since these are the factors that determine the environmental implications of their purchasing decisions. In fact, with consumers realizing what their purchases mean for the environment, there is an increase in the demand for eco-products. Among the factors driving up the demand for eco-products are environmental awareness, social norms, and economic considerations because these three factors will affect what the consumer desires or how it behaves. It is logical for businesses to adopt sustainable marketing as an attempt to catch up with the emerging demands of consumers. There exist complex relationships between consumer behaviour and sustainability determination, including many factors inducing consumers on what to buy and how effective sustainable marketing will be.

Environmental Awareness and Education

Consumer literacy indeed proves to be an important practice in enhancing sustainability in consumption by informing consumers about the environmental implications of their consumption habits and inducing sober behaviour (Erjavšek et al., 2024). The Sustainable Consumption Behaviour module was established to further the education of students in Higher Education in sustainability, allowing collaboration and creative problem-solving (Erjavšek et al., 2024).

Chapter 14
Review of the Indicators for Assessing Socio-Economic Development, Social Innovation, and Entrepreneurship Development in Small Heritage Towns:
Approaching Sustainability

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ABSTRACT

This research paper delves into the concept of sustainability by examining the critical indicators for evaluating and understanding the key drivers of socioeconomic development, social innovation, and entrepreneurship in small heritage towns. These

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towns, often characterised by their rich cultural heritage, unique traditions, and historical significance, present a dual challenge: preserving their cultural identity while promoting economic growth and sustainable development. The study identifies and explores the multifaceted indicators, addressing how they contribute to these communities' overall well-being and resilience. The findings of this study aim to equip researchers, local policymakers, community leaders, and other key stakeholders with a plethora of indicators applicable to small heritage towns seeking sustainable development integrating social innovation, socio-economic development, cultural heritage, heritage entrepreneurship, and community empowerment.

1. INTRODUCTION

A historic small heritage town is the centre of local economic activities and has a significant concentration of heritage structures. Such a place or landmark core generally has a definite identity - a distinct townscape character worthy of preservation. In addition to its economic importance, the business gains symbolic value by attributing common identities to the citizens (Varsha et al., 2023). But heritage towns often struggle to meet development agenda crippled by social innovations and failure to capitalise on entrepreneurship opportunities. The high return of heritage-associated economics demands change for exposure in the national and international arena. The stress is further aggravated if social innovations are marked by non-progressive obsolescence. The places' historical, townscape or symbolic values urge tourists and stakeholders to preserve the place, creating the base for economic sustenance. Without a pragmatic approach, development programs can end in two extreme situations. The site can become; - a museum zone - frozen in time or a total renewal obliterating any sign of past heritage.

Heritage towns command a different perspective in mobilising local economics, which is further interrelated with the development index for small heritage towns, which is linked with the area's heritage-based economic competitiveness and current standing compared to others in a value assessment framework. However, such a technique of heritage value assessment is significantly absent in small and more significant heritage towns. Hence, it is difficult for such towns to understand their status, and the developmental processes under various initiatives are often piecemeal. Various research studies have established that community development can be a fruitful product that links social innovation to heritage economics. Entrepreneurship opportunities are always plentiful if the benefaction of resources is achieved correctly in an identified heritage area. Since the economy is an integral part of any development process, there is an extreme need to place a path for integrating entrepreneurship avenues with the local economy and social innovations. The same

Chapter 15
Sustainable Finance:
Bridging Investments and Environmental Goals

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ABSTRACT

As the world moves toward sustainability, green technologies have been at the forefront of solving environmental issues and promoting economic growth. The chapter examines the most crucial connection between financial systems and investments in green technology, highlighting how financial sources should be aligned with the goal of promoting environment friendly innovations. It highlights the alignment of financial resources with sustainability goals and examines institutional arrangements, policy frameworks & financial tools for green investments. It examines the motivations for investments in green technology that includes initiatives to combat climate change, increase energy efficiency & promote decarbonization. It investigates how financial players banks, investment funds and development organizations facilitate the distribution of resources toward environmental friendly initiatives.

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it assesses the contribution of innovative financing tools such as carbon credits, sustainability-linked loans and green bonds, which are crucial in directing funding toward eco-friendly technologies.

1. INTRODUCTION

1.1 Definition and Significance Of Sustainable Finance

Sustainable finance considers and incorporates environmental, social, and governance (ESG) criteria into financial services operations with a view to fostering economic development in an environmentally safe manner and with regard for social equality. The importance of sustainable finance depends on the capability of the financial sector to steer economic activities for sustainable purposes towards a resilient, responsible economy. The gradual shift of the financial arrangements from normal to sustainable scheme would be necessary in handling global issues like inequality in society and climate change.

Sustainable finance is an emerging concept, encompassing the direct considering environmental, social, and governance (ESG) concerns when making financial decisions (Junaedi, 2024). Sustainable finance includes non-exploitative financial actions with value creation and sustainable development in mind (Goglio & Catturani, 2019). Although there is no widely accepted explanation, the general context of sustainable finance involves putting money into their environmentally and socially acceptable investments (Sisodia & Maheshwari, 2023). Some of its main features include green bonds, impact investing, and ESG criteria' application (Panda, 2024). Sustainable finance can create a significant impact by countering urgent worldwide problems like climate change and social inequities while allowing for economic growth (Junaedi, 2024; Panda, 2024).

1.2 Overview of Sustainable Finance And Its Role In Achieving Global Sustainability

Sustainable finance is a key tool to ensure global sustainability by mobilizing financial capital to environmentally and socially sustainable activities. It consists of a range of financial products and strategies that give environmental, social, and governance (ESG) considerations top priority. This leads to the creation of sustainable development goals and a low-carbon economy. Responsible financing tools, like loans and funding arrangements, that encourage businesses to create sustainable business operations, as well as green bonds and investment funds that raise money for green initiatives, are crucial resources. Through investments in resource-efficient

Chapter 16
Teachers' Perspectives on Apex Administrators' Advocacy for Sustainable Development in Public Schools

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ABSTRACT

This study sought to explore teachers' perspectives on the competencies of school administrators to support the continuity of education within schools. Conducted using a qualitative research method, the study included a group of ten teachers from various schools in the San Pablo City, Laguna division. The study group comprised ten (10) teachers from schools across the division of San Pablo. The findings revealed that collaborative and structured work characteristics among school administrators positively impact the quality of education, whereas institutional barriers and limitations hinder this progress. Additionally, school administrators emphasized the importance of capacity building and management training, specifically through fostering relationships with the community and maintaining a strong school culture for long-term success. Ultimately, to steer the school toward future success, teachers look to school leaders to demonstrate behaviors that prioritize key themes such as

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ethics, motivation, and awareness.

1. INTRODUCTION

Many countries have explored incorporating education for sustainable development into their educational systems. Scholars argue that education plays a crucial role in achieving sustainable development, which is not a passing trend but a necessary element of modern life (Ahlberg et al. 2015). Given the challenges posed by current global changes and the growing emphasis on sustainable development in all sectors, the Philippines' development plan "*Ambisyon 2040*" prioritizes the integration of sustainable development principles and metrics across various sectors. As stated by Örücü (2015) sustainability in social terms involves meeting the needs of the current human generation while ensuring that future generations can also meet their needs. Education plays a crucial role in social sustainability as it is a societal phenomenon with multiple purposes. These purposes include socializing and integrating children into society, preserving national culture and identity through the education system, promoting economic and technological development, and selecting and training students based on their abilities (Al-Anzi, 2021).

Educational sustainability is a transformative paradigm that fosters learning and integrates both behavioral and cognitive perspectives to enable adaptation and cultivate a social-ecological system with the flexibility to confront future uncertainties and challenges (Too and Bajracharya, 2015). The primary issue with the current education system is its deficiency in structure and functionality to address evolving demands. Sustainability in education refers to the transparency of policy, goals, content, methodology, and educational processes, along with its capacity to fulfill the expectations of future generations (Anderson et al. 2013). The study of Al – Omari (2020) suggests that the concept of sustainability in education is addressed by a different researcher who proposes a shift in the culture and paradigm of education. This change emphasizes embracing the principles of sustainability, reasonableness, health, and durability. Sustainability ensures the continuity of people, society, and the environment. Reasonableness encourages integrative work, justice, respect, and inclusion in alignment with ethical principles. Health focuses on nurturing living systems and fostering healthy relationships. Durability aims to maintain adequacy in practices for ongoing sustainability. The coexistence of these four principles signifies sustainability in education (Al Khawaldeh, 2016). The presence of a system within education that can adequately meet the needs of current individuals while also adjusting to meet the needs of future generations indicates the existence of sustainability within education. While education is widely recognized as crucial and various learning methods have been identified, ensuring the sustainability of

Chapter 17
The Intersection of Law and Ecology: A Framework for Sustainable Practices

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ABSTRACT

This paper explores the intersection of law and ecology, proposing a framework for sustainable practices in environmental management. It examines current legal systems—international, national, and local—and their role in promoting or hindering ecological sustainability. The study advocates for integrating ecological principles into legal frameworks, including ecosystem-based management and the rights of nature. By emphasizing adaptive legal structures and proactive measures, the paper highlights the potential of law to drive ecological resilience and foster a sustainable future.

INTRODUCTION

Law and ecology create fundamental connections to achieve sustainable development, and this concept has become important worldwide for decades (Ruhl, 2008). The urgent need for practical legal systems to regulate ecological practices becomes

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more critical at this time while the world faces industrialization's rapid growth and urbanization and environmental change effects (Gunningham & Sinclair, 2002; Kiss & Shelton, 2004). Environmental decay reaches its peak through deforestation, air contamination, and biodiversity loss while causing climate change, which threatens both natural systems and human prosperity in upcoming times (Biodiversity and Ecosystem Services in the Asia-Pacific Region, 2010; Klein & Nicholls, 2012).

The law is a fundamental methodology to control human-environmental relationships because it protects environmental integrity during economic development (Meyer, 2010). Law and ecology maintain a historical pattern of reactive regulation through which lawmakers mainly introduce laws following environmental disasters (Sullivan, 2013). Lawmakers have changed their stance towards environmental matters because of ecological awareness by adopting preventive strategies and sustainability principles combined with environmental assessment for judicial decisions (Dovers & Handmer, 1992; Sullivan & Hannis, 2015). A new independent field called environmental law demonstrates its progress by creating several environmental protection measures that maintain sustainability (Barton, 2012; Ruhl & Salzman, 2006).

The urgency to practice sustainability stems from thoughtful legal systems linking economic development harmoniously with environmental protection measures (Schwartz, 2011). Sustainable development creates a balance between present-day requirements and requirements of following generations so resources become sustainable and ecosystems survive (Turner & Daily, 2008). Legal frameworks fulfil a vital role by establishing guidelines that manage natural resources, pollution management, and biodiversity protection requirements, thus encouraging sustainable actions and imposing consequences on lawbreakers (Ostrom, 2010; Sax, 1970).

In this chapter, the researcher presents an extensive legal framework that promotes sustainable activities. Environmental law receives substantial depth from three key principles: the precautionary principle, the polluter pays principle, and the sustainability concept (Fisher & Turner, 2008; Tietenberg, 2006). The components provide the necessary details for implementing practical solutions which develop legal interventions to protect environments and preserve ecosystems (Gomez-Baggethun & Ruiz-Perez, 2011).

New examples of practical legal approaches for ecological preservation and sustainable development have been reviewed during this research phase (Peters & Hertwich, 2006). Case studies will present the utilization of legal structures to handle essential environmental problems and show how legal mechanisms can reform ecological methods (Kiss & Shelton, 2004). Reviewing these examples will identify optimal methods and important learnings that future environmental governance approaches should consider.

Chapter 18
The Role of Business Innovation in Transforming Social Systems for Sustainability

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ABSTRACT

In an era marked by environmental challenges, economic shifts, and societal inequalities, business innovation has emerged as a crucial driver in transforming social systems toward sustainability. Theoretical perspectives such as systems thinking, circular economy models, and corporate social responsibility (CSR) provide a foundation for understanding how businesses can act as catalysts for sustainable change. Furthermore, the chapter delves into how digital transformation, artificial intelligence, and green technologies are reshaping industries to align with sustainable practices.The future of sustainable development depends on how effectively businesses integrate innovation into their operational strategies, shifting from short-term profit-driven models to long-term sustainable impact.

INTRODUCTION

In the modern era, businesses are increasingly recognizing the necessity of integrating innovation into their models to drive sustainability. Companies no longer operate solely for profit maximization but are progressively embedding environmental and social concerns into their strategic frameworks. The intersection between

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business innovation and sustainability has given rise to new models that prioritize economic growth while mitigating environmental degradation and fostering social equity (Carayannis & Campbell, 2010). The role of businesses in addressing global sustainability challenges is not confined to compliance with regulatory frameworks but extends to proactive leadership in creating and implementing solutions that drive systemic transformation.

Definition of Business Innovation and Sustainability

Business innovation is a broad concept that refers to the development and implementation of new ideas, processes, products, or services that enhance efficiency, competitiveness, and market relevance. It involves various types of innovation, including technological, organizational, and process-driven changes that allow firms to adapt to evolving market dynamics (Schaltegger, Hansen, & Lüdeke-Freund, 2016). In contrast, sustainability in business refers to the ability of organizations to operate in a manner that meets present needs without compromising the ability of future generations to meet theirs. This principle is embedded in the **Triple Bottom Line** framework, which emphasizes environmental, social, and economic sustainability as essential components of business success (Lüdeke-Freund, Gold, & Bocken, 2019).

In practical terms, sustainable business innovation requires companies to develop products and processes that minimize resource consumption, reduce waste, and enhance environmental stewardship. The emergence of the **Circular Economy** model exemplifies this trend, wherein businesses design products for durability, reuse, and recyclability to reduce environmental impact (Geissdoerfer et al., 2017). Such models ensure that business operations contribute to long-term ecological balance while maintaining economic viability.

Importance of Innovation in Achieving Sustainable Development

Innovation is a fundamental driver of sustainability, offering transformative solutions to environmental and social challenges while enhancing economic growth. As businesses face increasing pressure from consumers, regulators, and investors to adopt sustainable practices, innovation emerges as a crucial enabler of change. Several key areas highlight how business innovation contributes to sustainability:

1. **Efficient Resource Utilization**

Chapter 19
The Role of Green Chemistry in Social System Reforms for a Sustainable Future

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ABSTRACT

The urgency of sustainable development has placed green chemistry at the forefront of scientific, economic, and social transformations. Green chemistry, a field dedicated to designing products and processes that reduce or eliminate hazardous substances, plays a crucial role in shaping sustainable industries and influencing social system reforms. This chapter explores how green chemistry serves as a fundamental driver of sustainable development by reducing environmental pollution, enhancing resource efficiency, and fostering social equity. The chapter begins by outlining the principles of green chemistry and its contribution to reducing ecological footprints, particularly in industrial and manufacturing sectors. It examines the impact of green chemistry on health and environmental policies, focusing on its potential to minimize toxic waste, improve water and air quality, and reduce reliance on non-renewable resources. Additionally, it explores how regulatory frameworks and governmental policies support or hinder the widespread adoption of green chemistry practices.

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INTRODUCTION

Green chemistry is a discipline that focuses on designing chemical products and processes to minimize or eliminate the use and generation of hazardous substances. This approach aims to reduce environmental impact and enhance sustainability in the chemical industry. The concept was notably advanced by Anastas and Warner, who outlined foundational principles guiding this field.

A key aspect of green chemistry is the emphasis on waste prevention. Instead of managing waste after its creation, green chemistry advocates for the design of processes that inherently produce minimal or no waste. This proactive approach not only reduces environmental pollution but also enhances efficiency and cost-effectiveness in chemical manufacturing. Another fundamental principle is atom economy, which focuses on maximizing the incorporation of all materials used in a process into the final product. By designing synthetic methods that optimize the use of reactants, chemists can reduce the generation of by-products, leading to more efficient and sustainable processes.

The selection of safer solvents and reaction conditions is also crucial in green chemistry. Traditional solvents can be volatile, toxic, or environmentally damaging. Green chemistry promotes the use of alternative solvents that are benign or the development of solvent-free reactions. This shift not only reduces health risks but also minimizes environmental contamination. Energy efficiency is another important consideration. Green chemistry encourages conducting reactions at ambient temperature and pressure whenever possible. By minimizing energy consumption, the environmental footprint of chemical processes can be significantly reduced. The use of renewable feedstocks is also emphasized. Green chemistry supports the utilization of raw materials that are renewable, such as biomass, over non-renewable resources like fossil fuels. This practice contributes to the sustainability of chemical production and reduces dependence on finite resources.

Catalysis plays a vital role in green chemistry by increasing the efficiency of chemical reactions. The use of catalytic agents can lower the energy requirements of reactions and increase selectivity, thereby reducing the formation of unwanted by-products. Designing chemicals and products that degrade into innocuous substances after use is another principle of green chemistry. This ensures that chemical products do not persist in the environment, thereby reducing long-term pollution and ecological impact.

Chapter 20
Towards the Creation of Sustainable Consumption Behaviours:
Through Behavioural Economics

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ABSTRACT

Behavioral economics studies human decision-making and aims to eliminate unsustainable consumption. It uses concepts like nudges, framing, and social norms to encourage sustainable behavior. Rewards structures discourage extrinsic motivation and should discourage future dependency. Digital media and technology offer new approaches to behavioral change. To make Head Start interventions effective, a systemic strategy considering social, cultural, and economic contexts is needed. Behavioral interventions correct cognitive biases, use social norms, and appropriate choice architectures. Success depends on an inclusive, ethical solution combining behavioral change, policy design, organizational changes, and community mobilization.

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INTRODUCTION

The World Wide Fund for Nature (WWF) define sustainable consumption as the acquisition and utilization of products that enhance the wellbeing of community, without over exploiting the natural endowment, application of toxics and without polluting. This definition is in harmony with the general principle of sustainability which is the attainment of the triple bottom line which is the economic, social and the environmental. As opposed to thinking of the two concepts synonymously as merely SC is about minimizing usage of resources, sustainable consumption is about changing values, practices and structures to allow for the maintenance of ecological equilibrium. Some of the key area include selection of environmentally friendly products, minimizing waste and application of circular economy. For example, the consumer who chooses locally produced and certified organic products not only is saving the environment but also contributing to the local economies. More sustainable consumption practices include repairing instead of dumping items, use of energy star appliances, and supporting firms to take responsibility for manufacturing products. Each of them enhances the diminution of the emissions of greenhouse gases, the preservation of biodiversity and the promoting of fair distribution of resources. (Glavič,2021). They show that consumption must be sustainable in order to stop the depletion of resources that destabilizes the ecological systems and establish more robust systems that can handle impacts. That means, when success is not only perceived in economic terms but in terms of sustainable prosperity of everyone and the planet, sustainable consumption can redesignate the culture and promote the sustainability of generations. As for practical reasons indicate that sustainability of consumption depends on behavioural change, it is to note that subject and community activities play an essential role in shaping the environmental context. However, there is a split between careful consideration for sustainability and actually changing behaviour in these aspects called the intention-action gap. Behavioral change fills this gap because it change the behaviour, choice and preference of a person. For instance, people may comprehend that having less plastic contributes to more environmental gains yet they will prefer ease, for example, taking water in a plastic bottle. (White et al.,2019). Behavioral change strategies are about making certain forms of behaviour appropriate, convenient, and cheap as opposed to the current, now unpopular, and costly methods. Some examples of these include incentives for use of re-usable containers, subsidizing public transport, and institution of community waste management systems. Behavioral change is the other major component for addressing such psychological barriers as apathy or perceived inefficacy. Hoping that minor, repeated actions will mount up to create change begets an element of responsibility in treatment techniques. Moreover, societal behavior change initiatives can lead to systematic behavior changes since they affect the market which forces

Chapter 21
Transformative Educational Strategies for Global Sustainability Literacy

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ABSTRACT

In an era of unprecedented global sustainability challenges, education emerges as a critical lever for systemic transformation. This chapter presents a comprehensive examination of innovative educational strategies designed to cultivate sustainability literacy across diverse learning contexts. By integrating cutting-edge research, global case studies, and interdisciplinary perspectives, the study offers a robust framework for reimagining educational approaches that can effectively address complex environmental, social, and economic sustainability challenges. The research systematically explores three pivotal domains: curriculum integration, digital education technologies, and lifelong learning models. Employing a mixed-methods approach that combines systematic literature review, comparative case studies, policy analysis, and expert consultations, the chapter develops a nuanced understanding of how educational reforms can foster sustainability awareness and competencies.

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INTRODUCTION

The 21st century has ushered in an era of unprecedented global sustainability challenges, ranging from climate change and resource depletion to biodiversity loss and social inequality. These challenges threaten not only the stability of natural ecosystems but also the socio-economic structures that societies depend upon for their continued prosperity and well-being. Climate change, characterized by rising global temperatures, increasingly frequent extreme weather events, and accelerating sea-level rise, impacts both natural environments and human systems in profound and often unpredictable ways. Resource depletion, driven by patterns of overconsumption and inefficient resource utilization, endangers the future availability of essential resources like water, arable land, and fossil fuels. Biodiversity loss, exacerbated by habitat destruction, pollution, and climate change, poses an existential risk to ecosystem services vital for human survival and flourishing. Meanwhile, pollution in air, water, and soil continues to degrade ecosystems and harm human health across the globe. Social inequality further compounds these issues by creating disparities in resource access and amplifying vulnerabilities among marginalized communities, thus undermining the collective capacity to address environmental challenges effectively (Dunlop & Rushton, 2022; Li et al., 2022).

Education plays a crucial role in fostering sustainability awareness and addressing these multifaceted challenges. It serves as a vehicle for disseminating knowledge about sustainability issues, equipping individuals with the critical thinking skills necessary to assess human impacts on the environment and influencing behavioral change towards sustainable practices. Moreover, education empowers communities to advocate for sustainable policies and engage actively in decision-making processes that shape environmental futures (Ziegler & Porto-de-Oliveira, 2022; Saleem et al., 2022). Kelly (2020) aptly describes education as potentially the "silver bullet" for sustainability challenges, noting that educational interventions represent our most promising avenue for cultivating the values, knowledge, and skills necessary for sustainable development across generations.

The transition to sustainable societies relies heavily on educational reforms that integrate sustainability into curricula at all levels. By adopting an interdisciplinary approach, education can highlight the interconnectedness of environmental, social, and economic systems, thus providing students with a holistic understanding of sustainability challenges. Skills development for green jobs is another essential component, preparing students to contribute to sustainable practices across various industries. Community engagement in educational initiatives fosters collective efforts towards sustainability, while educated individuals are more likely to participate in policymaking, advocating for regulations that support sustainable development (Moghadam et al., 2022; Sánchez-Carracedo et al., 2021).

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***

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Immersive Technology for the Gig Economy:

Transformative Business Practices

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Preface

Esteemed Readers,

In an era marked by rapid technological advancements and shifting employment models, the intersection of immersive technology and the gig economy is pivotal to driving transformative change. The book, "Immersive Technology for the Gig Economy: Transformative Business Practices," is an outcome of a pressing desire to investigate the strategic, operational, and economic aspects of these changes as they transform the global corporate environment.

Immersive technologies, including blockchain, virtual reality (VR), and augmented reality (AR), are no longer confined to hypothetical futures or niche applications. They are actively shaping the methods that companies use to create experiences, optimize resources, and generate value. The gig economy, characterized by short-term, freelance, and flexible employment, has evolved from a trend into a vital aspect of modern workforce dynamics.

This book focuses on the convergence of these advancements, examining how digital tools and platforms affect organizational behavior, business structures, and value chains. The chapters provide a comprehensive analysis of emerging themes, including hybrid workplaces, virtual marketing, intelligent supply chains, and e-learning ecosystems, through the lenses of decentralized labor and immersive technology.

This edited volume brings together a diverse range of scholars and practitioners from around the world to explore the use of immersive technologies, including blockchain, AI, VR, and digital platforms, in addressing the complexities and opportunities of the labor economy. Each chapter examines a unique aspect, such as economic, technological, educational, or human-centric, highlighting the connections between agile work models and digital transformation.

The book is organized into four thematic clusters:

PART I: ECONOMIC AND STRUCTURAL FOUNDATIONS OF THE GIG ECONOMY

Chapter 1 delves into India's gig economy, analyzing its impact on productivity, inequality, and labor market structures, and proposing a framework for inclusive and balanced growth.

Chapter 2 investigates the key economic drivers and inhibitors of gig economy performance, using empirical models to challenge assumptions about platform work and regulation.

Chapters 3 and 4 examine the evolving role of education in a gig-driven world. While Chapter 3 focuses on curriculum and institutional adaptations in higher education, Chapter 4 showcases how e-learning and EdTech serve as catalysts for economic transformation in the digital age.

PART II: FINANCIAL INCLUSION, LITERACY, AND SUSTAINABLE FINANCE IN THE DIGITAL AGE

Chapter 5 analyzes the critical link between financial inclusion and broader economic development, calling attention to the role of digital finance in social equity.

Chapter 6 presents a bibliometric exploration of sustainable finance management and its relationship with the circular economy, highlighting trends in ESG-aligned investing.

Chapter 7 provides an in-depth look at immersive technologies—blockchain, AI, cryptocurrency—that are transforming financial management, while **Chapter 8** employs structural equation modeling to explore how digital financial literacy is influenced by financial attitudes and behaviors.

Chapter 9 continues this methodological thread, studying how inflation and interest rates influence financial behavior and policymaking.

PART III: BLOCKCHAIN, IMMERSIVE TECH, AND THE DIGITAL SUPPLY CHAIN

Chapter 10 focuses on how blockchain is driving transparency in industrial supply chains, highlighting its potential for real-time, secure, and efficient supply chain management.

Chapter 11 turns to human capital applications, showing how blockchain is revolutionizing HR functions—from recruitment to payroll and gig worker identity verification—via smart contracts and immutable records.

Chapter 12 explores immersive health technologies as solutions for gig worker wellness, offering frameworks to improve access and outcomes through AR/VR and AI innovations.

Part IV: Human Resource Management and Organizational Agility in the Gig Economy

Chapter 13 and **Chapter 14** examine how HR professionals can build digital dexterity and redefine human capital strategies to meet the fluid demands of gig and digital workforces.

Chapter 15 and **Chapter 16** address HR's evolving role in managing flexible labor. These chapters offer pragmatic insights into workforce agility, ethics, and performance management tailored to the gig paradigm.

When viewed collectively, the chapters in this book highlight a significant shift in the structure of modern business and employment. This volume not only charts the rise of gig work; it emphasizes how immersive technologies, when combined with strategic, ethical, and inclusive policies, can convert this new labor model into a sustainable and equitable force.

We hope this collection serves as a vital resource for researchers, educators, policymakers, platform designers, financial managers, and HR professionals navigating the intersections of digital transformation and the gig economy. As the world of work continues to evolve, these insights provide a way forward—one that is innovative, human-centered, and prepared for the future.

This endeavor would not have been possible without the dedication of our collaborators, whose academic rigor and diverse perspectives have significantly shaped this compilation. We express our deep gratitude to the reviewers, editors, and institutional supporters who enabled the successful completion of this volume.

We encourage you to recognize that immersive technology and gig-based business models are not distinct innovations; instead, they are integral components of a comprehensive transformation that requires strategic vision, ethical foresight, and agility as you move through the chapters.

This book serves as a source of inspiration and guidance as you navigate the challenges and opportunities of the digital economy.

We hope you enjoy the book and wish you much success.

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Chapter 1
The Economic Impacts of India's Gig Economy: Navigating Productivity, Inequality, and Market Dynamics

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ABSTRACT

India's gig economy is reshaping the labor market, providing employment opportunities through platforms like Uber, Swiggy, and Amazon Flex. With the gig workforce in India projected to reach 59.28 million by 2035, this sector is emerging as crucial in fostering financial inclusion and regional economic decentralization. However, challenges such as wage volatility, job precarity, and inadequate social security disproportionately affect low-skilled workers, while high-skilled professionals benefit from greater stability. Gender disparities, algorithm-driven work allocation, and monopolistic practices further exacerbate inequalities. This study examines the economic contributions and structural vulnerabilities of the gig economy, advocating for legal recognition, fair wages, portable benefits, skill development programs, and stronger regulatory frameworks. A balanced approach, which ensures that workers are protected, without stifling innovation is essential to fostering an equitable and sustainable gig economy in India.

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1. INTRODUCTION

The gig economy, which involves "*the exchange of labour for money between individuals or companies via digital platforms that actively facilitate matching between providers and customers, on a short-term and payment-by-task basis*" (Lepanjuuri et al., 2018), has rapidly expanded across the globe. The founding of Elance (now Upwork) in 1999 is recorded as one of the first instance of internet-mediated freelance work, with the past decade as the period witnessing the most significant rise of app-based platforms (Oyer, 2020). Often described as one of the key components of the 'Future of Work,' the gig economy is classified as non-standard employment, deviating from conventional employment structures (Zeid et al., n.d.). It has provided millions of workers with flexible income opportunities while enabling businesses to access on-demand labour at reduced costs. The World Bank (2023) estimated that about 12 percent of the global labour market is accounted by the gig economy, and it is expected to grow rapidly, particularly in developing countries. Datta et al. (2023) found that the gig economy is has a marked presence in 186 countries, with 545 functioning gig work platforms, and it is only expected to rise in the times to come. Without a doubt, the rise of Gig economy can be classified as one of the 'creative innovation' of our times, one which has disrupted the traditional norms of employment, drawing from Schumpeter's (1942) concept of Creative Destruction[1]. From a macroeconomic perspective, gig economy has a significant impact on income, employment and aggregate demand, leading to an overall upliftment of the economy. However, the absence of traditional binding contracts with legal backing has raised concerns regarding job security, wage stability, social protections, and regulatory oversight. Often, the gig platforms have found themselves at crossroads with law with respect to a myriad of issues, such as worker classification and data privacy. Landmark cases such as the '*Uber BV v Aslam'* (United Kingdom Supreme Court, 2021) which held that Uber drivers are workers, therefore entitled to the national living wage and paid holidays, as well as *'Robo-Firing Case'* pertaining to firing and sacking of workers in Amsterdam court of appeal (Eurofound, n.d.) are examples where such platforms have found themselves answerable.

India, the fourth largest economy in the world has witnessed exponential growth in the gig economy over the past decade, fuelled by increasing smartphone usage, internet accessibility, digital payment solutions, and a vast labour force. As per NITI Aayog (2022), the gig economy workforce in India was estimated at 7.7 million in 2022 and is likely to expand to 23.5 million by 2029-30.

Although the gig economy provides new sources of work, it also contributes to income inequality. Highly skilled gig workers, especially in professional services and IT, receive competitive salaries, while less skilled workers like delivery people and ride-hailing drivers have volatile incomes. One of the critical concerns raised by gig

Chapter 2
A Study on the Obstacles and Prospects of Economic Consequences of the Gig Economy

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ABSTRACT

This paper examines the determinants of economic consequences in the gig economy through regression analyses of five key factors: platform design, regulatory environment, worker characteristics, market conditions, and technological infrastructure. Using convenience sampling, regression model explains 75.1% of the variance in economic outcomes, revealing a significant hierarchy of influence among these factors. Worker characteristics and market conditions emerged as the most potent predictors, challenging narratives that prioritize technological or regulatory factors. The findings suggest potential synergistic interactions among variables, where improvements in one area may enhance the effectiveness of others. The moderate

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impact of regulatory environment indicates that regulatory approaches should support worker capabilities and adapt to market realities rather than imposing universal solutions. This paper provides strategic directions for platform companies, policymakers, educational institutions, and workers to optimize economic outcomes in the evolving gig economy landscape.

1. INTRODUCTION

The gig economy, characterized by temporary, flexible jobs mediated through digital platforms, has fundamentally transformed traditional employment paradigms in the 21st century. This shift from conventional employment structures to platform-based work arrangements has sparked intense academic discourse regarding its economic implications. While proponents argue that the gig economy fosters entrepreneurship and economic flexibility, critics contend that it may perpetuate income inequality and job insecurity. Understanding these contradictory perspectives has become increasingly crucial as digital labor platforms continue to proliferate globally, reshaping labor markets and economic systems (Venkateswaran et a.,2019).

Recent empirical evidence suggests that the gig economy's impact extends beyond individual workers to influence broader macroeconomic indicators, including labor force participation rates, wage structures, and social security systems. The intersection of technological advancement with labor market dynamics has created a complex ecosystem where traditional economic theories may require significant recalibration. This complexity is further amplified by regional variations in regulatory frameworks and socioeconomic conditions, which significantly influence the manifestation and consequences of gig work across different economies.

Table 1. Comparative key aspects of gig workers in the UK, US, India, and China

Aspect	UK	US	India	China
Legal Status	Worker status with limited rights; landmark Uber ruling	Independent contractors; limited legal protections	Mostly informal; lacks legal protection and benefits	Contractual/flexible work; government regulates platforms
Popular Platforms	Deliveroo, Uber, TaskRabbit	Uber, Lyft, DoorDash, TaskRabbit	Swiggy, Zomato, Ola, Urban Company	Didi, Meituan, JD Daojia
Average Income (monthly)	£1,500–£2,000 (varies by city and hours)	$2,000–$3,500 (based on full-time gig work)	12,000– 25,000 (city and task-dependent)	¥3,000–¥6,000 (urban areas, sector-dependent)
Technological Integration	App-based assignments, GPS tracking, digital payments	Highly automated platforms with AI-based scheduling	Basic apps, route maps, wallet integrations	Advanced AI for allocation, performance tracking

continued on following page

Chapter 3
Digital Transformation in Higher Education: Navigating the Gig Economy Revolution

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ABSTRACT

The rapid expansion of the gig economy is reshaping labor markets worldwide, driven by technological advancements and changing workforce dynamics. This paper explores the intersection of higher education and the gig economy, emphasizing the need for transformative changes in educational systems to address emerging challenges. The primary goal is to analyze how higher education institutions can adapt by incorporating innovative tools such as micro-credentials and massive open online courses to equip students with skills aligned with the demands of the digital economy. The methodology combines a comprehensive literature review and analysis of regional trends in gig work, focusing on the European Union and Western Balkans, alongside global perspectives. Key conclusions highlight the importance of aligning education with labor market needs, fostering lifelong learning, and addressing regional disparities through tailored strategies. The paper is valuable for policymakers, educators, and researchers aiming to modernize education and promote equitable and sustainable workforce development.

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INTRODUCTION

The gig economy represents a profound shift in the global workforce, where traditional, long-term employment models are being replaced by flexible, independent work arrangements. Gone are the days when workers stayed with one company for decades, anticipating the long-term benefits and job security associated with permanent, full-time positions. Instead of remaining with a single employer for years, workers are increasingly piecing together their careers by engaging in various types of work, juggling multiple clients, and adopting roles that require a broader skill set. This includes becoming marketers, accountants, and business owners in addition to their primary profession. As noted by Horowitz (2011), this transition is as significant as the shift from an agricultural to an industrial economy, marking a transformation that is reshaping careers.

This massive transition in the workforce, however, has not been met with corresponding changes in higher education systems globally. As the demand for new knowledge and skills increases, driven by the growing gig economy and evolving labor market demands, higher education institutions (HEIs) have struggled to keep pace. The shift toward independent work requires workers to possess a diverse skill set, blending specialized expertise with entrepreneurial, digital, and problem-solving skills. Unfortunately, many higher education systems have not yet adapted to provide these essential competencies at scale. Consequently, there is a noticeable gap between the skills required by workers in the gig economy and those imparted by traditional educational institutions. This gap presents significant challenges, not only to individuals seeking to succeed in a rapidly changing labor market but also to economies striving for growth, sustainability, and more equitable wealth distribution.

For economies to thrive in this new landscape, it is crucial to align educational offerings with the evolving needs of the gig economy. Bridging this gap will be essential to ensure prosperity, a more equitable economic distribution, and sustainability in the face of ongoing global transformations. Without this shift, there is a risk that many workers will be left behind, unable to fully participate in the opportunities created by the digital economy.

In addition to global trends, the Western Balkan context introduces a set of region-specific challenges that deserve early attention. The region continues to grapple with persistent limitations in digital infrastructure, fragmented digital strategies, and underdeveloped workforce readiness. These challenges affect both the implementation of modern educational tools and the ability of graduates to engage in gig work, particularly in remote or digitally mediated roles. A clearer focus on these contextual elements underscores the urgency for targeted educational reforms and supports the paper's emphasis on localized solutions.

Chapter 4
Education 4.0:
E-Learning as an Economics Catalyst in the Digital Age

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ABSTRACT

Digital transformation and e-learning are making the educational landscape dramatically change, both economically and socially, around the world. With increased investments in the EdTech sector, innovative technologies like AI, AR, and VR are enhancing learning experiences and accessibility. These advancements are not only bridging educational gaps but also driving economic growth by creating new markets and job opportunities in the digital education ecosystem. This Chapter examines the evolution of the EdTech industry, putting a focus on AI-based solutions that enrich learning outcomes, interest, and individualization. It tackles the pertinent issues of accessibility and equity through innovations such as AI tutors, regional language resources, and low-cost e-reading devices. The study captures the global patterns with adoption before and after COVID-19 and evaluates various economic impacts-

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the creation of jobs and possible replacement for old positions-.

1. INTRODUCTION

1.1 Background and Context

As of 2023, the global EdTech market has been estimated at around $142.37 billion and is projected to rise at a compound annual growth rate (CAGR) of 13.4% from 2024 to 2030 (Grand View Research, 2024). The forward momentum for this growth is provided by the digital transformation of education, in which modern innovations like artificial intelligence (AI), augmented reality (AR), virtual reality (VR), and adaptive learning systems are reshaping traditional learning paradigms (World Economic Forum, 2021). However, challenges like the digital divide, data protection, and content quality remain key concerns (World Economic Forum, 2021).

Currently, the Indian edtech market is said to be around $7.5 billion and will grow to nearly $29 billion by 2030 (Statista, 2024). The rise in smartphone usage and internet penetration has increased investments and the emergence of many unicorn startups (Business Standard, 2025). Over 17,000 EdTech startups from the K-12 segment, which include test prep, professional upskilling, and course catalogues in higher education, among many others (Tracxn, 2025).

Indian edtech is at $7.5 billion now value and is expected to multiply until the beginning of $29 billion by the year 2030 (Statista, 2024). Indian EdTech shines with bright prospects because it embraces innovation, personalizes learning, and equity of access to education. The growing demand for accessible, personalized, and scalable solutions for education offers an opportunity for education technology to usher in next-generation education. Research indicates there is much potential for the EdTech sector to create equal opportunity and quality education resources for each deserving child, mainly for those from marginalized communities or rural areas (Joy et al., 2022). Also, artificial intelligence university education technology may offer a radically shifting educational environment by supplying personalized learning experiences as well as closing gaps in education (Bulathwela et al., 2021).

Chapter 5
Deciphering the Link Between Financial Inclusion and Economic Growth:
A Nexus Analysis

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ABSTRACT

A country's exemplary financial structure provides an unquestionable foundation for sustainable development and economic progress. It makes banking services available to citizens at any level of the economy at convenient rates. The meaning of inclusive finance was further expanded to encompass other services financed, especially the fiduciary guardianship for savings and an extensive range of loan products for small businesses, as well as other financial mechanisms that reduce financing risk through a partition of investments and insurance mediation (Wang et al.2022). Inclusive finance calls for a solemn catalyst of all individuals' well-being and demystification by pulling down the bridge and teeming injustice. The world is

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a vastly different place today than it was a quarter of a century ago. A combination of civil unrest and technological evolution has reset the stage that people all over the globe have been living on. For some, this is tremendously positive news as for others this represents another step backwards for the progress made in the second half of the 20th century.

1. INTRODUCTION

The tripartite framework of Financial Inclusion, Financial Literacy, and Consumer Protection creates a fundamental foundation for an economy to survive. Financial Inclusion is the linchpin of this framework, as the mode of totalitarian framework through which financial services are widely provided to everyone in the society, focusing more on economically lesser endowed and less-income group members. This total gambit of inclusion goes beyond conventional financial instruments of merchandise to include insurance and offering equity asset classes.

In essence, Financial Inclusion hinges on the mainstreaming of each and every individual in the formal financial services milieu conducive to fostering robust financial infrastructure. The resilience of the financial structure will be the lifeblood of the economy wherein people become equipped with stepping through the many ways of dealing with financial services and be broader economic background where they can be part of. Financial inclusion (FI) is defined as comprehensive extent of access that all societal groups find enjoyable, comprising deposit, credit, insurance, and pensionary provisions, in accordance with the perspective articulated by CRISIL (2015) (Dahiya & Kumar, 2020).

The concept of "financial inclusion" was initially introduced by RBI in the annual proclamation of policy directives for the fiscal year 2005–2006. The financial institutions were encouraged to evaluate their endeavours in alignment with the overarching objective of fostering financial inclusion. This policy directive aimed to address disparity in access to banking services among various socio-economic strata. Notably, Mangalam, situated in the state of Tamil Nadu, emerged as a pioneering exemplar, achieving the distinction of becoming the inaugural village in India where each household attained ubiquitous access to formal banking services. (Sharma, 2016) Despite being classified as an emerging economy, India exhibits a poverty rate of 22%, surpassing the global average of 18%. This indicates that a significant proportion of India's population lives below the poverty line, highlighting a substantial socio-economic challenge within the country. Henceforth, poverty mitigation poses a formidable challenge for densely populated nations such as India. Financial inclusion emerges as a pivotal mechanism in addressing this issue by facilitating the widespread accessibility of financial services. The Indian Gov-

Chapter 6
The Importance of Sustainable Finance Management Systems in the Digital Era: Emerging Technologies

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ABSTRACT

Sustainable finance has gained significant attention in recent years, fueled by the rise of the circular economy. It emphasizes evaluating investments with a focus on environmental, social, and governance (ESG) factors, aligning financial activities with sustainable development goals for long-term resilience in economic systems. This study aims to analyze co-authorship and co-citation trends in research on "Sustainable Finance Management Systems (SFMS) and the Circular Economy," using data from 37,132 articles collected from Dimensions AI, and analyzed through VOSviewer software. The bibliometric analysis highlights growth patterns and trends in sustainable finance and circular economy research, illustrating valuable connections between authors, citations, and countries. It also identifies emerging research areas and sector-specific demands, providing insights for global collaboration and

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interdisciplinary partnerships in sustainable finance and the circular economy.

1. INTRODUCTION

The word sustainable finance is the combination of two words; one is Sustainable and the other is Finance. Sustainability is talking about long-term survival, and finance is a broad term that exists everywhere, i.e. businesses or personal life. Today, SF is a very important aspect because every nation is working for the Sustainable Development Goals (SDGs) till the 2030 Agenda. It is supposed to integrate the investment decision-making process by employing money for sustainable investment and limiting climate change within its key agenda. (Sisodia & Maheshwari, 2023). Sustainability can be based on three pillars: Economic, Social, and Environmental.

Sustainability has emerged as a crucial factor in recent decades, serving as the primary means to generate wealth and sustainable value while avoiding resource depletion and environmental harm. Finance offers scientifically recognized methods that make it a suitable resource for assessing sustainability in the context of circularity (Oberoi & Kansra, 2021). However, there have been limited investigations in this field that have implemented the various assessment tools available, for reasons that remain unclear. Consultants like McKinsey emphasize that sustainable finance encompasses more than just "doing good." They argue that companies that have implemented a robust ESG framework are more likely to generate value than those that have not yet adopted sustainable practices (Oberoi & Kansra, 2022). ESG brings about value in multiple ways, including boosting revenue, cutting expenses, minimizing regulatory and legal interference, improving employee efficiency, and optimizing investments and assets. Key enablers in generating long-term advantages are these factors (Rodrigo et. al, 2021).

According to Ameer & Othman (2012), Alshehhi et al. (2018), Nobanee & Ellili (2016), today's society and economy are talking about the acceptability of sustainability in every sector of life. Financial management system also has inscriptions of sustainability that can be seen in the financial reporting, corporate legal compliance, and many more. The researchers also proved that a sustainable financial management system has a positive impact on the financial performance of the business houses.

There is no universally applicable definition of sustainable finance. Governments, FIs, and various international organizations have been deliberating on how to define sustainable finance, taking into account their respective approaches and applicability. This has resulted in ambiguity in the terminology surrounding sustainable finance (Oberoi et al., 2024). According to the present research, sustainable finance is defined as "finance that supports sectors or activities that contribute to the achievement or improvement of at least one of the relevant sustainability di-

Chapter 7
Financial Management in the Digital Era: Blockchain and Immersive Technologies

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ABSTRACT

This chapter introduces the blockchain and other immersive technologies such as AI, cryptocurrency, RPA, De-Fi, virtual reality, and augmented reality. Followed by sufficient background information, it includes a literature review while identifying the research gap. Cases and real-world applications support the content to a larger extent. Challenges and hurdles during technological adoption by financial managers have evolved. Regulatory issues pertaining to cybersecurity and other technologies are inculcated. At last, conclusions and future recommendations are provided on ESG integration in digital finance and talent shortage in fintech. This chapter also explores the unique role of financial managers in assisting companies with their risk management. It presents a descriptive introduction of block-chain and other immersive technologies in the field of financial management. It also discusses how financial managers' core competencies add significant value in the growing digital era.

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1. INTRODUCTION

Financial management, the strategic planning, organizing, directing, and controlling of financial undertakings in an organization, has evolved substantially with technological advancement. Traditionally, financial management focused on manual bookkeeping, in-person transactions, and time-consuming audits. However, the digital era marked by the rise of the internet, mobile technologies, big data, artificial intelligence (AI), block-chain, and fin-tech innovations has revolutionized the field. Digitalization has transformed how companies manage financial information, make investment decisions, raise capital, assess risk, and ensure compliance. Financial data is now available in real-time, offering more precise insights and enabling faster decision-making. Moreover, financial operations are increasingly automated, reducing human error, improving efficiency, and allowing businesses to shift focus toward strategic growth.

This chapter is structured in various sections. It first introduces the block-chain and other immersive technologies such as AI, cryptocurrency, RPA, De-Fi, virtual reality and augmented reality. Followed by sufficient background information, it includes literature review while identifying the research gap. Cases and real world applications supports the content to the larger extent. Challenges and hurdles during technological adoption by financial managers are evolved. Regulatory issues pertaining to cybersecurity and other technologies are inculcated. At last, conclusion and future recommendations are provided on ESG integration in digital finance and talent shortage in fin-tech. This chapter also explores the unique role of financial managers in assisting companies with their risk management. Firstly, it presents a descriptive introduction of block-chain and other immersive technologies in the field of financial management. It also discusses how financial managers' core competencies add significant value in the growing digital era.

The COVID-19 pandemic further accelerated the digitalization trend, making remote financial management tools a necessity rather than a luxury. Companies across all sectors are now investing heavily in technologies such as cloud-based accounting, digital payment platforms, robotic process automation (RPA), machine learning for predictive analytics, and block-chain for secure transactions. In today's digital age, cybersecurity risks are a growing concern for organizations across the globe. As businesses increasingly store proprietary information, including customer and supplier data, in the Cloud and on digital networks. At the same time, the frequency of cyberattacks is also rising. According to the FBI, "There are only two types of companies: those that have been hacked, and those that will be" (Cowley 2012). The rapid rise of data breaches and cyber incidents, coupled with heightened concerns from stakeholders, has led companies to direct considerable resources

Chapter 8
A Structural Equation Modelling Approach to the Linkage of Financial Attitude, Financial Behavior, and Financial Knowledge Towards Digital Financial Literacy

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ABSTRACT

The current study focusses on how the independent variables financial attitude (FA), financial behaviour (FB), and financial knowledge (FK)) are related to the degree of digital financial literacy (DFL) among working people in Delhi NCR, India. This study investigates financial literacy among employed individuals in the Delhi-National

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Capital Region, using a sample of 354 participants from public and private enterprises. Data was gathered through a structured questionnaire. To analyze variable relationships and assess model validity, Structural Equation Modeling (SEM) was applied This study employs route analysis to examine the relationship among three independent variables for hypothesis testing. The findings reveal that digital financial literacy synergizes with financial behaviour and financial attitude, indicating that individuals with higher digital financial literacy have a propensity for responsible financial actions and positive perceptions toward financial management.

1. INTRODUCTION

The constant digital revolution continues to define various aspects of everyday life, with the financial sector being particularly highly affected. In the last several decades, there has been a significant trend towards the utilisation of digital financial products. Digital Financial Services (DFS) have seen worldwide popularity as one of the major contributors to financial inclusion, having substantially increased access to financial capital (Lyons, Kass-Hanna, & Greenlee, 2020). DFS have grown significantly in India at a fast pace, promoting innovative services consistent with the vision of the government for a digitally empowered economy. DFS is defined as the capability to access and use financial services via digital channels at any point in time. These services now bear significant importance in the economy, unveiling instruments such as virtual banking, APIs, digital lending, and alternative credit scoring (OECD, 2013; Arora & Nabi, 2022). Since they have been largely adopted, the need to improve public awareness of financial well-being to have a secure financial future (Zhang, 2021) thus highlights the increasing need to raise digital financial literacy levels among people.

FL is currently the biggest issue faced by all nations worldwide. Knowing about, being skilled at, and having a positive attitude about money are all components of financial literacy. It facilitates sound decision-making and fosters personal growth (Thomas & Gupta, 2021). The purpose of the role that financial services companies like banks, brokerage, investments, and insurance play in the lives of their investors is to empower people with financial well-being rather than to influence them with the return, risk, or financing of their demands (Goyal et al. 2021).

"Financial behaviour spans a wide spectrum of four disciplines, namely, saving, spending, borrowing and investment." Individuals have distinct habits, and these behaviours are impacted by a complex interplay of factors, including family counsel, financial knowledge, social connections, advertisements, economic standing, relationship status, outlook on the future, and income levels, among others. Even if the investment portfolio is quite huge these days, locals still favour a few tried-

Chapter 9
Impact of Rising Interest Rates and Inflation on Financial Behavior:
An Insight Through Structural Equation Modelling Approach

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ABSTRACT

This study responds to how the macroeconomic variables, i.e., inflation and interest rate, influence personal finance. Specifically, the study explores the influence of macroeconomic indicators such as interest rates and inflation on financial behaviour in India. It also investigates the role of economic awareness, income, social factors, and financial attitude. This paper employs structural equation modelling (SEM) to examine how these aspects influence behavioural finance. The findings aim to shape

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the content of financial literacy and policy interventions by providing insights on how inflation and shifts in interest rates mean to perceptions of financial soundness for financial institutions and policymakers.

1. INTRODUCTION

Behavioural finance as a theory is based on Ajzen's Theory of Reasoned Action (TRA) (1980) (Jogiyanto, 2007). After this theory was improved into the Theory of Planned Behaviour (TPB), TRA was constructed on the assumption that people behave intentionally by considering all the information (Ajzen, 1991). Many authors have studied human psychological factors that influence financial decisions and behavioural finance (Shefrin 2000, Nofsinger, 2001). The theory of behavioural finance states that society makes decisions by considering more non-economic aspects, such as psychological aspects or irrationally (Arifin et al., 2019).

Constant variations in inflation and interest rates are changing the global financial scene, thus greatly impacting how people perceive their financial security. In the last few years, these economic changes in India have certainly enlarged, resulting in variations in investment patterns, income levels, and purchasing power (Chopra, M. A et.al, 1995). Economic awareness, perceptions of income stability, social factors, and people's behavioural attitudes are some of the main characteristics that shape the financial security of individuals and families as they deal with these transformations (Katnic, I., et. al, 2024). Several variables influence behavioural finance, i.e., economics, accounting behaviour, sociology, and investments. Financial behaviour is affected by other variables like income, financial attitude, social factors, and economic awareness (Baddeley, M., 2018, Kansra, P., & Gill, H. S. (2017).

Financial attitude is a measure of the state of mind and judgement about finance (Klontz et al., 2011) and Ningsih and Rita (2010). The financial attitude plays a significant role in determining the decisions related to behavioural finance (Rajna et al.2011). It is perceived as a psychological tendency to evaluate the recommended practices of financial management (Rajna, 2011). Financial attitude is the applied financial principle to make proper decisions. The higher economic awareness of an individual to save income also affects the behaviour of finance or purchase decisions of people (Arifin et al., 2019). The income of an individual shows a mixed effect on financial behaviour in various studies. Studies by some authors, i.e., Perry and Morris (2005), found that income does impact financial behaviour (Oberoi, S., & Kansra, P. 2021& 2022). However, some studies conducted by Ida and Dwinta (2010), Grable et al. (2009), and Kholila and Iramani (2013) found the opposite results. The financial behaviour comprises psychology, finance, and sociology (Ricciardi and Simon,2000).

Chapter 10
Blockchain in Industrial Supply Chains:
Tracing the Transparency

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ABSTRACT

Over the past several years, blockchain technology has become more and more significant and widely accepted. Independent businesses that are actively involved in the upstream and downstream flows of goods, services, money and information from a source to a customer make a supply chain. Members of the supply chain must collaborate and exchange information in order to be managed effectively. Blockchain technology offers a platform for direct communication between supply chain participants to exchange reliable and unchangeable data, which has the potential to significantly enhance supply chain management and accomplish supply chain performance goals. Notwithstanding its potential, there are obstacles to the broad use of blockchain. Legal and regulatory issues are also very important for supply chain management in the future. Keeping in view the above, the chapter analyzes the role of blockchain in the industrial supply chain and explores the facet of transparency in supply chain management.

INTRODUCTION

The network of all the people, businesses, assets, processes, and technology used in the production and marketing of a product is known as a supply chain (Seuring et al., 2008). Everything from the transfer of raw materials from the supplier to the

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producer to the final delivery to the customer is included in a supply chain. The distribution channel is the part of the supply chain that handles moving the final product from the producer to the customer. The coordination and administration of a complicated web of operations involved in getting a product from suppliers of raw materials to the customer is known as supply chain management (Strauss & Frost, 2014). For organizations to guarantee that products are delivered on schedule, within budget, and in good shape, effective supply chain management is essential. It entails a number of procedures, such as manufacturing, distribution, logistics, and procurement, all of which need to be carefully managed to attain maximum effectiveness and client satisfaction (Croxton et al., 2001). The absence of traceability and transparency is one of the main issues in supply chain management. Conventional supply chains frequently have several middlemen, each of whom keeps their own records. This disjointed strategy may result in inconsistencies, hold-ups, and higher expenses (Grant & Startz, 2022). Furthermore, it becomes challenging to track down the products' origins, which is especially troublesome in sectors like food and medicines where authenticity and safety are crucial.

Many of these issues can be resolved by blockchain technology, which offers an unchangeable and transparent record of each supply chain transaction. Blockchain makes it possible for all supply chain participants to access a single, shared ledger, guaranteeing that everyone is aware of the same data (Zelbst et al., 2020). Supply chains can become more efficient and economical by reducing fraud, mistakes, and inefficiencies as a result of this transparency. In essence, blockchain technology is a distributed ledger system that makes it possible for numerous parties to securely, openly, and impenetrably record transactions (Benton et al., 2018). A blockchain is managed by a network of nodes, each of which has a copy of the complete ledger, in contrast to conventional centralized databases. By preventing any one party from controlling the entire system, this decentralized structure lowers the possibility of fraud and manipulation. A list of transactions is contained in each of the blocks that make up a blockchain (Tripathi et al., 2023). A chain is created by cryptographically connecting these blocks to one another. The ledger is immutable once a block is added to the chain because it cannot be changed without also altering all blocks that come after it (Sun, 2020). The immutability of blockchain is one of its primary characteristics. Another essential element of blockchain technology is smart contracts. The terms of these self-executing contracts are encoded directly into the code. When certain criteria are satisfied, they automatically execute and enforce the terms of the contract, doing away with the need for middlemen and lowering the likelihood of disagreements. Increased transparency is another benefit of blockchain technology (Abdelhamid & Hassan, 2019). All network users can see every transaction that is recorded on the blockchain, making it a single source of truth. In sectors like finance,

Chapter 11
Role of Blockchain Technology in Recruitment, Payroll Management, and Managing Gig Economy Workers: Recent Trends and Research Agenda

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ABSTRACT

Blockchain technology has revolutionized Human Resource Management (HRM) practices. The study aims to unearth the role of blockchain in recruitment and selection, payroll management and managing the gig economy workers. The study is based on secondary sources of data. Blockchain in recruitment enhances trust via immutable candidate records, ensuring transparent and verified credentials.

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It streamlines verification processes, reduces fraud, and fosters efficient, secure candidate selection. Employing blockchain on payroll systems increases security, provides a transparent and immutable ledger for payroll records eliminating risk of fudging pay-roll. It also automates the process through smart contracts, thereby improving payroll processes, reducing wastage of time and administration charges. Blockchain manages gig workers by contract creation and identity verification, secure and verifiable recordkeeping, reducing fraud, dispute resolution, time and attendance tracking, payroll and performance management.

INTRODUCTION

The first cryptocurrency i.e. Bitcoin was the first application of Blockchain Technology, introduced by Nakamoto in 2008, as the first decentralized digital currency that allowed for currency exchange between peers without any central intermediary (Krishnan et al., 2020). Blockchain is shorthand for decentralised digital ledger technology, which is the basis for many applications. Thus, distributed ledger technology is an umbrella term encapsulating Blockchain technology and other distributed ledgers (Oberoi et al., 2024). Its key feature is decentralisation itself: data is stored distributed across a peer-to-peer network of nodes, and there is no single point of control. Smart contracts on the blockchain are enhanced through combining the capabilities of smart contracts (to self-execute) with those of the blockchain to alter the landscape of the contract management forever (Verma et al., 2025).

There are multiple benefits of using blockchain technology such as transparency -and immutability (Arora & Nabi, 2022). Transparency arises from the fact that it is open and publicly verifiable, such that the status of a blockchain is visible to all participants (Arora et al., 2024). Together with decentralisation and transparency comes immutability: once data has been saved on the ledger, it cannot be changed or erased without consensus from the network (Khan et al., 2024).

Although the first application of Blockchain technology was in financial sector, it made its way in several other domains such as human resource management, marketing etc. Blockchain technology has emerged as a transformative tool with the potential to revolutionize Human Resource Management (HRM) practices (Mathew et al., 2025). As blockchain technology continues to evolve, it holds the potential to further enhance HRM practices. The proliferation of interoperable blockchain networks could collectively amplify the utility of blockchain-enabled smart contracts (Oberoi & Kansra, 2022), fostering even more secure, scalable, and efficient solutions for HRM. Blockchain's inherent features, including decentralization, transparency, and immutability, can be harnessed to develop smart contracts that automate and optimize the management of human resource in organizations. The benefits of

Chapter 12
Driving Better Health Outcomes for Gig Workers Through Strategic Health Initiatives

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ABSTRACT

The gig economy offers flexibility and autonomy to workers but also presents significant challenges related to health and well-being, especially for delivery professionals who face irregular hours, physical strain, and limited access to healthcare. Immersive technologies, such as virtual reality (VR), augmented reality (AR), and artificial intelligence (AI), present innovative solutions to bridge these gaps. However, gig workers' adoption of these technologies remains underexplored. This paper applied the diffusion of innovation (DOI) theory to analyse the adoption patterns of immersive technologies within the gig economy and identified barriers, such as digital literacy and cost, alongside facilitators, like perceived usefulness and ease of integration. The paper provides insights into how these technologies can be effectively implemented in the gig workforce. The study highlights the role of platform policies and the broader regulatory landscape in shaping technology adoption, offering valuable recommendations for policymakers and technology developers.

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INTRODUCTION

The rapid expansion of the gig economy has significantly reshaped global labour markets, particularly in sectors like transportation, food delivery, and freelance services (Kalbalia et al., 2024). Digital platforms have played an important role in this transformation by connecting workers with customers in real time, offering flexible work arrangements that appeal to a wide range of individuals seeking autonomy and income opportunities (Katsnelson & Oberholzer-Gee, 2021). While this model has undeniably broadened access to employment, it also raises concerns about the working conditions and health security of gig workers, especially those in physically intensive roles like delivery services (Kumar, 2023). Delivery professionals often work long, irregular hours under demanding physical conditions, frequently without the protections or benefits associated with traditional employment (Graham et al., 2017; Koohang et al., 2023).

The absence of employer-provided health insurance, paid sick leave, and structured wellness programs forces many to rely on out-of-pocket healthcare or digital health tools, which increases their vulnerability and deepens health inequities (Friedland & Balkin, 2023). These structural gaps reflect a broader issue within platform-based work. While flexibility is a key selling point, it often masks a lack of job security, income stability, and occupational safeguards (Randolph, 2019). As gig workers continue to operate in hazardous environments, the need for innovative, technology-driven interventions becomes urgent (Kalbalia & Koushik, 2025). Solutions must go beyond convenience and connectivity, addressing the systemic absence of health protections and support mechanisms within the platform economy (Lester et al., 2021).

Immersive technologies like virtual reality (VR), augmented reality (AR), and AI-driven health applications have emerged as potential tools to transform how gig workers manage health, access training, and navigate daily tasks (Behar et al., 2020; Devagiri et al., 2022). These tools can support remote consultations, real-time monitoring, and skill development (Albahri, Albahri, et al., 2018; Albahri, Zaidan, et al., 2018). But even with their promise, adoption by delivery workers remains limited, and the reasons why are not well understood. We need a structured way to explore how and why certain innovations catch on. That's where Diffusion of Innovation (DOI) Theory helps.

This study applies the Diffusion of Innovation (DOI) Theory to understand how immersive health technologies spread among gig delivery workers (Akir, 2003). Originally proposed by Everett Rogers, the DOI provides a framework for analysing how new technologies spread across populations (Curtis, 2020; Pereira et al., 2022). The theory describes five key stages: knowledge, persuasion, decision, implementation, and confirmation, through which individuals become aware of, evaluate, and ultimately adopt or reject a new innovation (Bhattacharya, 2015; Seligman,

Chapter 13
Building Digital Dexterity: HR's Role in Talent and Skill Development

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ABSTRACT

In the rapidly evolving digital landscape, organizations face the dual challenge of adapting to technological advancements while fostering a workforce equipped with the skills necessary to thrive in this new paradigm. The chapter explores the pivotal role of Human Resources in cultivating digital dexterity defined as the ability of employees to adapt, learn, and innovate in a technology-driven environment. The chapter delves into the key components of digital dexterity, including technical proficiency and critical soft skills such as collaboration, creativity, and adaptability. It examines modern talent acquisition strategies, emphasizing the integration of digital competencies during recruitment and on boarding processes. The importance of upskilling and reskilling initiatives, powered by e-learning platforms and data-driven training programs, is highlighted as a cornerstone of HR's efforts. Furthermore,

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the use of cutting-edge technologies like artificial intelligence, virtual reality, and gamification in enhancing employee training and development are discussed.

1. INTRODUCTION

The workplace is experiencing a profound change, facilitated by rapid changes in digital technology. AI, automation, and data analytics are evolving industries, modifying work tasks and transforming whom and what we consider "talent" to build the next generation of capacity to navigate complexity and change. The digital age has radically different paradigms since the introduction of microprocessors and is also rapidly producing technological convergence and information overload (Martin Hilbert and O. Cairó 2008). This uprising does not stop at business, it is also reshaping culture through heritage preservation (Feng et al., 2019), arbitrating basic education and knowledge economies and redistricting conventional professions like auditing in which data assets generate efficiencies alongside new issues (Tahir, 2024).

Amid these tectonic shifts, organizations face dual forces: to move with the pace of technological change and to develop a workforce that will be successful in meeting that change. The answer is digital dexterity; a multi-dimensional skill that requires leveraging technical competence with adaptive soft skills that include creativity, collaboration, and critical thinking. While it does not come naturally, it must be developed as a mindset and a skill. This chapter, which examine how Human Resources (HR) can take the lead role on empowering employees' agility and adaptability needed for the digital age. The chapter provides an overall description of the impact of digital transformation in the workplace, based on best practices and recent research and also presents the strategic value of developing digital readiness. The chapter mentions high-performance HR practices that support learners, boost adaptability and instil continuous skills building. The chapter also explores current learning environments; for instance, tailored training, microlearning, and e-learning platforms that encourage self-directed learning and stimulate lifelong learning. This chapter also investigates how emerging technologies–including AI, VR, gamification, and even blockchain–can be used to increase training effectiveness and ease of engagement. In looking forward to what work will look like going ahead, we argue that HR should function as both catalyst and steward of digital dexterity. By considering skills likely to be in demand in the future and developing a culture of innovation, HR will position organizations to not just survive, but thrive in a world veering ahead towards more digital.

Chapter 14
Human Resource Development in the Digital Era: Talent Management and Skill Enhancement

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ABSTRACT

Technological advancements have revolutionized Human Resource Development (HRD) and substituted traditional talent management. Organizations are operating in an AI-enabled, automated, big data, and digital learning environment. The chapter discusses digital transformation of HRD with focus on AI-driven hiring, digital learning, and performance tracking. The focus is on lifelong learning, upskilling, and reskilling to align with evolving industry needs. HR professionals must embrace digital enablers like Learning Management Systems (LMS), gamification, and microlearning. Remote work and the gig economy demand agile and inclusive talent solutions. Digitalization is advantageous but poses challenges in data protection, algorithmic bias, and technology resistance. The chapter, with case studies of MNCs and start-ups, provides best practices and ethical concerns in AI adoption. It finally provides strategic suggestions to HR leaders, academia, and business to align technology with people-first leadership to make HRD impactful in the digital era.

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1. INTRODUCTION

The 21st century has seen a profound reorganization of the nature of work spurred by the extensive spread of information and communication technologies, population shifts, and economic crises. Human Resource Development (HRD), previously occupied with isolated training interventions and official career development, is now increasingly being conceptualized as a dynamic, strategic process supporting organizational learning, adaptability, and competitiveness. Contemporary organizations operate in a VUCA world, where flexibility, innovation, and capability development continuously are no longer an option, but they are a necessity (Bennett & Lemoine, 2014; Swanson, 2022).

Digitalization has also been a disruptor and an enabler. Technologies like Artificial Intelligence (AI), machine learning, robotic process automation, cloud computing, and data analytics are redefining the HR function (Marler & Boudreau, 2017; Tambe, Cappelli, & Yakubovich, 2019). These technologies allow organizations to transition from reactive to predictive talent management, individualized learning journeys, and data-driven decisions along the employee journey. As Arora and Nabi (2022) note in their analysis of the adoption of blockchain in banking systems, technology adoption is not merely about infrastructure but also cultural and ethical rebalancing, an observation also valid in the HRD context.

At the same time, expectations of the workforce have also altered significantly. Millennials and Gen Z, who represent the biggest chunk of the world's workforce today, expect not just career advancement but also flexibility, self-development, and meaningful work experiences (Pandita, 2022). The speed at which remote and hybrid work patterns have grown all over the world following the COVID-19 pandemic has also accelerated the speed to fuel the demand for digital-first HR platforms which can connect, develop, and retain a remote workforce (Carnevale & Hatak, 2020).

The new economies such as India's have a double opportunity and challenge. With its youth and big population, the country must invest now in digital empowerment and skill development to capture its demographic dividend. Programs such as Skill India, Digital India, and the sectoral missions for capacity building reflect a strategic shift towards building a future-ready, knowledge-based workforce.

Against this background, this chapter focuses on the evolving role of HRD in the digitalization era, particularly in talent management, digital learning, and skill development. This chapter attempts to ask and answer the following significant questions:

- How has the role and function of HRD evolved because of digital disruption?
- What paradigms and theoretical models inform the evolution of digitally enabled HRD?

Chapter 15
HR Evolution in Gig Economy: Strategies for Agility and Efficiency

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ABSTRACT

The gig economy, revolutionized with the dynamics of the workforce and driven by digital platforms, offers businesses flexibility, while passing the challenges in human resources management. The chapter investigates the evolution in the gig economy and the implications for HR practices which could address the challenges such as agility and workforce differentiation for efficiency. Through the actionable strategies for onboarding, recruitment, performance managed tailored towards gig works. This chapter also highlights the cost efficiency and ethical workforce management approaches. By aligning the practices with agility and efficiency, it offers the roadmap to the business for leveraging the gig economy as a competitive advantage.

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INTRODUCTION

The concept of agility within the gig economy revolves around the ability of the business to swiftly adapt to market demands and changes in the workforce with technological integrations. Unlike the traditional employment models, which require longer-term commitments and hierarchies, the gig economy ensures the business is more responsive and flexible with cost-effectiveness to leverage the on-demand workforce. (Vu & Nguyen, 2024). The key drivers for the agility to move swiftly and with the availability of the on-demand workforce(Fuller et al., 2020). The companies can hire gig workers or freelancers for short-term projects, allowing them to work on the rotations quickly without exceeding the employment contracts. This model ensures that the business can execute projects efficiently while optimizing the allocation of resources based on real-time needs (Lo & Hsieh, 2023). Another aspect is efficiency, which has key advantages through cost optimization and streamlines (Bateyo, 2025). In contrast to the traditional employment models, wherein the focused costs like benefits and office institutions are huge, the gig economy enables businesses to hire workers on a task basis and eliminate any overhead expenses(Fuller et al., 2020: Cika, 2021). This particular approach shall increase the optional sustainability and flexibility. The gig economy emergency is result-oriented, which is the key advantage of this economy focusing on efficiency through time management and streamlined workflows. The pay-per-task structure significantly minimise expenses to better allocate resources where needed. Efficiency in the gig economy is reflected in the ability to save more time. Organizations onboard skilled professionals for the projects without undergoing recruitment or training. Even the gig workers are highly specialized in the fields and have fewer supervisors who could deliver higher quality work within the adhered deadlines(Elayan, 2022). The efficiency allows the buses to meet more fluctuating demands and the project as a department without committing to long-term employment contracts (Cika, 2021). Furthermore, scalability and adaptability play an integral role in enhancing efficiency within the context of the gig economy. The businesses could scale the workforce based on their demands and ensure optimal resource utilization. This dynamic workforce management can prevent unnecessary expenditures during peak periods and maintain seamless operations while demand is high. Effective HR practices enable businesses to scale the workforce without excessive administrative burden, creating a more sustainable model for employers and workers (Bateyo, 2025). In the gig economy, wherein the employment structures are based on projects and decentralized, the balance of agility and efficiency is essential for improving workforce productivity and maintaining compliance with labour regulations.

Chapter 16
Human Resource Management in the Gig Economy:
Strategies for Agility and Efficiency

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ABSTRACT

Gig economy, or temporary, flexible work, has damaged traditional HRM systems. As businesses use more contract, freelance, and platform-based labour, HR managers must adapt to maintain flexibility, effectiveness, and employee engagement. Hiring is challenging since gig workers seek freedom and flexibility. Digital recruitment platforms, social media outreach, and AI-powered technologies that swiftly match people to positions must replace long-term recruitment methods. To satisfy gig workers, HR departments must hire on-demand, project-based. Performance management should prioritise task completion and deliverables over long-term goals. Digital technologies enable remote goal alignment, performance monitoring, and feedback. Independent gig work makes engagement and retention tough. HR should foster community through online networks, growth possibilities, equal compensation, and bonuses to boost motivation and loyalty.

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1 INTRODUCTION

The gig economy has caused a paradigm shift in how companies handle their employees. It prioritises contract, freelance, and platform-based work above traditional full-time employment and is characterised by transitory and flexible labour arrangements. In order to preserve organisational agility, efficiency, and employee engagement, this shift calls into question established Human Resource Management (HRM) approaches and calls for creative solutions (Bartik et al., 2020; Arora et al., 2023). The influence of the gig economy is best illustrated by the growth of online marketplaces such as Uber, TaskRabbit, and Upwork, which give people the freedom to select jobs that fit their schedules and skill set. Businesses can scale operations up or down in response to market needs thanks to this model's availability to a varied talent pool. But this adaptability has its own set of drawbacks, especially for HRM, which has to modify conventional procedures to satisfy the specialised needs of this workforce (Verma et al., 2024).

Redefining the employer-employee relationship is one of the biggest difficulties facing the gig economy. Gig workers, in contrast to regular employees, are highly independent and may interact with several organisations at once (Bélanger and Crossler, 2011). HRM must create creative strategies for hiring engagement, performance management, and retention in light of this decentralised structure. Because gig labour is dynamic and project-based, traditional approaches that depend on long-term employment models are insufficient. In the gig economy, hiring requires flexibility and the application of cutting-edge technology. Digital platforms, social media, and AI-powered tools are becoming essential for finding and luring gig workers (Boudreau and Lawler, 2017; Arora and Nabi, 2022). With the help of these technologies, HR managers can quickly evaluate candidates' abilities, pair them with suitable tasks, and guarantee a smooth onboarding process. Additionally, the move away from strict recruiting cycles and towards on-demand hiring procedures underscores the need for HR departments to be more responsive and flexible.

Another area where conventional HR procedures need to be updated is performance management. In traditional contexts, long-term performance criteria like hours worked and annual reviews are used to evaluate personnel (Brynjolfsson and McAfee, 2014; Kansra and Gill, 2016). However, the accomplishment of particular tasks or projects is frequently used to gauge success for gig workers. This calls for the implementation of task-oriented evaluation systems that give deliverables and results top priority. Even in a dispersed workforce, digital technologies are essential for enabling real-time performance tracking and feedback and guaranteeing alignment with organisational goals (Cappelli, 2015).

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Spoken ENGLISH FOR CAREER GROWTH

(A Comprehensive Step-by-Step Guide to FLUENT ENGLISH SPEAKING)



DR. KAMAL CHANDEL

Spoken English for Career Growth

(A Comprehensive Step-by-Step Guide to Fluent English Speaking)

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Disclaimer

This book has been compiled to assist students and learners in improving their English language skills and to serve as a supportive companion on the journey toward fluency in today's modern world. Every effort has been made to ensure the accuracy and reliability of the information presented**..** While every effort has been made to ensure accuracy, the authors and publisher disclaim any responsibility for errors or omissions.

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About the Author



About the Author

Dr. Kamal Chandel is a distinguished academician, author, and mentor whose diverse experiences and scholarly expertise have significantly contributed to shaping young minds. He currently serves as an Assistant Professor at **Meri College Janakpuri**, affiliated with **Guru Gobind Singh Indraprastha University (GGSIPU)**.

With a deep passion for language, literature, spirituality, and philosophy, Dr. Chandel has consistently worked towards empowering students with both academic knowledge and practical life skills. His role as an educator has not only enabled him to impart knowledge but has also inspired him to explore storytelling and the human experience through writing.

Having closely observed the challenges faced by learners in mastering spoken English, Dr. Chandel authored *"**Spoken English for Career Growth**: A Comprehensive Step-by-Step Guide to Fluent English Speaking"* to provide a structured, practical, and learner-friendly approach to developing fluency. This book reflects his commitment to making English communication accessible, systematic, and confidence-building for students, professionals, and aspiring speakers alike.

In addition to this work, Dr. Chandel has written several books focusing on soft skills enhancement and Personality Development Programs (PDP). His literary contributions also include a poetry collection titled *Tranquility in Life* and a novel, *The Caravan of Life*, both of which reflect his philosophical depth and creative insight.

Dr. Kamal Chandel's dedication to education, combined with his ability to blend profound insights with relatable narratives, has made him a respected and admired figure among students and colleagues. Through his writings and teaching, he continues to inspire individuals to discover their potential and communicate with confidence.

Preface

Dear Readers,

We are delighted to present *"**Spoken English for Career Growth**: A Comprehensive Step-by-Step Guide to Fluent English Speaking."* This comprehensive guide is designed to help learners of English develop their speaking skills with confidence and fluency. Whether you are a student, professional, or simply eager to enhance your communication abilities, this book provides practical techniques and strategies to excel in English conversation.

As language educators and enthusiasts, we have witnessed the challenges many learners face in speaking English. This inspired us to create a resource that not only addresses these challenges but also guides readers through a systematic approach to mastering spoken English.

In this book, we have curated a range of exercises, activities, and real-life examples to facilitate effective learning. Each chapter focuses on specific aspects of English speaking, providing step-by-step guidance and ample opportunities for practice. By following the structured approach outlined in this guide, readers can build their speaking skills progressively and overcome common hurdles encountered in language acquisition.

We would like to express our gratitude to the team at Navveer Foundation for their support in bringing this book to fruition. We hope that *"**Spoken English for Career Growth**: A Comprehensive Step-by-Step Guide to Fluent English Speaking"* serves as a valuable companion on your journey towards English fluency.

Wishing you success in your language learning endeavors!

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- Real-world conversations, role-plays, and exercises
- Vocabulary, phrases, and self-practice tips for global fluency

Conclusion: Your Journey Begins Here

- Motivational ending to encourage continued practice
- Emphasizes confidence, application, and lifelong learning

Motivational Foreword – Welcome to Your Spoken English Journey

Welcome! You are about to embark on a journey that will **transform your ability to communicate in English**, boost your confidence, and open doors to new personal and professional opportunities.

Learning English is not just about grammar rules or memorizing words—it is about **expressing yourself clearly, thinking confidently, and connecting meaningfully with people around the world**. Every conversation you have, whether at home, in the workplace, or with international friends, is a chance to grow, learn, and shine.

This book is designed to guide you step by step—from **building vocabulary and using daily sentences**, to **practicing real conversations**, to finally mastering **executive-level communication and global fluency**. Along the way, you will overcome common challenges, enhance your non-verbal communication, and discover the power of idioms, phrases, and confident expression.

Remember: **Mistakes are stepping stones to mastery. Practice consistently, speak boldly, and never hesitate to express your ideas.** Your English is more than a language—it is your tool to create opportunities, inspire others, and lead with confidence.

So take the first step, immerse yourself in learning, and believe in your ability to **speak confidently and leave a lasting impression** wherever you go. Your journey starts here—and it can take you anywhere!

Chapter 1 Vocabulary Exercises

Vocabulary Exercise – 1

(1) Backbite - बैकबाइट - चुगली करना / पीठे पीछे निंदा करना

1. वो चुगली करता रहता है, इसीलिए मैं उससे बात करने से बचता हूँ।
   He keeps backbiting, that's why I avoid talking to him.
2. हमें पीठे पीछे निंदा नहीं करनी चाहिए, क्योंकि यह हमारी नकारात्मकता को प्रदर्शित करता है।
   We shouldn't backbite, as it exhibits our negativity.

---

(2) Heredity - हेरीडिटी - वंशज / परंपरागत गुण / आनुवांशिकता

1. रोहित की लम्बाई लगभग छः फीट है और उसके बाल भूरे हैं, इसका पूरा श्रेय उसके पिता को जाता है
जिनसे उसे ये परंपरागत गुण मिले हैं।

Rohit is around six feet tall, and his hair is brown, all credit goes to his father from which he has got these traits as a part of heredity.

2. हमारा भविष्य या सफलता, हमारे वंशगतता (आनुवांशिकता) पे निर्भर नहीं करती बल्कि इस पर करती है
   कि हम कितनी मेहनत करते हैं।

Our future or success doesn't depend on our heredity; instead, it relies on how much we work hard.

---

(3) Inequity - इनिक्विटी - असमानता / एक जैसा न होना

1. भारत और अमेरिका में सबसे बड़ी असमानता यह है कि भारत में लोगों में शिक्षा का अभाव है।
   The most significant inequity between India and the United States is that there is a lack of awareness regarding education.

2. पैसा और ज्ञान ने अमीर और गरीब के बीच एक बहुत बड़ी असामनता खड़ी कर दी है।
   Money and knowledge have created a significant inequity between the rich and the poor.

---

(4) Magnificent (adj.) - मैग्निफिसेंट - ज़बरदस्त / विशाल

1. धोनी ने कई बार दबाव में बहुत ही ज़बरदस्त पारी खेल कर भारत को जिताया है।
   Dhoni had won India a number of matches by playing magnificent knocks in pressure situations.
2. ताज महल को देख कर, यह विश्वास करना मुश्किल है कि इतनी ज़बरदस्त इमारत भी बनायीं जा सकती है।
   After seeing the Taj Mahal, it is hard to believe that even such a magnificent monument could be made.

---

(5) Paragon (n.) - पेरागॉन - नमूना / आदर्श

1. चंडीगढ़ जैसा शहर पूरे देश के सारे शहरों के लिए एक आदर्श है, इतना साफ–स्वच्छ और इतने कम
   प्रदूषण वाला शहर अद्भुत है।

A city like Chandigarh is a paragon for all the cities of the country, such a clean and so less polluted city is unique.

2. श्रवण कुमार उन सभी बच्चों के लिए आदर्श हैं जो अपने माता–पिता की सेवा करना चाहते हैं।
   Shravan Kumar is a paragon for all the kids who want to serve their parents.

---

(6) Sumptuous (adj.) – सम्चुअस – शानदार, आलीशान

1. उसका एक आलीशान फार्म हाऊस है।
   He has a sumptuous farm house.

2. ये एक बेहतरीन ब्रैकफस्ट है।
   This is a sumptuous breakfast.

---

(7) Tackle (v.) – टैकल – निपटना/ सुलझाना

1. मैं नहीं जानता कि इस समस्या से कैसे निपटा जाए।
   I have no idea how to tackle this problem.
2. हमें सीखना चाहिए कि किसी कठिन परिस्थिति से कैसे निपटा जाए।
   We should learn how to tackle a difficult situation.

---

(8) Zoo (n.) – ज़ू – चिड़ियाघर

1. इस चिड़ियाघर में देखने लायक कुछ नहीं है।
   This zoo has nothing worth watching.
2. उस दूर वाले चिड़ियाघर के बारे में मैंने बहुत सुना है पर कभी जाने का मौका नहीं मिला।
   क्या आप ले जा सकते हो वहाँ, देखूँ तो सही ऐसा क्या खास है उसमें?

I have heard a lot about that distant zoo but never got an opportunity to visit. Could you please take me there, I want to see what's so special about that?

---

(9) Yell (v.) – यैल – चीखना / चिल्लाना

1. तुम मुझ पर क्यों चिल्ला रहे हो?
   Why are you yelling at me?
2. मैं चिल्लाता नहीं हूँ, भले ही मैं गेम हार जाऊँ।
   I don't yell even if I lose the game.
3. हर मामले पर चिल्लाना आपकी आदत है।
   Yelling on every matter is your habit.

---

(10) Capability (n.) - केपेबिलिटी – योग्यता

1. तुमने बचपन से बहुत मेहनत की है और तुम में इस परीक्षा में सफल होने की योग्यता है।
   You have worked very hard since childhood, and you have the capability to succeed in this examination.
2. हमें किसी के पुराने खराब प्रदर्शन से उसकी योग्यता पर कभी सवाल नहीं उठाना चाहिए।
   We should not raise questions over someone's capability on the basis of their previous bad performances.

Vocabulary Exercise – 2

(1) Prey (n.) - प्रे – शिकार

1. **घास खा रहा हिरन, पानी पी रही भैंस या अपने आस-पास के माहौल से अनजान कोई भी जानवर, शेर या चीता के लिए एक बहुत ही आसान सा शिकार है।**
   A deer grazing the grass, a buffalo drinking water, or any animal who is unaware of his surroundings, is easy prey for a lion or a cheetah.
2. **अनपढ़ या अज्ञानी लोग, नेताओं के लिए चुनाव के दौरान सबसे आसान शिकार होते हैं।**
   Uneducated or unaware people are the easiest prey for leaders during the elections.

---

(2) Tiny (adj.) – टाइनी - छोटा / नन्हा

1. हमारी दुनिया ब्रह्मांड का एक छोटा सा हिस्सा है।
Our world is a tiny part of the universe.

2. यह चींटी नन्ही है, लेकिन बहुत खतरनाक है।
This ant is tiny, but very dangerous.

---

(3) Evacuate (vt.) - एवेक्यूएट - किसी खतरे वाली जगह से सुरक्षित जगह पर ले जाना

1. **जब राँची शहर के एक बड़े होटल में दसवें मंज़िल पर आग लगी तो सभी लोगों को बीच में चल रही पार्टी छोड़कर, कमरा खाली करने को कहा गया।**
   When the fire broke out on the tenth floor of a big hotel in the city of Ranchi, people were told to evacuate out of the room in the middle of the party.
2. **जब लेबनान के राजधानी बेरूत में बहुत ही बड़ा धमाका हुआ तो कई लोग मलबे के नीचे फँस गए, राहत कर्मियों की मदद से उन्हें सुरक्षित जगह पर ले जाया गया।**
   When there was a massive explosion in Lebanon's capital Beirut,

many people were trapped inside the debris; with the help of rescue teams, they were evacuated to a safer place.

---

(4) Haughty (n.) - हॉटी - घमंडी

1. **जब से मितेश के पास पैसे आये हैं, वह बहुत ही घमंडी हो गया है।**
   Since Mitesh has become rich, he has become very haughty.
2. **असली चरित्र की पहचान तब होती है जब पैसा और शोहरत मिलने के बाद भी इंसान घमंडी होने के बजाय पहले जैसा ही व्यवहार करे।**
   The real identification of one's character is when a person after he gets money and fame, doesn't get haughty and behaves the same way he/she used to do before.

---

(5) Kind (n. & adj.) – काइन्ड - प्रकार / दयालु

1. **तुम्हें किस प्रकार का संगीत पसंद है?**
   What kind of music do you like?
2. **श्याम बहुत ही दयालु और उदार आदमी है।**
   Shayam is a very kind and generous man.

---

(6) Penultimate (adj.) – पैनल्टिमेट - आखिर से पहले

1. **इंग्लिश वर्णमाला में Y आखिर से ठीक पहले आने वाला अक्षर है।**
   Y is the penultimate letter in English alphabet.
2. **हफ्ते के 7 दिनों में आखिर से ठीक पहले आने वाला दिन शनिवार है।**
   Saturday is the penultimate day of the week.

---

(7) Capital (adj.) - कैपिटल - पूँजी / राजधानी

1. **अपना नया व्यापार शुरू करने के लिए अजय ने पिछली नौकरी में जमा की हुई पूरी पूँजी उसमें लगा दी।**
   For starting his new business, Ajay invested all of his savings from his previous job.

2. भारत की राजधानी वैसे तो नई दिल्ली है, लेकिन मुंबई को आर्थिक राजधानी की उपाधि से नवाज़ा गया है।
Although New Delhi is the capital of India, Mumbai has been referred to as the economic capital of the country.

---

(8) Although (conj.) – ऑल्दो - भले ही / हालाँकि

1. भले ही देश प्रगति कर रहा है, लेकिन भ्रष्टाचार पूरी तरह खत्म नहीं हुआ है।
Although the country is progressing, corruption has not fully stopped.
2. हालाँकि रमेश अमीर है, पर वह खुश नहीं है।
Although Ramesh is rich, he is not happy.
3. हालाँकि वह मेरा दोस्त है, फिर भी मैं उसके साथ जाना नहीं चाहता।
Although he is my friend, I don't want to go with him.

---

(9) Caliber (n.) - कैलिबर - मानसिक क्षमता / प्रतिभा

1. उन सर की टीचिंग की क्षमता वाकई शानदार है।
That sir's caliber of teaching is really superb.
2. हम सबको उनकी प्रतिभा का सम्मान करना चाहिए।
We all must respect his caliber.
3. कंपनी ऐसे लोगों को साथ रखना चाहती है जिनमें काम करने की बहुत अधिक क्षमता हो।
The company wants to retain those people who have the immense caliber to work.

---

(10) Haste (n.) - हेस्ट - जल्दी / हड़बड़ी

1. स्कूल भेजने के दौरान माँ बड़ी जल्दी में बच्चों के लिए नाश्ता बनाती है और उन्हें तैयार भी करती है।
While sending the kids to school, the mother prepares breakfast in haste and gets them ready.

2. **हमारी यही बुरी आदत है कि हम समय पर काम नहीं करते हैं और फिर, जब काम पूरा करने का समय आता है तो हम हड़बड़ी में गलती कर बैठते हैं।**

   We all have the bad habit of not doing the work on time, and when the deadline for the work approaches, we start doing things in haste and end up making mistakes.

Vocabulary Exercise – 3

(1) Coalition (n.) – कोएलिशन – मेल

1. **जब किसी पार्टी/दल को चुनाव में पूर्ण बहुमत नहीं मिल पाता है तब वह दूसरी किसी पार्टी/दल के साथ मेल करके सरकार बनाती है।**
   When a party doesn't get a full majority in elections then it does a coalition with another party to form the government.
2. **कई बार जब बड़ी–बड़ी कंपनियाँ किसी प्रोजेक्ट में बहुत पैसा लगाती हैं तो वह अकेले निवेश करने के बजाय दूसरी कंपनी से मेल करके उसके साथ निवेश करती हैं ताकि मुनाफ़ा बहुत बड़ा हो।**
   Many a time when big companies invest heavily in a particular project, they usually don't do it alone; instead, they form a coalition with some other company and invest together so that the profit is enormous.

---

(2) Receive (v.) – रिसीव – प्राप्त करना / स्वागत करना

1. **इस फैक्टरी के मज़दूर हर शुक्रवार को अपनी मज़दूरी प्राप्त करते हैं।**
   The workers in this factory receive their wages every Friday.
2. **मेहमानों का स्वागत करने के लिए घर पर कौन रहेगा?**
   Who will stay at home to receive the guests?

---

(3) Recommend (v.) – रैकमेन्ड – सलाह देना / अनुशंसा करना

1. **डॉक्टर दिन में तीन बार भोजन करने की सलाह देते हैं।**
   Doctors recommend to take meals three times a day.
2. **क्या आप मुझे दिल्ली में किसी अच्छे डॉक्टर की अनुशंसा कर सकते हैं?**
   Can you recommend me a good doctor in Delhi?

---

(4) Invasion (n.) – इन्वेज़न – चढ़ाई / आक्रमण

1. **चीन की दीवार किसी को चढ़ाई करने से रोकने के लिए ही बनाई गई थी।**
   The Great Wall Of China was made so that any possible invasion could be prevented.
2. **पहले के समय में सेनाएँ रातों–रात महल पर चढ़ाई करके वहाँ के राज्य को अपने कब्ज़े में ले लेती थीं।**
   In earlier times, armies used to invade the castles overnight and captured the state.

---

(5) Humane (adj.) – ह्यूमेन – दयालु / दानवीर

1. **नेहा बहुत ही दयालु लड़की है, वह अक्सर रोड पर मिलने वाले गरीब बच्चों को खाना या कुछ पैसे दान में देती है।**
   Neha is a humane girl, she often donates food or some money to needy children who roam around the streets.
2. **महाभारत के कर्ण इतने दान–वीर थे कि उन्होंने अपना कुंडल–कवच ही दान में दे दिया था, जिससे उनकी जान खतरे में पड़ गई।**
   Mahabharata's Karna was so humane that he gave away his invincible shield, due to which his life fell in danger.

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(6) Ability (n.) – ऐबिलिटी – क्षमता / योग्यता

1. **पूजा ने इंग्लिश बोलने की क्षमता हासिल कर ली है।**
   Pooja has acquired the ability to speak English.
2. **उसमें मेरा बिज़नेस संभालने की योग्यता है।**
   He has the ability to handle my business.

---

(7) Above (adv. & adj.) – अबव – ऊपर / बढ़कर

1. **हमारा विमान बादलों के ऊपर उड़ रहा था।**
   Our plane was flying above the clouds.
2. **स्वास्थ्य से बढ़कर कोई धन नहीं है।**
   There is no wealth above health.

---

(8) Captive (n.) – कैप्टिव – बंदी / कैदी

1. **लॉकडाउन में घर पर बंद रहने से हमें ये समझ आ गया कि पक्षियों और जानवरों को पिंजरे के अंदर कैदी जैसा महसूस होता होगा।**
   After living confined in our houses during the lockdown, we understood how birds and animals feel like a captive inside the cage.
2. **ताज होटल पर हुए हमले में सारे आतंकवादी मारे गए, बस उसे कैदी बना लिया गया।**
   In the attacks on the Taj Hotel, all the terrorists were killed, only he was held captive.

---

(9) Describe (v.) – डिस्क्राइब – विस्तार से बताना / वर्णन करना

1. **घायल व्यक्ति ने पुलिस को दुर्घटना के बारे में विस्तार से बताया।**
   The injured person described the accident in detail to the police.
2. **केवल शब्दों से सौंदर्य का वर्णन नहीं किया जा सकता।**
   Beauty cannot be described merely by words.

---

(10) Excited (adj.) – एक्साइटेड – उत्सुक / उत्तेजित

1. **स्टूडेंट्स नए वीडियो देखने के लिए हमेशा उत्साहित रहते हैं।**
   Students are always excited to watch new videos.
2. **बल्लेबाजी के लिए कोहली के आते ही दर्शक उत्तेजित हो उठे।**
   The audience got excited as soon as Kohli came to bat.

Vocabulary Exercise – 4

(1) Abnormal (adj.) – ऐबनॉर्मल – असामान्य / अनियमित

1. **फरवरी महीने में गर्म मौसम होना असामान्य है।**
   The warm weather in February is abnormal.
2. **अनियमित मौसम के कारण हम अपने दिन की योजना नहीं बना सके।**
   We could not plan our day due to abnormal weather.

---

(2) Constant (adj.) – कॉन्सटेन्ट – लगातार / स्थिर

¬ 1. किसी भी कौशल को सीखने के लिए लगातार अभ्यास महत्वपूर्ण है।
Constant practice is important to learn any skill.

¬ 2. स्वचालित हीटर ने कमरे में एक स्थिर तापमान बनाए रखा।
The automatic heater maintained a constant temperature in the room.

---

(3) Dessert (n.) – डैज़र्ट – भोजन के अंत में खाई जाने वाली मिठाई

1. **भोजन के अंत में खाई जाने वाली मिठाई को डैज़र्ट कहते हैं।**
   Sweets eaten at the end of a meal is called dessert.
2. **मैंने डैज़र्ट के लिए एक चॉकलेट केक बनाया है।**
   I have made a chocolate cake for the dessert.

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(4) Elongate (v.) – इलॉन्गेट – लंबा बनाना

1. अपने भाषण को लंबा मत खींचो।
Don’t elongate your speech.

2. वो किसी भी बात को लंबा करके बताता है।
He elongates his talks.

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(5) Embarrass (v.) – इम्बैरेस – शर्मिंदा करना / असमंजस में डालना

1. **आप मुझे शर्मिंदा करने की कोशिश क्यों कर रहे हैं?**
   Why are you trying to embarrass me?
2. **रोहन ने मुझे अपने दोस्तों के सामने शर्मिंदा कर दिया।**
   Rohan embarrassed me in front of his friends.

---

(6) Evident (adj.) – एविडेन्ट – स्पष्ट / ज़ाहिर

1. यह स्पष्ट है कि धूम्रपान स्वास्थ्य के लिए हानिकारक है।
It is evident that smoking is harmful to health.

2. यह एकदम से ज़ाहिर था कि कंपनी वित्तीय कठिनाइयों में थी।
It was quite evident that the company was in financial difficulties.

---

(7) Fault (n.) – फॉल्ट – गलती / भूल

1. **जब मीनाक्षी ने फॉर्म गलत भर के जमा कर दिया उसके बाद उसे एहसास हुआ कि अपना नाम लिखने में उसने गलती कर दी।**
   When Minakshi submitted the form with a mistake, then, later on, she realized that she had made a fault in writing her name.
2. **अगर गलती हमारी तरफ से हुई हो तो सारे गिले–शिकवे भुला कर हमें माफ़ी माँगनी चाहिए।**
   If we are at fault, then we should apologize by forgetting all the grudges.

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(8) Extrovert (adj.) – एक्स्ट्रोवर्ट – बहिर्मुखी (जो अपनी बात खुलकर शेयर करे)

1. मैं खुलकर बोलता हूँ, जिसके कारण मैं कभी–कभी परेशानी में पड़ जाता हूँ।
I'm an extrovert person, due to which I sometimes get into trouble.
2. बहिर्मुखी लोग आमतौर पर बहुत अच्छे वक्ता होते हैं।
Extrovert people are generally very good speakers.

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(9) Forsake (vt.) – फॉर्सेक – त्यागना

1. **मैं अपने परिवार के लिए पैसे और शोहरत का त्याग करने के लिए तैयार हूँ।**
   I am ready to forsake money and fame for my family.
2. **माँ हमेशा अपने बच्चों और परिवार के लिए खुद की खुशी और पसंद का त्याग करती है, इसलिए उसे भगवान का दर्जा दिया गया है।**
   A mother always forsakes her happiness and choices for the children and family; that's why she has been regarded as God.

---

(10) Forward (adj. & v.) – फॉरवर्ड – आगे / अग्रेषित करना

1. **बस में आगे की सीटें महिलाओं के लिए आरक्षित होती हैं।**
   The forward seats in the bus are reserved for ladies.
2. **समिति ने शैक्षणिक व्यवस्था में सुधार के लिए कुछ प्रस्ताव अग्रेषित किए।**
   The Committee forwarded some proposals to reform the educational system.

Vocabulary Exercise – 5

(1) Foundation (n.) – फाउन्डेशन – बुनियाद / संस्थान

1. **व्यक्तिगत स्वतंत्रता लोकतंत्र की बुनियाद है।**
   Individual freedom is the foundation of democracy.
2. **वो कई धर्मार्थ संस्थानों के लिए काम करती हैं।**
   She works for a number of charitable foundations.

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(2) Fragrance (n.) – फ्रैग्रेन्स – खुशबू

1. इसकी खुशबू बहुत प्यारी थी और वो पूरे दिन रही।
Its fragrance was very pleasant and lasted all day.

2. इस पेड़ के होने से हमेशा खुशबू बनी रहती है।
The presence of this tree guarantees a sweet fragrance all the time.

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(3) Headstrong (adj.) – हैड्स्ट्रॉन्ग – हठी / जिद्दी

1. **रयान जब छोटा बच्चा था तब वह बहुत ही ज़्यादा ज़िद्दी था।**
   When Ryan was a small child, he was headstrong.
2. **बड़े इग्ज़ैम में सफल होने के लिए, हमें मेहनत करने के प्रति हठी बनना पड़ता है, तब जाकर कहीं सफलता हाथ लगती है।**
   To succeed in big examinations, we have to become headstrong in terms of hard-work, after that we get success.

---

(4) Implement (n. & v.) – इम्प्लीमेंट – औज़ार / लागू करना

1. बगीचे में गड्ढा खोदने के लिए सबसे अच्छा औज़ार कुदाल है।
The best implement for digging a pit in the garden is a spade.

2. सरकार प्रस्तावित योजना को लागू करने में सफल रही।
The government succeeded in implementing the proposed plan.

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(5) Intend to (phr. v.) – इन्टेन्ड टू – इरादा रखना

1. **आज मेरा तुमसे मिलने का इरादा है।**
   I intend to meet you today.
2. **वो तुम्हें धोखा देने की सोचता है।**
   He intends to cheat you.

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(6) Interim (adj.) – इंटरिम – बीच के समय का / आपातकालीन

1. **जब तक भारत यह मैच जीत नहीं जाता, उस बीच मैं खाना नहीं खाऊँगा।**
   Till the time India doesn't win, I won't eat in the interim.
2. **जब कंपनी को घाटा हुआ तो जॉन को आपातकालीन मालिक बना दिया गया।**
   When the company ran into losses, John was made the interim owner.

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(7) Laborious (adj.) – लेबोरियस – मेहनती

1. **प्रथम गरीब घर से ज़रूर है लेकिन बहुत ही ज़्यादा मेहनती है।**
   Though Pratham is from a low-income family, yet he is very laborious.
2. **मेहनती काफी सारे लोग होते हैं, लेकिन कभी–कभी सफल होने के लिए किस्मत का भी साथ चाहिए होता।**
   Many people are laborious, but sometimes to succeed, we need the luck to go our way as well.

---

(8) Lack (n.) – लैक – कमी / अभाव

1. **प्रशांत वैसे तो पढ़ाई में बहुत अच्छा है लेकिन वो गणित में मेहनत करने में थोड़ी कमी करता है।**
   Though Prashant is good at studies, he lacks hard work in the field of mathematics.

2. **तेल की कमी के कारण, फैक्टरी में कई महीनों से काम बंद पड़ा है।**
   Due to the lack of oil, the production has not been going on in the factory for many months.
3. **पैसे की कमी के कारण निशा विदेश में पढ़ाई नहीं कर सकी।**
   Nisha couldn't study abroad due to lack of money.
4. **ऑक्सीजन के अभाव में पर्वतारोहियों की मृत्यु हो गई।**
   The mountaineers died due to lack of oxygen.

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(9) Lad (n.) – लैड – लड़का

1. **शर्मा जी का लड़का बहुत ही होनहार है, पहली बार में CAT की परीक्षा में सफल हो गया।**
   Mr. Sharma's lad is very sincere; he cleared the CAT examination on his very first attempt.
2. **अंशुल के लड़के ने कल ही तनेजा की बेटी से शादी कर ली।**
   Anshul's lad got married to Taneja's daughter yesterday.

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(10) Lame (n.) – लेम – लंगड़ा

1. **कारगिल की लड़ाई में कई सैनिक लंगड़े हो गए क्योंकि उनका पैर बुरी तरह ज़ख्मी हो गया था।**
   Many soldiers got lame in the war of Kargil as their legs got severely injured.
2. **पोलियो की दवाई नहीं लेने के कारण, विश्व भर में कई बच्चे बड़े होकर लंगड़े हो जाते हैं।**
   Many kids all over the world become lame as they grow up because they don't get the dose of the Polio vaccine.

Vocabulary Exercise – 6

(1) Bar (n.) – बार – शराब खाना / बाधा

1. **उस होटल में एक लाइसेंस प्राप्त शराबख़ाना है।**
   There is a licensed bar in that hotel.
2. **शिक्षा की कमी अमीर बनने में कोई बाधा नहीं है।**
   Lack of education is no bar to become rich.

---

(2) Grain (n.) – ग्रेन – बीज / अनाज

1. कीड़े और बारिश ने इस साल किसानों की फ़सलों और अनाज को तबाह कर दिया है।
The insects and the rains have destroyed the crops and the grains of the farmers this year.

2. हम सब लोग इतनी मेहनत से मजदूरी इसलिए करते हैं ताकि हमें दो वक्त का अनाज खाने को मिल जाए।
We all people do so much painstaking labour so that we can have grains at least two times a day.

---

(3) Mercy (n.) – मर्सी – दया / तरस

1. **कानूनी विशेषज्ञों से सलाह लेने के बाद राष्ट्रपति ने दया याचिका खारिज कर दी।**
   The President rejected the mercy petition after consulting legal experts.
2. **राजा ने अपने शत्रुओं पर कोई तरस नहीं दिखलाई।**
   The king showed no mercy on his enemies.

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(4) Precise (adj.) – प्रिसाइज़ – सटीक / स्पष्ट / एकदम परफेक्ट

1. जब बात बिज़नेस में फैसले लेने की आती है, तो आपको सफल होने के लिए सटीक होना ज़रूरी है।

When it comes to take decisions in business, you need to be precise to be successful.

2. मैं आपको मीटिंग की एक सटीक तारीख नहीं दे सकता।
I can't give you a precise date for the meeting.

---

(5) Sink (n. & v.) – सिंक – किचन का सिंक / डूबना

1. **बर्तन रसोई के सिंक में धोए जाते हैं।**
   Utensils are washed in the kitchen sink.
2. **टाइटैनिक जहाज़ पर सभी को लगा कि अब यह डूबने वाला है।**
   Everyone on the Titanic ship felt it was about to sink.

---

(6) Accuse (v.) – अक्यूज़ – दोष देना / आरोप लगाना

1. आप मेरे बेटे को दोष क्यों दे रहे हैं?
Why are you accusing my son?

2. उस अधिकारी पर घूस लेने का आरोप लगाया गया था।
That officer was accused of accepting bribes.

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(7) Idiot (n.) – ईडियट – मूर्ख / बुद्धिहीन

1. **कभी किसी मूर्ख से बहस मत करो!**
   Never argue with an idiot!
2. **क्षमा करें, लेकिन आपका भाई बुद्धिहीन है।**
   Sorry, but your brother is an idiot.

---

(8) Lead (n. & adj.) – लेड / लीड – लेड / मुख्य

1. सोना लेड से ज़्यादा महंगा होता है।
Gold is more expensive than lead.

2. अमिताभ बच्चन अक्सर फिल्मों में मुख्य किरदार निभाते हैं।
Amitabh Bachchan often plays lead role in movies.

(9) Manoeuvre (n.) – मैन्युवर – कुशलता / चालाकी

1. **शुभांगी बड़ी चालाकी से अपना काम निकालते हुए कंपनी में ऊँचे ओहदे पर चली गई।**
   Shubhangi maneuvered his way to the top post in the company in a cunning way.
2. **कई बड़े व्यापारी बड़ी चालाकी से काम करके टैक्स बचा लेते हैं।**
   Many big business dealers maneuver their work and save taxes.

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(10) Drop (n. & v.) – ड्रॉप – बूंद / छोड़ना

1. पानी की हर एक बूंद उपयोगी है, कृपया इसे बर्बाद न करें।
Every single drop of water is useful, please don't waste it.

2. क्या आप कृपया करके मुझे अपनी कार से बस स्टेशन तक छोड़ सकते हैं?
Can you please drop me to the bus station in your car?

Vocabulary Exercise – 7

(1) Deny (vt.) – डिनाय – मना करना / इनकार करना / खंडन करना

1. **जब मोहिनी ने अपने पिताजी से स्कूल के बाद बाहर घूमने के लिए पूछा तो उन्होंने साफ मना कर दिया क्योंकि बाहर बहुत गर्मी थी।**
   When Mohini asked his father about going out to have fun after school, she was denied by her father as it was scorching outside.
2. **हमारे माता–पिता हमें हर गलत चीज़ को करने, सुनने या देखने से साफ मना करते हैं जिससे हम गलत संगति में न पड़ें।**
   Our parents deny us to do, listen, or see anything wrong very strictly as it might lead us to a lousy company.
3. **राहुल ने नेहा के बारे में कुछ भी बताने से इनकार कर दिया।**
   Rahul denied revealing anything about Neha.
4. **नेता जी ने तुरंत सभी आरोपों का खंडन कर दिया।**
   Neta ji immediately denied all the allegations.

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(2) And all that (phr.) – एंड ऑल दैट – और तमाम उस तरह की बातें/चीज़ें

1. **मैं बर्गर, चाउमीन, मोमोज़ और उस तरह की चीजें नहीं खाता।**
   I don't eat burger, chowmein, momos and all that.
2. **वह ज्योतिष और तमाम उस तरह की बातों पर विश्वास नहीं करता है।**
   He doesn't believe in astrology and all that.

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(3) Learned (adj.) – लर्नेड – शिक्षित / विद्वान

1. कोई भी जन्म से विद्वान या शिक्षित नहीं होता।
No one is born learned or educated.

2. एक विद्वान व्यक्ति का हर जगह सम्मान होता है।
A learned person is respected everywhere.

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(4) Gorgeous (adj.) – गॉर्जियस – खूबसूरत / शानदार

1. **आप वाकई इस ड्रेस में खूबसूरत लग रही हैं।**
   You are really looking gorgeous in this dress.
2. **होटल के कमरे का दृश्य शानदार था।**
   The hotel's room had a gorgeous view.

---

(5) Negation (n.) – निगेशन – नकारात्मकता / मनाही

1. सभा में जब बिल पेश हुआ तब कुछ लोग उसके पक्ष में थे लेकिन बाकी बचे हुए लोगों की असहमति के कारण बिल पास नहीं हो पाया।
When the bill was presented in the house, some people were in favour of it, but the rest of the people's negation made sure the bill remained unpassed.

2. अक्सर देशों के बीच ऐसा होता है कि उन्हें युद्ध के दौरान किसी एक के साथ सहमत या असहमत होना पड़ता है लेकिन कई ऐसे देश भी होते हैं जो किसी का पक्ष नहीं लेते।
Often, it happens between countries that during the time of war, they have to either have association or negation with one party, but there are some countries such that they don't take any of the sides.

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(6) Obscene (n.) – ऑब्सीन – अश्लील

1. **आज के समय में किसी फिल्म में समाज या देश से जुड़ी कोई कहानी नहीं दिखाई जाती है, बस अश्लील चीज़ पेश करके युवाओं को गुमराह किया जा रहा है।**
   Nowadays, stories related to the country or societies are not shown in any film; only obscene things are served to misguide the youth.
2. **इंटरनेट पर बच्चा क्या कर रहा है इस बात का खास ध्यान रखना चाहिए क्योंकि यहाँ अश्लील सामग्री भी उपलब्ध है जो उन्हें गलत दिशा में भेज सकती है।**
   What the child is doing on the internet should be strictly taken care of because obscene material is available, which can betray them to wrong direction.

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(7) Palm (n.) – पाम – हथेली / ताड़ का पेड़

1. **बच्चे ने सिक्कों को अपने हाथ की हथेली में कसकर पकड़ रखा था।**
   The child had held coins tightly in the palm of his hand.
2. **ताड़ एक लंबा सीधा पेड़ होता है जो आमतौर पर गर्म देशों में उगता है।**
   The Palm is a tall straight type of tree that usually grows in hot countries.

---

(8) So as to (conj.) – सो ऐज़ टु – ताकि

1. **मैं बहुत पढ़ता था ताकि अच्छे नम्बर ला पाऊँ।**
   I used to study a lot so as to score good marks.
2. **उसने मेरा साथ दिया ताकि मैं भी उसका साथ दूँ।**
   He stood by me so as to have my support too.

---

(9) Fraudulent (adj.) – फ्रॉडुलेन्ट – बेईमान / धोखेबाज़

1. **वो एक धोखेबाज़ व्यक्ति है।**
   He is a fraudulent person.
2. **इंटरनेट पर उसके कार्ड का गलत इस्तेमाल किए जाने के केस की पुलिस जांच कर रही है।**
   The police are investigating the case of fraudulent use of his card on the internet.

---

(10) That's why (conj.) – दैट्स वाय – इसीलिए

1. **इसीलिए, वो मेरी मदद नहीं करती।**
   That's why she doesn't help me.
2. **इसीलिए, मैं उसे पसंद नहीं करता।**
   That's why I don't like her.

Vocabulary Exercise – 8

(1) Relevant (adj.) – रिलिवन्ट – प्रासंगिक / उचित / संबंधित

1. **आप जो बात कर रहे हैं, वह इस विषय से संबंधित नहीं है।**
   What you are talking about is not relevant to the subject.
2. **कृपया केवल प्रासंगिक जानकारी ही साझा करें।**
   Please share only relevant information.

---

(2) Lease (n. & v.) – लीज़ – किराये पर देना / पट्टे पर देना

1. **इस दुकान को तीन साल के लिए पट्टे पर दिया गया है।**
   This shop has been leased out for three years.
2. **मालिक ने अपनी जमीन किराये पर देने का फैसला किया।**
   The owner decided to lease his land.

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(3) Delighted (adj.) – डिलाइटेड – प्रसन्न / खुश

1. **आपकी सफलता सुनकर मैं बहुत प्रसन्न हूँ।**
   I am delighted to hear about your success.
2. **बच्चे उपहार देखकर बहुत खुश हो गए।**
   The children were delighted to see the gifts.

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(4) Apparently (adv.) – अपैरेंटली – जाहिर तौर पर / प्रतीत होता है

1. **जाहिर तौर पर बारिश आज नहीं होगी।**
   Apparently, it won't rain today.
2. **वह जाहिर तौर पर बहुत खुश लग रहा था।**
   He was apparently very happy.

---

(5) Endless (adj.) – एन्डलैस – अनंत / अंतहीन

1. **जीवन में समस्याएँ अनंत हैं।**
   Problems in life are endless.
2. **रेगिस्तान दूर तक अंतहीन फैला था।**
   The desert stretched endlessly into the distance.

---

(6) Fate (n.) – फेट – किस्मत / भाग्य

1. **यह उसकी किस्मत में लिखा था।**
   It was written in his fate.
2. **हम अपनी किस्मत खुद बनाते हैं।**
   We create our own fate.

---

(7) Contest (n. & v.) – कॉन्टेस्ट – मुकाबला / चुनौती देना

1. **उसने चित्रकला प्रतियोगिता जीती।**
   He won the painting contest.
2. **उन्होंने निर्णय को चुनौती दी।**
   They contested the decision.

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(8) Restore (v.) – रिस्टोर – पुनर्स्थापित करना / वापस लाना

1. **पुरानी इमारत को उसकी मूल स्थिति में पुनर्स्थापित किया गया।**
   The old building was restored to its original condition.
2. **हमें पर्यावरण का संतुलन बहाल करना होगा।**
   We must restore the balance of the environment.

---

(9) Haunt (v.) – हॉण्ट – सताना / बार-बार याद आना

1. **वह घटना उसे आज भी सताती है।**
   That incident still haunts him.
2. **बचपन की यादें हमेशा मन में घूमती रहती हैं।**
   Childhood memories always haunt the mind.

(10) Witty (adj.) – विट्टी – हाजिरजवाब / चतुर

1. **वह बहुत हाजिरजवाब है।**
   He is very witty.
2. **उसका जवाब सभी को हंसाने वाला था।**
   Her reply was witty enough to make everyone laugh.

Vocabulary Exercise – 9

(1) Appropriate (adj.) – अप्रोप्रियेट – उपयुक्त / उचित

1. **कृपया किसी भी अवसर पर उचित भाषा का प्रयोग करें।**
   Please use appropriate language on any occasion.
2. **यह समय इस विषय पर चर्चा करने के लिए उपयुक्त नहीं है।**
   This is not an appropriate time to discuss the matter.

---

(2) Parcel (n. & v.) – पार्सल – डिब्बा / भेजना

1. **आपका पार्सल आज पहुंच जाएगा।**
   Your parcel will be delivered today.
2. **मैंने दस्तावेज़ आपको कुरियर से भेज दिए हैं।**
   I have parceled the documents to you by courier.

---

(3) Hesitate (v.) – हेज़िटेट – हिचकिचाना

1. **यदि आपको कोई समस्या है, तो पूछने में हिचकिचाएँ नहीं।**
   If you have any problem, don't hesitate to ask.
2. **वह मंच पर आने में हिचकिचा रहा था।**
   He was hesitating to come on the stage.

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(4) Radiant (adj.) – रेडिएन्ट – चमकीला / दमकता हुआ

1. **वह दुल्हन आज बहुत दमक रही थी।**
   The bride was looking radiant today.
2. **सुबह की धूप बहुत चमकीली थी।**
   The morning sunlight was radiant.

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(5) Allocate (v.) – अलोकेट – बांटना / आवंटित करना

1. सरकार ने शिक्षा के लिए अधिक धन आवंटित किया।
   The government allocated more funds for education.
2. समय का सही उपयोग करने के लिए आपको कार्यों को अलग-अलग समय स्लॉट में बांटना होगा।
   You must allocate your tasks into different time slots to manage time effectively.

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(6) Tremble (v.) – ट्रेम्बल – कांपना

1. ठंड के कारण उसके हाथ कांप रहे थे।
   His hands were trembling due to cold.
2. डर से उसकी आवाज़ कांप रही थी।
   His voice was trembling with fear.

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(7) Courtesy (n.) – करटसी – शिष्टाचार / विनम्रता

1. हमें सभी से शिष्टाचार से बात करनी चाहिए।
   We should speak to everyone with courtesy.
2. उन्होंने हमें बड़ी विनम्रता से मदद की।
   He helped us with great courtesy.

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(8) Immense (adj.) – इमेंस – बहुत बड़ा / विशाल

1. विराट कोहली को खेल में immense respect मिलता है।
   Virat Kohli receives immense respect in the sport.
2. इस काम में बहुत बड़ी मेहनत लगी है।
   Immense hard work has been put into this work.

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(9) Misfortune (n.) – मिस्फॉर्चून – दुर्भाग्य / बदकिस्मती

1. उसका accident होना एक दुर्भाग्यपूर्ण घटना थी।
   His accident was a misfortune.

2. **कई बार बदकिस्मती भी जीवन का हिस्सा होती है।**
   Sometimes misfortune is also a part of life.

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(10) Amuse (v.) – अम्यूज़ – मनोरंजन करना / खुश करना

1. **वह अपने मज़ेदार चुटकुलों से सभी का मनोरंजन करता है।**
   He amuses everyone with his funny jokes.

बच्चों को हँसाने के लिए जोकर ने कई करतब दिखाए।
The clown performed many tricks to amuse the children.

Chapter 2: Daily Use Sentences

Daily Use Sentences Exercise - 1

1. आँख मत मारो। (aankh mat maro.)
   Do not wink.
2. मेरे साथ चलो। (mere saath chalo.)
   Come with me.
3. नौकरी कर लो। (naukri kar lo.)
   Start a job.
4. मैं दिल्ली में रहता हूँ। (main delhi mein rehta hun.)
   I live in Delhi.
5. क्या झगड़ा है? (kya jhagada hai?)
   What's the conflict? / What's the dispute?
6. क्या हुआ ? (kya hua?)
   What happened?
7. अंधेरा हो रहा है। (andhera ho raha hai.)
   It's getting dark.
8. मैं अपने प्रोफे सर के पीछे पड़ गया था। (main apne professor ke peeche pad gaya tha.)
   I was after my professor.
9. आपने ये पुस्तक कहाँ से ली ? (apne ye pustak kahan se li?)
   Where did you take this book from?
10. आप कब आये? (aap kab aaye?)
    When did you come?
11. मैं शाम 7 बजे जिम जाता हूँ। (main shaam 7 baje gym jata hun.)
    I go to gym at 7 pm.
12. पत्र डाक द्वारा भेजा गया। (patr daak dvara bheja gaya.)
    Letter was sent by post.

13.तुम कब मिलोगे ? (tum kab miloge ?)
When will you meet?

14.मैं बैंक में काम करता हूँ। (main bank mein kaam karta hun.)
I work in a bank.

15.अपने स्वास्थ्य का ध्यान रखें। (apne svaasth ka dhyan rakhen.)
Take care of your health.

16.क्या राम अंदर है? (kya ram andar hai?)
Is Ram in?

17.मैं तुम पर भरोसा कै से कर सकता हूँ ? (mai tum pr bharosa kese kr skta hu?)
How can I trust you?

18.तुम कायर हो। (tum kaayer ho.)
You are coward.

19.दीवार पर सहारा मत लो। (deewar par sahaara mat lo.)
Do not lean against the wall.

20.हम क्रिके ट खेल चुके हैं। (ham cricket khel chuke hain.)
We have played cricket.

21.मैं जाना तो चाहता हूँ पर जा नहीं सकता। (main jana to chahta hu par ja nahi sakta.)
I want to go but I can’t.

22.उसे बुखार है। (use bukhar hai.)
He is suffering from a fever.

23.मैं कु छ कह रही हूँ। (main kuch keh rahi hun.)
I’m saying something.

24.मैं रात में देर से सोया था। (main raat mein der se soya tha.)
I slept late last night.

25.हमें सूचित किया गया। (hume soochit kiya gaya.)
We were informed.

26.यहाँ से चले जाओ। (yahaan se chale jao.)
Go away from here.

27.उसका नाम क्या है? (uska naam kya hai?)
What is his name? / What is her name?

28.पहले होमवर्क , उसके बाद गेम। (pahale homework, usake baad game.)
First homework then games.

29.रश्मि दिव्या के बगल में बैठी है। (rashmi divya ke bagal me baithi hai.)
Rashmi is sitting adjacent Divya.

30.उसकी तस्वीर मेरी किताब के नीचे है। (uski tasvir meri kitab ke niche hai.)
Her photograph is beneath my book.

Daily Use Sentences Exercise - 2

1. मैं स्क्रीन से धूल हटा रहा हूँ। (main screen se dhool hata raha hun.)
   I am wiping the dust off the screen.
2. पत्ते पेड़ से गिर रहे हैं। (patte ped se gir rahe hai.)
   Leaves are falling off the tree.
3. मैं देहरादू न से आ रहा हूँ। (main dehradun se aa raha hun.)
   I am coming from Dehradun.
4. थोड़ा खिसकिये । (thoda khisakie.)
   Kindly move a bit.
5. कोई तो दोषी है, तुम या मैं ? (koi to doshi hai, tum ya main?)
   Someone is to blame; either you or I?
6. ऐसा गलती से हुआ। (aisa galati se hua.)
   It happened by mistake.
7. तुम मुझे रोक नहीं पाओगे। (tum mujhe rok nahi paoge.)
   You will not be able to stop me.
8. ऐसा तुक्के से हुआ। (aisa tukke se hua.)
   It happened by chance.
9. न खुद करते हो , न करने देते हो । (na khud krte ho, na krne dete ho.)
   Neither you do yourself, nor let do.
10. आपको में कै से समझाऊं ? (aapko main kaise samjhaun?)
    How do I make you understand?
11. वह कपड़े सिलाई कर रही है । (vah kapade silai kar rahi hai.)
    She is stitching clothes.
12. यह मकान किराये के लिए खाली है। (yah makaan kiraye ke liye khali hai)
    This house is to let.
13. ये चप्पलें ज़्यादा दिन तक नहीं टिकें गी। (ye chappale zyada din tak nahi tikegi.)
    These slippers are not going to stay long.

14. ऑपरेशन थिएटर किस ओर है? (operation theatre kis or hai?)
Which way is the operation theatre?

15. उस पर पैसे चोरी करने का इल्जाम है। (us par paise chori karne ka ilzam hai)
He is accused of stealing money.

16. वो शायद ही कभी मुझसे मिल पाये। (vo shayad hi kabhi mujhse mil paaye.)
I don't think if he could ever meet me.

17. काश में तुम्हारा होता। (kaash tum mere hote.)
I wish you were mine.

18. मैंने बहुत कोशिश की पर सब बेकार। (maine bahut koshish ki par sab bekaar.)
I tried a lot but all in vain.

19. वो मुझे दू सरा मौका न दे तो ? (vo mujhe doosra mauka na de to?)
What if he doesn't give me another chance?

20. ये पैन हैया फिर ...? (ye pen hai ya fir...?)
Is it a pen or what?

21. क्या हो अगर वो तुम्हारा दिल तोड़ दे तो ? (kya ho agar vo tumhara dil tod de to?)
What if he breaks your heart?

22. हमे इसके परिणामो के लिए तैयार रहना चाहिए । (hamen iske parinamon ke liye taiyar rahana chahie.)
We should be ready for its consequences.

23. कल्पना की शादी की शुभ तिथि 13 अप्रैल 2013 है। (kalpana ki , shadei ki ,shubh tithi 13 aprail 2013 hai.)
The auspicious date of Kalpana's marriage is 13th of April 2013.

24. रक्षाबन्धन भाई और बहन का त्यौहार है । (rakshabandhan bhai or bahan ka tyohar hai.)
Rakshabandhan is a festival of brother & sister.

25. सचिन का आउट होना भारत के लिए एक जबरदस्त झटका है । (sachin ka out hona bharat ke lie ek jabaradast jhataka hai.)
Sachin's departure is a terrible blow for India.

26. वापस आते हुए में उसके घर गया। (vapis aate hue, main usake ghar gaya.)
On the way back I went to his home.

27. ये कमर तोड़ देने वाला काम है। (ye kamar tod dene vala kam hai.)
This is a backpaining work.

28. वो देर से उठता है। (vo der se uthata hai.)
He is a late riser.

29. मैं आज वहाँ जाने वाला हूँ। (main aaj vahan jaane vala hun.)
I am supposed to go there today.

30. हमने रास्ते में एक अजीब चीज़ देखी। (hamne raaste mein ek ajeeb cheez dekhi.)
We saw an awkward thing on the way.

Daily Use Sentences Exercise - 3

1. तुम्हारे पास क्या है? (tumhare pass kya hai?)
   What do you have?
2. आज बेहद गर्मी है। (aaj behad garmi hai.)
   It's very hot today.
3. इस फू ल की खुशबू बहत अच्छी है। (is phool ki khushboo bahut achchhi hai.)
   This flower smells great.
4. उसने मुझे साफ मना कर दिया। (usne mujhe saaf mana kar diya.)
   He gave me a flat refusal.
5. रिश्ते खूबसूरत होते हैं। (rishte khoobsurat hote hai.)
   Relations are beautiful.
6. अपनी आदतें सुधारो। (apni adaten sudharo.)
   Mend your ways.
7. क्या राम अच्छा है? (kya ram achchha hai?)
   Is Ram good?
8. आज कल स्वार्थ का जमाना है। (aaj kal svarth ka jamana hai.)
   Selfishness is common these days.
9. उसका एक आलीशान फार्म हाऊस है। (uska ek aalishaan farm house hai.)
   He has a sumptuous farm house.
10. हिचकिचाओ मत। (hichkichao mat.)
    Don't hesitate.
11. उसके पास क्या है? (uske paas kya hai?)
    What does he have?
12. जब वो 20 साल की थी, उसकी शादी हो गयी। (jab wo 20 saal ki thi, uski shaadi ho gayi.)
    When she was 20, she got married.
13. वो अक्सर मुझे जाने देता है। (vo aksar mujhe jane deta hai.)
    He often lets me go.

14. मुझे 2 मिनट लगेंगे। (mujhe 2 minute lagenge.)
I will take 2 minutes. /
It will take me 2 minutes.

15. अपना कमरा साफ़ करो। (apna kamra saaf karo.)
Clean your room please.

16. आप किस-किस के साथ बात करते हो? (aap kis-kis ke saath bat karte ho?)
Who all do you speak with?

17. तुम ईमानदारी के साथ जीते हो। (tum imandari ke saath jeete ho.)
You live with honesty.

18. वह 20 दिसम्बर 2012 को आया। (vah 20 december 2012 ko aaya.)
He came on 20th December 2012.

19. टीवी दूर से देखो। (tv door se dekho.)
Watch the TV from distance.

20. मैं थक गया हूँ। (main thak gaya hoon.)
I'm tired.

21. वो सभी किसके भाई हैं? (vo sabhi kiske bhai hai?)
Whose brothers are they all?

22. मैं तुमसे कभी नहीं मिला। (main tumse kabhi nahi mila.)
I never met you.

23. मैं तैर के नदी पार कर सकता हूँ। (main tair ke nadi par kar sakata hun.)
I can swim across the river.

24. वो कभी नहीं खेलता। (wo kabhi nahi khelta.)
He never plays.

25. पागल हो गया है क्या तू? (pagal ho gaya hai kya tu?)
Are you mad or what?

26. मैं हँस रहा हूँ। (main hans raha hun.)
I am laughing.

27.यह ट्रेन कानपुर से होते हुए दिल्ली जायेगी। (yeh train kanpur se hote hue delhi jayegi.)
This train will go to Delhi via Kanpur.

28.वो पुल के नीचे था। (wo pul ke niche tha.)
He was under the bridge.

29.कीमतें नीचे जा रही हैं। (kimate niche ja rahi hai.)
Prices are going down.

30.मैं दुबई के रास्ते अमेरिका गया। (main dubai ke raaste america gaya.)
I went to America via Dubai.

Daily Use Sentences Exercise - 4

1. ये मेरी बिल्ली है। (ye meri billi hai.)
   This is my cat.
2. रवि कहीं खोया हुआ था। (ravi kahin khoya hua tha.)
   I was scared. / I was horrified. /
   I was terrified. / I was petrified.
3. मैं डरा हुआ था। (mai dara hua tha.)
   Toggle Content
4. ये किताब राम की है । (ye kitab ram ki hai.)
   This book is Ram's. /
   This book belongs to Ram.
5. मेरे साथ रहो। (mere saath raho.)
   Be with me.
6. हमेशा समय के पाबंद रहो। (hamesha samay ke paaband raho.)
   Always be punctual.
7. मुझे देखने दो। (mujhe dekhne do.)
   Let me see.
8. उसे ढूँढने दो। (use dhundhne do.)
   Let him find out / search.
9. एक सांप था। (ek saanp tha.)
   There was a snake.
10. तकिये के नीचे एक पत्र है। (takiye ke neeche ek patr hai.)
    There is a letter beneath/underneath the pillow.
11. वहाँ कुछ नहीं था। (wahaan kuch nahi tha.)
    Nothing was there. / There was nothing.
12. तुम्हारे भाई के साथ एक आदमी खड़ा है। (tumhare bhai ke saath ek aadmee khada hai.)
    There is a man standing with your brother.

13. क्या तुम्हारे पास पैसे नहीं हैं? (kya tumhare pass paise nahi hai?)
Do you not have money?

14. खेलने के लिए लड़के नहीं है। (khelne ke liye ladke nahi hai.)
There are no boys to play.

15. उसकी ज़िन्दगी में खुशी नहीं है। (uski zindagi mein khushi nahi hai.)
There is no joy in his life

16. एक नल था। (ek nal tha.)
There was a tap

17. मेरे पापा वहाँ रहते थे। (mere papa wahaan rehte the.)
There lived my dad. / My dad lived there.

18. प्यार जैसी कोई चीज़ नहीं होती। (pyaar jaisi koi cheez nahi hoti.)
There is no such thing as love.

19. तुम्हें उसका जरा भी ख्याल नहीं आया? (tumhen uska zara bhi khyaal nahin aaya?)
You didn't even think about him?

20. सड़क पर मरम्मत चल रही है। (sadak par marammat chal rahi hai.)
The road is under repairing.

21. ट्रेन किस समय छूटती है? (train kis samay chootti hai?)
When does the train leave?

22. राम का तुम्हें दुःख पहुंचाने का कोई इरादा नहीं है। (ram ka tumhen dukh pahunchane ka koi irada nahi hai.)
Ram doesn't mean to hurt you.

23. तुमने मुझे आज कैसे कॉल किया? (tumne mujhe aaj kese call kiya?)
How did you call me up today?

24. आप कब पैदा हुए? (aap kab paida huye?)
When were you born?

25. इसके ज़िम्मेदार तुम हो। (iske zimmedar tum ho.)
You are responsible for this.

26.मैं ग्लास से देख सकता हूँ। (main glass se dekh sakta hun.)
I can see through the glass.

27.मैं घर के अंदर था। (main ghar ke andar tha.)
I was inside the house.

28.गुब्बारा ऊपर की ओर गया। (gubbara upar ki or gaya.)
Balloon went upwards.

29.मसूद तरुण के बगल में खड़ा है। (masood tarun ke bagal mein khada hai.)
Masood is standing next to Tarun.

30.पापा अयांश के बगल में बैठे हैं। (papa ayansh ke bagal mein baithe hai.)
Papa is sitting next to Ayansh.

Chapter 3 Translational Exercises (1-20)

Translation Exercise - 1

1. कु छ हद तक, उसकी बात सही है; लेकिन पूरी तरह नहीं । अगर आप इसके दू सरे पहलू पर गौर करें , तो आप पायेंगे कि जो बात मैं कह रहा हूँ, उसमें भी दम है। कोर्ट किसी भी पक्ष की बात सुने बिना फै सला नहीं दे सकता। अच्छा, दू सरी बात ये है कि आप ये भी तो दे खिए कि कितने लोग उस वक्त वहाँ खड़े थे। अगर एकाद दो होते, तो कोई कु छ नहीं कहता; लेकिन वहाँ तो 50 से ज़्यादा लोग थे। और ऊपर से, आसपास पुलिस भी नहीं दिख रही थी। एक पल के लिए तो मुझे लगा था कि मैं गया, पर भगवान का शुक्र है कि मैं सही सलामत हूँ।

   To some extent, he is right; But not quite/completely. If you look at the other aspect of this, you will find that the thing I am saying is logical too. The court cannot pass judgment without hearing any/either of the parties. Well, the second thing is that you should also see how many people were standing there at that time. If there were one or two, nobody would say anything; but there were more than 50 people out there. Moreover, the police was not seen around. For a moment, I thought that I was gone, but thank God that I am safe.
   Practice translation (yourselves)

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Translation Exercise - 2

1. क्या कभी किसी ने सोचा होगा कि एक दिन हम चाँद पर होंगे! ये सपने जैसा ही था, है ना? लेकिन अब लगता है कि ये निकट भविष्य में सम्भव होने वाला है। ठीक इसी तरह, जो भी कु छ आज हमें मुश्किल लगता है, वो ज़रूरी नहीं मुश्किल हो। इसलिए, हमें कम से कम प्रयास ज़रूर करना चाहिए। और साथ ही, हमें धैर्य भी रखना चाहिए क्योंकि अगर कोई चीज़ उतनी मुश्किल नहीं है, तो उतनी आसान भी नहीं है।

   Would anyone have ever thought that one day, we will be on the moon! It was just like a dream, wasn't it? But now it seems that it is going to be possible in the near future. Similarly, whatever seems difficult to us today is not necessarily difficult (out of the reach). Therefore, we must at least try. As well, we should keep patience because something, if not that difficult, is not that easy either.

   Practice translation (yourselves)

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Translation Exercise - 3

1. पक्का उसने सोचा होगा कि लोग उसकी कमज़ोरियों की हँसी नहीं उड़ायेंगे; पर शायद वो नहीं जानता था कि उसके आसपास ऐसे कई लोग हैं जिन्हें दू सरों को नीचा दिखाने में बहुत मज़ा आता है। शायद उसने सोचा हो कि उसके दोस्त हाथ बढ़ायेंगे और उसकी ताकत बनेंगे।

   He must have thought that people would not mock his weaknesses, but maybe he didn't know that there were many such people around him who enjoyed a lot belittling others. He might have thought that his friends would lend him their hands and become his strength.

   Practice translation (yourselves)

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Translation Exercise - 4

1. ज़ाहिर है कि आप एक ही जोक को बार बार सुनकर बोर हो जाते हैं और आपको हँसी भी नहीं आती। ठीक उसी तरह से, एक ही समस्या को लेकर बार बार रोना समस्या का हल नहीं है। हर किसी को अपनी समस्या के बारे में बताकर समय व ऊर्जा को व्यर्थ न करे। केवल अपने खास मित्रों से साझा करें और खुद ही हल ढूँढने का प्रयास करें।

   It's obvious that you get bored by listening to the same joke again and again and you don't feel laughter. Similarly, crying over the same problem repeatedly is not the solution. Don't waste your time and energy by telling everyone about your problem. Only share with your close friends and try to look for the solution yourself.

   Practice translation (yourselves)

Translation Exercise - 5

➤ **1.** वो अपने घर का अके ला कमाने वाला था। परसों, मैंने उसे दू र एक कोने में बैठे देखा। लग रहा था कि वो ध्यान से कु छ सोच रहा है। उसने बताया कि उसे महीनों से बोनस नहीं मिला है। पर आज सुबह ही जब उसके भाई से बात हुई तो पता चला, बोनस तो दू र, उसे महीनों से सैलेरी तक नहीं मिली है।

He was the lone breadwinner (the only earner) of his house. The day before yesterday, I saw him sitting at a distant corner. He seemed to be pondering over something. (It seemed that he was pondering over something.) He let me know (told me) that he hadn't received (got) a bonus for months. But, just in the morning today, when I had a word (spoke) with his brother, I got to know that leave the bonus (the bonus is a farfetched thing), he hadn't even got his salary for months.

Practice translation (yourselves)

Translation Exercise - 6

➤ **1.** ईंटों पर रखे लकड़ी के तख्ते और रेत और बजरी के ढेर अक्सर मुझे बीते कल की याद दिला देते हैं। मैं जब छोटा था, तो अक्सर अपने पिताजी को मजदू री करते देखा करता था। वो भले ही एक दिहाड़ी मजदू र थे, पर उन्होंने हमेशा मेरी पढ़ाई पर जोर दिया और मुझे अमीर बनने के लिए प्रेरित किया। आज मैं जो भी हूँ, सारा श्रेय उन्हीं को जाता है।

The wooden battens/planks kept on the bricks and the piles of sand and gravel often remind me of the past (a bygone era). When I was little (a kid), I would (used to) often see my father doing wages. Even if/though he was a daily wage labourer, but/yet/still he always forced/insisted me to study and inspired/motivated me to become rich. Whatever I am today, all credit goes to him.

Practice translation (yourselves)

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Translation Exercise - 7

➤ **1.** खिड़की खोलते ही मुझे पता चल गया कि वो कोई लड़का नहीं बल्कि लड़की है।वो कई पुरूष अभिनेताओं की हूबहू नकल कर सकती है। लगता ही नहीं कि आवाज़ किसी और की है।जब मैंने पहली बार उसकी मिमिक्री सुनी, तो मैं पागल हो गया। जब से वो इंडस्ट्री में है, मैं उसका फै न हूं।

The moment I opened the window, I got to know that it was not a boy but a girl. She can mimic several male actors precisely. It doesn't seem/look like somebody else's voice. When I heard her mimicry for the first time, I was speechless. Ever since she has been in the industry, I'm her fan.

Practice translation (yourselves)

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Translation Exercise - 8

➤ **1.** एक बार की बात है, एक शेर रास्ते के किनारे लगे बरगद के पेड़ के नीचे सो रहा था। एक चींटी उसी रास्ते से जा रही थी। वो गलती से शेर के ऊपर चढ़ गयी। नींद खराब होने पर, शेर तेज़ दहाड़ते हुए उठा। वो चींटी पर चिल्लाया "तुम्हारी हिम्मत कैसे हुई मुझे परेशान करने की?" चींटी मौत के डर से काँपने लगी।

Once upon a time, a lion was sleeping under a banyan tree at the roadside/by the side of the road/ alongside the road. An ant was going (walking) through the same path (road). She accidentally/ mistakenly went over/ upon/ on the lion. On his sleep being disturbed, the lion woke up roaring loud (in/ with a loud roar). He yelled/shouted at the ant “How dare you bother me?” The ant started shivering/ trembling (began to shiver/tremble) with the fear of death.

Practice translation (yourselves)

Translation Exercise - 9

➤ **1.** थोड़ी ही देर बाद आग बुझा देना वरना चारों तरफ फै ल जाएगी। यह कहकर, वह चल दिया; लेकिन उसे भी क्या पता था, जिसे उसने ये कहा था, उसका पूरा ध्यान तो मोबाइल पर गेम खेलने पर था। वैसे तो उसे खुद ही आग बुझा देनी चाहिए थी; लेकिन फिर भी, इसका ये मतलब तो नहीं है न, कि दू सरा व्यक्ति परवाह तक न करें। अगर मैंने समय रहते इस पर ध्यान नहीं दिया होता, तो यह घातक हो सकता था।

Put out (Extinguish) the fire just after a while or else (otherwise) it will spread all around. After saying this, he walked away; but he had no idea, whom he had said that (so), had the whole focus on playing games on mobile. Though, he should have extinguished it (put it out) himself, but still, it doesn't mean that the other person doesn't even care. If I hadn't noticed well before time, it could have been devastating/ fatal/ hazardous/ dangerous/ perilous/ precarious/ unsafe/ threatening.

Practice translation (yourselves)

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Translation Exercise - 10

➤ **1.** इस रूम में, जहाँ मैं आपको पढा रहा हूँ, एक SPLIT AC है। इसका जो पाईप है, जहाँ से ये दीवार के छे द के रास्ते बाहर जा रहा है, बाहर की तरफ एक चिड़िया ने घोंसला बना दिया है। कल मैंने कु छ चीं चीं की आवाज सुनी। जब बाहर गया तो मैंने घोंसले में चिड़िया के तीन बच्चे देखे। अब जब वो सोते हैं, के वल तभी वीडियोज़ बना पा रहा हूँ।

This room, where I am teaching you, has a split AC. (In this room, where I am teaching you, there is a split ac.) Its pipe, from where it is going out, through the hole in the wall; a bird has made a nest on the outside. Yesterday, I heard some chirping. When I went outside, I saw three chicks (baby birds) in the nest. Now, only when they sleep, I am able to make videos.

Practice translation (yourselves)

Translation Exercise - 11

➤ **1.** कभी मैं गाय को हरी सब्जियाँ खिला देता था, चीं टी को चीनी, कौए को रोटी, बिल्ली को दू ध, कु त्तों को माँस वगैरह वगैरह। लोग अक्सर पूछते थे, “क्यों करते हो?” वो कहते थे, "फल की इच्छा में किया गया कोई भी काम किसी काम का नहीं होता।" मैंने कभी बहस नहीं की, लेकिन हमेशा माना,"भले ही मैंने पुण्य की चाह में किया, कम से कम किया तो। मैं उनसे तो बेहतर हूँ, जिन्होंने कु छ नहीं किया।“

Sometimes I used to feed (fetch) green vegetables to the cow, sugar to the ant, bread to the crow, milk to the cat, meat to the dogs, etc. People would often ask, “Why do you do this?” They would say, “Any work done in the desire of fruit is of no use.” I never argued but always believed, “Even if I did for the sake of virtue (for the will of the fruit), at least I did it. I’m better than those who did nothing.”

Practice translation (yourselves)

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Translation Exercise - 12

➤ **1.** हवा बहुत तेज़ थी। इतनी तेज़ कि ये किसी को भी दू र फें क सकती थी। मैं बस 5 मिनट पहले ही गाड़ी चलाकर घर वापस पहुँचा था। चारों ओर अँधेरा था। मैंने किसी के कदमों की आहट सुनी। मैं डर के मारे काँपने लगा। अचानक से ऐसा लगा मानो एक इन्सानी छाया दबे पाँव मुख्य दरवाजे की ओर गयी। हाँलाकि ये डरावना था, फिर भी मैं किसी तरह उसके पीछे जाने का साहस जुटा सका। ये कोई ओर नहीं बल्कि मेरा छोटा भाई अमन था।

The wind was very strong. So strong, that it could blow anyone away. I had driven back home just 5 minutes ago. It was dark all around. I heard someone's footsteps. I began to shiver with fear. Suddenly, it seemed as if a human shadow tiptoed towards the main door. Though it was terrifying; still, I could somehow gain the courage to go after him. It was nobody else but my younger brother Aman.

Practice translation (yourselves)

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Translation Exercise - 13

➤ **1.** सुमित बिहार के एक छोटे से गाँव में रहता था जो सिवान से कु छ 20 किलोमीटर दू र था। वह रोज़ सुबह अपने पिताजी के साथ खेतों में जाके काम करता था लेकिन उसे सिविल सर्विसेज़ की तैयारी करनी थी। घर में पैसों की बहुत तंगी थी पर फिर भी उसने किसी तरह ग्रैजुएशन पूरा कर ही लिया। एक दिन उसने यह बात अपनी माँ से कही जो एक सामान्य गृहिणी थी। सुमित की बात सुनकर उसकी माँ बहुत भावुक हो गयी और उन्होंने सोचा कि अपने होनहार बेटे के लिए वो ज़रूर कु छ उपाय निकालेंगी।

Sumit lived in a small village in Bihar which was some 20 km away from Sivan. He used to work in the fields with his father every morning but he had to prepare for the civil services. There were financial problems in the house but he somehow managed to complete graduation. One day, he told this to his mother who was a simple housewife. After listening to Sumit, his mother got very emotional and she thought of devising a way for his sincere son.

Practice translation (yourselves)

Translation Exercise - 14

➤ **1.** जब उस दिन सुमित के पिताजी घर आये तो उसकी माँ ने उनसे इस बारे में बात की। पिताजी ने कहा कि बरसात और कीड़ों के कारण पिछले साल फ़सलों को बहुत नुकसान पहुँचा। उन्होंने अपनी पत्नी को समझाने की कोशिश की कि ऐसे हालातों में पढ़ाई पर खर्च करना बिल्कु ल भी संभव नहीं है। सुमित की माँ यह बात सुनकर निराश ज़रूर हुई फिर भी उन्होंने उम्मीद नहीं छोड़ी, उन्होंने अचार और पापड़ के गृह उद्योग की शुरुआत की। कु छ ही महीनों में अच्छे खासे पैसे आने लगे और अच्छी बारिश के कारण फ़सलें भी काफी अच्छी हुईं।

When Sumit's father came home that day, his mother talked to him about it. Sumit's father said that due to rains and pesticides, crops had been severely damaged last year. He tried to convince his wife that in such circumstances it is not possible to spend on studies at all. Although Sumit's mother got dismayed by listening to this, yet she didn't lose hope; she started a pickle and wafers home business. Within a few months, a good amount of money started coming in and due to good rains, the crops were also very good.

Practice translation (yourselves)

Translation Exercise - 15

➤ **1.** अब सुमित के घर की आर्थिक स्थिति थोड़ी बेहतर होने लगी। सुमित ने यह सब महसूस किया लेकिन अपने माता -पिता पर बोझ न डालने के कारण से उसने फिर से पढ़ाई की बात नहीं की। एक दिन जब वह सुबह उठा तो उसने देखा कि डाकिया चिट्ठी छोड़ कर गया है, उसे खोलने पर उसने देखा कि उसमें ट्रे न की टिकट और कोचिंग क्लास की जानकारी है। अचानक पीछे से पिताजी ने उसके कं धे पर हाथ रख कर बोला, बेटा, अपनी पढ़ाई पूरी कर और अपना आई० ए० एस० बनने का सपना साकार कर। सुमित की आँखें नम हो गयी और उसने अपने माता - पिता से वादा किया कि वह दिल्ली जाकर उनका नाम रोशन करेगा और फिर अगले ही दिन, वो दिल्ली के लिए रवाना हो गया।

Now, the financial condition of Sumit's house started improving. Sumit realised all of this but to avoid being a liability to his parents, he didn't discuss about his studies any further. One day when he woke up in the morning, he saw that the postman had left a letter; on opening it he found a train ticket and coaching classes' details. Suddenly from behind, his father, keeping his hand on Sumit's shoulders said, son, complete your studies and fulfil your dream of becoming an I.A.S officer. Sumit became emotional and he promised his parents that he would make them proud after going to Delhi and then the very next day, he left for Delhi.

Practice translation (yourselves)

Translation Exercise - 16

➤ **1.** दुनिया के सर्वश्रेष्ठ क्रिके टर में से एक सचिन रमेश तेंदुलकर का जन्म 24 अप्रैल, 1973 में बॉम्बे शहर में हुआ था। सचिन के पिताजी ने उनका नाम अपने पसंदीदा संगीतकार सचिन देव बर्मन के ऊपर रखा था। सचिन को उनके बड़े भाई, रमाकांत आचरेकर के पास लेकर गए, रमाकांत अचरेकर बहुत ही प्रसिद्ध कोच थे। कहा जाता है कि सचिन ने पहली बार जब आचरेकर के सामने बल्लेबाज़ी की तो उन्होंने बढ़िया प्रदर्शन नहीं किया, सचिन के ख़राब प्रदर्शन को देख कर, अचरेकर ने सचिन को क्रिके ट सिखाने से मना कर दिया।

One of the best cricketers in the world, Sachin Ramesh Tendulkar was born on 24 April 1973 in the city of Bombay. Sachin's father named him after his favourite musician, Sachin Dev Burman. Sachin's elder brother took him to Ramakant Achrekar; Ramakant Achrekar was considered a very famous coach. It is said that when Sachin batted in front of Achrekar for the first time, he did not perform well, seeing Sachin's poor performance, Achrekar refused to teach Sachin cricket.

Practice translation (yourselves)

Translation Exercise - 17

➤ **1.** राँची के राजकु मार और भारतीय टीम के सबसे सफल कप्तानों में से एक, महेंद्र सिंह धोनी का जन्म 7 जुलाई,1981 को हुआ था। बचपन में धोनी फु टबॉल और बैडमिंटन बहुत अच्छा खेलते थे, अपने स्कू ल डी ऐ वी की फु टबॉल टीम के गोल कीपर थे। धोनी ने डिस्ट्रिक्ट और क्लब स्तर पर भी ये दोनों खेल खेले। एक बार अपनी टीम के साथ फु टबॉल की प्रैक्टिस करते समय, उनके एक शिक्षक ने उन्हें गोल कीपिंग करते हुए देखा। जिस तरह से धोनी की नज़रें गेंद की तरफ कें द्रित थी और उनके हाथों में तेज़ी देख कर उनके शिक्षक ने उन्हें विके ट कीपिंग में हाथ आज़माने को कहा।

Prince of Ranchi and one of the most successful captains of the Indian team, Mahendra Singh Dhoni was born on 7 July 1981. As a child, Dhoni played football and badminton very well, being the goalkeeper of the football team of his school DAV. Dhoni also played both these games at the district and club level. Once while practising football with his team, one of his teachers saw him goalkeeping. The way Dhoni's eyes were focused towards the ball and seeing the quickness in his hands, his teacher asked him to try his hand at wicket-keeping.

Practice translation (yourselves)

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Translation Exercise - 18

➤ **1.** फ़ु टबॉल, दुनिया में पसंद किये जाने वाले खेलों की सूची में सबसे ऊपर आता है। यूरोप और दक्षिणी अमेरिकी महाद्वीप में ख़ास तौर पर यह खेल बहुत ही ज़्यादा लोकप्रिय है। यहाँ लोग इस खेल को अपनी ज़िन्दगी से जोड़ कर देखते हैं। बच्चे, युवा और यहाँ तक कि बड़े भी इस खेल को बहुत ही मज़े से खेलते हैं। जहाँ भारत में खेल को मौज मस्ती के रूप में देखा जाता है, विदेश में लोग इस क्षेत्र में अपना जीवन समर्पित कर देते हैं। इतने प्रसिद्ध खेल में पिछले दो दशकों में बहुत ही कम खिलाड़ी रहे हैं जिन्होंने इतनी गहरी छाप छोड़ी हो जितनी क्रिस्टिआनो रोनाल्डो ने छोड़ी है।

Football tops the list of most loved sports in the world. This sport is particularly popular in Europe and the South American continent. People here associate this game with their lives. Children, youth and even the elders play this game with great pleasure. While sports are seen as fun and relaxation in India, people abroad dedicate their lives to this domain. In the last two decades, in such a famous sport, there have been very few players who have made such a huge impression as Cristiano Ronaldo has.

Practice translation (yourselves)

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Translation Exercise - 19

➤ **1.** शिवम इंजीनियरिंग का छात्र था, वह एक बहुत ही नामी कॉलेज में इलेक्ट्रिक इंजीनियरिंग की पढ़ाई करता था। उसके दोस्त उसे बहुत मानते थे, वे सब साथ में ही खाते, खेलते और पढ़ाई भी किया करते। होस्टल में शिवम और उसके दोस्त खूब मस्ती करते थे, सबके जन्मदिन पर सबकी पिटाई करना और होस्टल वार्डन को रात को ज़ोर से गाने बजा के परेशान करना उनके लिए बहुत आम था। सारे लड़के खूब मस्ती करते और परीक्षा के समय इतना ध्यान लगा के पढ़ते की ऐसा लगता की पूरा होस्टल ही सुनसान है।

Shivam was a student of engineering; he studied electrical engineering in a very prominent college. His friends loved him a lot, they used to eat, play and study together. Shivam and his friends used to have a lot of fun in the hostel, beating everyone on their birthday and teasing the hostel warden by playing songs out loud at night. All the boys used to have a lot of fun and at the time of examination, they would study so attentively that it seemed that the entire hostel was deserted.

Practice translation (yourselves)

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Translation Exercise - 20

➤ **1.** दसवीं कक्षा में दबाव बहुत था लेकिन कबीर बहुत ही होशियार था, उसके लिए ये इतना मुश्किल नहीं होने वाला था। कबीर ने उम्मीद के अनुसार, बहुत ही अच्छे अंकों के साथ दसवीं की परीक्षा पास की। अब सबसे बड़ी समस्या ये थी कि लेह जैसे इलाके में अच्छे स्कू ल नहीं थे और ख़ास तौर पर बारहवीं के लिए अच्छी शिक्षा मिल पाना लगभग नामुमकिन ही था। बाहर जाना बहुत ख़र्चीला था, बड़े शहर और बड़े स्कू ल में नाम लिखवाने के लिए बहुत पैसे खर्च करने पड़ते और कबीर के पास या उसके माता-पिता के पास इतने पैसे नहीं थे। कबीर सोच में पड़ गया कि अब क्या किया जाए।

There was a lot of pressure in class tenth, but Kabir was very intelligent, it was not going to be so difficult for him. Kabir, as expected, passed the Class tenth examination with pretty decent marks. Now the biggest problem was that there were no good schools in an area like Leh and it was almost impossible to get a good education, especially for the twelfth class. It was very expensive to go out, spend a lot of money to go to a big city and enrol in a big school, and Kabir or his parents did not have that much money. Kabir wondered what to do now.

Practice translation (yourselves)

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Conversation 1

Topic: Career Confusion

Aryan: Good morning ma’am, I am Aryan.
आर्यन: गुड मॉर्निंग मैम, मैं आर्यन हूँ।

Ms. Anu: Good morning Aryan. Please sit down and tell me your problem.
मिस अनु: गुड मॉर्निंग आर्यन। कृपया बैठिए और अपनी समस्या बताइए।

Aryan: Ma’am, I am very confused about my career.
आर्यन: मैम, मैं अपने करियर को लेकर बहुत उलझन में हूँ।

Ms. Anu: Don’t worry. Many students feel like this these days.
मिस अनु: चिंता मत कीजिए। आजकल बहुत से छात्र ऐसा महसूस करते हैं।

Aryan: I don’t know which career option is best for me.
आर्यन: मुझे नहीं पता कि मेरे लिए कौन-सा करियर विकल्प सबसे अच्छा है।

Ms. Anu: First, tell me about your education and interests.
मिस अनु: सबसे पहले मुझे अपनी पढ़ाई और रुचियों के बारे में बताइए।

Aryan: I have completed my graduation, but I don’t have a clear direction.
आर्यन: मैंने अपनी ग्रेजुएशन पूरी कर ली है, लेकिन मुझे कोई साफ दिशा नहीं मिल रही है।

Ms. Anu: That’s okay. Career planning takes time and proper guidance.
मिस अनु: कोई बात नहीं। करियर की योजना बनाने में समय और सही मार्गदर्शन लगता है।

Aryan: Ma’am, I feel scared about my future.
आर्यन: मैम, मुझे अपने भविष्य को लेकर डर लग रहा है।

Ms. Anu: Fear is normal, but confidence is very important.
मिस अनु: डर होना सामान्य है, लेकिन आत्मविश्वास बहुत ज़रूरी है।

Aryan: What should I do now?
आर्यन: मुझे अब क्या करना चाहिए?

Ms. Anu: You should analyze your skills and interests before taking a decision.
मिस अनु: आपको निर्णय लेने से पहले अपनी क्षमताओं और रुचियों का विश्लेषण करना चाहिए।

Conversation 2

Topic: Self Introduction

Aryan: Hello, my name is Aryan.
आर्यन: हेलो, मेरा नाम आर्यन है।

Anu: Nice to meet you Aryan. Where are you from?
अनु: आपसे मिलकर खुशी हुई आर्यन। आप कहाँ से हैं?

Aryan: I am from Delhi.
आर्यन: मैं दिल्ली से हूँ।

Anu: What do you do?
अनु: आप क्या करते हैं?

Aryan: I am a student and learning spoken English.
आर्यन: मैं एक छात्र हूँ और स्पोकन इंग्लिश सीख रहा हूँ।

Anu: That is good. Why do you want to learn English?
अनु: यह अच्छा है। आप इंग्लिश क्यों सीखना चाहते हैं?

Aryan: I want to improve my confidence.
आर्यन: मैं अपना आत्मविश्वास बढ़ाना चाहता हूँ।

Anu: English will help you a lot in your career.
अनु: इंग्लिश आपके करियर में बहुत मदद करेगी।

Aryan: Yes, that is why I am practicing daily.
आर्यन: हाँ, इसलिए मैं रोज़ अभ्यास कर रहा हूँ।

Anu: Keep practicing and you will improve soon.
अनु: अभ्यास करते रहिए, आप जल्दी बेहतर हो जाएंगे।

Conversation 3

Topic: Talking About Family

Aryan: Can I tell you about my family?
आर्यन: क्या मैं आपको अपने परिवार के बारे में बता सकता हूँ?

Anu: Yes, please tell me.
अनु: हाँ, ज़रूर बताइए।

Aryan: There are four members in my family.
आर्यन: मेरे परिवार में चार सदस्य हैं।

Anu: Who are they?
अनु: वे कौन-कौन हैं?

Aryan: My parents, my sister, and me.
आर्यन: मेरे माता-पिता, मेरी बहन और मैं।

Anu: What does your father do?
अनु: आपके पिता क्या करते हैं?

Aryan: My father is a businessman.
आर्यन: मेरे पिता एक व्यवसायी हैं।

Anu: And your mother?
अनु: और आपकी माँ?

Aryan: My mother is a homemaker.
आर्यन: मेरी माँ गृहिणी हैं।

Anu: You have a nice family.
अनु: आपका परिवार बहुत अच्छा है।

Conversation 4

Topic: Daily Routine

Aryan: What is your daily routine?
आर्यन: आपका दैनिक दिनचर्या क्या है?

Anu: I wake up early in the morning.
अनु: मैं सुबह जल्दी उठती हूँ।

Aryan: Do you exercise daily?
आर्यन: क्या आप रोज़ व्यायाम करती हैं?

Anu: Yes, I go for a morning walk.
अनु: हाँ, मैं सुबह टहलने जाती हूँ।

Aryan: After that, what do you do?
आर्यन: उसके बाद आप क्या करती हैं?

Anu: I get ready and go to work.
अनु: मैं तैयार होकर काम पर जाती हूँ।

Aryan: I also try to follow a routine.
आर्यन: मैं भी एक दिनचर्या का पालन करने की कोशिश करता हूँ।

Anu: A good routine makes life disciplined.
अनु: अच्छी दिनचर्या जीवन को अनुशासित बनाती है।

Aryan: I will improve my routine.
आर्यन: मैं अपनी दिनचर्या सुधारूँगा।

Anu: That is a good decision.
अनु: यह एक अच्छा निर्णय है।

Conversation 5

Topic: Hobbies

Aryan: What is your hobby?
आर्यन: आपका शौक क्या है?

Anu: I like reading books.
अनु: मुझे किताबें पढ़ना पसंद है।

Aryan: That is a good hobby.
आर्यन: यह एक अच्छा शौक है।

Anu: What is your hobby?
अनु: आपका शौक क्या है?

Aryan: I like playing cricket.
आर्यन: मुझे क्रिकेट खेलना पसंद है।

Anu: Do you play daily?
अनु: क्या आप रोज़ खेलते हैं?

Aryan: Not daily, but on weekends.
आर्यन: रोज़ नहीं, लेकिन सप्ताहांत में।

Anu: Hobbies refresh our mind.
अनु: शौक हमारे मन को ताज़ा करते हैं।

Aryan: Yes, I feel relaxed after playing.
आर्यन: हाँ, खेलने के बाद मैं आराम महसूस करता हूँ।

Anu: Keep enjoying your hobby.
अनु: अपने शौक का आनंद लेते रहिए।

Conversation 6

Topic: Likes and Dislikes

Aryan: What do you like to do in your free time?
आर्यन: आपको अपने खाली समय में क्या करना पसंद है?

Anu: I like reading and listening to music.
अनु: मुझे पढ़ना और संगीत सुनना पसंद है।

Aryan: Do you like watching movies?
आर्यन: क्या आपको फिल्में देखना पसंद है?

Anu: Yes, I like motivational movies.
अनु: हाँ, मुझे प्रेरणादायक फिल्में पसंद हैं।

Aryan: I like action movies.
आर्यन: मुझे एक्शन फिल्में पसंद हैं।

Anu: What do you dislike?
अनु: आपको क्या पसंद नहीं है?

Aryan: I don't like wasting time.
आर्यन: मुझे समय बर्बाद करना पसंद नहीं है।

Anu: That is a good habit.
अनु: यह एक अच्छी आदत है।

Aryan: I try to use my time properly.
आर्यन: मैं अपने समय का सही उपयोग करने की कोशिश करता हूँ।

Anu: That will help you succeed.
अनु: इससे आपको सफलता मिलेगी।

Conversation 7

Topic: Talking About Food

Aryan: What is your favorite food?
आर्यन: आपका पसंदीदा खाना क्या है?

Anu: I like simple home food.
अनु: मुझे साधारण घर का खाना पसंद है।

Aryan: Do you like spicy food?
आर्यन: क्या आपको तीखा खाना पसंद है?

Anu: Not too much, but sometimes.
अनु: ज़्यादा नहीं, लेकिन कभी-कभी।

Aryan: I like North Indian food.
आर्यन: मुझे उत्तर भारतीय खाना पसंद है।

Anu: Do you eat outside food often?
अनु: क्या आप बाहर का खाना अक्सर खाते हैं?

Aryan: No, I prefer homemade food.
आर्यन: नहीं, मैं घर का खाना पसंद करता हूँ।

Anu: Homemade food is healthy.
अनु: घर का खाना स्वास्थ्य के लिए अच्छा होता है।

Aryan: Yes, my mother cooks very well.
आर्यन: हाँ, मेरी माँ बहुत अच्छा खाना बनाती हैं।

Anu: You are lucky.
अनु: आप भाग्यशाली हैं।

Conversation 8

Topic: Shopping

Aryan: Excuse me, how much is this shirt?
आर्यन: माफ़ कीजिए, इस शर्ट की कीमत कितनी है?

Shopkeeper: It is 900 rupees.
दुकानदार: यह 900 रुपये की है।

Aryan: Can you give some discount?
आर्यन: क्या आप कुछ छूट दे सकते हैं?

Shopkeeper: I can give ten percent discount.
दुकानदार: मैं दस प्रतिशत छूट दे सकता हूँ।

Aryan: That sounds good.
आर्यन: यह ठीक है।

Shopkeeper: Which size do you want?
दुकानदार: आपको कौन-सा साइज चाहिए?

Aryan: Medium size please.
आर्यन: मीडियम साइज दीजिए।

Shopkeeper: Please try it.
दुकानदार: कृपया पहनकर देखिए।

Aryan: It fits me well.
आर्यन: यह मुझे ठीक लग रही है।

Shopkeeper: Thank you for shopping.
दुकानदार: खरीदारी के लिए धन्यवाद।

Conversation 9

Topic: Health

Anu: You look tired today.
अनु: आज आप थके हुए लग रहे हैं।

Aryan: Yes, I am not feeling well.
आर्यन: हाँ, मैं ठीक महसूस नहीं कर रहा हूँ।

Anu: What happened to you?
अनु: आपको क्या हुआ है?

Aryan: I have a headache.
आर्यन: मुझे सिरदर्द है।

Anu: Did you take medicine?
अनु: क्या आपने दवा ली है?

Aryan: Not yet.
आर्यन: अभी नहीं।

Anu: You should take rest.
अनु: आपको आराम करना चाहिए।

Aryan: Yes, I will do that.
आर्यन: हाँ, मैं ऐसा करूँगा।

Anu: Health is very important.
अनु: स्वास्थ्य बहुत ज़रूरी है।

Aryan: I will take care of my health.
आर्यन: मैं अपने स्वास्थ्य का ध्यान रखूँगा।

Conversation 10

Topic: Weather

Aryan: How is the weather today?
आर्यन: आज मौसम कैसा है?

Anu: It is very hot today.
अनु: आज बहुत गर्मी है।

Aryan: I don’t like hot weather.
आर्यन: मुझे गर्म मौसम पसंद नहीं है।

Anu: I also prefer cool weather.
अनु: मुझे भी ठंडा मौसम पसंद है।

Aryan: Is it going to rain today?
आर्यन: क्या आज बारिश होने वाली है?

Anu: The weather report says so.
अनु: मौसम की रिपोर्ट ऐसा कहती है।

Aryan: Rain gives relief from heat.
आर्यन: बारिश गर्मी से राहत देती है।

Anu: Yes, it feels pleasant.
अनु: हाँ, मौसम सुहावना हो जाता है।

Aryan: I enjoy rainy weather.
आर्यन: मुझे बरसात का मौसम पसंद है।

Anu: Me too.
अनु: मुझे भी।

Conversation 11

Topic: Asking for Help

Aryan: Excuse me, can you help me?
आर्यन: माफ़ कीजिए, क्या आप मेरी मदद कर सकते हैं?

Anu: Yes, sure. What is the problem?
अनु: हाँ, ज़रूर। क्या समस्या है?

Aryan: I don’t understand this topic.
आर्यन: मुझे यह विषय समझ नहीं आ रहा है।

Anu: Don’t worry, I will explain.
अनु: चिंता मत कीजिए, मैं समझा दूँगी।

Aryan: Thank you so much.
आर्यन: आपका बहुत धन्यवाद।

Anu: You are welcome.
अनु: आपका स्वागत है।

Aryan: Your explanation is very clear.
आर्यन: आपका समझाना बहुत साफ़ है।

Anu: I am happy to help you.
अनु: मुझे आपकी मदद करके खुशी हुई।

Aryan: I really appreciate it.
आर्यन: मैं इसकी बहुत सराहना करता हूँ।

Anu: Anytime.
अनु: कभी भी।

Conversation 12

Topic: Giving Directions

Aryan: Excuse me, where is the bank?
आर्यन: माफ़ कीजिए, बैंक कहाँ है?

Anu: Go straight and turn left.
अनु: सीधे जाएँ और बाएँ मुड़ें।

Aryan: Is it far from here?
आर्यन: क्या यह यहाँ से दूर है?

Anu: No, it is nearby.
अनु: नहीं, यह पास में है।

Aryan: How much time will it take?
आर्यन: वहाँ पहुँचने में कितना समय लगेगा?

Anu: It will take five minutes.
अनु: पाँच मिनट लगेंगे।

Aryan: Thank you for the directions.
आर्यन: दिशा बताने के लिए धन्यवाद।

Anu: You are welcome.
अनु: आपका स्वागत है।

Aryan: Have a nice day.
आर्यन: आपका दिन शुभ हो।

Anu: Same to you.
अनु: आपको भी।

Conversation 13

Topic: Making Requests

Aryan: Please close the window.
आर्यन: कृपया खिड़की बंद कर दीजिए।

Anu: Sure, no problem.
अनु: ज़रूर, कोई समस्या नहीं।

Aryan: Thank you for your help.
आर्यन: आपकी मदद के लिए धन्यवाद।

Anu: It’s okay.
अनु: कोई बात नहीं।

Aryan: Can you please speak slowly?
आर्यन: क्या आप कृपया धीरे बोल सकते हैं?

Anu: Yes, of course.
अनु: हाँ, बिल्कुल।

Aryan: It helps me understand better.
आर्यन: इससे मुझे बेहतर समझने में मदद मिलती है।

Anu: I will keep that in mind.
अनु: मैं इसका ध्यान रखूँगी।

Aryan: I appreciate your support.
आर्यन: मैं आपके सहयोग की सराहना करता हूँ।

Anu: You’re welcome.
अनु: आपका स्वागत है।

Conversation 14

Topic: Apologizing

Aryan: I am sorry for coming late.
आर्यन: देर से आने के लिए मुझे माफ़ कीजिए।

Anu: It’s okay. Don’t worry.
अनु: कोई बात नहीं, चिंता मत कीजिए।

Aryan: There was a lot of traffic.
आर्यन: रास्ते में बहुत ट्रैफिक था।

Anu: I understand.
अनु: मैं समझती हूँ।

Aryan: I will try to be on time.
आर्यन: मैं समय पर आने की कोशिश करूँगा।

Anu: That’s good.
अनु: यह अच्छा है।

Aryan: Thank you for understanding.
आर्यन: समझने के लिए धन्यवाद।

Anu: No problem.
अनु: कोई समस्या नहीं।

Aryan: I won’t repeat it.
आर्यन: मैं इसे दोबारा नहीं दोहराऊँगा।

Anu: That’s fine.
अनु: ठीक है।

Conversation 15

Topic: Thanking Someone

Aryan: Thank you for your guidance.
आर्यन: आपके मार्गदर्शन के लिए धन्यवाद।

Anu: You are most welcome.
अनु: आपका बहुत-बहुत स्वागत है।

Aryan: You always motivate me.
आर्यन: आप हमेशा मुझे प्रेरित करती हैं।

Anu: I am glad to hear that.
अनु: यह सुनकर मुझे खुशी हुई।

Aryan: Your advice helps me a lot.
आर्यन: आपकी सलाह मुझे बहुत मदद करती है।

Anu: I am happy to support you.
अनु: मुझे आपकी सहायता करके खुशी होती है।

Aryan: I feel more confident now.
आर्यन: अब मुझे ज़्यादा आत्मविश्वास महसूस होता है।

Anu: That's great.
अनु: यह बहुत अच्छा है।

Aryan: Thank you once again.
आर्यन: एक बार फिर धन्यवाद।

Anu: Always welcome.
अनु: हमेशा स्वागत है।

Conversation 16

Topic: Compliments

Aryan: Your presentation was very good today.
आर्यन: आज आपकी प्रस्तुति बहुत अच्छी थी।

Anu: Thank you so much.
अनु: आपका बहुत धन्यवाद।

Aryan: You explained everything clearly.
आर्यन: आपने सब कुछ साफ़-साफ़ समझाया।

Anu: I am glad you liked it.
अनु: मुझे खुशी है कि आपको पसंद आया।

Aryan: I learned many new things.
आर्यन: मैंने कई नई बातें सीखी हैं।

Anu: That means a lot to me.
अनु: यह मेरे लिए बहुत मायने रखता है।

Aryan: You are a great teacher.
आर्यन: आप एक बहुत अच्छी शिक्षिका हैं।

Anu: Thank you for the compliment.
अनु: तारीफ़ के लिए धन्यवाद।

Aryan: You deserve it.
आर्यन: आप इसकी हक़दार हैं।

Anu: That’s very kind of you.
अनु: यह आपकी बहुत कृपा है।

Conversation 17

Topic: Invitations

Aryan: I am having a small party tomorrow.
आर्यन: कल मेरी एक छोटी-सी पार्टी है।

Anu: That sounds nice.
अनु: यह अच्छा लग रहा है।

Aryan: I would like to invite you.
आर्यन: मैं आपको आमंत्रित करना चाहता हूँ।

Anu: Thank you for the invitation.
अनु: निमंत्रण के लिए धन्यवाद।

Aryan: Will you be able to come?
आर्यन: क्या आप आ पाएँगी?

Anu: Yes, I will try my best.
अनु: हाँ, मैं पूरी कोशिश करूँगी।

Aryan: The party starts at 7 pm.
आर्यन: पार्टी शाम 7 बजे शुरू होगी।

Anu: Okay, I will be there on time.
अनु: ठीक है, मैं समय पर पहुँचूँगी।

Aryan: I will be happy to see you.
आर्यन: मुझे आपको देखकर खुशी होगी।

Anu: See you tomorrow then.
अनु: फिर कल मिलते हैं।

Conversation 18

Topic: Phone Conversation

Aryan: Hello, may I speak to Anu ma’am?
आर्यन: हेलो, क्या मैं अनु मैम से बात कर सकता हूँ?

Anu: Yes, this is Anu speaking.
अनु: हाँ, मैं अनु बोल रही हूँ।

Aryan: Good evening ma'am.
आर्यन: गुड ईवनिंग मैम।

Anu: Good evening Aryan. How are you?
अनु: गुड ईवनिंग आर्यन। आप कैसे हैं?

Aryan: I am fine. I wanted to ask something.
आर्यन: मैं ठीक हूँ। मुझे कुछ पूछना था।

Anu: Yes, please tell me.
अनु: हाँ, बताइए।

Aryan: Can we reschedule today's meeting?
आर्यन: क्या हम आज की मीटिंग को बदल सकते हैं?

Anu: Yes, we can do it tomorrow.
अनु: हाँ, हम इसे कल कर सकते हैं।

Aryan: Thank you for your time.
आर्यन: आपके समय के लिए धन्यवाद।

Anu: You're welcome. Bye.
अनु: आपका स्वागत है। अलविदा।

Conversation 19

Topic: Small Talk

Aryan: How was your day today?
आर्यन: आज आपका दिन कैसा रहा?

Anu: It was quite busy.
अनु: यह काफ़ी व्यस्त रहा।

Aryan: Did you finish all your work?
आर्यन: क्या आपने सारा काम पूरा कर लिया?

Anu: Almost, just a little left.
अनु: लगभग, थोड़ा-सा बाकी है।

Aryan: The weather is nice today.
आर्यन: आज मौसम अच्छा है।

Anu: Yes, it feels pleasant.
अनु: हाँ, सुहावना लग रहा है।

Aryan: I enjoy such weather.
आर्यन: मुझे ऐसा मौसम पसंद है।

Anu: Me too.
अनु: मुझे भी।

Aryan: It makes the day better.
आर्यन: यह दिन को बेहतर बना देता है।

Anu: Absolutely.
अनु: बिल्कुल।

Conversation 20

Topic: Railway Station

Aryan: Excuse me, when will the train arrive?
आर्यन: माफ़ कीजिए, ट्रेन कब आएगी?

Anu: The train will arrive at 6 pm.
अनु: ट्रेन शाम 6 बजे आएगी।

Aryan: Is the train on time?
आर्यन: क्या ट्रेन समय पर है?

Anu: Yes, it is on time today.
अनु: हाँ, आज यह समय पर है।

Aryan: Which platform will it come on?
आर्यन: यह किस प्लेटफ़ॉर्म पर आएगी?

Anu: It will come on platform number 2.
अनु: यह प्लेटफ़ॉर्म नंबर 2 पर आएगी।

Aryan: Thank you for the information.
आर्यन: जानकारी के लिए धन्यवाद।

Anu: You are welcome.
अनु: आपका स्वागत है।

Aryan: Have a nice journey.
आर्यन: आपकी यात्रा शुभ हो।

Anu: Thank you.
अनु: धन्यवाद।

Conversation 21

Topic: Bus Stand

Aryan: Is this bus going to Noida?
आर्यन: क्या यह बस नोएडा जाएगी?

Anu: Yes, this bus goes to Noida.
अनु: हाँ, यह बस नोएडा जाती है।

Aryan: What is the ticket price?
आर्यन: टिकट की कीमत क्या है?

Anu: It is fifty rupees.
अनु: यह पचास रुपये है।

Aryan: How much time will it take?
आर्यन: इसमें कितना समय लगेगा?

Anu: It will take one hour.
अनु: इसमें एक घंटा लगेगा।

Aryan: Thank you for your help.
आर्यन: आपकी मदद के लिए धन्यवाद।

Anu: No problem.
अनु: कोई समस्या नहीं।

Aryan: Have a good day.
आर्यन: आपका दिन शुभ हो।

Anu: Same to you.
अनु: आपको भी।

Conversation 22

Topic: Airport

Aryan: Where is the check-in counter?
आर्यन: चेक-इन काउंटर कहाँ है?

Anu: It is on the first floor.
अनु: यह पहली मंज़िल पर है।

Aryan: Which gate should I go to?
आर्यन: मुझे किस गेट पर जाना चाहिए?

Anu: Please go to gate number 5.
अनु: कृपया गेट नंबर 5 पर जाएँ।

Aryan: Is this an international flight?
आर्यन: क्या यह अंतरराष्ट्रीय उड़ान है?

Anu: No, it is a domestic flight.
अनु: नहीं, यह घरेलू उड़ान है।

Aryan: Thank you for guiding me.
आर्यन: मेरा मार्गदर्शन करने के लिए धन्यवाद।

Anu: You're welcome.
अनु: आपका स्वागत है।

Aryan: Have a safe flight.
आर्यन: आपकी उड़ान सुरक्षित हो।

Anu: Thank you.
अनु: धन्यवाद।

Conversation 23

Topic: Hotel Booking

Aryan: I would like to book a room.
आर्यन: मैं एक कमरा बुक करना चाहता हूँ।

Anu: For how many days?
अनु: कितने दिनों के लिए?

Aryan: For two days.
आर्यन: दो दिनों के लिए।

Anu: Do you want a single or double room?
अनु: आपको सिंगल कमरा चाहिए या डबल?

Aryan: A single room please.
आर्यन: एक सिंगल कमरा दीजिए।

Anu: The rent is two thousand per day.
अनु: किराया दो हज़ार रुपये प्रति दिन है।

Aryan: That is fine.
आर्यन: ठीक है।

Anu: Please fill this form.
अनु: कृपया यह फ़ॉर्म भर दीजिए।

Aryan: Sure, here you go.
आर्यन: ज़रूर, लीजिए।

Anu: Welcome to our hotel.
अनु: हमारे होटल में आपका स्वागत है।

Conversation 24

Topic: Tourist Places

Aryan: Which place should I visit here?
आर्यन: मुझे यहाँ कौन-सी जगह घूमनी चाहिए?

Anu: You should visit the old fort.
अनु: आपको पुराना किला देखना चाहिए।

Aryan: Is it far from here?
आर्यन: क्या यह यहाँ से दूर है?

Anu: No, it is nearby.
अनु: नहीं, यह पास में है।

Aryan: How can I reach there?
आर्यन: मैं वहाँ कैसे पहुँच सकता हूँ?

Anu: You can take a taxi.
अनु: आप टैक्सी ले सकते हैं।

Aryan: Is it worth visiting?
आर्यन: क्या यह देखने लायक है?

Anu: Yes, it is very beautiful.
अनु: हाँ, यह बहुत सुंदर है।

Aryan: Thank you for the suggestion.
आर्यन: सुझाव के लिए धन्यवाद।

Anu: Enjoy your trip.
अनु: अपनी यात्रा का आनंद लीजिए।

Conversation 25

Topic: Restaurant

Aryan: May I see the menu, please?
आर्यन: क्या मैं मेन्यू देख सकता हूँ?

Anu: Yes sir, here is the menu.
अनु: हाँ सर, यह रहा मेन्यू।

Aryan: What do you recommend?
आर्यन: आप क्या सुझाएँगी?

Anu: Our special dish is very popular.
अनु: हमारी स्पेशल डिश बहुत लोकप्रिय है।

Aryan: I would like to try that.
आर्यन: मैं वही लेना चाहूँगा।

Anu: Would you like something to drink?
अनु: क्या आप कुछ पीना चाहेंगे?

Aryan: Yes, a glass of water please.
आर्यन: हाँ, एक गिलास पानी दीजिए।

Anu: Sure sir.
अनु: ज़रूर सर।

Aryan: Thank you.
आर्यन: धन्यवाद।

Anu: You're welcome.
अनु: आपका स्वागत है।

Conversation 26

Topic: Ordering Food

Aryan: I would like to order food.
आर्यन: मैं खाना ऑर्डर करना चाहता हूँ।

Anu: Yes sir, please tell me.
अनु: हाँ सर, कृपया बताइए।

Aryan: I want one dosa and one coffee.
आर्यन: मुझे एक डोसा और एक कॉफी चाहिए।

Anu: Would you like it plain or masala dosa?
अनु: आपको सादा या मसाला डोसा चाहिए?

Aryan: Masala dosa please.
आर्यन: मसाला डोसा दीजिए।

Anu: Anything else?
अनु: और कुछ चाहिए?

Aryan: No, that's all.
आर्यन: नहीं, बस इतना ही।

Anu: Your order will be ready soon.
अनु: आपका ऑर्डर जल्दी तैयार हो जाएगा।

Aryan: Thank you.
आर्यन: धन्यवाद।

Anu: You're welcome.
अनु: आपका स्वागत है।

Conversation 27

Topic: Complaining Politely

Aryan: Excuse me, I have a complaint.
आर्यन: माफ़ कीजिए, मुझे एक शिकायत करनी है।

Anu: Please tell me the problem.
अनु: कृपया समस्या बताइए।

Aryan: The food is too spicy.
आर्यन: खाना बहुत ज़्यादा तीखा है।

Anu: I am sorry for the inconvenience.
अनु: असुविधा के लिए मुझे खेद है।

Aryan: Can you change it, please?
आर्यन: क्या आप इसे बदल सकते हैं?

Anu: Yes, we will replace it.
अनु: हाँ, हम इसे बदल देंगे।

Aryan: Thank you for your support.
आर्यन: आपके सहयोग के लिए धन्यवाद।

Anu: We will take care next time.
अनु: हम अगली बार ध्यान रखेंगे।

Aryan: I appreciate it.
आर्यन: मैं इसकी सराहना करता हूँ।

Anu: Thank you for informing us.
अनु: हमें बताने के लिए धन्यवाद।

Conversation 28

Topic: Asking for Information

Aryan: Can you give me some information?
आर्यन: क्या आप मुझे कुछ जानकारी दे सकते हैं?

Anu: Yes, what do you want to know?
अनु: हाँ, आप क्या जानना चाहते हैं?

Aryan: I want details about this course.
आर्यन: मुझे इस कोर्स के बारे में जानकारी चाहिए।

Anu: This course is for six months.
अनु: यह कोर्स छह महीने का है।

Aryan: What is the fee structure?
आर्यन: फीस संरचना क्या है?

Anu: The fee is ten thousand rupees.
अनु: फीस दस हज़ार रुपये है।

Aryan: Is there any installment option?
आर्यन: क्या किश्तों में भुगतान का विकल्प है?

Anu: Yes, installments are available.
अनु: हाँ, किश्तों की सुविधा उपलब्ध है।

Aryan: Thank you for the information.
आर्यन: जानकारी के लिए धन्यवाद।

Anu: You’re welcome.
अनु: आपका स्वागत है।

Conversation 29

Topic: Emergency Situation

Aryan: Please help me, it is an emergency.
आर्यन: कृपया मेरी मदद कीजिए, यह आपात स्थिति है।

Anu: What happened?
अनु: क्या हुआ है?

Aryan: My friend is not feeling well.
आर्यन: मेरा दोस्त ठीक महसूस नहीं कर रहा है।

Anu: Should I call a doctor?
अनु: क्या मैं डॉक्टर को बुलाऊँ?

Aryan: Yes, please call immediately.
आर्यन: हाँ, कृपया तुरंत बुलाइए।

Anu: Don’t worry, help is coming.
अनु: चिंता मत कीजिए, मदद आ रही है।

Aryan: Thank you for acting fast.
आर्यन: जल्दी कार्रवाई करने के लिए धन्यवाद।

Anu: It is my duty.
अनु: यह मेरा कर्तव्य है।

Aryan: I really appreciate your help.
आर्यन: मैं आपकी मदद की सच में सराहना करता हूँ।

Anu: Everything will be fine.
अनु: सब ठीक हो जाएगा।

Conversation 30

Topic: Classroom Conversation

Aryan: May I come in, sir?
आर्यन: क्या मैं अंदर आ सकता हूँ, सर?

Anu: Yes, please come in.
अनु: हाँ, कृपया अंदर आइए।

Aryan: Sorry for being late.
आर्यन: देर होने के लिए माफ़ कीजिए।

Anu: Please take your seat.
अनु: कृपया अपनी सीट पर बैठिए।

Aryan: Sir, I have a doubt.
आर्यन: सर, मुझे एक शंका है।

Anu: Yes, ask your question.
अनु: हाँ, अपना प्रश्न पूछिए।

Aryan: Can you explain this topic again?
आर्यन: क्या आप यह विषय फिर से समझा सकते हैं?

Anu: Sure, I will explain once more.
अनु: ज़रूर, मैं एक बार फिर समझाऊँगा।

Aryan: Thank you, sir.
आर्यन: धन्यवाद, सर।

Anu: You're welcome.
अनु: आपका स्वागत है।

Conversation 31

Topic: Talking to Teacher

Aryan: Sir, may I talk to you?
आर्यन: सर, क्या मैं आपसे बात कर सकता हूँ?

Anu: Yes, what is the matter?
अनु: हाँ, क्या बात है?

Aryan: I am worried about my exam.
आर्यन: मैं अपनी परीक्षा को लेकर चिंतित हूँ।

Anu: Why are you worried?
अनु: आप क्यों चिंतित हैं?

Aryan: I feel my preparation is not enough.
आर्यन: मुझे लगता है मेरी तैयारी पर्याप्त नहीं है।

Anu: You should revise regularly.
अनु: आपको नियमित रूप से दोहराना चाहिए।

Aryan: I will follow your advice.
आर्यन: मैं आपकी सलाह का पालन करूँगा।

Anu: Stay confident and calm.
अनु: आत्मविश्वासी और शांत रहिए।

Aryan: Thank you for motivating me.
आर्यन: मुझे प्रेरित करने के लिए धन्यवाद।

Anu: All the best.
अनु: शुभकामनाएँ।

Conversation 32

Topic: Office Conversation

Aryan: Good morning sir.
आर्यन: गुड मॉर्निंग सर।

Anu: Good morning Aryan.
अनु: गुड मॉर्निंग आर्यन।

Aryan: Are you free now?
आर्यन: क्या आप अभी फ्री हैं?

Anu: Yes, we can talk.
अनु: हाँ, हम बात कर सकते हैं।

Aryan: I wanted to discuss the project.
आर्यन: मैं प्रोजेक्ट पर चर्चा करना चाहता था।

Anu: Sure, please go ahead.
अनु: ज़रूर, आगे बताइए।

Aryan: The work will be completed by tomorrow.
आर्यन: काम कल तक पूरा हो जाएगा।

Anu: That’s good to hear.
अनु: यह सुनकर अच्छा लगा।

Aryan: Please let me know if any changes are needed.
आर्यन: अगर किसी बदलाव की ज़रूरत हो तो कृपया बताइए।

Anu: I will inform you.
अनु: मैं आपको सूचित करूँगा।

Conversation 33

Topic: Job Interview

Interviewer: Tell me about yourself.
साक्षात्कारकर्ता: अपने बारे में बताइए।

Aryan: My name is Aryan and I am a graduate.
आर्यन: मेरा नाम आर्यन है और मैं स्नातक हूँ।

Interviewer: Do you have any experience?
साक्षात्कारकर्ता: क्या आपके पास कोई अनुभव है?

Aryan: I am a fresher, but I am eager to learn.
आर्यन: मैं फ्रेशर हूँ, लेकिन सीखने के लिए उत्सुक हूँ।

Interviewer: Why should we hire you?
साक्षात्कारकर्ता: हमें आपको क्यों नियुक्त करना चाहिए?

Aryan: I am hardworking and dedicated.
आर्यन: मैं मेहनती और समर्पित हूँ।

Interviewer: What are your strengths?
साक्षात्कारकर्ता: आपकी ताकत क्या है?

Aryan: I have good communication skills.
आर्यन: मेरे पास अच्छी संवाद कौशल है।

Interviewer: Thank you for coming.
साक्षात्कारकर्ता: आने के लिए धन्यवाद।

Aryan: Thank you for the opportunity.
आर्यन: अवसर के लिए धन्यवाद।

Conversation 34

Topic: Talking About Work Experience

Anu: Do you have any work experience?
अनु: क्या आपके पास कोई कार्य अनुभव है?

Aryan: Yes, I have one year experience.
आर्यन: हाँ, मेरे पास एक साल का अनुभव है।

Anu: Where did you work?
अनु: आपने कहाँ काम किया है?

Aryan: I worked in a private company.
आर्यन: मैंने एक निजी कंपनी में काम किया है।

Anu: What was your role?
अनु: आपकी भूमिका क्या थी?

Aryan: I was a sales executive.
आर्यन: मैं सेल्स एक्ज़ीक्यूटिव था।

Anu: What did you learn there?
अनु: आपने वहाँ क्या सीखा?

Aryan: I learned teamwork and communication.
आर्यन: मैंने टीमवर्क और संवाद सीखा।

Anu: That is good experience.
अनु: यह अच्छा अनुभव है।

Aryan: Yes, it helped me grow.
आर्यन: हाँ, इससे मुझे आगे बढ़ने में मदद मिली।

Conversation 35

Topic: Asking for Leave

Aryan: Sir, I want to take leave tomorrow.
आर्यन: सर, मैं कल छुट्टी लेना चाहता हूँ।

Anu: What is the reason?
अनु: कारण क्या है?

Aryan: I have some personal work.
आर्यन: मुझे कुछ निजी काम है।

Anu: Is it urgent?
अनु: क्या यह ज़रूरी है?

Aryan: Yes, it is important.
आर्यन: हाँ, यह महत्वपूर्ण है।

Anu: Please apply through email.
अनु: कृपया ईमेल के माध्यम से आवेदन करें।

Aryan: Sure, I will do that.
आर्यन: ज़रूर, मैं ऐसा करूँगा।

Anu: Your leave is approved.
अनु: आपकी छुट्टी मंज़ूर है।

Aryan: Thank you, sir.
आर्यन: धन्यवाद, सर।

Anu: You're welcome.
अनु: आपका स्वागत है।

Conversation 36

Topic: Office Meeting

Aryan: Good morning everyone.
आर्यन: सभी को सुप्रभात।

Anu: Good morning, let us start the meeting.
अनु: सुप्रभात, चलिए बैठक शुरू करते हैं।

Aryan: Today we will discuss our targets.
आर्यन: आज हम अपने लक्ष्यों पर चर्चा करेंगे।

Anu: Please share your ideas.
अनु: कृपया अपने विचार साझा करें।

Aryan: I think teamwork is important.
आर्यन: मुझे लगता है टीमवर्क महत्वपूर्ण है।

Anu: Yes, teamwork gives better results.
अनु: हाँ, टीमवर्क बेहतर परिणाम देता है।

Aryan: We should plan properly.
आर्यन: हमें सही योजना बनानी चाहिए।

Anu: That is a good suggestion.
अनु: यह एक अच्छा सुझाव है।

Aryan: Thank you for listening.
आर्यन: सुनने के लिए धन्यवाद।

Anu: Let us move ahead.
अनु: चलिए आगे बढ़ते हैं।

Conversation 37

Topic: Motivation

Aryan: I feel demotivated sometimes.
आर्यन: कभी-कभी मैं हतोत्साहित महसूस करता हूँ।

Anu: Why do you feel so?
अनु: आप ऐसा क्यों महसूस करते हैं?

Aryan: Things do not go as planned.
आर्यन: चीज़ें योजना के अनुसार नहीं होतीं।

Anu: Failures are part of life.
अनु: असफलताएँ जीवन का हिस्सा हैं।

Aryan: How can I stay positive?
आर्यन: मैं सकारात्मक कैसे रहूँ?

Anu: Believe in yourself.
अनु: खुद पर विश्वास रखिए।

Aryan: I will try my best.
आर्यन: मैं पूरी कोशिश करूँगा।

Anu: Never give up.
अनु: कभी हार मत मानिए।

Aryan: Thank you for motivating me.
आर्यन: मुझे प्रेरित करने के लिए धन्यवाद।

Anu: You can do it.
अनु: आप यह कर सकते हैं।

Conversation 38

Topic: Bank Conversation

Aryan: Good morning, I want to open an account.
आर्यन: गुड मॉर्निंग, मैं खाता खोलना चाहता हूँ।

Anu: Please fill this form.
अनु: कृपया यह फॉर्म भरिए।

Aryan: What documents are required?
आर्यन: कौन से दस्तावेज़ चाहिए?

Anu: Aadhaar and PAN card.
अनु: आधार और पैन कार्ड।

Aryan: Is minimum balance required?
आर्यन: क्या न्यूनतम बैलेंस ज़रूरी है?

Anu: Yes, it is required.
अनु: हाँ, यह आवश्यक है।

Aryan: How long will it take?
आर्यन: इसमें कितना समय लगेगा?

Anu: It will be done today.
अनु: यह आज ही हो जाएगा।

Aryan: Thank you for your help.
आर्यन: आपकी मदद के लिए धन्यवाद।

Anu: You're welcome.
अनु: आपका स्वागत है।

Conversation 39

Topic: Online Shopping

Aryan: I like online shopping.
आर्यन: मुझे ऑनलाइन शॉपिंग पसंद है।

Anu: What do you buy online?
अनु: आप ऑनलाइन क्या खरीदते हैं?

Aryan: Clothes and electronics.
आर्यन: कपड़े और इलेक्ट्रॉनिक्स।

Anu: Is it safe?
अनु: क्या यह सुरक्षित है?

Aryan: Yes, if we are careful.
आर्यन: हाँ, अगर हम सावधान रहें।

Anu: Do you compare prices?
अनु: क्या आप कीमतों की तुलना करते हैं?

Aryan: Yes, I always compare.
आर्यन: हाँ, मैं हमेशा तुलना करता हूँ।

Anu: That is a good habit.
अनु: यह अच्छी आदत है।

Aryan: It saves money.
आर्यन: इससे पैसे बचते हैं।

Anu: Absolutely.
अनु: बिल्कुल।

Conversation 40

Topic: Social Media

Aryan: I use social media daily.
आर्यन: मैं रोज़ सोशल मीडिया इस्तेमाल करता हूँ।

Anu: How much time do you spend?
अनु: आप कितना समय बिताते हैं?

Aryan: Around one hour.
आर्यन: लगभग एक घंटा।

Anu: That is reasonable.
अनु: यह ठीक है।

Aryan: It helps me stay connected.
आर्यन: इससे मैं जुड़ा रहता हूँ।

Anu: But avoid overuse.
अनु: लेकिन ज़्यादा उपयोग से बचिए।

Aryan: Yes, I agree.
आर्यन: हाँ, मैं सहमत हूँ।

Anu: Balance is important.
अनु: संतुलन ज़रूरी है।

Aryan: I will manage my time.
आर्यन: मैं अपना समय संभालूँगा।

Anu: Good decision.
अनु: अच्छा निर्णय है।

Conversation 41

Topic: Mobile Phone Usage

Aryan: Mobile phones are very useful.
आर्यन: मोबाइल फोन बहुत उपयोगी हैं।

Anu: Yes, but misuse is harmful.
अनु: हाँ, लेकिन दुरुपयोग हानिकारक है।

Aryan: I use it for study also.
आर्यन: मैं इसे पढ़ाई के लिए भी उपयोग करता हूँ।

Anu: That is good.
अनु: यह अच्छा है।

Aryan: Sometimes I waste time.
आर्यन: कभी-कभी मैं समय बर्बाद करता हूँ।

Anu: Try to limit usage.
अनु: उपयोग सीमित करने की कोशिश करें।

Aryan: I will follow this advice.
आर्यन: मैं इस सलाह का पालन करूँगा।

Anu: Focus on your goals.
अनु: अपने लक्ष्यों पर ध्यान दें।

Aryan: Yes, I will.
आर्यन: हाँ, करूँगा।

Anu: All the best.
अनु: शुभकामनाएँ।

Conversation 42

Topic: Talking About Dreams

Aryan: I have big dreams.
आर्यन: मेरे बड़े सपने हैं।

Anu: What is your dream?
अनु: आपका सपना क्या है?

Aryan: I want to become successful.
आर्यन: मैं सफल बनना चाहता हूँ।

Anu: Success needs hard work.
अनु: सफलता के लिए मेहनत चाहिए।

Aryan: I am ready to work hard.
आर्यन: मैं मेहनत करने को तैयार हूँ।

Anu: Stay focused.
अनु: ध्यान केंद्रित रखें।

Aryan: I will not lose hope.
आर्यन: मैं उम्मीद नहीं छोड़ूँगा।

Anu: Dreams do come true.
अनु: सपने सच होते हैं।

Aryan: That motivates me.
आर्यन: यह मुझे प्रेरित करता है।

Anu: Keep going.
अनु: आगे बढ़ते रहें।

Conversation 43

Topic: Future Plans

Aryan: What should I do after graduation?
आर्यन: स्नातक के बाद मुझे क्या करना चाहिए?

Anu: You can go for higher studies.
अनु: आप उच्च शिक्षा ले सकते हैं।

Aryan: Or should I do a job?
आर्यन: या मुझे नौकरी करनी चाहिए?

Anu: Choose according to your interest.
अनु: अपनी रुचि के अनुसार चुनें।

Aryan: I like learning new skills.
आर्यन: मुझे नई स्किल्स सीखना पसंद है।

Anu: Skill development is important.
अनु: स्किल विकास महत्वपूर्ण है।

Aryan: I will plan carefully.
आर्यन: मैं सोच-समझकर योजना बनाऊँगा।

Anu: Take guidance if needed.
अनु: ज़रूरत हो तो मार्गदर्शन लें।

Aryan: Thank you for advice.
आर्यन: सलाह के लिए धन्यवाद।

Anu: Anytime.
अनु: कभी भी।

Conversation 44

Topic: Time Management

Aryan: I struggle with time management.
आर्यन: मुझे समय प्रबंधन में परेशानी होती है।

Anu: Make a daily schedule.
अनु: रोज़ का शेड्यूल बनाइए।

Aryan: I try but fail sometimes.
आर्यन: मैं कोशिश करता हूँ लेकिन कभी असफल हो जाता हूँ।

Anu: Be consistent.
अनु: निरंतर रहें।

Aryan: Should I set priorities?
आर्यन: क्या मुझे प्राथमिकताएँ तय करनी चाहिए?

Anu: Yes, it helps a lot.
अनु: हाँ, इससे बहुत मदद मिलती है।

Aryan: I will start today.
आर्यन: मैं आज से शुरू करूँगा।

Anu: Good initiative.
अनु: अच्छी पहल है।

Aryan: Thank you.
आर्यन: धन्यवाद।

Anu: You will improve.
अनु: आप सुधार करेंगे।

Conversation 45

Topic: Stress Management

Aryan: I feel stressed these days.
आर्यन: आजकल मैं तनाव महसूस करता हूँ।

Anu: What is the reason?
अनु: कारण क्या है?

Aryan: Work pressure.
आर्यन: काम का दबाव।

Anu: Take short breaks.
अनु: छोटे ब्रेक लें।

Aryan: Does exercise help?
आर्यन: क्या व्यायाम मदद करता है?

Anu: Yes, it helps a lot.
अनु: हाँ, यह बहुत मदद करता है।

Aryan: I will start exercising.
आर्यन: मैं व्यायाम शुरू करूँगा।

Anu: Also meditate daily.
अनु: रोज़ ध्यान भी करें।

Aryan: Thank you for guidance.
आर्यन: मार्गदर्शन के लिए धन्यवाद।

Anu: Take care.
अनु: ध्यान रखें।

Conversation 46

Topic: Healthy Lifestyle

Aryan: I want to live a healthy life.
आर्यन: मैं स्वस्थ जीवन जीना चाहता हूँ।

Anu: Eat healthy food.
अनु: स्वस्थ भोजन करें।

Aryan: I like junk food.
आर्यन: मुझे जंक फूड पसंद है।

Anu: Avoid it as much as possible.
अनु: जितना हो सके इससे बचें।

Aryan: Should I drink more water?
आर्यन: क्या मुझे ज़्यादा पानी पीना चाहिए?

Anu: Yes, it is very important.
अनु: हाँ, यह बहुत ज़रूरी है।

Aryan: I will change my habits.
आर्यन: मैं अपनी आदतें बदलूँगा।

Anu: Start step by step.
अनु: धीरे-धीरे शुरू करें।

Aryan: That sounds doable.
आर्यन: यह संभव लगता है।

Anu: Stay healthy.
अनु: स्वस्थ रहें।

Conversation 47

Topic: Environment Awareness

Aryan: We should protect the environment.
आर्यन: हमें पर्यावरण की रक्षा करनी चाहिए।

Anu: Yes, it is our responsibility.
अनु: हाँ, यह हमारी ज़िम्मेदारी है।

Aryan: Pollution is increasing.
आर्यन: प्रदूषण बढ़ रहा है।

Anu: We should plant trees.
अनु: हमें पेड़ लगाने चाहिए।

Aryan: And reduce plastic use.
आर्यन: और प्लास्टिक का उपयोग कम करें।

Anu: Exactly.
अनु: बिल्कुल।

Aryan: Small steps matter.
आर्यन: छोटे कदम मायने रखते हैं।

Anu: Awareness is key.
अनु: जागरूकता महत्वपूर्ण है।

Aryan: I will spread awareness.
आर्यन: मैं जागरूकता फैलाऊँगा।

Anu: That is great.
अनु: यह बहुत अच्छा है।

Conversation 48

Topic: Technology in Life

Aryan: Technology makes life easy.
आर्यन: तकनीक जीवन को आसान बनाती है।

Anu: Yes, it saves time.
अनु: हाँ, यह समय बचाती है।

Aryan: I use apps daily.
आर्यन: मैं रोज़ ऐप्स का उपयोग करता हूँ।

Anu: For work or entertainment?
अनु: काम या मनोरंजन के लिए?

Aryan: Both.
आर्यन: दोनों।

Anu: Balance is necessary.
अनु: संतुलन ज़रूरी है।

Aryan: I agree with you.
आर्यन: मैं आपसे सहमत हूँ।

Anu: Use technology wisely.
अनु: तकनीक का समझदारी से उपयोग करें।

Aryan: I will remember this.
आर्यन: मैं यह याद रखूँगा।

Anu: Good.
अनु: अच्छा।

Conversation 49

Topic: Positive Thinking

Aryan: Positive thinking is powerful.
आर्यन: सकारात्मक सोच शक्तिशाली होती है।

Anu: Yes, it changes mindset.
अनु: हाँ, यह सोच बदलती है।

Aryan: I try to stay positive.
आर्यन: मैं सकारात्मक रहने की कोशिश करता हूँ।

Anu: Even in tough times?
अनु: कठिन समय में भी?

Aryan: Yes, though it is hard.
आर्यन: हाँ, हालांकि यह कठिन है।

Anu: Practice makes it easier.
अनु: अभ्यास से यह आसान हो जाता है।

Aryan: I will practice daily.
आर्यन: मैं रोज़ अभ्यास करूँगा।

Anu: That is good.
अनु: यह अच्छा है।

Aryan: Thank you for support.
आर्यन: समर्थन के लिए धन्यवाद।

Anu: Always here.
अनु: हमेशा साथ हूँ।

Conversation 50

Topic: Life Goals

Aryan: Everyone should have life goals.
आर्यन: हर किसी के जीवन में लक्ष्य होने चाहिए।

Anu: Goals give direction.
अनु: लक्ष्य दिशा देते हैं।

Aryan: My goal is to be successful and happy.
आर्यन: मेरा लक्ष्य सफल और खुश रहना है।

Anu: That is a balanced goal.
अनु: यह संतुलित लक्ष्य है।

Aryan: I will work honestly.
आर्यन: मैं ईमानदारी से काम करूँगा।

Anu: Stay patient.
अनु: धैर्य रखें।

Aryan: I believe in myself.
आर्यन: मुझे खुद पर विश्वास है।

Anu: Success will follow.
अनु: सफलता मिलेगी।

Aryan: Thank you for guiding me.
आर्यन: मुझे मार्गदर्शन देने के लिए धन्यवाद।

Anu: My pleasure.
अनु: खुशी हुई।

Conversation 51

Topic: Career Growth Planning (Intermediate)

Aryan: I want to grow in my career, but I feel confused. आर्यन: मैं अपने करियर में आगे बढ़ना चाहता हूँ, लेकिन मुझे उलझन महसूस होती है।

Anu: Career growth needs clear goals and planning. अनु: करियर ग्रोथ के लिए स्पष्ट लक्ष्य और योजना ज़रूरी होती है।

Aryan: How can I set realistic goals? आर्यन: मैं यथार्थवादी लक्ष्य कैसे तय करूँ?

Anu: First, analyze your strengths and weaknesses. अनु: सबसे पहले अपनी ताकत और कमज़ोरियों का विश्लेषण करें।

Aryan: Should I upgrade my skills regularly? आर्यन: क्या मुझे नियमित रूप से अपनी स्किल्स बढ़ानी चाहिए?

Anu: Yes, continuous learning is very important. अनु: हाँ, निरंतर सीखना बहुत महत्वपूर्ण है।

Aryan: Sometimes I fear failure. आर्यन: कभी-कभी मुझे असफलता का डर लगता है।

Anu: Failure teaches valuable lessons. अनु: असफलता महत्वपूर्ण सबक सिखाती है।

Aryan: That makes sense. आर्यन: यह बात सही लगती है।

Anu: Stay focused and consistent. अनु: ध्यान केंद्रित रखें और निरंतर बने रहें।

Conversation 52

Topic: Salary Discussion (Intermediate)

Aryan: I want to discuss my salary with my manager. आर्यन: मैं अपने मैनेजर से सैलरी पर चर्चा करना चाहता हूँ।

Anu: You should prepare before the discussion. अनु: आपको चर्चा से पहले तैयारी करनी चाहिए।

Aryan: What kind of preparation is needed? आर्यन: किस तरह की तैयारी ज़रूरी है?

Anu: Know your performance and market value. अनु: अपने प्रदर्शन और बाज़ार मूल्य को जानिए।

Aryan: Should I speak confidently? आर्यन: क्या मुझे आत्मविश्वास के साथ बात करनी चाहिए?

Anu: Yes, confidence matters a lot. अनु: हाँ, आत्मविश्वास बहुत मायने रखता है।

Aryan: What if my request is rejected? आर्यन: अगर मेरी मांग अस्वीकार हो जाए तो?

Anu: Accept it professionally and ask for feedback. अनु: इसे पेशेवर तरीके से स्वीकार करें और फीडबैक माँगें।

Aryan: That sounds practical. आर्यन: यह व्यावहारिक लगता है।

Anu: Always stay professional. अनु: हमेशा पेशेवर बने रहें।

Conversation 53

Topic: Workplace Communication (Intermediate)

Aryan: Effective communication is difficult sometimes. आर्यन: प्रभावी संवाद कभी-कभी कठिन होता है।

Anu: Good communication avoids misunderstandings. अनु: अच्छा संवाद गलतफहमियों से बचाता है।

Aryan: How can I improve my communication? आर्यन: मैं अपना संवाद कैसे सुधार सकता हूँ?

Anu: Listen carefully before speaking. अनु: बोलने से पहले ध्यान से सुनिए।

Aryan: Should I choose words carefully? आर्यन: क्या मुझे शब्द सोच-समझकर चुनने चाहिए?

Anu: Yes, clarity is very important. अनु: हाँ, स्पष्टता बहुत ज़रूरी है।

Aryan: Sometimes emotions affect my words. आर्यन: कभी-कभी भावनाएँ मेरे शब्दों को प्रभावित करती हैं।

Anu: Stay calm and composed. अनु: शांत और संयमित रहें।

Aryan: I will practice this. आर्यन: मैं इसका अभ्यास करूँगा।

Anu: Practice makes communication strong. अनु: अभ्यास से संवाद मज़बूत होता है।

Conversation 54

Topic: Handling Work Pressure (Intermediate)

Aryan: Work pressure is increasing day by day. आर्यन: काम का दबाव दिन-ब-दिन बढ़ रहा है।

Anu: Pressure is common in professional life. अनु: पेशेवर जीवन में दबाव सामान्य है।

Aryan: How can I manage it better? आर्यन: मैं इसे बेहतर तरीके से कैसे संभालूँ?

Anu: Prioritize tasks properly. अनु: कामों की सही प्राथमिकता तय करें।

Aryan: Should I avoid multitasking? आर्यन: क्या मुझे मल्टीटास्किंग से बचना चाहिए?

Anu: Yes, focus on one task at a time. अनु: हाँ, एक समय में एक ही काम पर ध्यान दें।

Aryan: That reduces stress. आर्यन: इससे तनाव कम होता है।

Anu: Exactly. अनु: बिल्कुल।

Aryan: I will apply this method. आर्यन: मैं इस तरीके को अपनाऊँगा।

Anu: You will feel better. अनु: आपको बेहतर महसूस होगा।

Conversation 55

Topic: Leadership Skills (Advanced)

Aryan: I want to become a good leader. आर्यन: मैं एक अच्छा लीडर बनना चाहता हूँ।

Anu: Leadership is about responsibility, not power. अनु: नेतृत्व शक्ति नहीं, ज़िम्मेदारी के बारे में होता है।

Aryan: How can I develop leadership skills? आर्यन: मैं नेतृत्व कौशल कैसे विकसित कर सकता हूँ?

Anu: Start by leading yourself first. अनु: सबसे पहले खुद को लीड करना शुरू करें।

Aryan: Does communication matter in leadership? आर्यन: क्या नेतृत्व में संवाद मायने रखता है?

Anu: Yes, communication is the backbone of leadership. अनु: हाँ, संवाद नेतृत्व की रीढ़ है।

Aryan: What about decision making? आर्यन: निर्णय लेने के बारे में क्या?

Anu: A leader must take timely decisions. अनु: एक लीडर को समय पर निर्णय लेने चाहिए।

Aryan: I need to improve myself. आर्यन: मुझे खुद को सुधारने की ज़रूरत है।

Anu: Leadership is a continuous journey. अनु: नेतृत्व एक निरंतर यात्रा है।

Conversation 56

Topic: Professional Email Writing (Intermediate)

Rohan: I struggle while writing professional emails. रोहन: मुझे प्रोफेशनल ईमेल लिखने में परेशानी होती है।

Mentor: Professional emails should be clear and polite. मेंटॉर: प्रोफेशनल ईमेल स्पष्ट और विनम्र होने चाहिए।

Rohan: Should I keep the email short? रोहन: क्या मुझे ईमेल छोटा रखना चाहिए?

Mentor: Yes, short and to the point emails work best. मेंटॉर: हाँ, छोटे और सीधे मुद्दे पर आने वाले ईमेल सबसे अच्छे होते हैं।

Rohan: Is greeting important? रोहन: क्या अभिवादन ज़रूरी है?

Mentor: Absolutely, it sets the right tone. मेंटॉर: बिल्कुल, इससे सही माहौल बनता है।

Rohan: I will practice writing daily. रोहन: मैं रोज़ लिखने का अभ्यास करूँगा।

Mentor: Practice improves confidence. मेंटॉर: अभ्यास से आत्मविश्वास बढ़ता है।

Conversation 57

Topic: Giving a Presentation (Advanced)

Neha: I feel nervous before presentations. नेहा: प्रेज़ेंटेशन से पहले मुझे घबराहट होती है।

Trainer: Nervousness is normal. ट्रेनर: घबराहट सामान्य है।

Neha: How can I overcome it? नेहा: मैं इसे कैसे दूर कर सकती हूँ?

Trainer: Prepare well and practice aloud. ट्रेनर: अच्छी तैयारी करें और ज़ोर से अभ्यास करें।

Neha: Should I maintain eye contact? नेहा: क्या मुझे आई कॉन्टैक्ट बनाए रखना चाहिए?

Trainer: Yes, it builds confidence. ट्रेनर: हाँ, इससे आत्मविश्वास बनता है।

Neha: What about body language? नेहा: बॉडी लैंग्वेज का क्या?

Trainer: Positive body language is very important. ट्रेनर: सकारात्मक बॉडी लैंग्वेज बहुत ज़रूरी है।

Neha: I will work on it. नेहा: मैं इस पर काम करूँगी।

Conversation 58

Topic: Handling Team Conflict (Advanced)

Amit: There is conflict in our team. अमित: हमारी टीम में टकराव है।

Manager: Conflict should be handled calmly. मैनेजर: टकराव को शांत तरीके से संभालना चाहिए।

Amit: How can we resolve it? अमित: हम इसे कैसे सुलझा सकते हैं?

Manager: Listen to everyone’s point of view. मैनेजर: सभी के दृष्टिकोण को सुनिए।

Amit: Should we avoid blaming? अमित: क्या हमें दोष देने से बचना चाहिए?

Manager: Yes, focus on solutions. मैनेजर: हाँ, समाधान पर ध्यान दें।

Amit: That will improve teamwork. अमित: इससे टीमवर्क बेहतर होगा।

Manager: Exactly. मैनेजर: बिल्कुल।

Conversation 59

Topic: Decision Making (Advanced)

Karan: I find decision making difficult. करण: मुझे निर्णय लेना कठिन लगता है।

Coach: Decisions require clarity. कोच: निर्णयों के लिए स्पष्टता ज़रूरी है।

Karan: How do I gain clarity? करण: मैं स्पष्टता कैसे पाऊँ?

Coach: Analyze pros and cons. कोच: फायदे और नुकसान का विश्लेषण करें।

Karan: Should I trust my instincts? करण: क्या मुझे अपनी अंतरात्मा पर भरोसा करना चाहिए?

Coach: Yes, but balance it with logic. कोच: हाँ, लेकिन तर्क के साथ संतुलन रखें।

Karan: That makes sense. करण: यह सही लगता है।

Coach: Decisions shape your future. कोच: निर्णय आपका भविष्य बनाते हैं।

Conversation 60

Topic: Confidence Building (Intermediate)

Pooja: I lack confidence while speaking. पूजा: बोलते समय मुझमें आत्मविश्वास की कमी होती है।

Instructor: Confidence comes with practice. इंस्ट्रक्टर: आत्मविश्वास अभ्यास से आता है।

Pooja: How should I practice? पूजा: मुझे कैसे अभ्यास करना चाहिए?

Instructor: Speak in front of a mirror. इंस्ट्रक्टर: आईने के सामने बोलें।

Pooja: Will that help? पूजा: क्या इससे मदद मिलेगी?

Instructor: Yes, it boosts self-awareness. इंस्ट्रक्टर: हाँ, इससे आत्म-जागरूकता बढ़ती है।

Pooja: I will try this. पूजा: मैं यह कोशिश करूँगी।

Instructor: You will improve soon. इंस्ट्रक्टर: आप जल्द ही सुधार करेंगी।

Conversation 61

Topic: Networking Skills (Advanced)

Rahul: Networking feels awkward to me. राहुल: नेटवर्किंग मुझे अजीब लगती है।

Expert: Networking is about building relationships. विशेषज्ञ: नेटवर्किंग रिश्ते बनाने के बारे में है।

Rahul: How should I start? राहुल: मुझे शुरुआत कैसे करनी चाहिए?

Expert: Start with genuine conversation. विशेषज्ञ: सच्ची बातचीत से शुरुआत करें।

Rahul: Should I talk about work only? राहुल: क्या मुझे सिर्फ काम की बात करनी चाहिए?

Expert: No, keep it balanced. विशेषज्ञ: नहीं, संतुलन बनाए रखें।

Rahul: That sounds easier. राहुल: यह आसान लगता है।

Expert: Be yourself. विशेषज्ञ: खुद बने रहें।

Conversation 62

Topic: Work-Life Balance (Intermediate)

Sneha: I feel my work-life balance is poor. स्नेहा: मुझे लगता है मेरा वर्क-लाइफ बैलेंस खराब है।

Counsellor: Balance is essential for health. काउंसलर: संतुलन स्वास्थ्य के लिए ज़रूरी है।

Sneha: How can I improve it? स्नेहा: मैं इसे कैसे सुधारूँ?

Counsellor: Set boundaries for work. काउंसलर: काम के लिए सीमाएँ तय करें।

Sneha: Should I take breaks? स्नेहा: क्या मुझे ब्रेक लेना चाहिए?

Counsellor: Yes, breaks increase productivity. काउंसलर: हाँ, ब्रेक से उत्पादकता बढ़ती है।

Sneha: I will follow this advice. स्नेहा: मैं इस सलाह का पालन करूँगी।

Conversation 63

Topic: Problem Solving at Work (Advanced)

Vikas: We have a serious problem at work. विकास: काम पर एक गंभीर समस्या है।

Senior: Problems need systematic solutions. सीनियर: समस्याओं के लिए व्यवस्थित समाधान चाहिए।

Vikas: Where should we start? विकास: हमें कहाँ से शुरू करना चाहिए?

Senior: Identify the root cause. सीनियर: मूल कारण पहचानें।

Vikas: Should we involve the team? विकास: क्या हमें टीम को शामिल करना चाहिए?

Senior: Yes, collaboration helps. सीनियर: हाँ, सहयोग मदद करता है।

Vikas: That will save time. विकास: इससे समय बचेगा।

Senior: Exactly. सीनियर: बिल्कुल।

Conversation 64

Topic: Public Speaking (Advanced)

Anjali: Public speaking scares me. अंजलि: पब्लिक स्पीकिंग मुझे डराती है।

Coach: Fear reduces with practice. कोच: अभ्यास से डर कम होता है।

Anjali: How can I practice? अंजलि: मैं कैसे अभ्यास कर सकती हूँ?

Coach: Join a speaking group. कोच: किसी स्पीकिंग ग्रुप से जुड़ें।

Anjali: Will that help my fluency? अंजलि: क्या इससे मेरी फ्लुएंसी बढ़ेगी?

Coach: Yes, gradually. कोच: हाँ, धीरे-धीरे।

Anjali: I want to become confident. अंजलि: मैं आत्मविश्वासी बनना चाहती हूँ।

Coach: You will. कोच: आप बनेंगी।

Conversation 65

Topic: Career Transition (Advanced)

Sahil: I am thinking of changing my career. साहिल: मैं करियर बदलने के बारे में सोच रहा हूँ।

Advisor: Career transition needs planning. सलाहकार: करियर बदलाव के लिए योजना चाहिए।

Sahil: I am afraid of risk. साहिल: मुझे जोखिम से डर लगता है।

Advisor: Risk can be managed. सलाहकार: जोखिम को संभाला जा सकता है।

Sahil: How should I prepare? साहिल: मुझे कैसे तैयारी करनी चाहिए?

Advisor: Upgrade skills and research options. सलाहकार: स्किल्स बढ़ाएँ और विकल्पों पर शोध करें।

Sahil: That gives clarity. साहिल: इससे स्पष्टता मिलती है।

Advisor: Move step by step. सलाहकार: कदम-दर-कदम आगे बढ़ें।

Conversation 66

Topic: Client Communication (Advanced)

Meera: I have to speak with an international client today. मीरा: मुझे आज एक अंतरराष्ट्रीय क्लाइंट से बात करनी है।

Senior: Client communication should be clear and respectful. सीनियर: क्लाइंट से बातचीत स्पष्ट और सम्मानजनक होनी चाहिए।

Meera: I am worried about my English. मीरा: मुझे अपनी इंग्लिश को लेकर चिंता है।

Senior: Focus on clarity, not accent. सीनियर: उच्चारण नहीं, स्पष्टता पर ध्यान दें।

Meera: Should I prepare points in advance? मीरा: क्या मुझे पहले से बिंदु तैयार करने चाहिए?

Senior: Yes, preparation builds confidence. सीनियर: हाँ, तैयारी से आत्मविश्वास बढ़ता है।

Meera: What if the client asks difficult questions? मीरा: अगर क्लाइंट मुश्किल सवाल पूछे तो?

Senior: Stay calm and respond politely. सीनियर: शांत रहें और विनम्रता से जवाब दें।

Meera: Can I ask for clarification? मीरा: क्या मैं स्पष्टीकरण माँग सकती हूँ?

Senior: Absolutely, it shows professionalism. सीनियर: बिल्कुल, यह पेशेवर रवैया दिखाता है।

Meera: Thank you, I feel more confident now. मीरा: धन्यवाद, अब मुझे ज़्यादा आत्मविश्वास महसूस हो रहा है।

Senior: You will do well. सीनियर: आप अच्छा करेंगी।

Conversation 67

Topic: Negotiation Skills (Advanced)

Arjun: I have to negotiate terms with a vendor. अर्जुन: मुझे एक वेंडर के साथ शर्तों पर बातचीत करनी है।

Mentor: Negotiation requires patience and strategy. मेंटॉर: नेगोशिएशन के लिए धैर्य और रणनीति चाहिए।

Arjun: I usually agree too quickly. अर्जुन: मैं अक्सर जल्दी सहमत हो जाता हूँ।

Mentor: Do not rush into decisions. मेंटॉर: फैसले में जल्दबाज़ी न करें।

Arjun: How should I put my points? अर्जुन: मुझे अपनी बात कैसे रखनी चाहिए?

Mentor: Be firm but polite. मेंटॉर: दृढ़ रहें लेकिन विनम्र रहें।

Arjun: What if they disagree? अर्जुन: अगर वे असहमत हों तो?

Mentor: Try to find a middle path. मेंटॉर: बीच का रास्ता निकालने की कोशिश करें।

Arjun: That sounds fair. अर्जुन: यह उचित लगता है।

Mentor: Win-win situations work best. मेंटॉर: विन-विन स्थिति सबसे अच्छी होती है।

Arjun: I will keep that in mind. अर्जुन: मैं इसे ध्यान में रखूँगा।

Mentor: Good luck with your negotiation. मेंटॉर: आपकी बातचीत के लिए शुभकामनाएँ।

Conversation 68

Topic: Giving and Receiving Feedback (Advanced)

Ritika: I need to give feedback to my team member. ऋतिका: मुझे अपनी टीम के सदस्य को फीडबैक देना है।

HR: Feedback should be constructive. एचआर: फीडबैक रचनात्मक होना चाहिए।

Ritika: I don't want to hurt feelings. ऋतिका: मैं किसी की भावनाएँ आहत नहीं करना चाहती।

HR: Use polite and positive language. एचआर: विनम्र और सकारात्मक भाषा का प्रयोग करें।

Ritika: Should I mention strengths first? ऋतिका: क्या मुझे पहले खूबियाँ बतानी चाहिए?

HR: Yes, then discuss areas of improvement. एचआर: हाँ, फिर सुधार के क्षेत्रों पर बात करें।

Ritika: How should I receive feedback? ऋतिका: मुझे फीडबैक कैसे स्वीकार करना चाहिए?

HR: With an open mind. एचआर: खुले मन से।

Ritika: That helps personal growth. ऋतिका: इससे व्यक्तिगत विकास होता है।

HR: Exactly. एचआर: बिल्कुल।

Ritika: Thank you for the guidance. ऋतिका: मार्गदर्शन के लिए धन्यवाद।

HR: Anytime. एचआर: कभी भी।

Conversation 69

Topic: Handling Professional Disagreement (Advanced)

Suresh: I disagree with my colleague's opinion. सुरेश: मैं अपने सहकर्मी की राय से असहमत हूँ।

Manager: Disagreement is normal at work. मैनेजर: काम पर असहमति सामान्य है।

Suresh: How can I express it professionally? सुरेश: मैं इसे पेशेवर तरीके से कैसे व्यक्त करूँ?

Manager: Focus on facts, not emotions. मैनेजर: भावनाओं नहीं, तथ्यों पर ध्यान दें।

Suresh: Should I use respectful language? सुरेश: क्या मुझे सम्मानजनक भाषा का प्रयोग करना चाहिए?

Manager: Always. मैनेजर: हमेशा।

Suresh: What if the discussion becomes heated? सुरेश: अगर चर्चा तीखी हो जाए तो?

Manager: Take a pause and calm down. मैनेजर: थोड़ा रुकें और शांत हो जाएँ।

Suresh: That will avoid conflict. सुरेश: इससे टकराव टलेगा।

Manager: Correct. मैनेजर: सही।

Suresh: I will handle it maturely. सुरेश: मैं इसे परिपक्वता से संभालूँगा।

Conversation 70

Topic: Leading a Team (Advanced)

Kavita: I have been promoted to team leader. कविता: मुझे टीम लीडर के रूप में पदोन्नति मिली है।

Director: Congratulations on your promotion. डायरेक्टर: आपकी पदोन्नति पर बधाई।

Kavita: I feel excited but nervous. कविता: मैं उत्साहित भी हूँ और घबराई हुई भी।

Director: That is natural. डायरेक्टर: यह स्वाभाविक है।

Kavita: How can I earn my team's trust? कविता: मैं अपनी टीम का भरोसा कैसे जीतूँ?

Director: Be transparent and supportive. डायरेक्टर: पारदर्शी और सहयोगी रहें।

Kavita: Should I involve them in decisions? कविता: क्या मुझे निर्णयों में उन्हें शामिल करना चाहिए?

Director: Yes, it builds ownership. डायरेक्टर: हाँ, इससे ज़िम्मेदारी की भावना आती है।

Kavita: I want to be a fair leader. कविता: मैं एक निष्पक्ष लीडर बनना चाहती हूँ।

Director: Fairness earns respect. डायरेक्टर: निष्पक्षता से सम्मान मिलता है।

Kavita: Thank you for your advice. कविता: आपकी सलाह के लिए धन्यवाद।

Director: All the best. डायरेक्टर: शुभकामनाएँ।

Conversation 71

Topic: Managing Deadlines (Intermediate–Advanced)

Nitin: I am struggling to meet deadlines. नितिन: मुझे डेडलाइन पूरी करने में परेशानी हो रही है।

Supervisor: Deadlines require planning. सुपरवाइज़र: डेडलाइन के लिए योजना ज़रूरी है।

Nitin: My workload is heavy. नितिन: मेरा काम बहुत ज़्यादा है।

Supervisor: Break tasks into smaller parts. सुपरवाइज़र: काम को छोटे हिस्सों में बाँटें।

Nitin: That seems manageable. नितिन: यह संभालने योग्य लगता है।

Supervisor: Avoid last-minute rush. सुपरवाइज़र: आख़िरी समय की जल्दबाज़ी से बचें।

Nitin: I often procrastinate. नितिन: मैं अक्सर टालमटोल करता हूँ।

Supervisor: Start early to reduce stress. सुपरवाइज़र: तनाव कम करने के लिए जल्दी शुरू करें।

Nitin: I will change my habit. नितिन: मैं अपनी आदत बदलूँगा।

Supervisor: You will see improvement. सुपरवाइज़र: आपको सुधार दिखेगा।

Conversation 72

Topic: Professional Follow-up (Advanced)

Isha: I sent an email but got no response. ईशा: मैंने ईमेल भेजा था लेकिन कोई जवाब नहीं आया।

Manager: You should send a polite follow-up. मैनेजर: आपको विनम्र फॉलो-अप भेजना चाहिए।

Isha: How long should I wait? ईशा: मुझे कितने समय तक इंतज़ार करना चाहिए?

Manager: Three to four working days. मैनेजर: तीन से चार कार्य दिवस।

Isha: What tone should I use? ईशा: मुझे किस तरह का लहजा रखना चाहिए?

Manager: Professional and courteous. मैनेजर: पेशेवर और शिष्ट।

Isha: Should I mention the previous email? ईशा: क्या मुझे पिछले ईमेल का ज़िक्र करना चाहिए?

Manager: Yes, briefly. मैनेजर: हाँ, संक्षेप में।

Isha: That sounds appropriate. ईशा: यह उपयुक्त लगता है।

Manager: Follow-ups show seriousness. मैनेजर: फॉलो-अप गंभीरता दिखाते हैं।

Conversation 73

Topic: Expressing Opinions Confidently (Advanced)

Dev: I hesitate to share my opinion in meetings. देव: मैं मीटिंग में अपनी राय रखने से हिचकिचाता हूँ।

Coach: Your opinion matters. कोच: आपकी राय मायने रखती है।

Dev: What if others disagree? देव: अगर दूसरे असहमत हों तो?

Coach: Respectful disagreement is healthy. कोच: सम्मानजनक असहमति स्वस्थ होती है।

Dev: How can I sound confident? देव: मैं आत्मविश्वासी कैसे लगूँ?

Coach: Speak clearly and calmly. कोच: साफ़ और शांत स्वर में बोलें।

Dev: Should I support my opinion with facts? देव: क्या मुझे अपनी राय तथ्यों से समर्थन देना चाहिए?

Coach: Yes, facts strengthen your point. कोच: हाँ, तथ्य आपकी बात मज़बूत करते हैं।

Dev: I will practice this. देव: मैं इसका अभ्यास करूँगा।

Coach: Confidence grows with use. कोच: उपयोग से आत्मविश्वास बढ़ता है।

Conversation 74

Topic: Cross-Cultural Communication (Advanced)

Ayesha: I work with people from different cultures. आयशा: मैं अलग-अलग संस्कृतियों के लोगों के साथ काम करती हूँ।

Trainer: Cultural awareness is very important. ट्रेनर: सांस्कृतिक जागरूकता बहुत ज़रूरी है।

Ayesha: Sometimes misunderstandings happen. आयशा: कभी-कभी गलतफहमियाँ हो जाती हैं।

Trainer: Be open-minded and respectful. ट्रेनर: खुले विचारों वाले और सम्मानजनक रहें।

Ayesha: Should I learn about their customs? आयशा: क्या मुझे उनकी परंपराओं के बारे में सीखना चाहिए?

Trainer: Yes, it improves collaboration. ट्रेनर: हाँ, इससे सहयोग बेहतर होता है।

Ayesha: Language differences are challenging. आयशा: भाषा का अंतर चुनौतीपूर्ण होता है।

Trainer: Use simple and clear English. ट्रेनर: सरल और स्पष्ट अंग्रेज़ी का उपयोग करें।

Ayesha: That will reduce confusion. आयशा: इससे भ्रम कम होगा।

Trainer: Exactly. ट्रेनर: बिल्कुल।

Conversation 75

Topic: Long-Term Career Vision (Advanced)

Ramesh: I want to plan my career for the next ten years. रमेश: मैं अगले दस वर्षों के लिए अपने करियर की योजना बनाना चाहता हूँ।

Career Coach: Long-term vision gives direction. करियर कोच: दीर्घकालिक दृष्टि दिशा देती है।

Ramesh: How do I start? रमेश: मैं शुरुआत कैसे करूँ?

Career Coach: Identify where you want to be. करियर कोच: तय करें कि आप कहाँ पहुँचना चाहते हैं।

Ramesh: Should I review my plan regularly? रमेश: क्या मुझे अपनी योजना नियमित रूप से देखनी चाहिए?

Career Coach: Yes, goals evolve with time. करियर कोच: हाँ, लक्ष्य समय के साथ बदलते हैं।

Ramesh: What about unexpected changes? रमेश: अचानक होने वाले बदलावों का क्या?

Career Coach: Be flexible and adaptable. करियर कोच: लचीले और अनुकूल बनें।

Ramesh: That gives me confidence. रमेश: इससे मुझे आत्मविश्वास मिलता है।

Career Coach: Your journey will be meaningful. करियर कोच: आपकी यात्रा सार्थक होगी।

Conversation 76

Topic: Strategic Thinking at Work (Advanced)

Rahul: My manager asked me to think strategically about a project. राहुल: मेरे मैनेजर ने मुझे एक प्रोजेक्ट के बारे में रणनीतिक रूप से सोचने को कहा है।

Mentor: Strategic thinking means seeing the bigger picture. मेंटॉर: रणनीतिक सोच का मतलब है बड़े परिदृश्य को देखना।

Rahul: I usually focus only on my tasks. राहुल: मैं आमतौर पर सिर्फ अपने काम पर ध्यान देता हूँ।

Mentor: You should also consider long-term impact. मेंटॉर: आपको दीर्घकालिक प्रभाव पर भी विचार करना चाहिए।

Rahul: How can I develop this skill? राहुल: मैं यह कौशल कैसे विकसित कर सकता हूँ?

Mentor: Ask questions and analyze outcomes. मेंटॉर: सवाल पूछें और परिणामों का विश्लेषण करें।

Rahul: Should I observe senior leaders? राहुल: क्या मुझे वरिष्ठ नेताओं को देखना चाहिए?

Mentor: Yes, learn from their decision-making. मेंटॉर: हाँ, उनके निर्णय लेने के तरीकों से सीखें।

Rahul: This will help me grow professionally. राहुल: इससे मुझे पेशेवर रूप से आगे बढ़ने में मदद मिलेगी।

Mentor: Exactly, strategy sets leaders apart. मेंटॉर: बिल्कुल, रणनीति ही नेताओं को अलग बनाती है।

Conversation 77

Topic: Handling Workplace Crisis (Advanced)

Anjali: Our project is delayed due to technical issues. अंजलि: तकनीकी समस्याओं के कारण हमारा प्रोजेक्ट देर हो गया है।

Project Head: We need to handle this crisis calmly. प्रोजेक्ट हेड: हमें इस संकट को शांत दिमाग से संभालना होगा।

Anjali: The client is very upset. अंजलि: क्लाइंट बहुत नाराज़ है।

Project Head: Communicate honestly with them. प्रोजेक्ट हेड: उनसे ईमानदारी से संवाद करें।

Anjali: Should we promise a new deadline? अंजलि: क्या हमें नई डेडलाइन का वादा करना चाहिए?

Project Head: Only if it is realistic. प्रोजेक्ट हेड: केवल तभी जब वह यथार्थवादी हो।

Anjali: I will inform the team immediately. अंजलि: मैं तुरंत टीम को सूचित करूँगी।

Project Head: Good coordination is crucial now. प्रोजेक्ट हेड: इस समय अच्छा समन्वय बहुत ज़रूरी है।

Anjali: We will recover from this. अंजलि: हम इससे उबर जाएँगे।

Project Head: Yes, challenges make us stronger. प्रोजेक्ट हेड: हाँ, चुनौतियाँ हमें मजबूत बनाती हैं।

Conversation 78

Topic: Ethical Decision Making (Advanced)

Vikram: I am facing an ethical dilemma at work. विक्रम: मैं काम पर एक नैतिक दुविधा का सामना कर रहा हूँ।

Advisor: Ethics should guide every decision. सलाहकार: नैतिकता हर निर्णय का मार्गदर्शन करनी चाहिए।

Vikram: The shortcut seems profitable. विक्रम: शॉर्टकट लाभदायक लग रहा है।

Advisor: But it may harm trust. सलाहकार: लेकिन इससे भरोसा टूट सकता है।

Vikram: Trust is hard to rebuild. विक्रम: भरोसा दोबारा बनाना मुश्किल होता है।

Advisor: Exactly, think long-term. सलाहकार: बिल्कुल, दीर्घकालिक सोचें।

Vikram: I will choose the ethical path. विक्रम: मैं नैतिक रास्ता चुनूँगा।

Advisor: That shows strong character. सलाहकार: यह मजबूत चरित्र दर्शाता है।

Vikram: Peace of mind matters to me. विक्रम: मानसिक शांति मेरे लिए महत्वपूर्ण है।

Advisor: Integrity always pays off. सलाहकार: ईमानदारी हमेशा फल देती है।

Conversation 79

Topic: Persuasion Skills (Advanced)

Neha: I need to persuade stakeholders to accept my proposal. नेहा: मुझे हितधारकों को मेरा प्रस्ताव स्वीकार करने के लिए मनाना है।

Coach: Persuasion is about understanding others. कोच: मनाना दूसरों को समझने से जुड़ा है।

Neha: They are resistant to change. नेहा: वे बदलाव के प्रति विरोधी हैं।

Coach: Address their concerns patiently. कोच: उनकी चिंताओं को धैर्यपूर्वक संबोधित करें।

Neha: Should I highlight benefits? नेहा: क्या मुझे लाभों को उजागर करना चाहिए?

Coach: Yes, connect benefits to their goals. कोच: हाँ, लाभों को उनके लक्ष्यों से जोड़ें।

Neha: Data might help. नेहा: डेटा मदद कर सकता है।

Coach: Facts build credibility. कोच: तथ्य विश्वसनीयता बढ़ाते हैं।

Neha: I feel more prepared now. नेहा: अब मैं ज़्यादा तैयार महसूस कर रही हूँ।

Coach: Confidence persuades people. कोच: आत्मविश्वास लोगों को प्रभावित करता है।

Conversation 80

Topic: Advanced Problem Solving (Advanced)

Sanjay: We have a complex problem in operations. संजय: ऑपरेशंस में हमें एक जटिल समस्या का सामना करना पड़ रहा है।

Consultant: Let us define the problem clearly. कंसल्टेंट: पहले समस्या को स्पष्ट रूप से परिभाषित करें।

Sanjay: Multiple departments are involved. संजय: कई विभाग शामिल हैं।

Consultant: Collaboration is essential. कंसल्टेंट: सहयोग अनिवार्य है।

Sanjay: How do we find the root cause? संजय: हम मूल कारण कैसे खोजें?

Consultant: Analyze data and processes. कंसल्टेंट: डेटा और प्रक्रियाओं का विश्लेषण करें।

Sanjay: Should we test solutions? संजय: क्या हमें समाधानों का परीक्षण करना चाहिए?

Consultant: Yes, pilot before full implementation. कंसल्टेंट: हाँ, पूर्ण कार्यान्वयन से पहले पायलट करें।

Sanjay: That reduces risk. संजय: इससे जोखिम कम होता है।

Consultant: Smart solutions are systematic. कंसल्टेंट: समझदार समाधान व्यवस्थित होते हैं।

Conversation 81

Topic: Influencing Without Authority (Advanced)

Priya: I need cooperation from teams I do not manage. प्रिया: मुझे उन टीमों से सहयोग चाहिए जिन्हें मैं मैनेज नहीं करती।

Leader: Influence does not require authority. लीडर: प्रभाव डालने के लिए अधिकार ज़रूरी नहीं होता।

Priya: Then what matters most? प्रिया: फिर सबसे ज़रूरी क्या है?

Leader: Trust and communication. लीडर: भरोसा और संवाद।

Priya: How can I build trust? प्रिया: मैं भरोसा कैसे बनाऊँ?

Leader: Be consistent and reliable. लीडर: निरंतर और भरोसेमंद रहें।

Priya: Should I listen more? प्रिया: क्या मुझे ज़्यादा सुनना चाहिए?

Leader: Listening creates influence. लीडर: सुनना प्रभाव पैदा करता है।

Priya: I will change my approach. प्रिया: मैं अपना तरीका बदलूँगी।

Leader: That will bring results. लीडर: इससे परिणाम मिलेंगे।

Conversation 82

Topic: Advanced Negotiation Strategy (Advanced)

Karan: This negotiation is high-stakes. करण: यह बातचीत बहुत महत्वपूर्ण है।

Negotiation Expert: Preparation is everything. नेगोशिएशन एक्सपर्ट: तैयारी ही सब कुछ है।

Karan: I have studied their position. करण: मैंने उनकी स्थिति का अध्ययन किया है।

Negotiation Expert: Also know your limits. नेगोशिएशन एक्सपर्ट: अपनी सीमाएँ भी जानें।

Karan: Should I reveal my bottom line? करण: क्या मुझे अपनी अंतिम सीमा बतानी चाहिए?

Negotiation Expert: Not too early. नेगोशिएशन एक्सपर्ट: बहुत जल्दी नहीं।

Karan: Timing matters. करण: समय महत्वपूर्ण है।

Negotiation Expert: Exactly, strategy is timing. नेगोशिएशन एक्सपर्ट: बिल्कुल, रणनीति ही समय है।

Karan: I feel more in control. करण: मुझे ज़्यादा नियंत्रण महसूस हो रहा है।

Negotiation Expert: Control comes from preparation. नेगोशिएशन एक्सपर्ट: नियंत्रण तैयारी से आता है।

Conversation 83

Topic: Handling Failure Positively (Advanced)

Pooja: My proposal was rejected. पूजा: मेरा प्रस्ताव अस्वीकार कर दिया गया।

Mentor: Failure is part of growth. मेंटॉर: असफलता विकास का हिस्सा है।

Pooja: It feels disappointing. पूजा: यह निराशाजनक लगता है।

Mentor: That feeling is valid. मेंटॉर: वह भावना स्वाभाविक है।

Pooja: How should I move forward? पूजा: मुझे आगे कैसे बढ़ना चाहिए?

Mentor: Learn from feedback. मेंटॉर: फीडबैक से सीखें।

Pooja: Should I try again? पूजा: क्या मुझे फिर से कोशिश करनी चाहिए?

Mentor: Absolutely. मेंटॉर: बिल्कुल।

Pooja: I will improve my approach. पूजा: मैं अपना तरीका सुधारूँगी।

Mentor: Resilience defines success. मेंटॉर: लचीलापन ही सफलता तय करता है।

Conversation 84

Topic: Visionary Leadership (Advanced)

Arvind: I want to become a visionary leader. अरविंद: मैं एक दूरदर्शी नेता बनना चाहता हूँ।

Leadership Coach: Vision starts with purpose. लीडरशिप कोच: दृष्टि उद्देश्य से शुरू होती है।

Arvind: How do I define my purpose? अरविंद: मैं अपना उद्देश्य कैसे तय करूँ?

Leadership Coach: Reflect on impact you want to create. लीडरशिप कोच: उस प्रभाव पर विचार करें जो आप बनाना चाहते हैं।

Arvind: Should I communicate vision clearly? अरविंद: क्या मुझे दृष्टि को स्पष्ट रूप से साझा करना चाहिए?

Leadership Coach: Clarity inspires people. लीडरशिप कोच: स्पष्टता लोगों को प्रेरित करती है।

Arvind: Vision needs action too. अरविंद: दृष्टि को क्रिया की भी ज़रूरत होती है।

Leadership Coach: Yes, execution matters. लीडरशिप कोच: हाँ, क्रियान्वयन महत्वपूर्ण है।

Arvind: I will lead with purpose. अरविंद: मैं उद्देश्य के साथ नेतृत्व करूँगा।

Leadership Coach: That creates legacy. लीडरशिप कोच: यही विरासत बनाता है।

Conversation 85

Topic: Personal Brand Building (Advanced)

Simran: I want to build a strong personal brand. सिमरन: मैं एक मजबूत पर्सनल ब्रांड बनाना चाहती हूँ।

Brand Mentor: Personal brand reflects your values. ब्रांड मेंटर: पर्सनल ब्रांड आपके मूल्यों को दर्शाता है।

Simran: Is it only about social media? सिमरन: क्या यह सिर्फ सोशल मीडिया तक सीमित है?

Brand Mentor: No, it includes behavior and expertise. ब्रांड मेंटर: नहीं, इसमें व्यवहार और विशेषज्ञता भी शामिल है।

Simran: Consistency is important? सिमरन: क्या निरंतरता ज़रूरी है?

Brand Mentor: Very important. ब्रांड मेंटर: बहुत ज़रूरी।

Simran: How long does it take? सिमरन: इसमें कितना समय लगता है?

Brand Mentor: It is a long-term effort. ब्रांड मेंटर: यह एक दीर्घकालिक प्रयास है।

Simran: I am ready to invest time. सिमरन: मैं समय लगाने के लिए तैयार हूँ।

Brand Mentor: Your brand will speak for you. ब्रांड मेंटर: आपका ब्रांड आपके लिए बोलेगा।

Conversation 86

Topic: Boardroom Discussion (Executive Level)

Mr. Sharma: Let’s discuss our quarterly strategy for expansion. श्री शर्मा: चलिए हमारी तिमाही विस्तार रणनीति पर चर्चा करते हैं।

Ms. Roy: The sales data shows growth in certain regions. सुश्री रॉय: बिक्री डेटा कुछ क्षेत्रों में वृद्धि दिखाता है।

Mr. Sharma: How can we leverage this trend? श्री शर्मा: हम इस रुझान का लाभ कैसे उठा सकते हैं?

Ms. Roy: By increasing investment in marketing. सुश्री रॉय: मार्केटिंग में निवेश बढ़ाकर।

Mr. Sharma: What about operational costs? श्री शर्मा: ऑपरेशनल लागत का क्या?

Mr. Gupta: We can optimize supply chain efficiency. श्री गुप्ता: हम सप्लाई चैन की दक्षता को बेहतर कर सकते हैं।

Ms. Roy: This would improve profit margins. सुश्री रॉय: इससे लाभ मार्जिन बढ़ेंगे।

Mr. Sharma: Let’s present this plan to the board next week. श्री शर्मा: अगले सप्ताह इसे बोर्ड के सामने प्रस्तुत करें।

Mr. Gupta: Agreed, I will prepare the slides. श्री गुप्ता: सहमति है, मैं स्लाइड तैयार करूँगा।

Ms. Roy: We should also anticipate potential challenges. सुश्री रॉय: हमें संभावित चुनौतियों का अनुमान भी लगाना चाहिए।

Mr. Sharma: Excellent, let’s proceed accordingly. श्री शर्मा: बहुत अच्छे, आइए इसी अनुसार आगे बढ़ें।

Conversation 87

Topic: Global Client Call (Executive Level)

Rina: Good morning, Mr. Lee. How are you today? रीना: गुड मॉर्निंग, श्री ली। आप आज कैसे हैं?

Mr. Lee: Good morning, Rina. I am well, thank you. श्री ली: गुड मॉर्निंग, रीना। मैं ठीक हूँ, धन्यवाद।

Rina: We would like to discuss the new project proposal. रीना: हम नए प्रोजेक्ट प्रस्ताव पर चर्चा करना चाहेंगे।

Mr. Lee: Sure, please walk me through the details. श्री ली: ज़रूर, कृपया विवरण बताइए।

Rina: The project focuses on streamlining your supply chain. रीना: यह प्रोजेक्ट आपकी सप्लाई चैन को सुव्यवस्थित करने पर केंद्रित है।

Mr. Lee: That sounds promising. What is the timeline? श्री ली: यह आशाजनक लगता है। समयसीमा क्या है?

Rina: We aim to complete the first phase in six months. रीना: हम पहले चरण को छह महीनों में पूरा करने का लक्ष्य रखते हैं।

Mr. Lee: Are there any potential risks? श्री ली: क्या कोई संभावित जोखिम हैं?

Rina: We have identified key risks and mitigation plans. रीना: हमने मुख्य जोखिम और उनका समाधान निर्धारित किया है।

Mr. Lee: Excellent. Let's schedule a follow-up next week. श्री ली: शानदार। चलिए अगले सप्ताह फॉलो-अप शेड्यूल करते हैं।

Rina: Sure, I will send the calendar invite. रीना: ज़रूर, मैं कैलेंडर इनवाइट भेज दूँगी।

Mr. Lee: Thank you, Rina. Looking forward to it. श्री ली: धन्यवाद, रीना। इसके लिए उत्सुक हूँ।

Conversation 88

Topic: Diplomatic Negotiation (Executive Level)

Anand: We need a solution that satisfies both parties. आनंद: हमें ऐसा समाधान चाहिए जो दोनों पक्षों को संतुष्ट करे।

Ms. Kapoor: Agreed, compromise is essential. सुश्री कपूर: सहमत, समझौता आवश्यक है।

Anand: How do we handle conflicting interests? आनंद: हम विरोधी हितों को कैसे संभालें?

Ms. Kapoor: Identify common goals first. सुश्री कपूर: पहले साझा लक्ष्य पहचानें।

Anand: That can guide our discussion. आनंद: यह हमारी चर्चा का मार्गदर्शन कर सकता है।

Ms. Kapoor: Use clear, respectful language. सुश्री कपूर: स्पष्ट और सम्मानजनक भाषा का प्रयोग करें।

Anand: Should we involve a neutral mediator? आनंद: क्या हमें एक तटस्थ मध्यस्थ शामिल करना चाहिए?

Ms. Kapoor: It may help maintain objectivity. सुश्री कपूर: यह वस्तुनिष्ठता बनाए रखने में मदद कर सकता है।

Anand: I will draft a proposal considering both sides. आनंद: मैं दोनों पक्षों को ध्यान में रखकर प्रस्ताव तैयार करूँगा।

Ms. Kapoor: Excellent. This approach ensures long-term collaboration. सुश्री कपूर: शानदार। यह दृष्टिकोण दीर्घकालिक सहयोग सुनिश्चित करता है।

Conversation 89

Topic: Mentoring a Junior Employee (Executive Level)

Rakesh: I need guidance on managing my first client independently. राकेश: मुझे अपना पहला क्लाइंट स्वतंत्र रूप से संभालने में मार्गदर्शन चाहिए।

Mentor: Let’s discuss your approach step by step. मेंटॉर: आइए हम आपके दृष्टिकोण को कदम दर कदम चर्चा करें।

Rakesh: I want to ensure I don’t make mistakes. राकेश: मैं सुनिश्चित करना चाहता हूँ कि मैं गलतियाँ न करूँ।

Mentor: Preparation and communication are key. मेंटॉर: तैयारी और संवाद मुख्य हैं।

Rakesh: Should I document the discussion points? राकेश: क्या मुझे चर्चा के बिंदु दस्तावेज़ित करने चाहिए?

Mentor: Absolutely, it helps in follow-up. मेंटॉर: बिल्कुल, इससे फॉलो-अप में मदद मिलती है।

Rakesh: How do I handle client objections? राकेश: मैं क्लाइंट की आपत्तियों को कैसे संभालूँ?

Mentor: Listen carefully and provide logical solutions. मेंटॉर: ध्यान से सुनें और तार्किक समाधान दें।

Rakesh: I feel more confident after your guidance. राकेश: आपकी मार्गदर्शन के बाद मुझे ज़्यादा आत्मविश्वास महसूस हो रहा है।

Mentor: You will excel if you apply these principles. मेंटॉर: यदि आप इन सिद्धांतों को लागू करेंगे तो आप उत्कृष्ट करेंगे।

Conversation 90

Topic: Legacy Thinking in Leadership (Executive Level)

Anil: I want my work to create a lasting impact. अनिल: मैं चाहता हूँ कि मेरा काम स्थायी प्रभाव बनाए।

Leadership Coach: Legacy thinking focuses on long-term influence. लीडरशिप कोच: विरासत सोच दीर्घकालिक प्रभाव पर केंद्रित होती है।

Anil: How do I start building this mindset? अनिल: मैं इस मानसिकता को कैसे विकसित करूँ?

Leadership Coach: Begin with vision and purpose. लीडरशिप कोच: दृष्टि और उद्देश्य से शुरुआत करें।

Anil: Should I involve the team in this vision? अनिल: क्या मुझे टीम को इस दृष्टि में शामिल करना चाहिए?

Leadership Coach: Yes, collective commitment strengthens legacy. लीडरशिप कोच: हाँ, सामूहिक प्रतिबद्धता विरासत को मजबूत बनाती है।

Anil: How do I measure long-term impact? अनिल: मैं दीर्घकालिक प्रभाव कैसे मापूँ?

Leadership Coach: Evaluate outcomes and influence over time. लीडरशिप कोच: समय के साथ परिणामों और प्रभाव का मूल्यांकन करें।

Anil: This approach makes my leadership meaningful. अनिल: यह दृष्टिकोण मेरे नेतृत्व को सार्थक बनाता है।

Leadership Coach: Exactly, purpose-driven leadership leaves a legacy. लीडरशिप कोच: बिल्कुल, उद्देश्य-प्रधान नेतृत्व विरासत छोड़ता है।

Chapter 5: Listening Skills Development

In this chapter, we will explore various techniques and strategies to enhance your listening skills. Effective listening is a crucial skill in both personal and professional settings, as it allows you to comprehend information accurately, understand others' perspectives, and establish meaningful connections. We will delve into active listening techniques, note-taking strategies, and comprehension practice to help you become a proficient listener.

5.1 Active Listening Techniques:

Active listening involves fully engaging with the speaker and paying attention to both their verbal and non-verbal cues. Here are some techniques to develop active listening skills:

1. **Maintain Eye Contact: Maintaining eye contact with the speaker demonstrates your attentiveness and interest in what they are saying.**

   Example: During a conversation with your colleague, make an effort to maintain eye contact to show that you value their input and are actively listening.

2. **Use Open Body Language: Position your body in a way that is open and receptive, such as facing the speaker directly, uncrossing your arms, and leaning slightly forward. This conveys your willingness to listen and encourages the speaker to share more.**

   Example: When attending a conference or a lecture, sit upright, face the speaker, and keep your arms relaxed by your side to signal that you are actively engaged.

3. **Practice Reflective Listening: Reflective listening involves paraphrasing or summarizing the speaker's words to ensure understanding and to show that you are actively processing the information.**

Example: After your friend shares a personal story, respond by saying, "If I understand correctly, you felt frustrated because your efforts weren't recognized. Is that right?" This demonstrates that you have been actively listening and trying to grasp the key details.

4. **Avoid Interrupting: Allow the speaker to express their thoughts fully before responding or asking questions. Interrupting can disrupt the flow of conversation and hinder comprehension.**

   Example: When participating in a team meeting, let your colleagues finish their statements before contributing your own thoughts or ideas.

5.2 Note-taking Strategies:

Taking effective notes can significantly enhance your comprehension and retention of information. Here are some note-taking strategies to improve your listening skills:

1. **Use Abbreviations and Symbols: Develop a system of abbreviations and symbols to quickly jot down key points and ideas. This allows you to capture information efficiently without falling behind.**

   Example: Instead of writing the whole word "information," you can use the abbreviation "info" or the symbol "i" to save time and space in your notes.

2. **Organize Information: Create a clear structure for your notes by using headings, bullet points, numbering, and indentation. This organization helps you visualize the relationships between different ideas and facilitates later review.**

   Example: If you are summarizing a lecture on environmental issues, you can use headings like "Climate Change," "Renewable Energy," and "Sustainable Practices" to categorize your notes.

3. **Highlight Key Points: Highlight or underline important concepts, definitions, and examples in your notes. This visual emphasis draws your attention to critical information and aids in later review and revision.**

   Example: When listening to a guest speaker, highlight the main ideas or memorable quotes that capture the essence of their message.

4. **Create Mind Maps or Diagrams: For more visual learners, consider using mind maps or diagrams to represent connections between ideas and concepts. This method helps to structure your thoughts and enhances understanding.**

   Example: When taking notes during a brainstorming session, use a mind map to visually illustrate the relationships between different ideas.

5.3 Comprehension Practice:

To improve your listening comprehension, regular practice is essential. Engage in activities that challenge your understanding and provide opportunities to sharpen your listening skills:

1. **TED Talks or Podcasts: Listen to TED Talks or podcasts on various topics of interest. Focus on understanding the main points, supporting details, and the speaker's tone and delivery.**

   Example: Choose a TED Talk or podcast episode related to technology and take notes on the speaker's main arguments, examples, and conclusions.

2. **Language Learning Exercises: If you are learning a new language, engage in listening exercises that include dialogues, interviews, or recorded conversations. Practice understanding the spoken language and note down key vocabulary or phrases.**

   Example: Listen to a dialogue between two native speakers in the language you are learning and write down the main ideas or important vocabulary that you hear.

3. **Group Discussions: Participate in group discussions where active listening is crucial. Practice listening to others' perspectives, asking clarifying questions, and contributing thoughtfully to the conversation.**

   Example: Engage in a debate club or join a book club where you can actively listen to diverse viewpoints and express your thoughts based on what you have understood.

   By applying active listening techniques, utilizing effective note-taking strategies, and engaging in comprehension practice, you can enhance your listening skills and become a more attentive and perceptive listener. These

skills will not only benefit your personal relationships but also prove invaluable in academic and professional settings.

Chapter 6: Speaking Practice and Fluency

In this chapter, we will explore various techniques and activities to help you improve your speaking skills and develop fluency in conversation. Effective speaking skills are essential for clear communication, expressing ideas confidently, and building rapport with others. We will cover conversation starters, role-plays and dialogues, as well as debates and discussions to enhance your speaking abilities.

6.1 Conversation Starters:

Conversation starters are prompts or questions that initiate dialogue and engage others in conversation. They are a great way to practice speaking in various social settings. Here are some examples of conversation starters:

1. **Current Events: "What are your thoughts on the recent developments in [current event]?"**

   Example response: "I find the advancements in renewable energy fascinating. It's great to see more countries investing in sustainable practices."

2. **Hobbies and Interests: "What hobbies or activities do you enjoy in your free time?"**

   Example response: "I love playing the guitar. It's a great way for me to unwind and express my creativity."

3. **Travel Experiences: "Have you ever been on a memorable trip? Where did you go, and what made it special?"**

   Example response: "I recently visited Japan, and it was an incredible experience. The culture, food, and historical sites were absolutely captivating."

4. **Books or Movies: "Do you have a favorite book or movie? What do you like about it?"**

   Example response: "One of my favorite books is 'To Kill a Mockingbird.' It tackles important themes of social justice and prejudice, and the characters are so well-developed."

5. **Personal Goals: "What are some goals you have set for yourself? How do you plan to achieve them?"**

   Example response: "One of my goals is to learn a new language. I've started taking classes and practicing with native speakers to improve my language skills."

6.2 Role-plays and Dialogues:

Role-plays and dialogues provide opportunities to simulate real-life conversations and practice specific scenarios. They allow you to develop your speaking skills by adopting different roles and engaging in interactive exchanges. Here are a few examples:

1. **Job Interview: Practice a mock job interview with a friend or classmate, taking turns playing the interviewer and interviewee. Focus on presenting your skills, answering questions confidently, and highlighting your qualifications.**

   Example dialogue: Interviewer: "Tell me about your previous work experience." Interviewee: "I have five years of experience in marketing, where I successfully implemented digital marketing campaigns that resulted in a 20% increase in website traffic."

2. **Restaurant Ordering: Pretend to be a customer ordering food at a restaurant while your partner plays the role of the waiter. Practice ordering dishes, asking questions about the menu, and making special requests.**

   Example dialogue: Customer: "I'd like to order the chicken curry, please. Can you make it spicy?" Waiter: "Certainly, we can make it spicy for you. Anything else you would like to order?"

3. **Customer Service Interaction: Act out a customer service scenario, where one person plays the dissatisfied customer and the other plays the customer service representative. Focus on active listening, problem-solving, and maintaining a friendly tone.**

   Example dialogue: Customer: "I received a defective product. I would like to return it and get a refund." Customer Service Representative: "I apologize for the inconvenience. We will gladly process your return and issue a refund. Could you please provide the order number?"

6.3 Debates and Discussions:

Debates and discussions provide a platform for expressing and defending your opinions on various topics. They help sharpen your speaking skills, logical reasoning, and ability to articulate your thoughts effectively. Here's how to engage in debates and discussions:

1. **Select a Topic: Choose a topic of interest or relevance to discuss. It could be a social issue, a current event, or a controversial subject.**

   Example topic: "Should cell phones be allowed in schools?"

2. **Present Arguments: Take turns presenting arguments supporting your stance on the topic. Use facts, examples, and logical reasoning to support your points.**

   Example argument (supporting cell phones in schools): "Cell phones can be valuable educational tools. They provide instant access to information, allow for collaborative learning through online platforms, and prepare students for the digital world they will enter upon graduation."

3. **Counter Arguments: Respond to each other's arguments by offering counterpoints or alternative perspectives. Practice active listening and respectful rebuttals.**

   Example counter argument: "While cell phones can have educational benefits, they can also be distracting. Allowing cell phones in schools might lead to students being more engaged with their devices than with their studies."

4. **Seek Consensus or Agree to Disagree: After a thorough discussion, aim to find common ground or acknowledge differing opinions. Practice respectful disagreement and the art of concluding a discussion.**

   Example consensus: "While we may not fully agree on whether cell phones should be allowed in schools, we can both recognize the importance of finding a balance between utilizing technology for educational purposes and managing potential distractions."

   By engaging in conversation starters, role-plays and dialogues, as well as debates and discussions, you can actively practice your speaking skills, improve your fluency, and enhance your ability to express your thoughts

and ideas confidently. These activities will help you become a more effective communicator in both personal and professional settings.

Chapter 7: Overcoming Common Challenges

In this chapter, we will address common challenges that individuals face when it comes to speaking skills and provide strategies to overcome them. These challenges include nervousness and anxiety, pronunciation difficulties, and vocabulary and word choice issues. By understanding these challenges and implementing effective techniques, you can develop greater confidence and proficiency in your speaking abilities.

7.1 Nervousness and Anxiety:

Nervousness and anxiety can significantly impact your speaking skills and hinder effective communication. Here are some strategies to overcome these challenges:

1. **Prepare and Practice: Proper preparation is key to reducing nervousness. Familiarize yourself with the topic or content you will be speaking about, and practice delivering your speech or presentation multiple times. The more prepared you are, the more confident you will feel.**
2. **Deep Breathing and Relaxation Techniques: Before speaking, take a few moments to engage in deep breathing exercises to calm your nerves. Inhale deeply through your nose, hold the breath for a few seconds, and exhale slowly through your mouth. Additionally, practicing relaxation techniques, such as progressive muscle relaxation or mindfulness, can help alleviate anxiety.**
3. **Visualize Success: Visualize yourself speaking confidently and successfully. Imagine the positive outcome of your speaking engagement, which can help boost your self-assurance and reduce anxiety.**
4. **Start with Small Steps: Begin by speaking in front of a small audience or in more informal settings. Gradually increase the complexity and size of your speaking engagements as you gain confidence. This progressive approach allows you to build your skills and comfort level over time.**

7.2 Pronunciation Difficulties:

Pronunciation difficulties can affect the clarity and understanding of your spoken language. Here are some strategies to improve your pronunciation:

1. **Listen and Imitate: Listen to native speakers or proficient speakers of the language you are learning. Pay close attention to their pronunciation, intonation, and rhythm. Try to imitate their speech patterns and sounds to develop a more accurate pronunciation.**
2. **Practice Pronunciation Exercises: Engage in pronunciation exercises specifically designed to target challenging sounds or phonetic patterns. Repeat these exercises regularly to train your mouth muscles and improve your articulation.**
3. **Use Pronunciation Resources: Utilize pronunciation resources, such as online tutorials, language learning apps, or pronunciation dictionaries, that provide audio samples and guidance on correct pronunciation. Practice alongside these resources to enhance your skills.**
4. **Seek Feedback: Ask native speakers or language instructors to provide feedback on your pronunciation. They can point out specific areas for improvement and offer guidance on how to correct pronunciation errors.**

7.3 Vocabulary and Word Choice:

Expanding your vocabulary and choosing the right words for effective communication can be challenging. Here are strategies to enhance your vocabulary and word choice:

1. **Read Widely: Read books, articles, and other written materials on a variety of topics. Exposure to different writing styles and genres exposes you to new vocabulary and helps you understand how words are used in different contexts.**
2. **Learn Vocabulary in Context: Instead of solely memorizing individual words, learn new vocabulary in the context of sentences or phrases. This approach helps you understand how words are used and their appropriate meanings.**
3. **Use Flashcards or Vocabulary Apps: Create flashcards or use vocabulary apps to practice and reinforce new words. Include definitions, synonyms, and example sentences to enhance your understanding and usage.**

4. **Contextualize Word Usage: Pay attention to how words are used in different contexts and register. Consider the tone, formality, and appropriateness of words in different situations. Practice using words in sentences to solidify your understanding and word choice skills.**

5. **Engage in Conversations and Discussions: Actively participate in conversations and discussions to practice using new vocabulary. Seek opportunities to apply newly learned words and phrases in meaningful and authentic interactions.**

By implementing strategies to overcome nervousness and anxiety, improve pronunciation, and enhance vocabulary and word choice, you can overcome common challenges in speaking. With consistent practice and determination, you will develop greater confidence, fluency, and precision in your spoken communication.

Chapter 8: Enhancing Non-Verbal Communication

In this chapter, we will explore the importance of non-verbal communication and provide strategies to enhance your non-verbal skills. Non-verbal communication, including body language, facial expressions, and paralinguistic features, plays a vital role in conveying messages effectively and establishing strong connections with others. We will delve into body language and gestures, facial expressions and eye contact, as well as paralinguistic features, and provide examples to help you improve your non-verbal communication skills.

8.1 Body Language and Gestures:

Body language and gestures can communicate messages and emotions without using words. Here are some strategies to enhance your body language and gestures:

1. **Posture: Maintain an upright and open posture to convey confidence and attentiveness. Avoid slouching or crossing your arms, as this can create a barrier between you and others.**

   Example: When giving a presentation, stand tall with your shoulders back and maintain an open stance to engage your audience.

2. **Hand Gestures: Use hand gestures to emphasize key points and add visual cues to your speech. However, ensure that your gestures are natural and purposeful, not excessive or distracting.**

   Example: When explaining a process, use your hands to demonstrate the steps involved, making it easier for others to follow along.

3. **Mirroring: Practice mirroring the body language of the person you are interacting with to establish rapport. Subtly imitate their gestures and postures, showing that you are engaged and attentive.**

   Example: During a conversation, if the other person leans forward or nods, you can mirror their behaviour to create a sense of connection and understanding.

4. **Personal Space: Respect personal space boundaries by maintaining an appropriate distance between yourself and others. Different cultures may have different norms regarding personal space, so be mindful of cultural differences.**

   Example: When engaging in a conversation, maintain a comfortable distance that allows both parties to feel at ease, neither too close nor too far apart.

8.2 Facial Expressions and Eye Contact:

Facial expressions and eye contact convey emotions and indicate active engagement in a conversation. Here are strategies to enhance facial expressions and eye contact:

1. **Smile: Smiling is a universal gesture that portrays warmth, friendliness, and approachability. Use a genuine smile to create a positive and welcoming atmosphere.**

   Example: When meeting someone for the first time, offer a warm smile to make them feel comfortable and at ease.

2. **Eye Contact: Maintain appropriate eye contact to demonstrate attentiveness and interest in the conversation. However, be mindful not to stare excessively, as it may make others uncomfortable.**

   Example: When listening to someone speak, maintain eye contact to show that you are actively engaged and focused on their words.

3. **Facial Expressions: Use facial expressions to convey emotions and indicate understanding. Vary your facial expressions based on the content and context of the conversation.**

   Example: When expressing empathy, let your facial expression reflect concern and understanding, such as nodding and maintaining a compassionate gaze.

4. **Micro expressions: Pay attention to micro expressions, which are fleeting facial expressions that reveal underlying emotions. They can provide valuable insights into others' thoughts and feelings.**

   Example: During a negotiation, observe micro expressions to gauge the other party's reactions and adjust your approach accordingly.

8.3 Paralinguistic Features:

Paralinguistic features refer to elements of speech beyond words, such as tone, pitch, volume, and pausing. They greatly influence the way your message is interpreted. Here are strategies to enhance your paralinguistic features:

1. **Tone and Intonation: Vary your tone and intonation to convey meaning and emotion. Use a confident tone for assertiveness, a warm tone for friendliness, and a calm tone for reassurance.**

   Example: When delivering good news, use an upbeat and positive tone to enhance the impact of your message.

2. **Volume and Projection: Adjust your volume and projection based on the situation and the size of the audience. Speak clearly and ensure your voice carries to all listeners.**

   Example: When speaking in a large meeting room, project your voice to reach everyone without shouting or straining.

3. **Pausing and Pacing: Use strategic pauses and pacing to emphasize key points, allow for processing, and maintain a steady flow of speech. Avoid speaking too fast or too slow, finding a balanced rhythm.**

   Example: During a presentation, pause before delivering an important statistic or a thought-provoking statement to allow the audience to absorb the information.

4. **Emphasis and Stress: Emphasize certain words or phrases through stress and intonation to highlight their significance. This helps to convey meaning and capture attention.**

   Example: When presenting a solution, emphasize the benefits and advantages to highlight their value and appeal.

   By paying attention to your body language, facial expressions, eye contact, and paralinguistic features, you can enhance your non-verbal communication skills. Practice these techniques in various social and professional interactions to convey your messages effectively, establish connections, and foster positive relationships.

Chapter 9 : Commonly used idioms and phrases with examples:

1. **A piece of cake: This math problem is a piece of cake.**
2. **Actions speak louder than words: Don't just apologize; show it through your actions.**
3. **All ears: I'm all ears, tell me what happened.**
4. **A penny for your thoughts: You seem lost in thought. A penny for your thoughts?**
5. **Barking up the wrong tree: If you think I took your book, you're barking up the wrong tree.**
6. **Beat around the bush: Stop beating around the bush and tell me the truth.**
7. **Bite the bullet: It's a tough decision, but we have to bite the bullet and face the consequences.**
8. **Break a leg: Good luck on your performance! Break a leg!**
9. **Call it a day: We've been working all day. Let's call it a day and continue tomorrow.**
10. **Catch someone's eye: Her stunning dress caught everyone's eye at the party.**
11. **Costs an arm and a leg: Buying a new car can cost an arm and a leg.**
12. **Cross your fingers: I'm crossing my fingers for your success.**
13. **Cry over spilled milk: Don't cry over spilled milk; learn from your mistakes and move on.**
14. **Cut corners: If you cut corners, you'll compromise the quality of your work.**
15. **Down to earth: Despite his success, he remains down to earth and humble.**
16. **Every cloud has a silver lining: Losing the job was tough, but every cloud has a silver lining.**

17. **Face the music: You made a mistake, now it's time to face the music.**
18. **Fish out of water: In a new school, I felt like a fish out of water.**
19. **Get a taste of your own medicine: He's always teasing others, but now he's getting a taste of his own medicine.**
20. **Get cold feet: I was planning to skydive, but I got cold feet at the last moment.**
21. **Get the hang of it: It takes time, but you'll get the hang of it eventually.**
22. **Go the extra mile: If you want to succeed, you have to go the extra mile.**
23. **Hit the nail on the head: He hit the nail on the head with his analysis of the situation.**
24. **In a nutshell: In a nutshell, the project was a success.**
25. **It's raining cats and dogs: Look at that rain! It's raining cats and dogs.**
26. **Jump on the bandwagon: Everyone is using that new app; I think I'll jump on the bandwagon too.**
27. **Keep your chin up: Stay positive and keep your chin up during tough times.**
28. **Kill two birds with one stone: By studying during my commute, I can kill two birds with one stone.**
29. **Let the cat out of the bag: I accidentally let the cat out of the bag about the surprise party.**
30. **Miss the boat: I missed the boat on investing in that company.**
31. **No pain, no gain: If you want to see results, you have to put in the effort. No pain, no gain.**
32. **On the ball: She's always on the ball and never misses a deadline.**
33. **Out of the blue: I bumped into an old friend out of the blue at the supermarket.**
34. **Pass the buck: Don't pass the buck; take responsibility for your actions.**
35. **Piece of work: Dealing with that difficult client is a real piece of work.**

36. **Put all your eggs in one basket: It's risky to put all your eggs in one basket; diversify your investments.**

37. **Rain or shine: The event will take place, rain or shine.**

38. **Read between the lines: To understand her true feelings, you have to read between the lines.**

39. **Rome wasn't built in a day: Be patient; success takes time. Rome wasn't built in a day.**

40. **Shape up or ship out: Your performance needs improvement. Shape up or ship out.**

41. **Shoot for the moon: Aim high and shoot for the moon.**

42. **Sit on the fence: I can't decide; I'm sitting on the fence about this issue.**

43. **Spill the beans: Come on, spill the beans! What's the secret?**

44. **Take the bull by the horns: Don't avoid the problem; take the bull by the horns and face it.**

45. **The ball is in your court: I've presented my offer; now the ball is in your court.**

46. **The early bird catches the worm: Wake up early and be proactive. The early bird catches the worm.**

47. **The grass is always greener on the other side: Don't be envious; remember the grass is always greener on the other side.**

48. **The whole nine yards: She went all out for the party, decorations, food—the whole nine yards.**

49. **Through thick and thin: Friends stick together through thick and thin.**

50. **Time flies: It's already been a year? Time flies!**

51. **Turn a blind eye: Don't turn a blind eye to injustice; speak up.**

52. **Under the weather: I'm feeling a bit under the weather; I think I caught a cold.**

53. **Up in the air: The plans are up in the air; we haven't decided yet.**

54. **Vanish into thin air: The thief vanished into thin air before anyone could catch him.**
55. **Wear your heart on your sleeve: She's an open book, wearing her heart on her sleeve.**
56. **When pigs fly: I'll believe it when pigs fly; it's unlikely to happen.**
57. **Wholeheartedly: I wholeheartedly support your decision.**
58. **Worth its weight in gold: Her advice is worth its weight in gold; it's valuable.**
59. **You can't judge a book by its cover: Don't judge solely by appearances; you can't judge a book by its cover.**
60. **You're on thin ice: Be careful; you're on thin ice with your boss.**
61. **A leopard can't change its spots: People don't easily change their behavior; a leopard can't change its spots.**
62. **A penny saved is a penny earned: Saving money is as good as earning it.**
63. **Actions speak louder than words: What you do matters more than what you say.**
64. **All in the same boat: We're all in the same boat, facing the same challenges.**
65. **Back to square one: After the setback, we're back to square one.**
66. **Behind the scenes: There's a lot that happens behind the scenes to make the show successful.**
67. **Better late than never: Even though you're late, it's better late than never.**
68. **Bite off more than you can chew: Don't take on more than you can handle.**
69. **Break the ice: Let's play a game to break the ice and get to know each other.**
70. **Burn the midnight oil: I have an exam tomorrow, so I'll be burning the midnight oil.**
71. **By the book: He always follows the rules; he's strictly by the book.**

72. **Caught red-handed: The thief was caught red-handed stealing from the store.**
73. **Cross that bridge when you come to it: Don't worry about it now; cross that bridge when you come to it.**
74. **Devil's advocate: I'll play devil's advocate and present the opposing viewpoint.**
75. **Don't put all your eggs in one basket: Diversify your investments; don't put all your eggs in one basket.**
76. **Down the drain: All our hard work went down the drain when the project got canceled.**
77. **Every dog has its day: Everyone has their moment of success.**
78. **Fit as a fiddle: He exercises every day, so he's fit as a fiddle.**
79. **Give someone the benefit of the doubt: Trust them until proven otherwise; give them the benefit of the doubt.**
80. **Go the distance: Keep going; go the distance to achieve your goals.**
81. **Have a change of heart: He initially refused, but he had a change of heart and agreed to help.**
82. **Hit the jackpot: She hit the jackpot with her business idea.**
83. **In hot water: He got caught cheating and now he's in hot water.**
84. **It's a piece of cake: Don't worry; this task is a piece of cake.**
85. **Jump to conclusions: Don't make assumptions without all the facts; don't jump to conclusions.**
86. **Keep your fingers crossed: Keep your fingers crossed for good luck.**
87. **Leave no stone unturned: We'll search everywhere and leave no stone unturned to find the missing item.**
88. **Let sleeping dogs lie: Don't bring up old conflicts; let sleeping dogs lie.**
89. **Make a long story short: To make a long story short, we lost the game.**

90. Needle in a haystack: Finding a specific book in that library is like finding a needle in a haystack.

91. On cloud nine: She was on cloud nine after receiving the job offer.

92. Out of sight, out of mind: If you're not in touch, you're soon forgotten—out of sight, out of mind.

93. Penny for your thoughts: You look lost in thought; a penny for your thoughts?

94. Practice what you preach: Don't just give advice; practice what you preach.

95. Put all your cards on the table: Be honest and transparent; put all your cards on the table.

96. Read the room: Pay attention to the atmosphere and adjust your behavior accordingly.

97. Rome wasn't built in a day: It takes time to achieve great things; Rome wasn't built in a day.

98. See eye to eye: We don't always agree, but on this issue, we see eye to eye.

99. Skeletons in the closet: Everyone has secrets or skeletons in the closet.

100. Spice things up: Let's add some excitement and spice things up.

101. Take it with a grain of salt: Be skeptical; take it with a grain of salt until you have more information.

102. The ball is in your court: It's your turn to make a decision; the ball is in your court.

103. The best of both worlds: With a part-time job, she enjoys the best of both worlds—work and free time.

104. The devil is in the details: Pay attention to the details; the devil is in the details.

105. The early bird catches the worm: Waking up early gives you an advantage; the early bird catches the worm.

106. The last straw: That was the last straw; I can't tolerate it anymore.

107. Throw in the towel: After numerous failures, he decided to throw in the towel and give up.

108. Under the weather: Feeling sick or unwell; I'm a bit under the weather today.

109. Up in the air: The plans are uncertain; they're still up in the air.

110. When it rains, it pours: Problems often come all at once; when it rains, it pours.

111. A chip on your shoulder: Don't always be defensive; don't carry a chip on your shoulder.

112. A dime a dozen: Those souvenirs are a dime a dozen; they're everywhere.

113. Actions speak louder than words: Show it through your actions; actions speak louder than words.

114. All bark and no bite: He talks tough, but he's all bark and no bite.

115. Back to the drawing board: The plan failed; we have to go back to the drawing board.

116. Beat around the bush: Stop beating around the bush and get to the point.

117. Better safe than sorry: Take precautions to avoid problems; better safe than sorry.

118. Bite off more than you can chew: Don't take on more than you can handle.

119. Break a leg: Good luck! Break a leg in your performance.

120. Burn the midnight oil: Stay up late working; burn the midnight oil.

121. By the skin of your teeth: You barely made it; you passed by the skin of your teeth.

122. Clear the air: Let's clear the air and resolve any misunderstandings.

123. Cut corners: Don't cut corners; do the job properly.

124. Don't count your chickens before they hatch: Don't assume success before it happens.

125. Down in the dumps: Feeling sad or depressed; she's down in the dumps today.

126. Every cloud has a silver lining: Even in difficult times, there's a positive side; every cloud has a silver lining.

127. Fish out of water: In a new environment, she feels like a fish out of water.

128. Get a taste of your own medicine: Experience the same negative treatment you've given others.

129. Get cold feet: Feel nervous or scared; he got cold feet before the presentation.

130. Get the ball rolling: Start a process or activity; let's get the ball rolling.

131. Give someone the cold shoulder: Ignore or treat someone with indifference.

132. Go with the flow: Adapt to the situation; go with the flow.

133. Hit the nail on the head: You're correct; you hit the nail on the head with your explanation.

134. In the blink of an eye: It happened so quickly; in the blink of an eye.

135. It takes two to tango: Both parties are responsible for a conflict; it takes two to tango.

136. Keep your chin up: Stay positive; keep your chin up in difficult times.

137. Kill two birds with one stone: Accomplish two things with a single action.

138. Let sleeping dogs lie: Don't bring up past conflicts; let sleeping dogs lie.

139. Make hay while the sun shines: Take advantage of opportunities when they arise.

140. On the same page: We're in agreement; we're on the same page.

141. Out of the blue: Unexpectedly; the news came out of the blue.

142. Pass the buck: Avoid responsibility by passing it to someone else.

143. Play devil's advocate: Present the opposing viewpoint for the sake of discussion.

144. Pull someone's leg: Joke or tease someone playfully.

145. Put all your eggs in one basket: Relying on one thing; don't put all your eggs in one basket.

146. Rain on someone's parade: Spoil someone's plans or mood.

147. Saved by the bell: Rescued from a difficult situation at the last moment.

148. Scratch someone's back: Help someone in return for their help.

149. Spill the beans: Reveal a secret unintentionally.

150. Take the bull by the horns: Face a difficult situation directly.

151. The ball is in your court: It's your turn to take action or make a decision.

152. The best of both worlds: Enjoy the benefits of two contrasting things.

153. The early bird catches the worm: Acting promptly leads to advantages.

154. The grass is always greener on the other side: Others' situations always seem better.

155. The icing on the cake: An additional favorable aspect or event.

156. The last straw: The final problem or annoyance that leads to a reaction.

157. Through thick and thin: Supportive during good and bad times.

158. Throw in the towel: Give up or surrender.

159. Under the weather: Feeling unwell or sick.

160. Up in arms: Angry or protesting strongly.

161. We're in the same boat: In the same situation or predicament.

162. When in Rome, do as the Romans do: Adapt to local customs and behavior.

163. You can't judge a book by its cover: Don't judge based on appearances alone.

164. You're pulling my leg: You're joking or teasing me.

165. A bird in the hand is worth two in the bush: It's better to have something certain than to risk it for something better.

166. A leopard can't change its spots: People can't change their innate nature.

167. A penny for your thoughts: Share your thoughts or opinions.

168. A picture is worth a thousand words: Visual images convey more than written or spoken descriptions.

169. All that glitters is not gold: Not everything that appears attractive or valuable is genuine.

170. Better late than never: It's better to do something late than not at all.

171. Birds of a feather flock together: People with similar interests or characteristics tend to associate with each other.

172. Don't bite the hand that feeds you: Don't harm or criticize those who support or help you.

173. Don't cry over spilled milk: Don't dwell on past mistakes or misfortunes.

174. Don't put the cart before the horse: Do things in the correct order.

175. Every man for himself: In a difficult situation, everyone should take care of themselves.

176. Go against the grain: Act or think differently from the norm.

177. Haste makes waste: Acting too quickly can result in mistakes.

178. Ignorance is bliss: Not knowing can be less troubling.

179. It's not rocket science: It's not complicated to understand or do.

180. Leave well enough alone: Don't try to improve something that's already satisfactory.

181. Let bygones be bygones: Let go of past grievances or conflicts.

182. Money talks: Wealth has influence and power.

183. No pain, no gain: You have to work hard to achieve success.

184. Put your money where your mouth is: Back up your words with actions or financial support.

185. Rome wasn't built in a day: Great achievements take time and effort.

186. The apple of my eye: Someone or something cherished above all others.

187. The devil you know is better than the devil you don't: It's safer to deal with a known situation than an unknown one.

188. The early bird catches the worm: Being proactive gives you an advantage.

189. The pot calling the kettle black: Criticizing someone for a fault you also possess.

190. Time flies when you're having fun: Time seems to pass quickly during enjoyable activities.

191. Two heads are better than one: Collaboration and different perspectives lead to better results.

192. When it rains, it pours: Problems tend to come all at once.

193. A watched pot never boils: Time seems to pass slowly when waiting for something.

194. Actions speak louder than words: What you do is more important than what you say.

195. All hands on deck: Everyone's assistance is needed.

196. Barking up the wrong tree: Pursuing the wrong course of action or person.

197. Beauty is in the eye of the beholder: Perception of beauty varies from person to person.

198. Cry over spilt milk: Regretting something that has already happened.

199. Cut to the chase: Get to the point without unnecessary preamble.

200. Don't judge a man until you've walked a mile in his shoes: Don't criticize someone until you've experienced what they have.

Chapter 10: Speak Confidently, Lead Globally

This final chapter is designed to help you **apply all your English skills confidently in professional and global contexts**. It focuses on **executive communication, leadership, influence, and global fluency**, so that you can **express yourself clearly, persuasively, and confidently**.

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1. Master Executive Communication

In today's professional world, the ability to **communicate effectively in meetings, presentations, and negotiations** is crucial. Here's how you can do it:

- **Speak Clearly and Concisely:** Avoid long, complicated sentences. Focus on **clarity and impact**.
- **Structure Your Ideas:** Begin with the main point, explain supporting details, and conclude with a recommendation.
- **Professional Tone:** Use polite and respectful language, even when disagreeing or negotiating.
- **Active Listening:** Always listen before responding; it shows professionalism and empathy.

Quick Tip: Practice summarizing your ideas in **2–3 sentences** before meetings. This makes your points sharp and memorable.

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2. Develop Leadership & Influence

Leadership is not just about giving instructions—it's about **guiding, motivating, and influencing others**. Advanced English helps you:

- **Mentor Effectively:** Give feedback that is **constructive and encouraging**.
- **Persuade Confidently:** Use logical reasoning and strong vocabulary to influence decisions.

- **Build Rapport:** Communicate with empathy, respect, and active engagement.

Example Phrases:

- "I suggest we consider this approach for better results."
- "Let's explore solutions that work for everyone."
- "I recommend focusing on long-term growth while managing current priorities."

Quick Tip: Role-play mentoring or feedback conversations with a friend or colleague to **practice tone and confidence**.

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3. Practice Real-World Conversations

This chapter emphasizes **practical usage** of English in global and professional scenarios. Examples include:

- Negotiating contracts or deadlines
- Presenting projects or proposals to executives
- Networking at conferences or international meetings
- Handling media or client queries

How to Practice:

- Simulate real conversations with peers.
- Record yourself and review your pronunciation, tone, and clarity.
- Focus on **both verbal and non-verbal communication**, like gestures, posture, and eye contact.

Quick Tip: Prepare short scripts for **frequent professional situations**, like introducing yourself, pitching an idea, or answering difficult questions.

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4. Expand Vocabulary & Phrases

Strong vocabulary and professional phrases make your communication **powerful and persuasive**. Learn and use words like:

- Strategic, innovative, collaborative, resilient, visionary
- Expressions like: “Our goal is to achieve sustainable growth,” or “I believe teamwork drives results.”

Quick Tip: Maintain a small **journal of advanced phrases**. Use them in daily conversations to make them natural.

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5. Boost Self-Practice & Global Fluency

Becoming fluent and confident is a **continuous process**. Here’s how to strengthen your global communication:

- **Daily Speaking Practice:** Talk about your work, goals, or daily experiences in English.
- **Mirror Practice:** Speak in front of a mirror to monitor gestures, posture, and facial expressions.
- **Record & Review:** Listening to your own voice helps you notice mistakes and improve clarity.
- **Feedback:** Seek feedback from mentors, peers, or language partners.

Remember: Confidence grows with **consistent practice and application**. Don’t be afraid of mistakes—they are part of the learning journey.

Conclusion: Lead with Confidence

Congratulations! You have now completed this Spoken English journey, from building **vocabulary and daily sentences** to **advanced conversations, executive communication, and global fluency**.

Learning a language is not just about memorizing words or grammar – it is about **expressing yourself confidently, thinking clearly, and connecting with people effectively**. By reaching this stage, you have developed the skills to:

- Communicate your ideas **clearly and persuasively**
- Handle professional, social, and global conversations with **confidence and poise**
- Present yourself as a **capable, professional, and inspiring individual**

Remember, language is a **tool to showcase your personality, knowledge, and vision**. Fluency comes not from perfection, but from practice, persistence, and a mindset of

continuous improvement. Every conversation you have, every idea you share, and every challenge you face is an opportunity to **strengthen your English, your confidence, and your leadership presence**.

So step forward with courage. Speak boldly. Influence positively. Lead globally. Your journey does not end here – it is only the beginning of a **lifetime of learning, growth, and success**.

Keep practicing, keep exploring, and let your English open doors to every opportunity that awaits you.

Spoken English for Career Growth

BY DR. KAMAL CHANDEL

About the Book

In today's competitive world, effective communication in English is not just an advantage—**it is a necessity.**

Spoken English for Career Growth is a practical and easy-to-follow guide designed to help learners build confidence and fluency in English speaking.

This book provides a step-by-step approach, making it suitable for beginners as well as those looking to refine their communication skills. Whether you are a student, job seeker, or working professional, this guide will empower you to express yourself clearly and confidently.

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10+ Scopus-indexed book chapters; 3 authored e-books
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His research spans consumer behavior, loyalty, business ethics, growth mindset, and neuromarketing, with publications and conference presentations across the globe. A dedicated mentor and study abroad leader, he designs transformative international programs, notably in Spain, that blend cultural immersion with academic excellence. His work continues to advance marketing education with innovation, global vision, and student-centered impact.



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She has led ICSSR and IMPRESS-ICSSR-funded research projects on MOOCs, Learning Analytics, and Indian SMEs. Her research is published in SCOPUS, ABDC, and UGC Care journals, along with e-books, book chapters, and case studies at Emerald and The Case Centre, UK. She holds three national and international patents and has won Best Paper Awards at research conferences. As an editor and reviewer, she has contributed to leading academic journals and convene research conferences. Her passion lies in teaching, research, and mentoring future leaders.

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From Innovation to Maturity: A Systematic Review of Machine Learning Applications in Customer Segmentation

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Abstract
In the age of big data, machine learning (ML) has revolutionized marketing by enabling nuanced, data-driven customer segmentation. This paper presents a systematic literature review of 68 peer-reviewed articles published between 2009 and 2025, critically examining the evolution, applications, and maturity of ML techniques in consumer segmentation. The study categorizes ML approaches—supervised, unsupervised, reinforcement learning, and hybrid models—and evaluates their effectiveness in uncovering customer insights, predicting behavior, and driving personalized marketing strategies. Findings highlight a significant shift from traditional statistical methods to advanced deep learning and ensemble techniques, with growing academic attention reflected in increased publication volume and citation impact. The review also outlines methodological trends, real-world implementations by firms like Amazon and Netflix, and emerging innovations such as interpretable ML, federated learning, and AutoML. Ethical concerns surrounding data privacy, algorithmic bias, and model transparency are also addressed. The study contributes to the marketing and consumer analytics literature by synthesizing current knowledge, identifying research gaps, and offering a roadmap for future investigations into ethical, explainable, and context-sensitive ML applications in consumer studies.

Keywords: *Machine Learning, Customer Segmentation, Marketing Analytics, Consumer Behaviour, Systematic Review*

Empowering the Digital Enterprise: AI's Impact on Business Transformation and Leadership Evolution

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Abstract
Amid rapid digitization and shifting market dynamics, organizations must strategically balance the modernization of existing operations with the development of innovative digital business models to remain competitive. The increasing interconnectivity of IT systemsespecially in industrial settings has led to a surge in data volumes. To extract value from this data, many companies are turning to Artificial Intelligence (AI), which is reshaping both business processes and leadership dynamics. As AI becomes more integrated into decision-making, effective and adaptive leadership is essential to ensure its responsible implementation and long-term impact. This evolving landscape calls for leaders who can not only guide human teams but also oversee AI systems, positioning them as new types of collaborators or "followers." The anticipated retirement of a large portion of the workforce adds urgency to the adoption of technology-driven solutions, yet AI cannot function autonomously without human oversight. This necessitates the creation of communication protocols and accountability frameworks that apply to both human and machine actors.
Whether this expanded role is ultimately defined as leadership or management remains an open question, but it clearly involves structured supervision and ethical governance. This paper explores these emerging dynamics, focusing on the intersection of AI, organizational transformation, and leadership. It investigates theoretical frameworks relevant to digital leadership and highlights areas requiring further research. These challenges are particularly pronounced in data-driven domains, where businesses must navigate the dual demands of transforming legacy models and innovating new, digitally enabled solutions all under evolving leadership paradigms.

Keywords: *Digital Transformation, Digital Leadership, Artificial Intelligence, Artificial Leadership*

LATEST MULTIDISCIPLINARY RESEARCH & DEVELOPMENT

Editors
Dr. Asma Easmin
Nisha Garg



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1. A Comparative Study of Domestic Violence Among Working and Non-Working Women in Hathras District, Uttar Pradesh

Avni Sharma

Abstract

Domestic violence remains a pervasive and deeply embedded form of gender inequality in Indian society. This study examines domestic violence among working and non-working married women in Hathras District, Uttar Pradesh, through a comparative sociological lens. Drawing upon feminist theory and the concept of patriarchy, the research explores how employment status shapes women's experiences of violence, control, and autonomy. Using a descriptive and analytical research design, data were collected from 40 respondents (20 working and 20 non-working women) through structured questionnaires. Findings reveal that domestic violence persists across both groups, with emotional and psychological abuse being the most prevalent forms. While non-working women experience greater economic dependence, working women face increased surveillance, emotional regulation, and control over income. The study concludes that employment does not eliminate domestic violence; rather, patriarchal power adapts to changing socio-economic conditions.

Keywords: Domestic Violence, Patriarchy, Working Women, Non-Working Women, Gender Inequality.

Introduction

Domestic violence is one of the most persistent forms of gender-based inequality in India. While legal frameworks and social awareness have expanded, violence within domestic spaces continues to shape women's lives across caste, class, and educational backgrounds. Rather than being an individual or interpersonal issue, domestic violence must be understood as a structural phenomenon rooted in patriarchal power relations.

In Indian society, the family is often idealized as a site of harmony and moral order. However, sociological perspectives reveal that it is also a central institution where gendered hierarchies are produced and maintained. Women are socialized into roles of obedience, care, and endurance, while men occupy positions of authority and control. This unequal distribution of power often legitimizes various forms of violence, including emotional, psychological, economic, and physical abuse.

This study focuses on Hathras District in Uttar Pradesh, providing a localized understanding of domestic violence. By comparing working and non-working women, the research challenges the assumption that employment necessarily leads to empowerment and protection from violence.

Review of Literature

Sociological research on domestic violence in India has evolved from treating it as a private issue to recognizing it as a structural problem embedded in patriarchy. Feminist scholars have emphasized that domestic violence functions as a mechanism of social control that reinforces gender norms and male dominance.

Studies highlight that domestic violence cuts across caste and class, though its forms vary. In economically weaker sections, violence is often physical and visible, whereas in middle-class households, it manifests as emotional abuse, surveillance, and restriction of autonomy. Economic dependence has been identified as a major factor influencing vulnerability among non-working women, while working women experience new forms of control such as monitoring of income and mobility.

The literature also underscores the role of cultural practices such as dowry, son preference, and reproductive control in perpetuating violence. Despite legal protections, domestic violence remains underreported due to stigma, family pressure, and the normalization of abuse.

However, there is a lack of comparative studies examining working and non-working women within the same socio-cultural context. This study addresses that gap by providing a district-level comparative analysis.

Objectives of the Study

The study is guided by the following objectives:

To examine the nature and forms of domestic violence experienced by women.

To analyse the role of patriarchal power relations in shaping domestic violence.

To compare experiences of working and non-working women.

To assess how employment status influences vulnerability and control.

To evaluate awareness of legal rights and support mechanisms.

Theoretical Framework

This study is grounded in feminist sociological theory, which views domestic violence as a structural outcome of patriarchy rather than an individual issue. Patriarchy is understood as a system of social relations that institutionalizes male dominance and female subordination.

Within households, male dominance operates through both overt and subtle mechanisms. While physical violence is visible, more common forms include emotional abuse, economic control, restriction of mobility, and surveillance. These practices regulate women's behaviour and reinforce dependency.

The concept of "power as everyday practice" is central to this analysis. Domestic violence is not limited to isolated incidents but is embedded in routine interactions such as decision-making, financial control, and moral regulation. This perspective allows for a broader understanding of violence beyond physical harm.

An intersectional approach is also adopted, recognizing that women's experiences are shaped by the interaction of employment status, family structure, and cultural norms.

Research Methodology

The study employs a descriptive and analytical research design.

Study Area: Hathras District, Uttar Pradesh

Sample Size: 40 married women (20 working and 20 non-working)

Sampling Technique: Purposive sampling

Data Collection Tool: Structured questionnaire

Data Analysis: Descriptive statistical methods combined with sociological interpretation

Ethical considerations such as confidentiality and informed consent were maintained throughout the study.

Findings and Discussion

The findings reveal that domestic violence is prevalent among both working and non-working women, though its forms and mechanisms differ.

Forms of Domestic Violence

Emotional and psychological abuse emerged as the most common forms across both groups. These included verbal humiliation, constant criticism, and emotional neglect. Physical violence was reported but was less frequent compared to non-physical forms.

Non-Working Women

Non-working women were found to be more vulnerable due to economic dependence. Control over financial resources limited their autonomy and ability to resist or leave abusive situations. Economic violence, such as denial of money and financial decision-making, was particularly significant.

Working Women

Contrary to expectations, working women were not free from domestic violence. Instead, they experienced new forms of control, including:

Surveillance of income

Restrictions on mobility

Monitoring of workplace interactions

Emotional regulation and suspicion

This indicates that employment alters the form rather than eliminating violence.

Role of Family Structure

In-law interference and joint family systems played a significant role in reinforcing control and authority over women. Domestic violence often involved multiple family members, highlighting its collective nature.

Normalization of Violence

A key finding is the normalization of domestic violence. Many women perceived abuse as a routine part of marriage, influenced by cultural norms of endurance, family honor, and marital stability.

Conclusion

The study concludes that domestic violence is a structural phenomenon deeply rooted in patriarchal power relations. It persists across both working and non-working women, though its forms vary.

Employment does not automatically empower women or protect them from violence. Instead, patriarchal systems adapt to changing socio-economic conditions, introducing new mechanisms of control. Emotional and psychological abuse, often invisible, remain central to women's experiences.

The findings emphasize the need to move beyond economic explanations and address the cultural and structural foundations of domestic violence.

Recommendations

Awareness Programs: Increase awareness about legal rights and support systems.

Economic Empowerment with Social Change: Combine employment opportunities with gender sensitization.

Strengthening Institutions: Improve responsiveness of police and legal systems.

Community-Level Interventions: Challenge norms of silence and stigma.

Focus on Non-Physical Violence: Recognize emotional and psychological abuse in policy and practice.

Limitations

Small sample size (40 respondents)

Limited to Hathras District

Findings are not generalizable but provide localized insights

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2. A Sociological Study of People's Coping Mechanisms During Blockades in Manipur (2023–2025)

Kundali Anoubam

ABSTRACT

Blockades are also a common phenomenon in Manipur and are often a result of political protests and social unrest. The blockades cause disturbances to transportation routes and thereby impede the movement of goods and people. This poses a problem for ordinary citizens' lives. While many studies have been conducted on blockades from a political and security perspective, few studies have been done on their sociological impact on people's lives. This study will investigate and analyze the coping strategies adopted by people during this blockade period in Manipur from 2023 to 2025. This research will be conducted by surveying 60 people through a questionnaire survey on their experiences during this blockade period. The findings of this research will show that blockades did affect people's lives in many ways. For example, people met a shortage of essential commodities and a hike in prices during this blockade period. However, people coped with these situations by relying on their savings and homegrown foods. This study will also underscore the significant influence of social networks and community solidarity on people's coping mechanisms. This research will be a contribution to sociological studies on people's lives in Northeast India.

Keywords: Blockades, Coping Mechanisms, Crisis, Social Resilience, Everyday Life, Northeast India, Manipur.

INTRODUCTION

Blockades have been used as a mode of protest in different parts of the world, where people try to express their political demands or grievances. During this process, the government attempts to address the issues by restricting the movement of goods. Even though the purpose of the blockade may be political, it affects the public in many ways. Therefore, it is important to understand the impact of the blockade in the Indian context. In the Indian context, the blockade has been a prominent feature in different parts of the country, especially in the northeastern states, which have a complex ethnic and political identity. In the northeastern state of Manipur, the blockade has been a feature in recent times. In the state, there have been many blockades in recent times. People observe the impact of the blockade in public, especially when the highway remains blocked.

Although many discussions regarding blockades have been cantered on political issues, government, and security, it is also important to note the impact they have on the social aspect. In a way, it impacts the way people live and the way they cope. Therefore, it is important to note the impact it has on the social aspect. Between 2023 and 2025, Manipur experienced a period of instability. This impacted the lives of many people in the region. In this period, there were issues in accessing resources because of the blockade. In such a situation, people must cope with this.

Understanding these coping mechanisms is relevant to sociological studies because it would reveal the ways in which people respond to crisis situations. The coping mechanisms would illustrate the importance of social relationships, economic resources, and cultural practices in dealing with crisis situations.

Thus, the study aims to analyse how Manipur residents coped with the blockade. By exploring the experiences of the people, the study would contribute to the development of a sociological perspective on crisis, coping, and adaptation.

METHODOLOGY

We will follow a qualitative-oriented research approach with the aid of descriptive statistical tools. The aim of the research is to understand the experiences faced by the people and the coping mechanisms applied during the blockades in the state of Manipur from 2023 to 2025.

For the research study, primary research was executed via a structured questionnaire to gather the requisite data. A total of 60 respondents took part in the research study. The participants of the research study comprised individuals who experienced the blockades in the state of Manipur and were able to share their personal experiences about it. Participants of the research study comprised individuals who experienced the blockades in the state of Manipur and were able to share their personal experiences regarding the blockades.

The structured questionnaire was prepared to collect information on various aspects of the participants' lives, such as the availability of food, the availability of fuel, transportation facilities, education, employment, healthcare facilities, the experience of the availability of essential commodities at higher rates, the experience of emotional stress faced during the blockades, etc.

The percentage-based descriptive method analysed the collected data. This method helped the researcher identify patterns in the data and interpret the experiences of the participants in a systematic manner. The study articulates its findings via a descriptive analysis of the percentages obtained from the questionnaire responses.

In addition to the primary data, the study has also used secondary data to understand the context in which the blockades take place in Manipur. Secondary data includes literature, reports, and media reports on the socio-economic impact of the blockades in the region.

The research design for the study is descriptive and exploratory in nature. The study is descriptive because it aims to describe people's experiences during the blockade period. The study is exploratory because there is limited sociological research on the coping mechanisms during the blockade period in Manipur.

RESULTS AND DISCUSSION

The study's findings present a glimpse of the impact of the blockade on various aspects of life.

Demographic Characteristics

The demographic characteristics of the respondents reveal that most of them were young. Around 70 percent of the respondents were between the ages of 18 and 25 years, whereas 28.3 percent of the respondents were between the ages of 26 and 40 years. Only a small percentage of the respondents were over 40. This could be since the majority of the students participated in the study.

We observed that 76.7 percent of the respondents were female, while 23.3 percent were male. This is a significant finding because women play a vital role in the management of resources during a crisis.

Regarding their place of residence, 58.3 percent of the people surveyed were living in urban areas, 36.7 percent were living in rural areas, and about 5 percent said they were living in relief camps and displacement areas during the blockade period. This also indicates that people living

in both urban and rural areas were affected by the blockade; however, most of them were living in urban areas.

Impact on Daily Life

The survey results indicate that the blockades had a significant impact on the daily lives of people. Out of the people surveyed, 35 percent said that the blockades had a severe impact on their lives. Moreover, 25 percent expressed that the blockades had a very severe impact on their lives. Another 25 percent reported that the blockades had a moderate impact on their lives.

The survey results indicate that the blockades caused a disruption in people's daily lives. For people living in these areas, their daily routines and ways of living were affected by the blockades.

Shortages and Price Increases

The respondents also frequently experienced shortages of essential commodities. Around 40 percent of the respondents reported that shortages occurred frequently, whereas 36.7 percent reported that shortages occurred occasionally.

Another major issue faced by the respondents was the long queues they had to stand in to buy essential commodities. Around 70 percent of the respondents reported that they sometimes had to stand in long queues to buy food, fuel, etc.

Another major issue faced by the respondents was the price increases. Most of the respondents reported that there was a significant rise in the prices of food and other daily -use items. Around 68.3 percent reported a significant rise, whereas 30 percent reported a slight rise. The rest reported that there was no rise in prices.

The findings clearly indicate that a blockade puts pressure on the economy.

Coping Strategies

Despite these problems, the respondents developed coping strategies to manage their daily lives during the blockade.

The most important coping strategy reported by the respondents was the use of their savings. Around 90 percent of the respondents reported that savings had played a significant role in coping with the problems faced by their families during the period of the blockade.

Another important coping strategy reported by the respondents was the use of homegrown food. Around 45 percent of the respondents reported that they had regularly used homegrown food as a coping strategy. Another 33.3 percent reported that they had occasionally used homegrown food as a coping strategy.

The respondents also reported community support as a significant coping strategy. Around 54.2 percent of the respondents reported that there had been community support for distributing food or fuel.

Emotional Experiences and Community Solidarity

The period of the blockade had emotional and psychological effects on the respondents. The majority of the respondents, 86.7 percent, reported experiencing some form of stress/anxiety during the period of the blockade.

However, the respondents also reported a positive emotional experience, which was a sense of community solidarity. Most of the respondents, 89.8 percent, agreed that they had a sense of community solidarity during the period of the blockade.

CONCLUSION

This study sought to understand the coping mechanisms used by people during the blockade period in Manipur, which occurred between 2023 and 2025. The findings reveal that the blockades had a major impact on the lives of the people, especially in terms of education, transportation, employment, and access to basic commodities.

The findings further reveal that the scarcity of basic commodities and the hike in prices posed major challenges to the people. In response to the challenges, people employed different coping mechanisms, including savings, homegrown foods, and community support.

The study further reveals the significance of the community and economic resources to the people during the crisis. The help provided by the community was very significant to the people during the crisis, especially during the blockade period.

The study also shows the blockade's importance in politics and its effect on people's social lives. The study, therefore, contributes to the discussion of the crisis and the coping mechanisms employed by the people, especially in the context of sociology.

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3. Voter Confidence and Trust in Institutions: A Study of Public Perception of Free and Fair Elections in the 2022 Manipur Legislative Assembly Election

Wakambam Rushika Devi

Abstract

Elections are the pillars upon which the legitimacy of a democracy is based, but the level of trust in the institutions involved in the electoral process is a function of both social perception and legal requirements. This study aims to explore voter trust and institutional trust in the context of the 2022 Manipur Legislative Assembly Election. This study aims to explore voter perception and understanding of the concept of "free and fair elections" in a politically sensitive and socially diverse environment, using a sociological and perception-based approach. The study found that voter turnout is high. However, the main factors that build trust in electoral institutions are perceptions of fairness, transparency, and how well the electoral process is run.

It has been found that people generally have a perception that elections in the state are fair, but at the same time, people are also worried about money and power. This study has found that voter trust in institutions is socially constructed, and it is not a static concept.

This study aims to contribute to the sociological discourse on the subject in the regional political environment by exploring the concept of electoral legitimacy in the quotidian social environment.

Introduction

Elections are not just a procedural activity, but a public expression of democracy that signifies participation, representation, and legitimacy in a country or region. In a democratic country, the legitimacy of elections signifies the level of institutional trust in the country. The legitimacy of elections is not necessarily defined by the procedural or official attributes of the electoral process, as it is largely influenced by the perception of voters regarding the fairness, transparency, and accountability of the electoral process in a country or region.

Voter confidence is a critical factor in a region characterized by social diversity and political sensitivity, such as Manipur. The 2022 Manipur Legislative Assembly Election is a critical context in which voter confidence in the context of “free and fair elections” needs to be examined in a region characterized by a socio-political environment of ethnic diversity, regional inequality, and security risks. Hence, voter confidence in the context of the 2022 Manipur Legislative Assembly Election is a critical social phenomenon that needs to be examined in a broader context of understanding the legitimacy of democracy at the ground level in a country or region.

This study is based on a sociological perspective of understanding and interpreting the concept of elections. Rather than assessing the legal implications of the election process, this piece of research aims to understand the perception of voters towards the fairness of the election process. Trust in institutions is considered a social construct, and this concept has been influenced by various social and individual experiences.

Review of Literature

Existing literature on political sociology has highlighted that trust in institutions is significantly related to procedural fairness. Research on procedural democracy has pointed out that citizens tend to trust electoral outcomes when they find them procedurally fair. Procedural justice theory has also highlighted that procedural fairness is considered to be of greater importance than outcome fairness in relation to institutional trust.

Furthermore, investigations into digital media have demonstrated that the informational context significantly influences voter perceptions. Specifically, while online transparency mechanisms and real-time result monitoring can bolster voter confidence, the dissemination of misinformation can erode trust in electoral institutions. Similarly, research on electoral violence and intimidation has shown that even small security concerns can play a role in voter perception.

Researchers have also used social exclusion as a predictor of voter trust. For example, social exclusion on grounds of ethnicity, region, or class can decrease voter trust. Administrative efficiency, complaint redressal, and polling staff behaviour can also have a direct effect on voter experience at a micro-level. However, there is a lack of research on perception-based studies at a state level, for example, in Manipur. This paper aims to address this gap by understanding voter experience as a social experience in the 2022 Assembly Election.

Theoretical Framework

This study follows a multi-level approach to understanding voter confidence and institutional trust. The study draws from various theories of democratic legitimacy, institutional trust, procedural justice, political culture, and social constructionism. In understanding the social constructionist theory, it is important to note that voter confidence in electoral fairness is not just a function of its legal construct. Rather, voter confidence in electoral fairness is a socially constructed belief system. For example, voters make sense of electoral fairness through various narratives of social discourse.

In addition, procedural justice theory suggests that voter confidence in institutions is primarily a function of voters' perceptions of fairness in procedures, rather than outcomes. For example, procedural justice theory suggests that voters' trust in institutions is higher if voters believe in a fair and unbiased application of procedures.

Finally, it is important to note that sociological theories of power and social inequality suggest that social groups may have differential experiences of institutions. For example, marginalized social groups have differential experiences of institutions depending on historical exclusion, lack of representation, and power imbalance. Such a framework would allow for an understanding of social differences in voter confidence in Manipur.

Methodology

The research method employed in this study is based on the perception method. The population targeted in this study consists of the eligible voters who took part in the 2022 Manipur Legislative Assembly Election. Due to certain limitations, the study had to employ the non-probability purposive sampling method. The study selected the population based on their perception and awareness of the election process.

The sampling method selected the population based on their diversity, including their age, gender, educational qualifications, and their social backgrounds. The sampling method did not focus on the statistical generalization of the population but the analytical generalization of the population. The study collected the required data through the questionnaire method and

analysed it from the point of view of the sociological interpretation of the election process, as opposed to the legal interpretation.

Findings and Discussion

Overall, the findings indicate that voter confidence in the 2022 Manipur Legislative Assembly Election is not absolute, but rather relative or conditional in nature. This is because, although a majority of the respondents showed their faith in the fairness of the elections, at the same time, a number of respondents expressed their apprehensions regarding the role of money and power in the elections.

Perceived procedural fairness was one of the strongest factors that contributed to voter confidence in the 2022 Manipur Legislative Assembly Election. This is because, for a number of respondents, the way in which the polling process was conducted and managed was a major factor in determining their faith in the fairness of the elections.

Voter awareness and political knowledge also contributed significantly to voter confidence in the 2022 Manipur Legislative Assembly Election. This is because, for a number of respondents, their exposure to information regarding the guidelines and procedures of the elections contributed significantly to voter confidence, whereas exposure to conflicting information in the media contributed significantly to voter suspicion regarding fairness.

Moreover, social background was also a factor that influenced perception. For example, variations in age and educational levels influenced the perception of respondents. The deployment of security forces during the election was a positive factor for some respondents, while for others, it was a negative factor. Overall, the findings indicate that trust in the election in Manipur is based not only on participation but also on a constant assessment of performance. The voters in the study thus emerge as interpreters of democracy, and not merely as participants in the electoral process.

Conclusion

In the present research, an attempt has been made to explore voter confidence and institutional trust in the context of the 2022 Manipur Legislative Assembly Election from a sociological point of view. The research results reveal that the legitimacy of the electoral process cannot be ensured merely through procedural correctness, but also through the way voters perceive, interpret, and experience the process.

Voter trust in the electoral process in the context of the 2022 Manipur Legislative Assembly Election seems to be conditional rather than unconditional. Though voter participation in the process remains strong, voter confidence in the process seems to be largely dependent upon procedural fairness, transparency, voter awareness, and responsiveness of the electoral authorities. Voter apprehensions with regard to money power and political influence, however, reveal that voter trust in a democratic process is a dynamic concept, which is being constantly negotiated. The research results reveal that democracy cannot be sustained merely through procedural correctness, but through public judgment and interpretation of democratic values.

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4. Socio-Economic Transformation and Loss of Traditional Livelihoods: A Study of Migrants of Geku Village

Solomon Tayom

ABSTRACT

This paper examines the relationship between migration and socio-economic transformation in Geku village, Arunachal Pradesh, with particular attention to how mobility reconfigures livelihood practices, household organisation, and cultural life in a tribal context. Drawing on qualitative-dominant fieldwork across 30 households, the study situates migration within broader processes of uneven development and constrained local employment opportunities.

The analysis suggests that migration does not simply replace traditional livelihoods but alters their relative significance within household economies. While agriculture and forest-based practices persist, their centrality has weakened as households increasingly rely on external income sources. Remittances contribute to material improvements and educational mobility, yet they simultaneously rework labour distribution and long-term occupational orientations.

The findings complicate linear narratives of both development and decline. Gender roles are renegotiated through expanded responsibilities for women, though without a corresponding transformation in institutional authority. Cultural practices, rather than eroding, exhibit adaptive continuity through sustained participation and symbolic attachment. The paper argues that socio-economic transformation in Geku is best understood as an uneven and partial process, where traditional livelihoods are not displaced but progressively restructured and subordinated within emerging livelihood strategies.

1. INTRODUCTION

Processes of socio-economic transformation in rural India are increasingly mediated through migration, particularly in regions where local economies offer limited avenues for sustained employment. In tribal contexts such as Arunachal Pradesh, these shifts are not merely economic but are entangled with systems of kinship, land relations, and customary institutions that organise everyday life.

Much of the existing literature frames migration either as a developmental mechanism or as a disruptive force. Both positions, however, risk oversimplification. They tend to treat migration as an external intervention into rural life, rather than as a process emerging from within existing social and economic arrangements. In practice, migration often unfolds through negotiation—between necessity and aspiration, continuity and change.

This paper examines migration in Geku village in Upper Siang district, focusing on its implications for traditional livelihoods, gender relations, and cultural practices. It argues that migration does not produce an immediate rupture with existing systems. Instead, it contributes to a gradual reordering in which traditional livelihoods are neither abandoned nor intact, but increasingly marginal to household economic strategies. Socio-economic transformation here is uneven, layered, and internally differentiated, resisting straightforward categorisation as either transition or persistence.

2. BRIEF LITERATURE CONTEXT

The sociological study of migration has long been divided between explanations that privilege individual rationality and those that foreground structural constraint. Push–pull models, while

analytically useful, often assume a degree of agency and information symmetry that is rarely present in rural contexts. Structural approaches, in contrast, draw attention to uneven development and the limited capacity of peripheral regions to sustain livelihoods, but risk underplaying the everyday strategies through which households navigate such conditions.

The New Economics of Labour Migration (Stark & Bloom, 1985) offers a useful corrective by locating migration within the household rather than the individual. Migration, in this view, functions as a strategy for risk diversification in contexts where markets are incomplete or unreliable. Yet even this perspective can appear overly economistic, particularly in settings where livelihood practices are embedded in cultural and social relations.

Similarly, the Sustainable Livelihoods Framework (Chambers & Conway, 1992; Scoones, 1998) expands the analytical lens by incorporating multiple forms of capital. However, its emphasis on adaptability and resilience can obscure underlying power relations and historical marginalisation. In the Indian context, scholars such as Breman (1996) and Deshingkar (2010) have highlighted how migration often leads to incorporation into precarious labour markets rather than stable mobility.

What remains less explored, particularly in Northeast India, is how migration reshapes livelihoods in contexts where economic practices are inseparable from identity and community life. This study engages with these debates by examining migration not as a singular outcome but as a socially embedded process that simultaneously reproduces and transforms existing structures.

3. METHODOLOGY

The analysis draws on qualitative-dominant fieldwork conducted in Geku village, Arunachal Pradesh. Data were collected from 30 households through a combination of structured surveys and semi-structured interviews, supplemented by field observation. The sample included migrant households, return migrants, and a limited number of non-migrant households to enable comparison.

Rather than treating migration as a measurable variable alone, the study approaches it as an experienced process, shaped by household negotiation, obligation, and expectation. The interpretive orientation adopted here allows attention to how respondents themselves understand livelihood change, while situating these accounts within broader structural conditions.

Secondary sources, including census data and administrative records, provide contextual grounding but do not substitute for field-level insights. The emphasis remains on depth rather than representativeness.

4. FINDINGS AND DISCUSSION

4.1 Migration as Situated Strategy

Migration in Geku does not appear as an isolated individual decision but as part of a broader household calculus. Decisions around who migrates, for what purpose, and under what conditions are embedded within family structures and shaped by available resources. In this sense, the findings resonate with the New Economics of Labour Migration, yet they also extend it by showing how such strategies are mediated by social expectations and cultural obligations.

Agriculture continues to structure everyday life, but its limitations are widely recognised. Respondents frequently described farming as necessary yet insufficient, particularly in relation

to cash requirements. Migration emerges here less as a rupture and more as an adjustment within an already constrained system.

4.2 Reconfiguration of Livelihood Centrality

What is at stake is not the disappearance of traditional livelihoods but their repositioning. Agriculture and forest-based practices persist, but they no longer organise the economic core of household life. Instead, they are supplemented—and in some cases overshadowed—by income generated outside the village.

This challenges linear interpretations of livelihood transition. The persistence of agricultural practices alongside declining economic centrality suggests a form of coexistence marked by asymmetry. The Sustainable Livelihoods Framework captures this multiplicity but tends to understate the extent to which certain livelihood forms become structurally subordinate over time.

4.3 Gendered Redistribution without Structural Shift

The redistribution of labour within migrant households reveals a complex pattern of gendered adjustment. Women take on expanded roles in agriculture, financial management, and everyday decision-making. Yet this expansion does not necessarily translate into a transformation of authority structures.

What emerges is a distinction between functional responsibility and institutional recognition. While women's participation increases in practice, it remains constrained within existing norms. This disjuncture complicates celebratory narratives of empowerment, suggesting instead a form of conditional or partial change.

4.4 Cultural Persistence and Transformation

Contrary to assumptions that migration erodes cultural practices, the evidence points toward continuity, albeit in modified form. Festivals, rituals, and community participation remain central, with migrants maintaining involvement through periodic return and financial contribution.

At the same time, the modalities of participation are shifting. The incorporation of digital media and altered forms of engagement indicate that culture is not static but adaptive. Rather than decline, what is observed is a rearticulation of cultural practices within changing material conditions.

4.5 Differentiation and its Limits

Migration introduces new axes of differentiation, particularly in relation to income and employment type. Households with stable government employment display visible material advantages. However, these differences are mediated by strong kinship networks and norms of collective participation.

Inequality is therefore present but socially contained. This containment, however, should not be mistaken for absence. It reflects the continued operation of social institutions that regulate difference without eliminating it.

5. CONCLUSION

Migration in Geku cannot be adequately understood through binaries of development versus decline or continuity versus change. Instead, it reflects a more uneven and internally differentiated process of socio-economic transformation.

Traditional livelihoods are neither abandoned nor intact. They persist, but in altered form and diminished centrality. Migration introduces new opportunities while simultaneously reconfiguring labour, gender relations, and aspiration. Yet cultural practices and social ties continue to anchor village life, even as their modes of expression shift.

The significance of this case lies in its resistance to simplification. Migration here is not a singular force but part of an ongoing negotiation through which households navigate structural constraint and emerging possibility. Understanding such contexts requires attention not only to what changes, but to how continuity is actively maintained within transformation.

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5. Identity and Adaptation of Mizo Youth in Delhi NCR: Negotiating Belonging in a Metropolitan Context

Rosiama

Abstract

Migration within India has become an important aspect of social change, especially among youth who move to metropolitan cities for education and employment. This study examines the identity formation and adaptation experiences of Mizo youth living in Delhi NCR. Using a mixed-method approach, the research combines quantitative data from 40 survey respondents with qualitative insights from 10 informal interviews. The findings reveal that migration strengthens ethnic identity rather than weakening it. A majority of participants expressed strong pride in their Mizo identity while navigating a diverse cultural environment. However, respondents also reported challenges such as stereotyping, misidentification, and language barriers, particularly due to the dominance of Hindi in public spaces. These experiences contribute to a sense of conditional belonging. At the same time, participants demonstrate resilience by developing hybrid identities that balance cultural roots with urban adaptation. The study highlights the complex relationship between migration, identity, and belonging, and emphasizes the need for more inclusive social environments and institutional support systems.

Keywords**:** Mizo Youth; Identity; Internal Migration; Delhi NCR; Adaptation; Belonging; Northeast India

Introduction

Migration has become a defining feature of contemporary Indian society, particularly among youth seeking education and employment in metropolitan cities. Delhi NCR, as a major urban hub, attracts individuals from diverse regions, including Northeast India. Migration, however, is not only about physical movement but also involves social, cultural, and psychological adjustments that shape identity and belonging.

This study focuses on Mizo youth from Mizoram who migrate to Delhi NCR. Mizoram is characterized by cultural homogeneity, shared language, and strong community ties. In contrast, Delhi represents a complex and diverse urban space. This transition from majority to minority status significantly influences identity formation and everyday experiences.

Mizo youth often encounter language barriers, cultural differences, and social perceptions that shape their interactions. While migration offers opportunities for independence and growth, it also presents challenges such as stereotyping and exclusion. This study aims to understand how Mizo youth negotiate identity and adapt to urban life while navigating these challenges.

Literature Review

Identity is widely understood as a socially constructed and dynamic concept. Hall (1990) argues that identity is continuously shaped through cultural experiences and social interactions, while Erikson (1968) emphasizes the role of social context in identity development. Migration introduces new dimensions to identity, especially in culturally different environments. Berry (1997) explains adaptation through acculturation strategies such as integration and assimilation. However, these processes are influenced by structural inequalities. Studies on Northeast migrants highlight experiences of marginalization and racialization. McDuie-Ra (2012) notes that migrants are often misidentified as foreigners and face exclusion. Haokip (2015) discusses how such experiences affect identity and belonging. Goffman's (1963) concept of stigma explains how individuals manage socially discredited identities, while Du Bois' (1903) idea of double consciousness highlights the tension of navigating multiple

identities. Despite these contributions, limited research focuses specifically on Mizo youth in Delhi NCR. The above literature highlights key issues of identity, marginalization, and adaptation among migrants. However, to better understand the specific experiences of Mizo youth in Delhi NCR, this study applies theoretical perspectives from Hall, Goffman, Du Bois, and Berry. These frameworks help connect existing literature with the empirical findings of this research.

Theoretical Framework

This study draws on four key theoretical perspectives to understand identity formation and adaptation among Mizo youth in Delhi NCR. Stuart Hall's concept of identity emphasizes that identity is not fixed but continuously shaped through cultural experiences and social interactions. This perspective helps explain how Mizo youth redefine their identity in an urban environment where they encounter difference and diversity. Erving Goffman's theory of stigma is used to understand how individuals experience stereotyping and social labelling. In the context of this study, it explains how Mizo youth navigate situations where they are judged based on appearance and cultural background. W. E. B. Du Bois' concept of double consciousness helps in understanding the internal conflict experienced by individuals who negotiate between their ethnic identity and the expectations of mainstream society. This is relevant for Mizo youth balancing their cultural identity with urban life. John Berry's acculturation theory provides a framework to analyse how individuals adapt to a new cultural environment. It helps in understanding the strategies adopted by Mizo youth as they adjust to life in Delhi NCR. Together, these theoretical perspectives provide a comprehensive framework to analyze identity as a dynamic process shaped by both individual experiences and broader social structures.

Methodology

A mixed-method approach was adopted. Data collection was conducted between December 2025 and February 2026. Quantitative data was collected through a survey of 40 respondents using Google Forms. Snowball sampling was used to access participants within the Mizo community. Qualitative data was collected through 10 informal interviews, providing deeper insight into lived experiences. Ethical considerations such as informed consent, anonymity, and confidentiality were maintained throughout the study.

Findings

Table 1: Identity Awareness Among Mizo Youth After Migration

Category	Percentage (%)
Increased	57.5
Same	35
Decreased	7.5

A majority of respondents reported increased awareness of their identity after migration.

Table 2: Experience of Stereotyping Among Respondents

Category	Percentage (%)
Yes	57.5
No	42.5

More than half of the respondents experienced stereotyping in Delhi NCR.

Table 3: Language Comfort in Hindi

Category	Percentage (%)
Comfortable	47.5
Not Comfortable	52.5

Language emerged as a significant barrier affecting communication.

Table 4: Impact of Language on Social Comfort

Category	Percentage (%)

Yes	62.5
No	37.5

Language influences comfort and participation in social spaces.

Table 5: Sense of Belonging in Delhi NCR

Category	Percentage (%)
Belong	37.5
Not Fully	62.5

Most respondents reported a limited sense of belonging.

Table 6: Level of Independence After Migration

Category	Percentage (%)
Increased	75
No Change	20
Decreased	5

Migration contributed to personal growth and independence.

Discussion

The findings of this study show that migration plays a complex role in shaping identity among Mizo youth in Delhi NCR. Rather than weakening ethnic identity, migration appears to strengthen it. Many participants reported a greater awareness and pride in their Mizo identity after moving to Delhi. This supports the argument of Stuart Hall that identity is not fixed but is continuously shaped through social and cultural experiences. Being in a different environment makes individuals more conscious of their cultural background. At the same time, the experiences of stereotyping and misidentification reported by participants reflect Erving Goffman's concept of stigma. Mizo youth are often judged based on their physical appearance and are sometimes mistaken for foreigners. These experiences influence how they present themselves in social situations and can lead to feelings of exclusion. The presence of such stigma shows that identity is not only self-defined but also shaped by how others perceive individuals. Language barriers emerged as another important challenge. Many respondents reported difficulty with Hindi, which affected their ability to communicate and feel comfortable in public spaces. This can be understood as a form of structural inequality, where linguistic dominance creates barriers for non-Hindi speakers. In this context, language becomes a form of power that shapes access to social and cultural spaces. The idea of identity conflict is further explained through W. E. B. Du Bois' concept of double consciousness. Mizo youth often experience a tension between maintaining their ethnic identity and adapting to the expectations of urban society. They may adjust their behaviour, language, or appearance depending on the context, which reflects an ongoing negotiation of identity. However, the findings also highlight the agency and resilience of Mizo youth. Instead of completely assimilating or remaining isolated, many participants develop hybrid identities that combine elements of both Mizo culture and urban life. This aligns with John Berry's concept of integration, where individuals maintain their original culture while also engaging with the new environment. Overall, the study shows that identity and adaptation are not simple or linear processes. They involve continuous negotiation shaped by both personal experiences and broader social structures. The concept of conditional belonging emerges as a key theme, where Mizo youth feel partially included but still experience forms of exclusion in everyday life.

Conclusion

This study demonstrates that migration is not merely a process of physical relocation but a complex social experience that significantly shapes identity and belonging. For Mizo youth in Delhi NCR, migration does not lead to the loss of ethnic identity; instead, it strengthens awareness and pride in their cultural background. This finding supports Stuart Hall's argument that identity is continuously formed through difference and experience. At the same time, the study highlights the persistent challenges faced by Mizo youth, including stereotyping,

misidentification, and language barriers. These experiences reflect broader patterns of marginalization and align with Erving Goffman's concept of stigma, where identity is shaped not only by self-perception but also by how individuals are viewed by others. The presence of such challenges indicates that inclusion in urban spaces is often uneven and conditional. The concept of conditional belonging emerges as a key contribution of this study. Although Mizo youth are citizens and active participants in urban life, their sense of belonging remains incomplete due to social and cultural barriers. This reflects the ongoing negotiation of identity described by W. E. B. Du Bois, where individuals balance multiple identities within unequal social structures. Despite these challenges, the study also highlights the resilience and adaptability of Mizo youth. Many participants develop hybrid identities that allow them to maintain their cultural roots while engaging with urban life. This aligns with John Berry's concept of integration, demonstrating that adaptation does not require the abandonment of cultural identity. Overall, this study contributes to sociological discussions on internal migration, identity, and marginalization in India by bringing attention to the experiences of Mizo youth, a group that remains underrepresented in academic research. It emphasizes the need for more inclusive institutional policies, greater cultural awareness, and efforts to reduce discrimination in urban spaces. Future research can further explore intersectional dimensions such as gender, class, and language to deepen the understanding of migration and identity in the Indian context.

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6. Bullying and Juvenile Delinquency in Semi-Urban Boarding Schools of Arunachal Pradesh

Bengia Apiung

Abstract

This study examines the relationship between the normalization of bullying and the development of juvenile delinquent behaviour in semi-urban boarding schools in Arunachal Pradesh. Rather than viewing bullying as an isolated act between individuals, the study approaches it as something that develops within social structures, institutional settings, and peer relationships. Boarding schools, due to their residential nature, create a space where students interact constantly, and this often leads to the formation of hierarchies and informal systems of power.

The study uses a mixed-method approach, combining questionnaire surveys, interviews, and case studies. The findings show that bullying is not a rare occurrence but is deeply embedded in the everyday life of students. It is often justified as "tradition," "discipline," or a way of building character. At the same time, behaviours such as fighting, stealing, substance use, and rule-breaking were observed among students, showing a connection between bullying and delinquency.

The study finds that factors such as seniority, peer pressure, lack of supervision, and institutional silence play a major role in shaping these behaviours. Students experience both support and strain within the boarding environment, and this creates a situation where aggression becomes normalized. Over time, such normalization can influence how students respond to conflict and power, sometimes leading to delinquent behaviour.

The study concludes that bullying is not simply an individual problem, but a socially learned and institutionally supported practice. It highlights the need to look at the structure of boarding school environments, rather than only focusing on individual behaviour.

Keywords: *Bullying, Juvenile Delinquency, Boarding Schools, Peer Culture, Institutional Structure, Arunachal Pradesh*

Introduction

Bullying is often seen as something normal in school life. Many people describe it as "just a part of growing up," and because of this, it is not always taken seriously. However, when we look at it closely, bullying is not simply a matter of one student being aggressive towards another. It is shaped by the environment in which students live and interact.

Schools are not only places of learning; they are also social spaces where identities are formed and relationships are negotiated. This becomes even more important in boarding schools, where students live together and spend most of their time within the same environment. In such spaces, peer relationships become stronger, and informal systems of hierarchy begin to develop.

Semi-urban boarding schools in Arunachal Pradesh provide a unique setting for studying this. These schools bring together students from different tribes, languages, and social backgrounds.

While this diversity has the potential to create inclusive spaces, it can also become a basis for comparison, exclusion, and conflict.

Most existing studies on bullying focus either on individual behaviour or on urban school settings. There is very little research that looks at how bullying develops within institutional environments, especially in the North-East. This study attempts to fill that gap by looking at how bullying becomes normalized and how it connects to juvenile delinquency.

The main focus of this study is to understand how bullying is shaped by structure, how it becomes accepted within peer culture, and how it may influence later behaviour among students.

Literature Review and Theoretical Understanding

Different sociological theories help us understand why young people engage in deviant behaviour. Robert K. Merton's idea of strain explains how individuals may turn to deviance when they feel blocked from achieving certain goals. In a boarding school environment, repeated humiliation or lack of recognition may create similar feelings of frustration.

Robert Agnew builds on this by showing how negative experiences like rejection, bullying, or harsh treatment can create emotional strain, which may later turn into aggression or delinquency.

Travis Hirschi's Social Control Theory suggests that when individuals are less attached to institutions like family or school, they are more likely to engage in deviant behaviour. In boarding schools, where students are physically away from their families, peer groups often take on a much stronger role.

Edwin Sutherland's Differential Association Theory explains that behaviour is learned through interaction. When students are constantly exposed to aggression, they may begin to see it as normal and acceptable.

In terms of bullying, Dan Olweus defines it as repeated aggression with a power imbalance. However, more recent perspectives move beyond individual behaviour and focus on the role of school environment, peer culture, and institutional response.

While many studies show a connection between bullying and later delinquency, they often do not fully explore how institutions themselves contribute to the normalization of aggression. This study focuses on that gap.

Methodology

This study uses a mixed-method approach in order to understand both patterns and experiences.

Data was collected through:

- Questionnaire surveys
- Semi-structured interviews

- Case studies
- Secondary sources such as books and reports

A total of 55 respondents participated in the survey. The interviews included students who had experienced bullying, those who had participated in it, and those who had witnessed it. The study looks at bullying as the main factor and examines how it relates to delinquent behaviour. Other factors such as gender, seniority, peer influence, and institutional response were also considered. Ethical care was taken throughout the research. Participation was voluntary, identities were not recorded, and sensitivity was maintained, especially because the topic involves young individuals.

Findings and Interpretation

Bullying as a Common Experience

The findings show that bullying is not an isolated event. Around 72.7% of respondents reported that they had either experienced, witnessed, or participated in bullying. This indicates that bullying is part of the everyday environment in boarding schools.

It appeared in different forms such as:

- Verbal abuse
- Physical aggression
- Social exclusion
- Identity-based targeting

This shows that bullying is not limited to physical violence but also includes subtle and psychological forms.

Role of Seniority and Hierarchy

One of the strongest patterns that emerged was the role of seniority. Most respondents identified seniors as the main perpetrators of bullying.

This suggests that bullying is connected to hierarchy. Being older gives students a certain level of informal authority, which is often used to dominate juniors. In many cases, this behaviour is seen as part of “tradition” and is therefore accepted.

Peer Competition and Everyday Interactions

Bullying was also present among students of the same age group. This shows that it is not only about hierarchy but also about competition.

Students compete over:

- Academic performance
- Social recognition
- Economic background
- Cultural identity

These everyday comparisons can create tension, which sometimes leads to bullying.

Institutional Silence

Another important finding is the role of the institution. In many cases, teachers and authorities were aware of bullying but did not intervene strongly.

Bullying was often dismissed as:

- “Normal behaviour”
- “Part of growing up”
- “Discipline”

This lack of response allows bullying to continue and become normalized.

Identity and Difference

Students were often targeted based on visible differences such as tribe, language, or economic background. What begins as difference slowly turns into inequality. Repeated teasing or exclusion can affect how students see themselves and their place in the group. Although, the final conclusion showed very little assimilation of tribal identities to be connected to the prominence of bullying.

From Bullying to Delinquency

The study shows a clear pattern where bullying can influence later behaviour.

Students who are repeatedly humiliated may:

- Withdraw
- Develop anger
- Engage in aggressive behaviour

At the same time, those who gain power through bullying may continue using aggression as a way to maintain status. This creates a cycle where bullying is reproduced across generations of students.

Discussion

The findings show that bullying is not simply an individual issue. It is connected to the structure of the institution, the nature of peer relationships, and the broader social environment. Boarding schools create a closed space where interactions are intense and constant. In such spaces, power is negotiated daily, and aggression can become a way of establishing identity and status.

When institutions fail to challenge these behaviours, they become normalized. Over time, this normalization shapes how students understand power, conflict, and authority.

Conclusion

This study shows that bullying in semi-urban boarding schools is deeply rooted in social structure. It is shaped by hierarchy, identity, and institutional culture. Rather than being seen as isolated behaviour, bullying should be understood as part of a larger system that produces and reproduces inequality and aggression. If these patterns are not addressed, they may contribute to the development of delinquent behaviour among students.

Recommendations

- Stronger supervision in hostels
- Clear policies against bullying
- Emotional and psychological support for students
- Awareness of cultural sensitivity

Understanding the structure behind bullying is necessary in order to address it effectively.

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7. A Sociological Analysis of Digital Convenience Culture Shaped by Blinkit, Zepto, and Instamart Among Students in Metropolitan Cities in India

Debashree Laishram

Abstract

The rapid expansion of quick-commerce platforms such as Blinkit, Zepto, and Instamart has significantly transformed consumption practices in metropolitan India. This study examines how these platforms shape the everyday lives, time perceptions, and consumption behaviours of urban students. Using a mixed-method approach, primary data were collected from 50 student respondents across metropolitan cities through structured questionnaires and open-ended responses. The findings reveal that 82% of respondents use quick-commerce services regularly, with 64% relying on them at least 2–3 times per week. The study identifies key sociological shifts, including increased impatience with waiting (72%), rise in impulse buying (58%), and the normalization of hyper-efficiency in daily life. While 68% of respondents acknowledge awareness of gig workers' challenging conditions, only 22% reported that such awareness influences their consumption choices. The study situates these findings within broader frameworks of consumer culture, social acceleration, and platform capitalism, arguing that quick-commerce is not merely a technological innovation but a cultural transformation reshaping urban youth lifestyles.

Keywords: Digital Convenience Culture, Quick-Commerce, Urban Students, Platform Capitalism, Instant Gratification

Introduction:

The increasing integration of digital platforms into everyday life has brought about a profound transformation in consumption patterns, particularly in urban India. Quick-commerce platforms such as Blinkit, Zepto, and Instamart represent a new phase in this transformation by offering ultra-fast delivery services that promise fulfilment within minutes. Unlike earlier forms of convenience that were defined by proximity or accessibility, contemporary convenience is increasingly defined by immediacy. This shift reflects a broader cultural change in how time, efficiency, and consumption are understood in digitally mediated environments.

Students in metropolitan cities occupy a central position in this transformation. As a demographic group that is highly familiar with digital technologies and deeply embedded in app-based ecosystems, students are among the most frequent users of quick-commerce platforms. Their daily routines, which often involve managing academic pressures, social engagements, and personal responsibilities, create a context in which time-saving solutions become highly valuable. Consequently, quick-commerce services are not merely optional tools but are increasingly becoming integral to the organization of everyday life.

This study seeks to explore how these platforms contribute to the emergence of what can be described as a digital convenience culture. Rather than treating quick-commerce as a purely economic or technological phenomenon, the research situates it within broader sociological processes such as urban restructuring, platform capitalism, and changing temporal expectations. By focusing on students in metropolitan India, the study aims to provide insight into how digital systems reshape habits, perceptions, and social interactions in contemporary urban contexts.

Theoretical Framework:

The conceptual foundation of this study is rooted in theories of consumer culture, social acceleration, and platform capitalism, which together provide a comprehensive lens for understanding digital convenience culture. Consumer culture theory highlights how patterns of consumption extend beyond basic needs and become central to identity formation and everyday practices. Within this framework, convenience is not a static concept but one that evolves over time, shaped by technological advancements and social expectations. What was once considered a luxury gradually becomes normalized as a necessity, and this process is evident in the widespread adoption of quick-commerce services.

The concept of social acceleration further deepens this understanding by emphasizing the changing nature of time in modern societies. Technological innovations have significantly reduced the time required for communication, production, and consumption, leading to a compression of temporal experiences. Quick-commerce platforms exemplify this phenomenon by minimizing the gap between desire and satisfaction. In doing so, they contribute to a cultural environment in which waiting is increasingly perceived as inefficient or undesirable. For students navigating fast-paced urban environments, this acceleration aligns with existing pressures, reinforcing the appeal of instant delivery systems.

Platform capitalism provides an additional layer of analysis by focusing on the role of digital infrastructures in shaping economic and social interactions. Quick-commerce platforms operate within data-driven ecosystems that rely on algorithms to predict and influence consumer behaviour. Through personalized recommendations, targeted advertisements, and time-sensitive offers, these platforms actively shape decision-making processes. Thus, digital convenience culture is not simply a result of user preferences but is also constructed through the strategic design of platform interfaces and data-driven mechanisms.

Methodology:

This study adopts a mixed-method research design to capture both the measurable patterns of behaviour and the subjective experiences of students engaging with quick-commerce platforms. The research is based on primary data collected from 50 respondents residing in metropolitan cities in India. A purposive sampling technique was employed to ensure that participants were regular users of digital platforms and represented the demographic group most relevant to the study.

Data collection was carried out through structured questionnaires that included both close-ended and open-ended questions. The quantitative component focused on variables such as frequency of usage, types of products ordered, spending patterns, and reliance on quick-commerce for daily needs. This allowed for the identification of clear trends and statistical patterns in student behavior. At the same time, the inclusion of open-ended questions provided qualitative insights into students' perceptions of convenience, time, and digital consumption. The combination of quantitative and qualitative methods enabled a more nuanced analysis of digital convenience culture. While numerical data offered a clear picture of usage patterns, qualitative responses helped uncover the underlying motivations and interpretations associated with these behaviours. This approach ensures that the study goes beyond surface-level observations and engages with the deeper sociological implications of quick-commerce usage among students.

Findings and Analysis:

The findings of the study reveal a high level of engagement with quick-commerce platforms among students. A significant majority of respondents reported regular usage, with many relying on these services multiple times per week. The most commonly ordered items include snacks, beverages, and essential groceries, indicating that quick-commerce has become integrated into everyday consumption practices rather than being limited to occasional use. This pattern suggests that digital convenience is no longer an exception but a routine aspect of urban student life.

In terms of time management, the study highlights a strong preference for quick-commerce as a means of saving time. Many respondents indicated that these platforms are particularly useful during periods of academic pressure, such as examinations or assignment deadlines. However, this convenience also appears to reduce the need for advance planning. Students increasingly rely on instant delivery rather than preparing in advance, reflecting a shift in how time is organized and utilized in daily life.

Another significant finding is the prevalence of impulse buying. A considerable proportion of respondents reported making unplanned purchases, often influenced by platform features such as discounts, flash sales, and notifications. This indicates that consumption is not purely driven by need but is actively shaped by the design and marketing strategies of digital platforms. Additionally, the study reveals a decline in physical shopping practices, with many students preferring app-based transactions over visiting local markets. This shift has implications for social interaction, as traditional shopping spaces are gradually replaced by individualized digital experiences.

Discussion:

The findings of this study demonstrate that quick-commerce platforms function as more than just service providers; they are integral to the formation of a broader cultural system. One of the most notable changes is the transformation of time perception. The reduced tolerance for waiting observed among respondents reflects a deeper shift in expectations, where immediacy becomes the norm. This change is not limited to consumption but may extend to other aspects of life, influencing how individuals approach communication, work, and social interactions.

The rise of impulse consumption further illustrates how digital platforms actively shape behaviour. The presence of algorithmically generated recommendations and time-sensitive offers creates an environment that encourages spontaneous decision-making. As a result, consumption becomes more reactive and less deliberate. This shift raises questions about financial management and long-term consumption habits, particularly among students who are in the process of developing independent lifestyles.

The study also highlights the issue of labour invisibility within digital convenience systems. While many respondents are aware of the working conditions of delivery personnel, this awareness rarely translates into changes in behaviour. The seamless nature of digital interfaces obscures the physical effort involved in fulfilling orders, creating a disconnect between consumers and the labour that supports their convenience. This dynamic reflects broader patterns within platform capitalism, where efficiency and user experience are prioritized over transparency and ethical considerations.

Extended Sociological Analysis:

A deeper analysis of the findings reveals that digital convenience culture operates across multiple dimensions. The reconfiguration of time is particularly significant, as quick-commerce platforms effectively eliminate the waiting period traditionally associated with

consumption. This creates what can be described as a "collapse of anticipation," where the temporal gap between desire and fulfilment is minimized. Over time, this may lead to a broader cultural expectation of immediacy, influencing how individuals perceive and manage time in various contexts.

The shift from planned to on-demand consumption represents another critical transformation. Traditional shopping practices involved careful planning and budgeting, whereas quick-commerce encourages frequent, smaller transactions based on immediate needs or desires. This fragmentation of consumption can lead to increased spending and reduced financial awareness. Moreover, it reflects a broader cultural shift toward flexibility and responsiveness, where long-term planning is replaced by short-term decision-making.

Digital platforms also act as cultural mediators by shaping the way choices are presented and made. Through curated interfaces and personalized recommendations, platforms influence not only what consumers buy but also how they think about consumption. This process reinforces the values of speed, efficiency, and convenience, embedding them into everyday practices. At the same time, the uneven access to these platforms highlights the role of socioeconomic factors in shaping digital experiences. Students from different backgrounds engage with quick-commerce in varying ways, underscoring the importance of viewing digital convenience culture as a stratified phenomenon rather than a uniform experience.

Policy Implications:

The findings of this study have important implications for policy and practice. Educational institutions can play a key role in promoting awareness of digital consumption habits, encouraging students to reflect on their use of quick-commerce platforms and their broader social and ethical implications. Incorporating discussions on digital behaviour into academic curricula can help foster more responsible consumption practices.

There is also a need to address the financial implications of impulse buying. Programs aimed at improving financial literacy among students can help them better manage their spending and make more informed decisions. Given the influence of platform design on consumer behaviour, there is scope for regulatory frameworks that ensure transparency in digital marketing practices and limit manipulative strategies.

Finally, the study highlights the importance of improving labour conditions within the gig economy. Policymakers and platform companies must work together to ensure fair wages, social security, and better working conditions for delivery personnel. Addressing these issues is essential for creating a more equitable and sustainable digital economy.

Conclusion:

In conclusion, quick-commerce platforms are central to the emergence of a digital convenience culture among urban students in India. By prioritizing speed and efficiency, these platforms reshape not only consumption practices but also broader perceptions of time and social interaction. The normalization of instant gratification, combined with the influence of algorithmic systems, leads to significant changes in behaviour and expectations.

While quick-commerce offers undeniable benefits in terms of convenience and accessibility, it also raises important sociological questions. The increasing reliance on digital systems, the invisibility of labour, and the environmental implications of rapid delivery models highlight the need for critical engagement with these platforms. As digital technologies continue to evolve, understanding their impact on everyday life becomes increasingly important.

This study contributes to this understanding by providing a detailed analysis of how digital convenience culture is experienced and negotiated by students in metropolitan India. It underscores the importance of viewing quick-commerce not merely as a technological innovation but as a cultural phenomenon with far-reaching implications for society.

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8. Exploring AI-Driven Gender Bias Across Social Media Platforms: A Systematic Study

Areesha Khan

Abstract

Artificial intelligence (AI) systems embedded within social media platforms are frequently perceived as neutral, objective, and data-driven. However, a growing body of research demonstrates that these systems reproduce and intensify existing gender inequalities. This study examines how AI-driven processes—including classification, recommendation systems, content curation, targeted advertising, and generative modelling—shape gendered experiences in digital environments. Drawing on a qualitative and systematic synthesis of contemporary research, the paper conceptualises AI as a sociotechnical infrastructure shaped by cultural norms, institutional power, and economic incentives. The findings reveal recurring patterns such as binary gender classification that marginalises non-conforming identities, representational hierarchies privileging masculinity, engagement-driven amplification of stereotypical content, and algorithmic segmentation that channels users into unequal economic trajectories. The study argues that gender bias in AI is structural rather than incidental, requiring systemic interventions in design, governance, and regulation.

Keywords: Artificial Intelligence, Gender Bias, Social Media, Algorithmic Inequality, Digital Sociology, Platform Capitalism, Algorithmic Governance

Introduction

The rapid expansion of artificial intelligence across social media platforms has fundamentally reshaped how individuals interact, communicate, and construct identity in digital environments. Social media is no longer merely a medium of expression but an algorithmically structured space where visibility, authority, and opportunity are determined through automated processes. Recommendation systems decide which content reaches audiences, image recognition tools categorise identities, and targeted advertising systems segment users into marketable groups.

Within this ecosystem, gender becomes a computational variable rather than solely a social identity. AI systems often reduce gender to binary categories, failing to capture the fluid, performative, and intersectional nature of identity. These processes are embedded within broader cultural and economic structures, leading to the reproduction of existing hierarchies rather than their transformation .

This study argues that AI-driven gender bias is infrastructural. It is not simply a technical flaw but a structural outcome of systems designed to optimise engagement, efficiency, and profit. Social media platforms thus become active sites where gender is produced, regulated, and stratified through algorithmic processes.

Methodological Approach

This study adopts a qualitative, interpretive research design based on the systematic synthesis of existing scholarly literature. Rather than focusing on a single platform or dataset, it integrates

findings from multiple studies examining artificial intelligence systems such as facial recognition technologies, recommendation algorithms, content moderation systems, targeted advertising frameworks, and generative AI models.

Sources were selected based on their relevance to both AI and gendered outcomes. The inclusion of diverse methodologies—including computational audits, surveys, interviews, and content analysis—ensures analytical depth and comprehensiveness. Thematic analysis was conducted to identify recurring patterns across studies, allowing for a holistic understanding of how gender bias operates across interconnected digital systems.

Theoretical Framework: AI as a Site of Power

Understanding AI-driven gender bias requires situating technology within broader structures of power. This study draws on feminist theory, Foucauldian concepts of power and governance, Bourdieu's theory of symbolic capital, and Marxist political economy.

Feminist theory conceptualises gender as socially constructed and institutionally reproduced. In digital environments, algorithmic systems participate in this process by privileging certain gender performances while marginalising others. Foucault's framework highlights how classification and surveillance function as mechanisms of regulation, shaping behaviour through subtle forms of governance.

Bourdieu's concept of symbolic capital explains how visibility operates as a form of power within digital fields. Algorithms determine which users gain recognition and authority, often reinforcing associations between masculinity and expertise. Marxist theory situates these processes within platform capitalism, where user data is commodified and engagement is monetised. Gender becomes a marketable category used for segmentation and profit generation.

Together, these perspectives reveal AI as a sociotechnical system where cultural norms, economic incentives, and power relations intersect.

Gender as Classification: Legibility and Misrecognition

One of the core functions of AI systems is classification. Gender is often operationalised as a binary variable, reducing complex identities into simplified categories. This process renders non-binary, transgender, and gender-diverse identities systemically invisible.

Misclassification is structured rather than random. Individuals whose gender expression aligns with dominant norms are more likely to be correctly recognised, while others face higher rates of misrecognition. These classification errors have tangible consequences, influencing visibility, recommendations, and access to digital spaces.

Importantly, classification systems do not merely label identities; they shape them. By defining what counts as recognisable gender, algorithms exert power over identity itself.

Representational Inequality: Seeing Gender Through Algorithms

AI-driven systems of image recognition and content labelling reveal persistent gender biases in representation. Women are more frequently associated with appearance-related descriptors, while men are linked to professional roles and authority.

These representational patterns reinforce traditional gender hierarchies, shaping perceptions of competence and credibility. The underrepresentation of women in fields such as technology further normalises male dominance in positions of expertise and leadership.

Algorithmic Amplification and the Politics of Visibility

Social media platforms operate through engagement-driven algorithms that prioritise content likely to generate interaction. Content that aligns with dominant gender norms tends to receive greater visibility, creating feedback loops that reinforce stereotypes.

Users adapt their behaviour to align with algorithmic expectations, shaping how gender is performed online. This dynamic contributes to the normalisation of specific gender identities and roles, particularly among younger users navigating digital spaces.

Economic Stratification and Algorithmic Segmentation

AI systems play a central role in structuring economic opportunities through targeted advertising and content segmentation. Users are categorised into demographic groups and exposed to different types of advertisements based on inferred gender.

Women are often targeted with beauty and domestic products, while men are directed toward finance, technology, and sports-related content. These patterns reinforce traditional gender roles and contribute to unequal access to economic opportunities.

Generative AI and Cultural Reproduction

Generative AI systems extend these biases by producing new content based on historical data. These systems often replicate and intensify gender stereotypes, reinforcing conventional associations between femininity and caregiving and masculinity and authority.

As generated content circulates widely, it re-enters the data ecosystem, creating a cycle of bias reproduction that stabilises existing inequalities.

Conclusion

AI-driven gender bias across social media platforms is deeply embedded within digital infrastructures. These systems shape how gender is recognised, represented, and valued, reinforcing existing hierarchies.

Addressing these issues requires structural interventions that go beyond technical fixes. Inclusive design practices, transparency in algorithmic decision-making, and stronger regulatory frameworks are essential to ensuring equitable digital environments.

As social media platforms continue to influence everyday life, interrogating the role of AI in reproducing gender inequality becomes increasingly urgent. This study highlights the need to rethink digital systems not as neutral tools but as active participants in shaping social reality.

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9. Crime in India's Metros: A Comparative Analysis of Mumbai and Delhi with Insights from OTT Representations

Deboneeta Devi

Abstract

Crime in metropolitan India has emerged as a complex social phenomenon shaped by rapid urbanisation, socio-economic inequality, institutional capacity, and cultural representation. This research article presents a comparative analysis of crime patterns in Delhi and Mumbai between 2015 and 2025, integrating empirical data from the National Crime Records Bureau (NCRB) with sociological interpretation of crime narratives on Over-the-Top (OTT) platforms. The study examines key categories of crime, including violent crime, crimes against women, juvenile delinquency, cybercrime, and organised economic offences, to identify structural and spatial differences between the two cities. It further analyses selected OTT crime series such as *Delhi Crime*, *Paatal Lok*, *Sacred Games*, and *Bambai Meri Jaan* as cultural texts that shape public understanding of crime, policing, and urban life. The findings reveal that while Delhi exhibits higher recorded rates of violent and gender-based crime, Mumbai demonstrates a more embedded pattern of organised and economic crime. The study also identifies significant divergences between empirical crime trends and their representation in OTT narratives, particularly the underrepresentation of cybercrime and everyday forms of violence. By combining statistical analysis with cultural interpretation, the research offers a multidimensional sociological understanding of metropolitan crime and highlights the role of media in constructing urban crime imaginaries in contemporary India.

Keywords

Metropolitan Crime, Delhi, Mumbai, NCRB, OTT Platforms, Urban Sociology, Crime Representation, Gendered Violence.

2. Introduction

Crime in contemporary India is increasingly concentrated within metropolitan spaces, where rapid urbanisation, migration, and economic transformation have reshaped both the nature and distribution of criminal activity. Cities such as Delhi and Mumbai function as critical sites for examining how structural inequality, governance, and social organisation influence crime patterns. Urban crime today extends beyond traditional categories of violence and theft to include cybercrime, gender-based violence, and organised economic offences, reflecting broader transformations in urban life (Mathen, 2025).

Delhi and Mumbai represent two distinct metropolitan contexts. Delhi, as the national capital, is characterised by fragmented governance, rapid peri-urban expansion, and high population mobility. Mumbai, as India's financial hub, exhibits dense urban settlement patterns and a long history of organised crime embedded within its political economy (Weinstein, 2008). These structural differences contribute to divergent crime profiles, making the cities suitable for comparative analysis.

While existing studies rely heavily on NCRB data to analyse crime trends, fewer have examined how crime is represented in contemporary media. The rise of OTT platforms has transformed the cultural landscape, with crime-based narratives shaping public perceptions of safety, justice, and urban identity (Hazra, 2022). This study integrates empirical crime analysis with sociological interpretation of OTT narratives to provide a comprehensive understanding of metropolitan crime.

3.Literature Review

Existing literature on metropolitan crime in India highlights the role of urbanisation, inequality, and institutional capacity in shaping crime patterns. NCRB reports provide the primary empirical foundation for such studies, indicating that metropolitan cities account for a disproportionate share of reported crimes (NCRB, 2019; NCRB, 2023). Delhi consistently records higher rates of violent crime and crimes against women, while Mumbai exhibits comparatively lower interpersonal violence but significant organised and economic crime (Foundation, 2017).

Sociological studies emphasise the role of spatial inequality and urban structure in crime distribution. Research on crime hotspots in Delhi demonstrates concentration around transport hubs and densely populated areas (Gupta, 2020). Mumbai's urban ecology, characterised by proximity between wealth and poverty, facilitates economic crime and informal regulation mechanisms (Weinstein, 2008).

Gender-based violence remains a central concern, particularly in Delhi, where district-level studies show high risk for crimes against women (Pooja, 2024). Feminist perspectives highlight that such violence is rooted in patriarchal norms and urban infrastructure deficits rather than individual deviance. Youth crime has similarly been linked to socio-economic exclusion, with studies emphasising the role of unemployment, peer influence, and neighbourhood disorganisation (Balamurugan, 2024).

Recent scholarship has begun to examine crime representation in OTT media. Studies suggest that series such as *Sacred Games* and *Paatal Lok* reflect broader socio-political realities while shaping public perceptions of crime and governance (Hazra, 2022; Jain, 2023). However, there remains a gap in integrating empirical crime data with cultural analysis, which this study seeks to address.

4.Methodology

This study adopts a mixed-methods approach combining quantitative and qualitative analysis. The quantitative component involves secondary analysis of NCRB data from 2015 to 2025, focusing on major crime categories such as violent crime, crimes against women, juvenile delinquency, cybercrime, and economic offences (NCRB, 2019; NCRB, 2022; NCRB, 2023). Comparative analysis is used to identify trends and differences between Delhi and Mumbai.

The qualitative component employs thematic analysis of selected OTT crime narratives, including *Delhi Crime*, *Paatal Lok*, *Sacred Games*, and *Bambai Meri Jaan*. These texts are analysed as sociological artefacts, focusing on themes such as representation of crime, policing, gender, and urban space.

By integrating statistical data with cultural analysis, the methodology enables a comprehensive understanding of crime as both a measurable phenomenon and a socially constructed reality.

5.Theoretical Framework

The study is grounded in a sociological theoretical framework that explains metropolitan crime as a product of structural inequality, social organisation, and cultural meaning rather than individual deviance. Central to this framework is the concept of **urban inequality**, which highlights how economic disparity, spatial segregation, and unequal access to resources shape crime patterns in cities such as Delhi and Mumbai. Drawing on **strain theory** and **social disorganisation theory**, the research argues that crime emerges from blocked opportunities, weakened community cohesion, and marginalisation within rapidly urbanising environments.

The framework also incorporates **feminist theory** to analyse gendered violence, particularly in Delhi, where patriarchal norms, unsafe urban infrastructure, and power imbalances contribute to high levels of crimes against women. Gendered crime is understood as a structural issue embedded in everyday social relations rather than isolated acts of deviance. Additionally, the study applies perspectives on **youth marginality**, emphasising how unemployment, exclusion, and peer influence create pathways into juvenile delinquency.

Further, the research engages with theories of **state power and institutional legitimacy** to examine policing practices in metropolitan contexts. Policing is viewed as a socially embedded institution influenced by political priorities, class dynamics, and public trust, rather than a neutral mechanism of law enforcement. Variations in policing between Delhi and Mumbai highlight how institutional processes shape crime data and public perception.

Finally, the framework incorporates **cultural criminology**, particularly in analysing OTT narratives as sites of meaning-making. Crime is treated as both a material reality and a cultural construct shaped through media representation. This integrated theoretical approach enables a comprehensive understanding of metropolitan crime as a complex interaction between structure, power, inequality, and representation.

6. Findings and Discussion

This section presents a comparative analysis of crime patterns in Delhi and Mumbai by integrating empirical findings from NCRB data with sociological insights derived from thematic and cultural analysis. Rather than treating crime as a purely statistical phenomenon, the discussion situates it within broader processes of urbanisation, inequality, governance, and representation. By examining both measurable trends and their interpretation through OTT narratives, this section highlights how metropolitan crime is simultaneously produced, experienced, and socially constructed. The comparative approach allows for an understanding of how Delhi and Mumbai, despite sharing similar urban pressures, exhibit distinct crime dynamics shaped by their unique socio-economic structures and cultural contexts.

6.1 Metropolitan Crime Patterns and Overall Trends

The comparative analysis reveals that crime in Delhi and Mumbai reflects distinct metropolitan dynamics shaped by urban structure, governance, and inequality. NCRB data (2015–2025) show that Delhi consistently records higher overall crime rates, particularly in violent offences and crimes against women, while Mumbai exhibits comparatively lower interpersonal crime

but stronger patterns of organised and economic crime. These differences highlight how crime is embedded within city-specific socio-economic and institutional contexts rather than determined solely by population size.

6.2 Violent Crime and Gendered Violence

Violent crime, especially gender-based violence, emerges as a defining feature of Delhi's crime profile. High reporting of crimes against women reflects both structural vulnerability and increased visibility through institutional reforms. In contrast, Mumbai's lower recorded rates suggest the influence of underreporting and differing social norms. From a sociological perspective, gendered crime is rooted in patriarchal power structures, urban infrastructure deficits, and unequal access to public space, rather than isolated deviant behaviour.

6.3 Juvenile Delinquency and Urban Marginality

Youth involvement in crime in both cities is closely linked to socio-economic exclusion, unemployment, and limited access to education. Delhi shows higher visibility of juvenile crime in marginalised neighbourhoods, while Mumbai's youth crime is often connected to informal economies and local networks. These patterns reinforce the idea that juvenile delinquency is a product of structural inequality and urban marginality rather than individual pathology.

6.4 Cybercrime, Economic Crime, and Pandemic Effects

The rise of cybercrime and economic offences marks a significant shift in metropolitan crime. NCRB data indicate increasing cybercrime cases in both cities, reflecting digitalisation and new vulnerabilities. The COVID-19 pandemic further altered crime patterns, reducing street crime while increasing domestic violence and cyber offences. These changes demonstrate that crime is responsive to broader social disruptions and evolving urban conditions.

6.5 OTT Narratives and the Construction of Crime

OTT platforms play a crucial role in shaping the cultural understanding of crime. Delhi-based narratives such as *Delhi Crime* and *Paatal Lok* emphasise gendered violence and institutional strain, while Mumbai-based narratives such as *Sacred Games* focus on organised crime and political corruption. These portrayals align partially with empirical trends but also construct city-specific crime imaginaries that influence public perception and discourse.

6.6 Convergence, Divergence, and Urban Meaning

A key finding is the convergence between crime data and narrative representation in certain areas, such as Delhi's association with gender violence and Mumbai's link to organised crime. However, significant divergences exist, particularly in the underrepresentation of cybercrime and everyday economic exploitation in OTT narratives. These selective portrayals reflect market-driven storytelling and contribute to the social construction of urban identity, fear, and institutional legitimacy.

7.Conclusion

This study demonstrates that crime in Delhi and Mumbai is shaped by distinct metropolitan dynamics rooted in urbanisation, inequality, and institutional structures. Delhi's higher

recorded crime rates, particularly in violent crime and crimes against women, reflect the combined effects of rapid urban expansion, fragmented governance, and increased reporting mechanisms. In contrast, Mumbai's comparatively lower interpersonal crime coexists with entrenched patterns of organised and economic crime embedded within its political and economic systems. These findings highlight that crime cannot be understood through statistics alone but must be situated within broader socio-spatial and institutional contexts.

The integration of OTT analysis further reveals that crime is not only experienced but also socially constructed through cultural narratives. While certain representations align with empirical trends, they often prioritise dramatic forms of crime and overlook emerging issues such as cybercrime and everyday economic exploitation. This selective portrayal influences public perception, fear, and urban identity.

Overall, the research underscores the importance of a sociological approach that combines empirical data with cultural analysis. Understanding metropolitan crime requires recognising both its material conditions and its symbolic representation, thereby contributing to more nuanced perspectives on urban safety and governance in contemporary India.

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10. Representation of Violence Against Women in Hindi Cinema:A Comparative Study

Vanshika Bhatia

Abstract

This study examines the representation of violence against women in selected Hindi films from the 1990s and the post-2000 era through a comparative sociological perspective. As a potent cultural institution, film both reflects and influences social views on justice, gender, and power. The study examines movies from the early era, including Damini, Zakhmi Aurat, Bandit Queen, Khoon Bhari Maang, and Dushman, as well as those from the latter era, including Pink, Thappad, Bulbbul, Darlings, and Chhapaak. The research examines issues of sexuality, honor, consent, patriarchy, legal justice, and women's agency through qualitative content analysis. The results show that whereas modern films increasingly emphasize women's voices, legal consciousness, and resistance within common societal systems, older films frequently depicted women as victims whose suffering warranted dramatic justice or male retaliation. It places these film depictions in the context of larger sociocultural changes in India, such as feminist movements, legislative changes, media growth, and an increase in the public conversation on gender rights.

Keywords: *Violence against women, Hindi cinema, Gender representation, Patriarchy, Feminist analysis, Gender based violence.*

1. Introduction

The representation of violence against women in Hindi cinema has long served as a powerful mirror of Indian society's gender relations, social hierarchies, and cultural values. Cinema actively impacts public perception, moral values, and collective consciousness in addition to reflecting current social realities. There are several levels of violence against women in movies, including physical, sexual, emotional, psychological, and symbolic. Sensational and melodramatic depictions of violence, including rape, domestic abuse, honour killing, abandonment, and vengeance stories, were common in earlier Hindi films.

These depictions frequently reduced women to helpless victims whose pain served as a plot element to inspire male heroes or provide justification for severe reprisal. In romantic, marital, and familial contexts, violence was frequently acceptable and women's suffering was aesthetized. In Hindi cinema, women have traditionally been shown in strict gender roles, such as the submissive daughter, the selfless wife, the loving mother, or the fallen lady. In these stories, violence was used as a kind of societal control. Coercion, sexual assault, humiliation, abandonment, and domestic abuse were frequently depicted as outcomes of women's fate or disobedience.

Violence against women is a pervasive social issue that encompasses emotional, psychological, sexual, economic, and symbolic forms of dominance in addition to isolated instances of physical injury. It is created and maintained by unequal power dynamics ingrained in institutions including the state, caste, family, marriage, and community. The cultural values of honor, obedience, sacrifice, and respectability govern women's bodies and emotions in Indian society. Violence frequently turns into a tool of societal control when women defy these expectations. Violence must therefore be viewed as both a behavior and a cultural and structural

phenomenon that is influenced by daily routines and ideologies. These processes are given meaning in large part by cinema. Hindi cinema is dynamic, though.

2. Literature Review

Scholars see cinema as a potent cultural institution that reflects, creates, and negotiates social implications about gender, power, sexuality, justice, and identity rather than just as a kind of entertainment.

Srividya Ramasubramanian & Mary Beth Oliver (2003), examined how sexual violence is portrayed in popular Hindi movies, concentrating on nine box office successes that were chosen at random and released between 1997 and 1999. The study explores how audience perceptions of romantic relationships and sexual violence are shaped by cinematic storylines, with a foundation in script theory and social learning views. The results show a concerning trend in which modest kinds of sexual violence, like continuous harassment and coercive behavior, are often portrayed as fun, light-hearted, and acceptable manifestations of romantic love.

Amita Sreenivas (2006) Accepting attitudes towards domestic violence fostered through exposure to cinema in Andhra Pradesh, focuses on the function of cinema as a predominant kind of audio-visual entertainment medium and explores the evolution of tolerant attitudes about domestic abuse in Andhra Pradesh, India. According to the study, tolerant views toward violence against women are a major public health problem since they are linked to detrimental physical and psychological effects on women and their offspring, as well as obstacles to women's empowerment and the advancement of the country.

Meghna Bhat (2017), Violence Against Women in Bollywood Cinema: Exploring Gender Differences in the Indian Diaspora, examines how violence against women is portrayed in Hindi movies and how the Indian diaspora in the US views these depictions. In order to investigate interpretations of on-screen gender constructions and real-life understandings of gender-based violence, the study uses qualitative methodologies such as gender-specific focus groups and theme film analysis, utilizing feminist theory and a sociological framework.

Vrushti Patel (2024) Stereotyping and Gender Dynamics: Portrayal of Women in the Bollywood Films and Crimes of Stalking and Sexual Harassment, she critically examines the portrayal of women in mainstream Hindi cinema and its impact on social behaviour. The study contends that rather than portraying women as independent people with agency and goals, Bollywood movies frequently depict them as sexual objects or as passive, subservient characters.

Research objectives

- To analyse how violence against women is depicted in selected Hindi films from the 1990s and 2000s.
- To evaluate whether cinematic representations have shifted due to changing socio-cultural contexts in India.
- To compare shifts in representation across the two periods in terms of narrative, gender norms, and visual framing.

3. Research Methodology

The research uses a qualitative methodological framework since its goal is to understand images, tales, debate, and social meanings rather than quantify numerical patterns. The main method used in this study is qualitative content analysis. Content analysis, which is a

qualitative research method, is used in this research to systematically analyse the representation of violence against women in selected Hindi films.
The selected sample includes, Earlier Period Cinema (1990s) as Damini, Zakhmi Aurat, Bandit Queen, Khoon Bhari Maang, Dushman. Later Period Cinema (2000) as Pink, Thappad, Bulbbul, Darlings, Chhapaak.

5.Theoretical Framework

This research looks at how Hindi films portray violence against women and is based on the Feminist Patriarchy Theory. This theory understands violence against women not as an individual problem or accidental occurrence but as a structural and systemic phenomenon deeply rooted in patriarchal social organization (Walby, 1990) . Patriarchy, in this perspective, is not limited to the domination of men over women within personal relationships but is embedded in the economic, political, cultural, legal, and ideological institutions of society (Beauvoir, 1953).

Patriarchy, Marriage and Domestic Power
Khoon Bhari Maang (1988) vs Darlings (2022)

Feminist theory identifies marriage as one of the most powerful patriarchal institutions through which women's labour, sexuality, and obedience are regulated (Hooks, 1984). In Khoon Bhari Maang, marriage is constructed as an economic and emotional trap. The husband's authority is unquestioned, and the wife's suffering is normalized as part of marital duty. Violence functions as a tool of ownership, with the husband treating the wife as property whose body and wealth he controls. The narrative reinforces traditional gender expectations: the obedient wife is punished while the powerful man is socially protected.(Roshan, 1988). The contrast between Darlings (2022) and Khoon Bhari Maang (1988) shows how cinematic depictions of household power and violence against women have evolved from spectacular revenge stories to intricate, day-to-day exchanges of abuse and resistance.

Sexual Violence, Stigma and Survivor Identity
Dushman (1998) vs Chhapaak (2020)

Comparing Dushman (1998) with Chhapaak (2020) shows how women are now portrayed in movies as social subjects negotiating visibility, agency, and dignity rather than as traumatized victims. A woman is brutally raped and killed in Dushman (1998), and the protagonist's fragility as she gets caught up in the criminal procedure later serves as a metaphor for sexual violence. Fear, tension, and protection play a major role in framing violence in the movie. The survivor figure is positioned inside a culture of threat, where safety is external and depends on male action. Stigma works covertly by portraying women as objects that need to be protected, concealed, or saved. In contrast, Chhapaak (2020) views sexual assault, particularly acid attacks, as a protracted societal process that involves shame, survival, and identity rebuilding rather than as a single dramatic incident. This represents a change from victim-centered spectacle to survivor-centered politics (Gulzar, 2020).

Law, Consent and Women's Voice
Damini (1993) vs Pink (2016)

In Damini (1993), the law acts as a dramatic battlefield where truth must fight corruption and social hierarchy. The protagonist becomes a witness to sexual assault within a strong family. At first, social pressure, coercion, and marital submission stifle her voice. Patriarchal authority expects her allegiance to family honour rather than to justice. The narrative now calls for male accountability rather than women's moral purity. Instead of only being a place for emotional protest, the courtroom becomes a forum for feminist articulation

of rights.Women's fight against patriarchal legal systems is the continuity; feminist discourse in the legal system is becoming more powerful and legitimate.

Pink (2016), on the other hand, reimagines law as a realm of daily gender politics as opposed to theatrical spectacle. The main moral and legal concern is consent. In contrast to Damini, Pink places violence in the context of everyday social interactions rather than exceptional criminal activity. As Berger and Luckmann contend, reality is socially produced through everyday meanings and interactions. (Berger & Luckmann, 1966). Pink reveals how patriarchal presumptions misinterpret and alter consent. Women are categorized as 'good' or 'bad' based on their sexual behavior, as explained by Patricia Hill Collins' work on managing images. Pink fights these representations by saying that lifestyle does not nullify rights.(Collins, 1990).

Sexuality, Honour and Patriarchal Control
Zakhmi Aurat (1988) vs Bulbbul (2020)

According to feminist ideology, one of the most basic ways patriarchy maintains its rule is through control over female sexuality (Connell, 1987) . Male power, family prestige, and social dignity are all imprinted on women's bodies. The most horrific and literal kind of sexual violence is depicted in Zakhmi Aurat (Nayyar, 1988). The contrast between Zakhmi Aurat (1988) and Bulbbul (2020) demonstrates how Hindi cinema has changed from explicitly punitive representations of female sexuality to more sophisticated, contemplative portrayals that question patriarchal honor norms. The ongoing control over women's sexuality is the continuity; the complexity and nuance of cinematic expression is the change. (Dutt, 2020) (Nayyar, 1988).

Patriarchal Institutions and Gendered Violence in Cinema

By defining patriarchy as a system of interconnected social institutions, Sylvia Walby's work reinforces this perspective (Walby, 1990). Major sites of patriarchal authority, according to Walby, include the home, paid employment, the state, masculine aggression, sexuality, and cultural institutions. The way these mechanisms interact to influence women's experiences of violence is powerfully depicted in Hindi cinema. The state's complicity in maintaining gender discrimination is seen in Zakhmi Aurat's police and judicial failures. In Khoon Bhari Maang, the institution of marriage is used for both physical control and financial exploitation. In Thappad, the home becomes a potent site of patriarchal rule where regular acts of physical and emotional abuse are accepted (Sinha, 2020).

Power, Symbolic Violence and Gendered Representation in Hindi Cinema

By elucidating how dominance frequently functions covertly through cultural norms, beliefs, and routine behaviours, Pierre Bourdieu's concept of symbolic violence adds another vital layer to the research (Bourdieu, 1990). When people internalize and accept societal hierarchies as normal or acceptable, symbolic violence takes place. This is seen in movies like Bulbbul, where silence, custom, and folklore all play a part in the suffering of women. The protagonist's metamorphosis into a legendary avenger represents resistance to injustice that has been accepted for centuries. These subtle control systems are shown in film, which also offers a platform for their criticism and modification (M. & Dissanayake, 2003).

The paradigm conceptualizes violence as a structural and cultural phenomena founded in patriarchal power relations, as opposed to considering it as a singular act of individual cruelty or merely a cinematic spectacle. A fuller understanding of cinematic texts as social documents that both reflect and shape gendered realities in Indian society is made possible by the framework's integration of feminist patriarchy theory, feminist film theory, and sociological understandings of symbolic and emotional violence.

6.Result and Findings

The results of the study on how violence against women is portrayed in a few Hindi films from the 1990s and the post-2000 era are shown and explained in this chapter. In addition to summarizing the findings of the analysis, the Results and Discussion section aims to clarify its sociological significance by relating empirical data to the study's goals, research questions, and theoretical framework. The films were analysed as cultural texts that arrange stories, feelings, and visual meanings related to gender, power, morality, and justice using qualitative content analysis. The findings reflect patterns in how different forms of violence physical, sexual, emotional, psychological, and symbolic are constructed, normalized, challenged, or transformed within cinematic representation.

Objective 1: To analyse how violence against women is depicted in selected Hindi films from the 1990s and 2000s

The examination of a few Hindi movies from the 1990s and 2000s shows notable variations in the portrayal, storytelling, and interpretation of violence against women. Violence is mostly shown in overt, physical, and sensational ways in movies from the 1990s including Damini, Zakhmi Aurat, Bandit Queen, Khoon Bhari Maang, and Dushman. Sexual assault, domestic violence, public humiliation, and revenge-driven retaliation dominate the plot. Male guardians or women themselves frequently exploit women's pain as a dramatic trigger to justify heroic action. The results imply that Hindi cinema’s awareness of violence against women has become more socially grounded throughout time.

Objective 2: To evaluate whether cinematic representations have shifted due to changing socio-cultural contexts in India.

The examination of a few Hindi movies from the 1990s and 2000S shows that, in line with shifting sociocultural circumstances in India, there has been a notable change in how violence against women is portrayed. Films from the earlier period such as Damini, Zakhmi Aurat, Bandit Queen, and Khoon Bhari Maang mainly show violence through melodramatic, spectacular, and revenge-driven plots. On the other hand, modern movies like Pink, Thappad, Bulbbul, Darlings, and Chhapaak show violence as ingrained in both institutional systems and daily social life.

Objective 3: To compare shifts in representation across the two periods in terms of narrative, gender norms, and visual framing.

When a few Hindi films from the 1990s and 2000s are compared, it becomes clear that the way violence against women is portrayed has changed significantly in terms of narrative structure, gender norms, and visual framing. The findings show that in order to portray women's pain and resistance, previous movies mostly focused on melodramatic narrative, heightened emotional appeal, and revenge-driven plots. Violence was typically portrayed as an extraordinary event that necessitated severe responses, usually in the form of retribution or retaliation.

7. Conclusion

The study studies how violence against women is represented in Hindi cinema over two important periods the 1990s and the 2000 utilizing a sociological and feminist perspective. The study examines both continuity and change in cinematic narratives of gendered violence by analysing a few films, including Damini, Bandit Queen, Zakhmi Aurat, Khoon Bhari Maang, and Dushman, and contrasting them with Pink, Thappad, Bulbbul, Darlings, and Chhapaak. Using a comparative sociological approach, this dissertation examined how violence against women is culturally constructed in Hindi cinema, with a particular emphasis on movies from the 1990s and the years after 2000.

The study analysed movies as social texts that actively influence public perceptions of gender, power, morality, and justice rather than just as entertainment. By investigating story structure, visual framing, gender norms, and ideological messaging, the research highlighted how cinema engages in constructing and modifying meanings around women's pain and resistance. The results demonstrate that earlier Hindi films primarily depicted women as suffering victims whose agony served primarily as a narrative device to support masculine bravery, retaliation, and moral rehabilitation.

According to the analysis, women's bodies were used as narrative places for honor, shame, and retaliation in earlier Hindi films, which mostly depended on melodramatic and spectacular images of violence. Rather of being independent subjects, female figures were often positioned as moral symbols. Contemporary films reflect an increasing concern with everyday power dynamics, consent, emotional abuse, and institutional responsibility. Women are increasingly portrayed as reflective subjects who negotiate family, law, and society instead than passively absorbing violence. Yet, this transition remains incomplete.

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11. From Policy to Practice: A Comparative Study of Digital India in Kerala and Bihar

Khushi Yadav

Abstract

The Digital India Programme, introduced in 2015, represents a major policy effort to transform governance through digital infrastructure, service delivery, and citizen empowerment. Despite its unified national vision, its outcomes vary significantly across states due to differences in socio-economic conditions and institutional capacity. This study offers a comparative analysis of Kerala and Bihar to examine how digital governance policies are translated into practice. Using a qualitative research design based on secondary data, the study evaluates digital infrastructure, governance mechanisms, and citizen engagement. The findings suggest that Kerala's relatively successful implementation is linked to strong institutional capacity, high literacy levels, and sustained digital investments, whereas Bihar continues to face structural challenges such as limited connectivity, low digital literacy, and administrative inefficiencies. The study argues that digital transformation is not solely technological but deeply embedded in social and institutional contexts. It concludes that inclusive digital governance requires context-specific strategies that address structural inequalities and enhance citizen capabilities.
Keywords: Digital India, e-governance, digital divide, governance capacity, Kerala, Bihar

1. Introduction

The increasing integration of digital technologies into governance has transformed public administration worldwide. In India, this shift became more pronounced with the launch of the Digital India Programme in 2015, which aimed to build a digitally empowered society and improve governance efficiency through technology-driven reforms. The programme promotes online service delivery, digital infrastructure, and citizen participation, marking a transition from traditional bureaucratic systems to more responsive and citizen-centric governance.

However, the implementation of Digital India has not been uniform. India's federal structure allows states significant flexibility in policy execution, resulting in varied outcomes across regions. These differences are shaped by disparities in infrastructure, literacy, administrative capacity, and socio-economic conditions.

Kerala and Bihar represent two contrasting contexts. Kerala, characterised by high literacy rates and strong public institutions, has demonstrated relatively effective digital governance. Bihar, on the other hand, continues to face infrastructural limitations, lower digital awareness, and administrative constraints. This contrast provides an opportunity to examine how national digital policies are adapted at the state level.

This study explores the gap between policy intent and practical implementation by comparing Digital India initiatives in Kerala and Bihar, focusing on infrastructure, governance systems, and citizen experiences.

2. Literature Review

The study of digital governance is grounded in the concepts of e-governance, digital governance, and the digital divide. E-governance refers to the use of information and communication technologies to enhance the efficiency, transparency, and accessibility of public administration (Heeks, 2001). Over time, this concept has evolved into digital governance, which includes broader regulatory and institutional frameworks guiding the use of digital technologies (Janowski, 2015).

In India, digital governance has developed through policy initiatives such as the National e-Governance Plan and the Digital India Programme. While earlier efforts focused primarily on digitising services, Digital India introduced a more integrated approach by combining infrastructure development, service delivery, and citizen empowerment.

Existing research highlights the benefits of digital governance, including improved service delivery, reduced corruption, and enhanced administrative efficiency (Bhatnagar, 2014). Platforms such as Aadhaar, digital payments, and Common Service Centres have contributed to expanding access to services. However, these benefits are unevenly distributed.

The digital divide remains a critical issue, as disparities in access to technology, digital literacy, and socio-economic conditions limit the inclusiveness of digital initiatives (World Bank, 2016). Moreover, much of the existing literature focuses on national achievements or successful cases, with limited attention to comparative state-level analysis and citizen experiences.

This study addresses these gaps by examining how digital governance operates in two contrasting state contexts.

3. Theoretical Framework

This study is guided by three key theoretical perspectives: the **digital divide**, **e-governance**, and **governance capacity**frameworks. These perspectives provide a lens to understand how digital policies are implemented and experienced in different socio-economic contexts.

The concept of the digital divide explains disparities in access to digital technologies, skills, and usage. It highlights that inequality in digital access is not merely technological but deeply connected to socio-economic factors such as education, income, and geography. In the context of this study, the digital divide is crucial for understanding why citizens in Kerala and Bihar experience digital services differently.

The e-governance framework focuses on the use of digital technologies to improve service delivery, transparency, and administrative efficiency. It emphasises the transformation of traditional bureaucratic processes into more streamlined and citizen-oriented systems. This perspective helps analyse how digital platforms are integrated into governance structures in both states.

The governance capacity approach highlights the role of institutional strength, administrative efficiency, and policy implementation capabilities. It suggests that the success of digital initiatives depends not only on technology but also on the ability of institutions to effectively manage and sustain these systems.

By combining these perspectives, the study adopts a socio-institutional approach to digital governance. It argues that the outcomes of Digital India are shaped by the interaction between technological systems, institutional capacity, and social conditions.

4. Methodology

This study employs a **qualitative and comparative research design** to examine the implementation of the Digital India Programme in Kerala and Bihar. The choice of a qualitative approach is guided by the objective of understanding not just policy outcomes, but also the processes, institutional dynamics, and socio-cultural factors that shape digital governance.

The research relies on **secondary data sources**, including government reports, policy documents, academic literature, and publicly available datasets related to digital infrastructure and e-governance initiatives. These sources provide a comprehensive overview of both policy intent and implementation realities across the two states.

The analytical framework is structured around three interrelated dimensions. First, **digital infrastructure** is assessed in terms of broadband connectivity, mobile penetration, and access to digital devices. Second, **governance systems** are examined through the functioning of e-governance platforms, administrative coordination, and service delivery mechanisms.

Third, **citizen engagement** is analysed by focusing on digital literacy, awareness, and patterns of service usage.

A **comparative case study approach** is used to highlight differences and similarities between Kerala and Bihar. These states were selected due to their contrasting socio-economic profiles and governance capacities, making them suitable for analysing regional disparities in digital implementation.

While the study provides valuable insights, it is important to acknowledge its limitations. The reliance on secondary data restricts the ability to capture real-time user experiences and micro-level variations. Nevertheless, the approach allows for a broad and analytically grounded understanding of digital governance across diverse contexts.

5. Findings and Analysis

5.1 Digital Infrastructure and Access

The comparative analysis reveals that digital infrastructure is a foundational determinant of digital governance outcomes. Kerala's relatively advanced digital ecosystem is the result of sustained public investment and policy continuity. High levels of internet penetration and reliable connectivity have enabled the seamless integration of digital services into governance processes.

In contrast, Bihar continues to experience significant infrastructural deficits. Rural areas, in particular, face challenges related to unstable internet connectivity and limited access to digital devices. These constraints create structural barriers that prevent large sections of the population from accessing digital services.

This disparity underscores the fact that digital governance cannot function effectively without a strong infrastructural base. It also highlights the uneven distribution of digital resources across regions.

5.2 Governance Capacity and Institutional Effectiveness

The findings demonstrate that governance capacity plays a critical role in determining the success of digital initiatives. Kerala's administrative system is characterised by relatively high levels of coordination, accountability, and institutional efficiency. Digital platforms are well-integrated into governance processes, enabling smoother implementation and better service outcomes.

Bihar, on the other hand, faces challenges related to administrative capacity. Issues such as limited training, bureaucratic delays, and fragmented coordination reduce the effectiveness of digital systems. Even when digital platforms are introduced, their impact is often constrained by weak institutional support.

This suggests that the success of digital governance is not solely dependent on technology but also on the strength and adaptability of governance structures.

5.3 Service Delivery and E-Governance Outcomes

Digital governance has significantly improved service delivery in Kerala. Online platforms have reduced procedural delays, minimised physical interactions, and enhanced transparency. Citizens are able to access a wide range of services efficiently, which strengthens trust in government systems.

In Bihar, however, the impact of digital platforms on service delivery remains limited. While services are technically available online, their usability is constrained by infrastructural and administrative challenges. Many citizens continue to rely on intermediaries or traditional offline methods, which reduces the overall effectiveness of digital initiatives.

This highlights the gap between **availability and accessibility**, where the presence of digital systems does not necessarily translate into effective usage.

5.4 Citizen Engagement and Digital Literacy

Citizen engagement emerges as a key differentiating factor between the two states. Kerala's high literacy rate and long-standing emphasis on education have facilitated greater digital awareness and participation. Citizens are more confident in using digital platforms, which enhances the overall effectiveness of governance systems.

In Bihar, low levels of digital literacy act as a significant barrier to engagement. Many individuals lack the skills required to navigate digital platforms, leading to limited adoption. Additionally, issues of trust and familiarity further discourage the use of online services.

These findings reinforce the idea that digital inclusion requires not only access to technology but also the ability to use it effectively.

5.5 Persistence and Reproduction of the Digital Divide

The study finds that the digital divide continues to persist and, in some cases, may even be reinforced through digital initiatives. In Bihar, disparities in access, skills, and socio-economic status create uneven opportunities for participation in digital governance.

Even in Kerala, where overall access is higher, certain marginalised groups may still face barriers. This suggests that digital inequality is not binary but exists along multiple dimensions, including geography, class, and education.

The findings indicate that without targeted interventions, digital governance initiatives risk reproducing existing inequalities rather than reducing them.

6. Discussion and Policy Implications

The comparative analysis provides several important insights for both theory and policy. First, it highlights that digital governance must be understood as a **socio-technical process**, where technology interacts with institutional structures and social conditions. A purely technological approach is insufficient for achieving inclusive outcomes.

Second, the findings emphasise the importance of **context-sensitive policy design**. National-level programmes such as Digital India must be adapted to regional realities. States like Bihar require targeted interventions that address infrastructural deficits and capacity constraints, rather than relying on uniform implementation strategies.

Third, the study underscores the need to strengthen **governance capacity**. Effective digital transformation requires trained personnel, administrative coordination, and institutional accountability. Without these elements, digital systems may remain underutilised or ineffective.

Fourth, addressing the digital divide requires a **multi-dimensional approach**. Expanding infrastructure must be complemented by investments in digital literacy, awareness programmes, and affordable access to devices. Special attention should be given to rural populations and marginalised communities.

Finally, building **citizen trust** is crucial for the success of digital governance. Concerns related to data security, system reliability, and usability must be addressed to encourage greater adoption of digital services.

7. Conclusion

This study demonstrates that the outcomes of the Digital India Programme are uneven and deeply shaped by regional variations in socio-economic conditions and governance capacity. The comparison between Kerala and Bihar highlights the importance of institutional strength, infrastructure, and citizen capability in determining the effectiveness of digital governance.

Kerala's experience illustrates how sustained investments in education, infrastructure, and administrative efficiency can facilitate successful digital transformation. In contrast, Bihar's challenges reveal the structural barriers that limit the reach and impact of digital initiatives.

The study argues that digital governance should not be viewed as a purely technological intervention. Instead, it must be understood as a broader socio-institutional process that requires coordinated efforts across multiple domains. Infrastructure development, capacity building, and social inclusion must be addressed simultaneously to ensure meaningful outcomes.

In conclusion, achieving the goals of Digital India requires moving beyond a one-size-fits-all approach. Policymakers must adopt strategies that are responsive to regional contexts and focused on reducing inequalities. Only then can digital governance contribute to inclusive and sustainable development.

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12. The Intersectional Trap: A Critical Analysis of Race, Gender, and Socio-Economic Marginalisation in Modern Criminology

Megha Das

1. ABSTRACT

Crime is rarely a product of individual choice alone; it is a symptom of deep-seated social inequality. This paper investigates how race, ethnicity, and gender act as intersecting variables that dictate both victimization and state-sanctioned punishment. By synthesizing Conflict Theory and Feminist Criminology with recent data from the FBI and the Bureau of Justice Statistics, the study argues that modern justice systems often perpetuate the very disparities they claim to solve. The research concludes that a "one-size-fits-all" approach to justice is insufficient, advocating instead for intersectional reforms that address economic and educational exclusion.

2. INTRODUCTION

In the contemporary landscape, the relationship between crime and social standing is undeniably tight. While traditional legal discourse often treats crime as a moral or individual failure, a sociological lens reveals it to reflect structural injustices. For marginalized communities, the "justice" system often functions as a mechanism of exclusion rather than protection. This research explores the "triple burden" faced by individuals whose race, gender, and economic status converge to increase their vulnerability. By analyzing the systemic gaps in law enforcement and policy, this paper seeks to provide a roadmap for more equitable social change.

3. THEORETICAL FRAMEWORK

Understanding the "why" behind crime requires moving beyond surface-level statistics. This study utilizes four key pillars:

- **Conflict Theory:** Building on Marx's foundations, this theory posits that the ruling class uses the law as a tool to maintain power and criminalize the survival behaviors of the poor.
- **Feminist Criminology:** This perspective challenges the "male-centric" nature of traditional studies, focusing on how patriarchy and gender roles dictate different types of victimization and offending.
- **Social Strain Theory:** Robert Merton's framework suggests that when society provides "goals" (wealth/status) but blocks the "means" (education/jobs), individuals are forced into deviance.
- **Labeling Theory:** This highlights the danger of the "criminal" tag, which often becomes a self-fulfilling prophecy, stripping individuals of their future opportunities.

4. METHODOLOGY

This research adopts a **Qualitative Meta-Analysis** combined with **Secondary Data Synthesis**. I have evaluated various criminal justice reports, academic journals, and socio-economic datasets to identify patterns that standard statistics might be missed. The primary datasets include the **FBI's Crime in the United States (2022)** and the **Bureau of Justice Statistics' Victimization Patterns (2020)**. By layering these statistics over theoretical frameworks, the paper moves from "what" is happening to "why" it is happening.

5. LITERATURE REVIEW

The current literature highlights a stark reality: neutrality in the justice system is an illusion.

- **The Race Gap:** Michelle Alexander (2012) argues that mass incarceration has become a "New Jim Crow," a sentiment supported by data showing Black Americans are incarcerated at nearly five times the rate of White Americans.
- **Gendered Violence:** Feminist scholars note that women are disproportionately the targets of domestic and intimate partner violence, with those in marginalized communities (e.g., Indigenous women) facing the highest risks.
- **The school-to-Prison Pipeline:** Recent studies from Hull and Bristol Universities demonstrate that educational exclusion, specifically permanent school expulsion, doubles the likelihood of a youth engaging in serious violence.

6. FINDINGS AND ANALYSIS

My analysis indicates that the criminal justice system is not a neutral arbiter, but a reactive institution shaped by social biases:

1. **Disproportionate State Surveillance:** Despite White individuals making up nearly 70%of arrests, the overrepresentation of Black individuals, particularly in search and seizure statistics, suggests that "policing" is often synonymous with "racial profiling".
2. **Survival as a Crime:** For women, offending patterns are frequently tied to socio-economic desperation or substance abuse. Yet, the system often treats these survival mechanisms with harsh penalties rather than rehabilitation.
3. **Economic Exclusion:** High unemployment and the lack of a living wage are the strongest predictors of crime. When legitimate work is unavailable, the "informal economy" becomes a necessity for survival.

7. CONCLUSION

Addressing crime requires us to look at the roots, not just the leaves. Systemic reforms, such as eliminating cash bail, expanding youth development programs, and implementing gender-sensitive policing, are not just "good ideas"; they are moral imperatives. We must transition from a punitive model to one rooted in **restorative justice** and **economic stability**. True safety is achieved not through more prisons, but through more equitable access to education, healthcare, and fair wages.

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13. Millets as an Indigenous Food Practice: Nutrition, Culture, and Social Transformation in Indian Society

Somya Chauhan

Abstract

This study examines millets as an indigenous food practice in India by analysing their representation in academic discourse, policy frameworks, and media narratives. Historically central to rain-fed agriculture and tribal food systems, millets were marginalised during the Green Revolution due to state support for rice and wheat. However, recent initiatives particularly the International Year of Millets (2023) have repositioned them as "nutri-cereals" and climate-resilient crops. Using a qualitative, descriptive research design based on secondary data, this study employs content analysis and case study methods to explore how millets are framed across policy and society.

The findings reveal a dual narrative: millets are promoted as both scientifically validated health foods and culturally rooted traditional grains. However, nutritional discourse often overshadows their indigenous and socio-cultural significance. Additionally, the revival of millets reflects shifting class dynamics transitioning from "poor people's food" to elite health commodities in urban markets. Despite increased visibility, structural inequalities persist, particularly in value chains where farmers receive limited economic benefits. The study concludes that millets are socially constructed foods shaped by policy, class, and cultural meanings. A sustainable and equitable revival requires integrating cultural recognition with institutional support for farmers and indigenous communities.

1. Introduction

Millets are among the oldest cultivated grains in India, including varieties such as jowar, bajra, ragi, and foxtail millet. Archaeological evidence indicates their presence in the Indus Valley Civilisation, highlighting their long-standing role in Indian diets and agrarian systems. Traditionally, millets were central to rain-fed agriculture and were deeply embedded in regional cuisines and indigenous food practices.

Despite their ecological adaptability and nutritional richness, millets experienced a decline during the Green Revolution of the 1960s and 1970s. State policies prioritised high-yield varieties of rice and wheat, supported by irrigation infrastructure, procurement systems, and subsidies. As a result, millets were excluded from mainstream agricultural development and gradually became associated with poverty and backwardness.

In recent years, however, millets have re-emerged in public discourse. The declaration of 2023 as the International Year of Millets marked a significant policy shift, promoting millets as "nutri-cereals" with high nutritional value and climate resilience. This revival raises important sociological questions: How are millets being redefined in contemporary India? What cultural and class dynamics shape their consumption? And who benefits from their renewed popularity? This study addresses these questions by examining millets as both nutritional resources and socio-cultural artefacts.

2.Review of Literature

The literature on millets reveals a complex interplay between nutrition, culture, policy, and market dynamics. Earlier studies (2013–2019) primarily focused on the decline of millets, linking it to structural changes in India's food system. Research using NSSO data demonstrated a steady decrease in coarse cereal consumption, particularly among urban and higher-income households. This decline was attributed to income growth, urbanization, and changing food aspirations. Consumer-focused studies highlight a persistent gap between awareness and practice. While many individuals recognize the health benefits of millets, factors such as taste

preferences, convenience, and lack of culinary familiarity limit their consumption. This suggests that food choices are deeply embedded in cultural habits rather than purely driven by nutritional knowledge. More recent scholarship (2021–2025) has shifted attention to millet revival. Policy analyses show that the reclassification of millets as "nutri-cereals" has increased their visibility, but has not necessarily translated into widespread consumption. Studies on urban consumers indicate that millets are often consumed in processed or packaged forms rather than traditional preparations. Ethnographic research highlights the cultural significance of millets in tribal and rural communities, where they remain embedded in rituals, festivals, and local knowledge systems. However, these cultural dimensions are often overlooked in mainstream policy discourse, which tends to emphasize nutrition and market potential. Political economy studies reveal that the benefits of millet revival are unevenly distributed. While urban markets and food-processing industries have capitalized on the growing demand, smallholder farmers often face challenges related to infrastructure, pricing, and market access. Gender-focused research further shows that women play a central role in millet cultivation and processing, yet their labour remains undervalued. Overall, the literature suggests that millet revival is not merely an agricultural or nutritional phenomenon but a socio-cultural transformation shaped by class, power, and institutional structures.

4. Theoretical Framework

This study draws on three key theoretical perspectives: Bourdieu's theory of taste, cultural capital, and political economy.

3.1 Bourdieu: Taste, Habitus, and Distinction

Bourdieu's concept of taste explains how food preferences are socially structured. Millets, once staple foods, became stigmatized as "inferior" due to their association with marginalized groups. Rice and wheat, supported by state policies, gained symbolic capital and became markers of modernity.

Habitus, or internalized dispositions, further explains why millet consumption declined. For many urban consumers, millets became unfamiliar and undesirable, even when recognized as healthy.

3.2 Cultural Capital and Revalorization

The contemporary revival of millets reflects a shift in cultural capital. Knowledge about millets such as their nutritional benefits and environmental sustainability is now associated with educated, health-conscious consumers. This has transformed millets into symbols of ethical and informed consumption. However, this revalorization often involves recontextualization. Traditional millet dishes are replaced by modern, packaged, or fusion foods, reflecting the influence of urban markets.

3.3 Political Economy

From a political economy perspective, millet revival is shaped by state policies, market forces, and class relations. The Green Revolution marginalized millets through unequal resource allocation, while contemporary revival efforts are driven by both policy initiatives and market demand. The distribution of benefits remains unequal. Farmers often receive limited returns, while value addition and profits are concentrated in processing and retail sectors.

4. Research Methodology

This study adopts a qualitative, descriptive research design to examine millets as an indigenous food practice in contemporary Indian society. Qualitative methods are appropriate for analysing non-numerical data and interpreting social meanings, cultural practices, and policy narratives . The research relies exclusively on secondary data, enabling a comprehensive synthesis of existing knowledge across multiple domains.

4.1 Data Sources and Collection

Data were collected from a range of secondary sources, including government policy documents (such as International Year of Millets 2023 materials), peer-reviewed academic

literature, institutional reports, and media narratives. A purposive sampling strategy was employed to select relevant and information-rich sources aligned with the study's objectives.
The study utilises content analysis, a qualitative method used to identify patterns, themes, and meanings within textual data .

4.2 Data Analysis

The data were analysed using thematic analysis, a widely used qualitative method that involves identifying and interpreting recurring patterns of meaning across datasets . The analysis was guided by three key themes:
(1) nutrition, (2) class, and (3) indigeneity.
Through systematic coding and categorisation, the study examines how millets are represented and socially constructed across policy, academic, and media discourses.

5. Data Analysis and Interpretation

5.1 Millets as Nutritional Foods

Policy discourse strongly emphasizes the nutritional value of millets. They are promoted as rich sources of fibre, protein, and micronutrients, and as beneficial for managing lifestyle diseases such as diabetes. The International Year of Millets 2023 played a significant role in amplifying this narrative. Government campaigns framed millets as "superfoods" and essential components of a healthy diet. This scientific framing enhances their legitimacy and appeal, particularly among urban consumers.

5.2 Millets as Indigenous Food Practices

Alongside nutritional framing, millets are also presented as heritage crops rooted in India's cultural history. Policy narratives highlight their role in traditional diets and indigenous knowledge systems. However, this cultural dimension is often secondary to nutritional discourse. While millets are celebrated as "ancient grains," their everyday cultural practices such as traditional recipes and community-based food systems receive limited attention.

5.3 Class and Social Transformation

The revival of millets reflects a significant shift in their social meaning. Once associated with poverty, millets are now marketed as premium health foods in urban markets. This transformation illustrates Bourdieu's concept of distinction, where food choices serve as markers of class identity. This shift is uneven. While urban consumers benefit from increased access to millet products, farmers often face structural constraints. The commodification of millets risks disconnecting them from their indigenous contexts.

5.4 Policy and Market Dynamics

Government initiatives have played a crucial role in promoting millets. However, the focus on market expansion and value addition often prioritizes commercial interests over farmer welfare. Challenges such as lack of processing infrastructure, limited procurement systems, and unequal value chains continue to affect millet producers. Without addressing these issues, the benefits of millet revival may remain concentrated among urban and commercial actors.

6. Discussion

The findings highlight the complex nature of millet revival in India. Millets are simultaneously framed as nutritional solutions, cultural heritage, and market commodities. This duality reflects broader tensions between tradition and modernity, sustainability and commercialization.
From a sociological perspective, the revival of millets illustrates how food meanings are socially constructed and transformed. The shift from stigma to prestige demonstrates the role of cultural capital and symbolic power in shaping dietary practices.
However, this transformation also raises concerns about inequality. The appropriation of millets by urban markets may marginalize traditional knowledge systems and reinforce existing disparities. For a meaningful revival, it is essential to integrate cultural, ecological, and economic dimensions.

7. Conclusion

Millets occupy a unique position in Indian society as both indigenous food practices and contemporary health commodities. Their historical decline reflects the influence of state policies, market forces, and social hierarchies, while their recent revival highlights changing cultural values and environmental concerns.

However, the current revival is characterized by a tension between symbolic recognition and structural inequality. While millets are celebrated as "superfoods," the benefits of their resurgence are unevenly distributed.

For millets to truly contribute to sustainable and equitable development, policy frameworks must go beyond promotion and address structural challenges. This includes strengthening farmer support systems, ensuring fair value chains, and recognizing indigenous knowledge.

Ultimately, millets are not just grains; they are socio-cultural artefacts shaped by history, power, and identity. Understanding their role in Indian society requires a holistic approach that integrates nutrition, culture, and political economy.

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14. Work–Life Conflict and its Impact on the Well-Being of Women in Urban India

Tanvi Balooni

ABSTRACT

Work–life conflict has emerged as a significant issue affecting the well-being of working women in urban India, particularly in the context of increasing female participation in the labour force and persistent gender inequalities. This study examines how work–life conflict is produced and how it influences the physical, psychological, and social well-being of women engaged in paid employment. The research adopts a qualitative content analysis of existing scholarly literature, policy reports, and research studies in order to identify major structural factors shaping women's experiences of work–life conflict.

Drawing upon feminist and sociological perspectives, the study finds that work–life conflict among urban working women is largely shaped by three interconnected factors: the unequal distribution of unpaid domestic and care work, inflexible workplace structures characterised by long working hours and performance pressures, and deeply embedded cultural norms that position women as primary caregivers. These structural conditions generate role strain, time pressure, and emotional exhaustion, which often translate into negative outcomes such as stress, fatigue, burnout, and declining overall well-being.

The study further highlights how emotional labour and gendered expectations within both workplaces and households intensify women's experiences of conflict between professional and personal responsibilities. By synthesising existing research, the paper reconceptualises work–life conflict as a gendered social process rather than an individual problem of time management. The findings emphasise the need for gender-sensitive policies, improved care infrastructure, and organisational reforms that recognise the dual responsibilities faced by working women. Such interventions are essential for promoting sustainable well-being and achieving greater gender equality in contemporary urban India.

INTRODUCTION

The increasing participation of women in paid employment represents one of the most significant socio-economic transformations of contemporary societies. In India, particularly in urban areas, women's entry into the workforce has been closely associated with urbanisation, economic liberalisation, and the expansion of service-sector employment. Women's employment is frequently interpreted as a sign of empowerment, financial independence, and social progress. However, this transformation has taken place within a socio-cultural context where traditional gender norms surrounding domestic labour and caregiving responsibilities remain largely unchanged.

As a result, women's participation in paid work has not been accompanied by an equal redistribution of household responsibilities. Working women are often expected to simultaneously fulfil professional roles while continuing to perform unpaid domestic work, childcare, and emotional caregiving within the family. This dual responsibility frequently leads to tensions between work and family domains, giving rise to what scholars describe as work–life conflict.

Urban environments intensify these challenges due to demanding work schedules, long commuting hours, and nuclear family structures that lack extended kin support. In many urban households, women remain primarily responsible for domestic labour even when they contribute significantly to household income. This unequal distribution of responsibilities places working women under constant pressure to manage competing expectations across professional and personal domains.

Work–life conflict therefore emerges as a socially produced form of inter-role conflict in which the demands of work and family become incompatible. When individuals face limited time, energy, and emotional resources, fulfilling the expectations of one role can hinder effective participation in another. For working women, this conflict often results in chronic stress, emotional exhaustion, and reduced well-being.

While work–life balance has become a prominent topic in academic and policy discussions, much of the existing research focuses on organisational productivity or individual coping strategies. Such approaches frequently overlook broader structural factors such as gender inequality, cultural expectations, and the undervaluation of unpaid care work. Understanding work–life conflict therefore requires a sociological perspective that situates women's experiences within wider systems of gender relations and labour market structures.

Against this background, the present study examines the relationship between work–life conflict and the well-being of working women in urban India through a qualitative analysis of existing scholarly literature. The study aims to synthesise existing research in order to understand the structural factors contributing to work–life conflict and the ways in which these pressures affect women's physical, psychological, and social well-being.

RESEARCH QUESTIONS

The present study seeks to address the following research questions:

1. What are the major structural and socio-cultural factors contributing to work–life conflict among working women in urban India?
2. How does work–life conflict affect the physical, psychological, and social well-being of working women?
3. In what ways do gender norms and the unequal division of domestic labour intensify work–life conflict?
4. How do existing studies conceptualise and explain the relationship between employment demands, care responsibilities, and women's well-being?

OBJECTIVES OF THE STUDY

The primary objective of this study is to examine the nature and dimensions of work–life conflict experienced by working women in urban India as reflected in existing scholarly literature.

The specific objectives are:

• To analyse the socio-economic and cultural factors contributing to work–life conflict among urban working women.

• To examine how work–life conflict influences women's physical, psychological, and emotional well-being.
• To understand the role of gender norms and the unequal division of domestic labour in shaping women's experiences of work–life conflict.
• To synthesise existing research in order to provide a sociological understanding of work–life conflict in urban India.

LITERATURE REVIEW

Scholarly research on work–life conflict has expanded significantly with the increasing participation of women in the labour force. Early studies, particularly within organisational psychology and management research, conceptualised work–life conflict as an individual-level issue related to stress, time management, and employee performance. Greenhaus and Beutell (1985) defined work–life conflict as a form of inter-role conflict in which the demands of work and family roles become incompatible.

Subsequent research demonstrated that work–life conflict is strongly shaped by gendered social arrangements. Studies across different societies have consistently shown that women perform a significantly larger share of unpaid domestic and caregiving work compared to men. Even in dual-income households, women remain primarily responsible for childcare, household management, and emotional caregiving.

Feminist scholars have argued that this unequal distribution of labour reflects broader patriarchal structures that undervalue reproductive and care work. Hochschild's concept of the "second shift" highlights how women often complete a full day of paid employment before undertaking additional domestic responsibilities at home. This dual burden results in time pressure, emotional exhaustion, and reduced opportunities for rest and leisure.

Research in the Indian context reflects similar patterns. Although urbanisation and economic development have expanded employment opportunities for women, traditional gender norms continue to shape household responsibilities. Women frequently experience role overload as they attempt to balance professional commitments with expectations of caregiving and domestic management.

Several studies have also linked work–life conflict with negative well-being outcomes. Empirical research indicates that sustained role conflict can lead to physical fatigue, sleep disturbances, anxiety, stress, and burnout. Work–life conflict also affects social relationships by increasing marital tension and reducing opportunities for family interaction and social participation.

While existing literature provides valuable insights, many studies focus primarily on individual coping strategies or organisational interventions. There remains a need for integrative sociological analyses that examine how structural inequalities within labour markets, families, and cultural norms collectively shape women's experiences of work–life conflict.

THEORETICAL FRAMEWORK

The present study is informed by feminist sociological perspectives that examine the relationship between gender, labour, and social inequality. The theoretical framework

conceptualises work–life conflict as a gendered phenomenon emerging from the interaction between paid employment, unpaid care work, and broader socio-economic structures.

Role conflict theory provides an important foundation for understanding work–life conflict. According to this perspective, individuals occupy multiple social roles associated with different expectations and responsibilities. When these expectations compete for limited time and energy, individuals experience role strain and conflict.

Feminist theory extends this analysis by emphasising the unequal distribution of domestic labour and caregiving responsibilities within patriarchal societies. Women's participation in paid employment has not eliminated their primary responsibility for unpaid work within households. This results in what scholars describe as the "double burden" of productive and reproductive labour.

The framework also draws on the concept of emotional labour, which refers to the management and regulation of emotions in accordance with social expectations. Women are often expected to provide emotional support and maintain harmony within both workplace and family environments. This additional emotional workload further intensifies work–life conflict.

By integrating these perspectives, the study views work–life conflict as a socially constructed phenomenon shaped by structural inequalities rather than merely an individual problem of time management.

METHODOLOGY

The study adopts a qualitative research approach and relies on secondary data sources to analyse the relationship between work–life conflict and women's well-being. The research is based on a qualitative content analysis of existing scholarly literature, including academic articles, books, research reports, and policy documents.

Content analysis enables systematic examination of textual material in order to identify recurring themes, patterns, and conceptual frameworks within the literature. Through this method, the study analyses how scholars conceptualise work–life conflict and how different studies interpret its causes and consequences.

Secondary data was selected from peer-reviewed journals, institutional publications, and research studies focusing on gender, work, and well-being. The selected literature was analysed through thematic categorisation in order to identify key factors contributing to work–life conflict and its impact on women's well-being.

The use of secondary data allows the study to synthesise diverse research findings and provide a comprehensive understanding of the issue across different contexts.

RESULTS AND DISCUSSION

The analysis of existing literature reveals several key factors contributing to work–life conflict among working women in urban India.

One of the most significant factors is the unequal distribution of unpaid domestic labour. Despite their increasing participation in paid employment, women remain primarily responsible for household management, childcare, and elder care. This unequal division of labour creates continuous time pressure and role overload.

Workplace structures also play an important role in generating work–life conflict. Many urban workplaces require long working hours, strict deadlines, and high performance expectations. The use of digital communication technologies has further blurred the boundaries between work and personal life, making it difficult for employees to disconnect from professional responsibilities.

Cultural expectations regarding gender roles intensify these challenges. Women are often expected to prioritise family responsibilities and caregiving roles, even when they are engaged in full-time employment. These expectations generate emotional pressure and feelings of guilt when women are unable to meet competing demands.

The literature also highlights the significant impact of work–life conflict on women's well-being. Chronic stress, fatigue, anxiety, and burnout are frequently reported outcomes. Work–life conflict can also affect family relationships and social participation, contributing to broader declines in quality of life.

Overall, the findings demonstrate that work–life conflict is not simply an individual problem but a structural issue shaped by gender norms, labour market conditions, and institutional arrangements.

CONCLUSION

Work–life conflict has become an increasingly significant issue affecting the well-being of working women in urban India. While women's participation in paid employment has expanded in recent decades, this transformation has not been accompanied by an equal redistribution of domestic responsibilities or supportive institutional arrangements.

The analysis presented in this study demonstrates that work–life conflict emerges from the interaction between workplace demands, unequal domestic labour, and persistent gender norms. These structural conditions place working women under continuous pressure to manage competing expectations across professional and family domains.

The consequences of sustained work–life conflict extend beyond individual stress to affect women's physical health, psychological stability, and social relationships. Addressing these challenges therefore requires broader structural changes rather than solely focusing on individual coping strategies.

Policy interventions should prioritise gender-sensitive labour policies, expanded childcare infrastructure, and organisational practices that promote flexible and supportive work environments. Equally important is the need to challenge cultural norms that assign caregiving responsibilities primarily to women.

By recognising work–life conflict as a structural and gendered issue, policymakers and organisations can develop more effective strategies to support the well-being of working women and promote greater gender equality in contemporary urban India.

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15. Impact of Racial Discrimination on Mizos: A Sociological Study in Delhi NCR

Lalmuanpuii Ralte

Abstract

This study examines the experiences of racial discrimination faced by Mizo migrants in Delhi NCR and its impact on their identity and everyday life. Despite India's image of diversity, individuals from Northeast India often encounter stereotyping, exclusion, and bias based on their physical appearance and cultural differences. Using a mixed-methods approach, the study highlights how discrimination occurs in daily interactions, housing, workplaces and public spaces. It also shows how factors like gender and language further shape these experiences. The findings reveal that such discrimination affects not only opportunities but also mental well-being and sense of belonging. By applying sociological concepts like Othering and Intersectionality, the study emphasizes the need for greater awareness and inclusivity in urban spaces.

Keywords: Racial discrimination, Mizos, Northeast India, Identity, Othering, Delhi NCR, Intersectionality.

Introduction

As India is widely known for its cultural diversity, yet this diversity does not always translate into acceptance. For many individuals from Northeast India, especially Mizos, migration to metropolitan cities like Delhi NCR brings both opportunities and challenges, while these cities promise better education and employment, they also expose migrants to unfamiliar forms of exclusion and prejudice.

Mizos, who come from the state of Mizoram, have a distinct cultural identity shaped by language, traditions, and a predominantly Christian background. However, in cities like Delhi, they are often reduced to a single label "North easterners" and judged based on their physical appearance and this leads to frequent misidentification, stereotyping, and questioning of their identity as Indians. Racial discrimination in this context is not always explicit, it appears in everyday interactions being stared at, mocked for language, denied housing or treated as culturally inferior. Over time, these repeated experiences affect how individuals see themselves and their place in society.

This study aims to examine how such discrimination influences the lives of Mizos in Delhi NCR. It focuses on their daily experiences, struggles with identity and attempts to adapt to an environment that often makes them feel like outsiders. By doing so, the research highlights the gap between constitutional ideals of equality and the lived realities of marginalized communities.

Formation of Objectives

The objectives of this study were developed by identifying gaps in existing research and by paying attention to everyday experiences of Mizo migrants. While earlier studies have discussed discrimination against Northeastern communities in general, there is limited focus on Mizos in particular, especially in the context of Delhi NCR.

The study also recognizes that discrimination is not just about isolated incidents but is embedded in daily interactions and social structures. Keeping this in mind, the following objectives were formulated:

- To examine the forms and nature of racial discrimination experienced by Mizos in Delhi NCR.
- To understand how these experiences affect identity and sense of belonging.
- To analyse how factors like gender, language, and religion influence discrimination.
- To explore coping strategies and community support systems.
- To relate these experiences to broader sociological concepts such as Othering and Intersectionality.

Methodology

This research adopts a mixed-methods approach, combining both qualitative and quantitative techniques to gain a comprehensive understanding of the issue.

Research Design

The study is descriptive and exploratory in nature, focusing on understanding personal experiences and broader social patterns of discrimination.

Data Collection Methods

Primary Data:

Collected through interviews and informal conversations with Mizo migrants living in Delhi NCR. These narratives helped capture personal experiences, emotions, and coping strategies.**Secondary Data:**

Derived from existing literature, reports, and academic studies related to racial discrimination and Northeast migration.

Sampling

Participants were selected through purposive sampling, focusing on Mizo students and working individuals residing in Delhi NCR.

Approach

The qualitative component focuses on lived experiences, while the quantitative aspect helps identify patterns and frequency of discrimination. This combination allows the study to move beyond statistics and present a more human understanding of the issue.

Literature Review

Bhattacharjee (2014) found that migrants from Northeast India frequently face verbal abuse, housing discrimination, and social exclusion in Delhi. The study emphasized that such discrimination is often normalized in everyday life.

Satyabrata Pal (2014) argued that discrimination in India operates through subtle social processes embedded in institutions. He pointed out that Northeastern individuals are often stereotyped and treated as culturally inferior.

Pachuau (2014) provided insight into Mizo identity formation, emphasizing how migration and discrimination reshape one's sense of belonging.

Vanlalhruaia (2017) explored Mizo identity and highlighted the importance of collectivism. The study showed that strong community bonds help Mizos cope with discrimination but may also limit their integration into mainstream society.

Lalthangliana (2017) examined how urban spaces reinforce racial inequalities. Public spaces, workplaces, and housing markets often become sites where discrimination is reproduced.

Haokip and Amba (2022) demonstrated how the COVID-19 pandemic intensified racial prejudice, with Northeastern individuals being blamed and socially avoided.

Rai (2023) highlighted structural discrimination, especially in housing and urban segregation, showing how cities themselves can reinforce exclusion.

Overall, the literature reveals that discrimination is not just individual behavior but a structural and societal issue. However, there remains a gap in studies specifically focusing on Mizos, which this research attempts to address.

Findings and Analysis

The findings of the study reveal that racial discrimination is a consistent part of everyday life for many Mizos in Delhi NCR.

1. Everyday Racism and Stereotyping

Participants reported frequent use of racial slurs and being mistaken for foreigners. These experiences reinforce a sense of exclusion and "otherness."

2. Housing and Employment Discrimination

Many respondents faced difficulty renting accommodation, with landlords refusing them based on stereotypes. In workplaces, they experienced bias in hiring, promotion, and treatment.

3. Language as a Barrier

Lack of fluency in Hindi often led to ridicule and misunderstanding. Language became a tool through which discrimination was reinforced.

4. Gendered Experiences

Mizo women faced sexualized stereotypes and harassment, making their experiences more complex and unsafe.

5. Psychological Impact

Repeated exposure to discrimination led to:

- Low self-esteem
- Anxiety and fear in public spaces
- Withdrawal from social interactions

6. Role of Community Support

Strong community networks, including church groups and student associations, provided emotional support and helped individuals cope with discrimination.

Analysis

Using the concept of **Othering**, the study shows how Mizos are positioned as outsiders. Social Identity Theory explains how this affects their self-perception, while Intersectionality highlights how gender and religion intensify discrimination. Overall, discrimination is not random but part of a larger system that shapes social interactions and opportunities.

Conclusion

This study highlights the persistent reality of racial discrimination faced by Mizos in Delhi NCR. Despite constitutional guarantees of equality, everyday experiences reveal a different picture one where identity, appearance, and culture become grounds for exclusion.

The research shows that discrimination operates at multiple levels individual, social, and structural. It affects not only opportunities but also mental well-being and sense of belonging. For many Mizos, living in Delhi involves constantly negotiating their identity in a space that does not fully accept them. At the same time, the study also reveals resilience, community networks and shared identity help individuals cope with these challenges, even though they cannot fully eliminate the impact of discrimination.

There is a clear need for stronger policies, better implementation of laws, and increased social awareness to address racial prejudice. More importantly, there is a need to recognize diversity not just in theory but in everyday practice.

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16. Celebrated Yet Secluded: A Sociological Study on Menarche Rituals and Menstrual Taboos in India

Rakshita

Abstract

Menarche, the onset of menstruation, represents a significant biological and social milestone in the life of adolescent girls. In the Indian socio-cultural context, this transition is frequently marked through elaborate rituals that publicly acknowledge the girl's entry into womanhood. However, these celebratory practices coexist with menstrual taboos, restrictions, and forms of segregation that regulate the behaviour and mobility of menstruating girls and women. This study examines the contradiction between celebration and segregation in menstrual practices in India. Using a qualitative secondary research design, the study analyses academic literature, sociological theories, and documented cultural practices related to menarche rituals and menstrual taboos. Thematic analysis reveals that while menarche rituals symbolically celebrate fertility and maturity, everyday practices such as spatial segregation, dietary restrictions, and exclusion from religious spaces reinforce patriarchal norms and regulate female bodies. The findings highlight that the celebration of fertility does not necessarily translate into empowerment; rather, it often marks the beginning of heightened social surveillance and control. The study concludes that menstrual rituals and taboos operate together to reproduce gendered power relations in Indian society, revealing menstruation as a key site where cultural symbolism and patriarchal regulation intersect.

1. Introduction

Menstruation is a natural biological process, yet it is deeply embedded within social and cultural meanings. In India, the onset of menstruation, known as menarche, is not merely a physiological event but a socially significant transition marking a girl's entry into womanhood. Families and communities often recognise this transition through rituals involving gifts, special meals, and gatherings of relatives. These practices symbolically celebrate fertility and the girl's new social status.

However, alongside this recognition exist several restrictions placed on menstruating girls. They may be asked to avoid entering kitchens and temples, limit social interactions, or observe periods of seclusion. This coexistence of celebration and restriction creates a paradoxical experience for girls, where menstruation is both acknowledged and regulated.

Sociological perspectives suggest that such practices are rooted in broader systems of patriarchy and cultural beliefs about purity and pollution. Menstrual blood, despite being associated with fertility, is often considered impure within cultural frameworks, leading to practices that isolate menstruating bodies from sacred or domestic spaces. These beliefs shape

girls' feelings of their bodies and influence how they learn to manage menstruation through silence, modesty, and secrecy.

The contradiction between ritual celebration and everyday restriction highlights how cultural practices simultaneously recognise and control female bodies. Menarche thus becomes a critical moment through which gender norms are reinforced and patriarchal authority is reproduced.

2. Research Question

The central research question guiding this study is:

How do menarche rituals and menstrual taboos in India reproduce the contradiction between celebration and segregation?

3. Objectives

The study aims to:

1. Understand the contradictory practice of celebrating menarche while simultaneously enforcing restrictions and segregation.
2. Analyse menstrual taboos and everyday practices imposed on menstruating girls and women in India.

4. Literature Review

Existing scholarship highlights menstruation as both a biological process and a socially constructed experience shaped by cultural beliefs and gender norms. Early feminist research by Janet Chawla (1994) challenges traditional interpretations that associate menstruation with impurity, arguing that such meanings were historically shaped through patriarchal reinterpretations of religious texts.

Studies by Garg and Anand (2015) emphasise that menstruation in India remains surrounded by myths and taboos that restrict women's participation in social and religious life. These beliefs often lead to emotional distress, misinformation, and limited awareness about reproductive health among adolescent girls.

Research exploring adolescent experiences proves that menarche introduces new cultural expectations regarding behaviour and modesty. Gold-Watts et al. (2020) show that girls frequently encounter stigma, embarrassment, and restrictions after their first menstruation, influencing school attendance and everyday activities.

Scholars such as Ganguly and Satpati (2021) highlight the paradox within cultural narratives of menstruation: while menarche is celebrated as a symbol of fertility and readiness for adulthood, it simultaneously reinforces patriarchal constructions of womanhood centred on reproduction rather than autonomy.

Recent literature also identifies menstrual stigma as both a social and public health issue. Madhur and Salunkhe (2023) note that silence and misinformation surrounding menstruation negatively affect girls' emotional well-being, health awareness, and social participation.

Together, these studies show that menstruation cannot be understood solely as a biological process. Instead, it is shaped by cultural norms, religious beliefs, and gendered power relations that structure women's experiences across different social contexts.

5. Theoretical Framework

This study adopts a multi-theoretical framework integrating cultural, feminist, interactionist, and power-oriented perspectives.

Mary Douglas's theory of purity and pollution explains how societies classify certain bodily substances as impure in order to maintain symbolic order. Menstrual restrictions such as exclusion from temples or kitchens reflect attempts to regulate perceived pollution.

Louis Dumont's work on hierarchy and ritual purity further highlights how Indian social structures organise behaviour through symbolic classifications of purity and impurity.

Feminist perspectives provide another important lens. Sylvia Walby conceptualises patriarchy as a system of interconnected structures that regulate women's lives across social institutions. Similarly, Simone de Beauvoir's concept of women as the "Other" demonstrates how female bodies are socially constructed in relation to male dominance.

At the micro level, symbolic interactionism, as proposed by Herbert Blumer and Erving Goffman, emphasises that meanings are produced through everyday interactions. Menstrual rituals and taboos become symbolic practices through which girls learn expected behaviours and social roles.

Finally, Michel Foucault's theory of disciplinary power highlights how social control operates through surveillance and internalised norms. Menstrual restrictions can therefore be understood as mechanisms through which female bodies are monitored and regulated within society.

Together, these perspectives enable a comprehensive understanding of how cultural rituals both celebrate and discipline menstruating bodies.

6. Methodology

This study adopts a qualitative research approach to analyse menstrual rituals and taboos in India. Qualitative methods are particularly suitable for examining culturally embedded practices and social meanings.

The research employs a qualitative secondary research design, drawing on existing academic literature, journal articles, sociological theories, media reports, and policy documents related to menstruation and gender in India.

Data were analysed using thematic analysis, which involves finding recurring patterns and themes within qualitative material. Key themes found in the analysis include:

- Ritual celebration of menarche
- Purity and pollution beliefs
- Segregation and restrictions during menstruation
- Gender socialisation and internalisation of norms
- Regulation of female bodies within patriarchal structures

This approach allows the study to interpret cultural practices through a sociological and feminist lens while keeping theoretical rigour.

7. Results and Discussion

Celebration of Menarche

Across many regions of India, menarche is publicly recognised through ceremonies that celebrate a girl's transition into womanhood. Rituals such as Thirandukalyanam in Kerala, Manjal Neerattu Vizha in Tamil Nadu, Tuloni Biya in Assam, and Peddamanishi Pandaga in Andhra Pradesh and Telangana mark this transition through communal gatherings, gift exchange, and symbolic rituals.

These ceremonies frame menstruation as a positive milestone associated with fertility, maturity, and social belonging. The involvement of extended family and community members transforms a biological event into a collective social celebration.

Ritual Structure and Symbolism

Menarche rituals typically follow a structured sequence involving seclusion, purification, and reintegration. The girl may initially observe a period of isolation, followed by ritual bathing, adornment with new clothing, and blessings from elders. Anthropologically, this pattern resembles classic rites of passage involving separation, liminality, and reintegration.

While these rituals appear celebratory, they simultaneously introduce new expectations related to modesty, behaviour, and social roles.

Menstrual Taboos and Restrictions

Alongside celebratory rituals, menstruating girls often face everyday restrictions. These may include:

- Avoiding kitchens and temples
- Observing dietary limitations
- Restricting social interactions
- Temporary spatial isolation

Such practices are justified through beliefs regarding ritual impurity and purity.

Gender Socialisation and Bodily Regulation

The onset of menstruation also marks the beginning of intensified social regulation. Families emphasise modesty, discipline, and behavioural restraint, signalling that the girl's body is now a site of social control.

Through repeated practices and cultural messaging, girls internalise these expectations and begin regulating their own behaviour. In this way, menstruation becomes a key moment in the process of gender socialisation.

The Paradox of Celebration and Segregation

The findings reveal a clear contradiction within menstrual practices. While rituals publicly celebrate fertility and womanhood, everyday practices reinforce silence, stigma, and restriction.

Celebration therefore does not necessarily translate into empowerment. Instead, it often legitimises surveillance and regulation by framing control as cultural tradition.

8. Conclusion

Menarche represents a significant turning point in the lives of adolescent girls, marking both biological maturity and social transformation. In the Indian context, this transition is embedded within cultural rituals that publicly celebrate fertility and womanhood. However, these celebrations coexist with menstrual taboos and restrictions that regulate female bodies and behaviour.

The study demonstrates that the coexistence of celebration and segregation is not accidental but structurally embedded within patriarchal social systems. Rituals symbolically honour fertility while everyday practices discipline menstruating bodies through norms of purity, modesty, and silence.

Understanding menstruation through a sociological lens reveals how cultural traditions can simultaneously acknowledge and constrain women. Addressing menstrual stigma therefore requires not only improving awareness and health education but also critically examining the social structures that shape gendered experiences of the body.

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17. Domestic Violence against Men in India: A Sociological Overview

Bipanshi Koushik

ABSTRACT

Domestic violence is usually discussed as violence against women, and most laws, debates, and research in India focus on protecting women from abuse. While this focus is important, it has unintentionally ignored the reality that men can also become victims of domestic violence. Male victimization often remains hidden because it challenges traditional social expectations about masculinity. Men are generally expected to be strong, emotionally controlled, and capable of solving their own problems. Because of these expectations, male victims may feel ashamed, fear social ridicule, or believe they will not be taken seriously if they report abuse.

Domestic violence against men can take many forms, including emotional, psychological, physical, and economic abuse. However, due to social stigma and limited legal recognition, many cases remain unreported. This study explores domestic violence against men in India from a sociological perspective, focusing on social norms, gender roles, and the cultural construction of masculinity that make male victimization invisible. The research highlights how stigma, fear of judgment, lack of awareness, and insufficient institutional support prevent men from seeking help.

The study uses secondary sources such as academic research, newspaper reports, case studies, and government documents. It also uses the sociological concept of hegemonic masculinity to explain why men are rarely recognized as victims. The findings suggest that emotional and psychological abuse is the most common form of violence experienced by men, but it is rarely acknowledged. The research concludes that domestic violence should be understood as a human issue rather than a gender-specific issue. Greater awareness, research, and gender-inclusive policies are necessary to support all victims of domestic violence.

INTRODUCTION

Violence generally refers to the use of physical force or power to harm another individual. Domestic violence is a pattern of behavior within intimate or family relationships where one person attempts to gain control over another. In India, discussions about domestic violence have traditionally focused on women as victims. This focus emerged because women historically faced severe discrimination and abuse within patriarchal family systems.

However, this focus has also led to the neglect of male victims. In Indian society, men are often viewed as dominant, emotionally strong, and capable of handling difficulties without help. These social expectations create barriers for men who experience abuse at home. Admitting victimization may feel like admitting weakness or failure as a husband or father.

Domestic violence against men can involve physical assault, emotional manipulation, verbal humiliation, economic control, and threats. Despite experiencing such abuse, many men

hesitate to report it due to fear of social embarrassment, disbelief from authorities, or the lack of resources designed to support male victims.

Another reason men remain silent is the fear of losing custody of their children or facing legal consequences during marital disputes. Many men believe that the legal system will favor women because most domestic violence laws are designed primarily to protect women. As a result, domestic violence against men often remains hidden and unrecognized.

From a sociological perspective, this issue is connected to the concept of masculinity and power structures within society. Cultural expectations about how men should behave prevent them from expressing vulnerability. Therefore, domestic violence against men is not only a private family issue but also a social problem shaped by cultural beliefs, gender roles, and institutional structures.

OBJECTIVES AND RESEARCH QUESTIONS

The study aims to understand domestic violence against men in India and identify the social factors that contribute to its invisibility. The main objectives include:

1. Identifying the types of abuse experienced by men in domestic relationships.
2. Understanding how gender roles and masculine norms influence the silence surrounding male victimization.
3. Examining reasons why male victims hesitate to report abuse.
4. Evaluating whether existing laws and support systems adequately address male victims of domestic violence.

The research also asks several key questions: What forms of domestic violence do men experience? How do social expectations of masculinity silence male victims? Why do men hesitate to seek help? And to what extent do existing legal systems recognize male victimization?

THEORETICAL FRAMEWORK

The study is based on sociological theories related to patriarchy, masculinity, and social stigma. One of the most important concepts used is hegemonic masculinity, discussed by sociologist Radhika Chopra. Hegemonic masculinity refers to the dominant cultural idea of what a “real man” should be like. According to this idea, men should be strong, powerful, independent, and emotionally restrained.

These expectations create a situation where men who experience abuse may feel that they do not fit into the socially accepted image of masculinity. Admitting victimization may therefore threaten their social identity and status. As a result, many men choose silence rather than seeking help.

Masculinity is not a natural trait but a social construct shaped by cultural norms, family structures, and institutions. Because society expects men to be providers and protectors, their suffering within domestic spaces is often ignored or normalized.

The framework also highlights how institutional systems contribute to the invisibility of male victims. In India, domestic violence laws historically focus on protecting women. While these laws are necessary, they may unintentionally exclude men who experience similar forms of abuse.

The absence of gender-neutral laws, shelters, or counselling services for men further discourages reporting. Social stigma and fear of ridicule also contribute to mental health issues among male victims, including stress, anxiety, depression, and emotional isolation.

METHODOLOGY

This research uses a qualitative secondary research methodology. Instead of collecting primary data through interviews or surveys, the study analyses already published sources of information. This method was chosen because domestic violence against men is a sensitive and underreported issue, making direct data collection difficult.

The study relies on multiple sources such as academic journals, research articles, books, newspaper reports, and official government documents. These materials help provide a broader understanding of male victimization and the social conditions surrounding it.

Case studies from national newspapers were also examined to understand real-life experiences of male victims. These reports highlight incidents where men faced physical violence, mental harassment, legal threats, or false accusations within domestic relationships.

The collected information was analysed using thematic analysis. This method involves identifying common themes across different sources. Major themes identified in the study include emotional abuse, social stigma, legal challenges, underreporting, and the lack of institutional support for male victims.

LITERATURE REVIEW

Existing research indicates that domestic violence against men is a global issue but is often overlooked. Studies show that men frequently experience emotional and psychological abuse such as insults, humiliation, threats, and controlling behavior. These forms of abuse may not leave physical injuries but can severely affect mental health.

Research conducted in Haryana among married men revealed that a significant proportion reported experiencing some form of domestic violence, particularly emotional abuse. Despite this, most men did not seek help because they feared social shame or lacked trust in institutions.

Legal scholars have also pointed out that Indian domestic violence laws primarily focus on protecting women. For example, the Protection of Women from Domestic Violence Act (2005) specifically recognizes women as victims. While this law plays an important role in protecting women, it does not provide direct protection for male victims.

International studies also confirm similar patterns. Researchers found that many men suffer in silence due to cultural expectations about masculinity. Because society assumes men are always the aggressors, male victims often struggle to be believed when they report abuse.

Across the literature, several common themes appear. First, male victims remain invisible because masculinity is associated with strength and emotional control. Second, emotional and psychological abuse is the most common form of violence experienced by men. Third, legal and institutional systems often fail to provide adequate support for male victims. Finally, researchers emphasize the need for more inclusive policies and greater awareness about domestic violence affecting all genders.

FINDINGS AND ANALYSIS

The findings suggest that domestic violence against men in India is more common than widely recognized. Studies indicate that a significant percentage of men have experienced some form

of violence from an intimate partner at least once in their lifetime. Emotional abuse appears to be the most common type, followed by physical violence.

Case studies examined in the research illustrate different forms of abuse experienced by men. In some cases, men reported being physically assaulted or verbally abused by their spouses. In others, legal conflicts and accusations created severe psychological stress.

These cases also highlight the challenges male victims face when seeking justice. Police and legal authorities may initially doubt their claims because domestic violence is usually associated with female victims. As a result, men may feel discouraged from reporting abuse.

Another major finding is the impact of social stigma. Many male victims fear that friends, family members, or society will ridicule them if they admit to being abused. This stigma leads to underreporting and prevents victims from accessing help.

The research also identifies legal challenges faced by men. Existing domestic violence laws are not gender-neutral, and there are limited shelters or support services available for men. This lack of institutional support reinforces the perception that male victimization is not a serious issue.

CONCLUSION

Domestic violence against men in India remains an under-recognized social issue. Although men can experience physical, emotional, psychological, and economic abuse, their experiences are often ignored due to cultural expectations of masculinity.

Society frequently associates masculinity with strength, independence, and emotional control. These expectations discourage men from expressing vulnerability or seeking help. As a result, many male victims suffer silently and do not report abuse.

The study also highlights significant gaps in legal and institutional support systems. While laws protecting women are essential, the absence of gender-neutral policies leaves male victims without adequate recognition or protection.

Domestic violence should therefore be understood as a broader human issue rather than a problem affecting only one gender. Recognizing male victims does not diminish the importance of addressing violence against women. Instead, it promotes a more balanced and inclusive understanding of domestic abuse.

Future research is necessary to better understand the extent of male victimization and its social consequences. Policymakers should consider developing gender-inclusive legal frameworks, support services, counselling programs, and awareness campaigns. Such measures would ensure that all victims of domestic violence receive equal recognition, protection, and support.

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18. Negotiating Faith and Gender: Religion and Feminism in India

Vania Sharma

Abstract

This paper examines the complex relationship between religion and feminism in India through a systematic review of Social Sciences scholarship. While existing literature often presents religion as either oppressive or empowering, this study argues that such interpretations are overly simplistic. Using PRISMA guidelines, 41 peer-reviewed articles were analysed and synthesised through the Gioia method to identify key themes. The findings reveal that religion operates as a multifaceted system—shaping gender through legal frameworks, institutional authority, cultural narratives, and political ideologies. Feminist engagement with religion is therefore not linear but negotiated across multiple domains, including law, activism, religious reinterpretation, and everyday practices. The study concludes that religion simultaneously constrains and enables feminist transformation in India.

Introduction

Religion and feminism in India share a deeply intertwined and historically layered relationship. Religion extends beyond private belief into areas such as family law, public morality, education, and political mobilisation. Simultaneously, feminist movements in India have actively engaged with religious questions—ranging from personal law reform and access to religious spaces to reinterpretations of sacred texts and minority women's rights.

In recent decades, this relationship has gained renewed importance due to the rise of religious nationalism, increasing visibility of minority feminisms, and ongoing debates around gender justice. However, existing scholarship remains fragmented across disciplines and themes, often failing to provide a unified understanding of how religion shapes feminist politics.

This study addresses this gap by systematically reviewing literature on religion and feminism in India. It aims to develop a coherent analytical framework that explains how religion functions simultaneously as a source of authority, governance, identity, and resistance.

Methodology

The study follows a systematic review approach guided by PRISMA standards. A structured search in Scopus initially identified 390 articles, which were narrowed down to 41 relevant peer-reviewed studies after applying inclusion criteria such as relevance to feminism, religion, and the Indian context.

Both empirical and theoretical works were included to ensure methodological diversity. The Gioia method was used for thematic analysis, involving:

- Identification of first-order concepts from studies
- Grouping into second-order themes
- Formation of broader analytical dimensions

This process resulted in nine key themes representing the major domains of interaction between religion and feminism.

Key Themes and Findings

Religious Reinterpretation and Theological Reform

One of the most significant findings is that feminist engagement often occurs within religious traditions rather than outside them. Women and activists reinterpret sacred texts and doctrines to challenge patriarchal norms. Concepts like ijtihad (independent reasoning) and feminist retellings of epics demonstrate that religious meanings are not fixed but contested.

This theme shows that:

- Patriarchy is often rooted in interpretation rather than doctrine
- Feminist reform involves reclaiming interpretive authority
- Religious traditions can serve as tools for gender justice

Women's Religious Authority and Leadership

Women are increasingly entering spaces of religious authority—as gurus, qazis, activists, and institutional leaders. However, their legitimacy is often contested and must be actively negotiated.

Key insights include:

- Authority is shaped by institutional recognition and public legitimacy
- Women leaders must perform credibility within gendered expectations
- Leadership expands through both formal roles and informal influence

This demonstrates that feminist change becomes durable when it is institutionalised.

Religion, Personal Law, and Legal Governance

Religion plays a central role in India's legal system through personal laws governing marriage, divorce, and inheritance. Feminist struggles often take place within this legal framework.

Findings highlight:

- Legal pluralism creates both opportunities and constraints
- Courts, community forums, and activists all shape gender justice
- Personal law can reinforce inequality but also serve as a site of reform

The theme reveals that gender justice is deeply tied to how religion is embedded in legal governance.

Religious Nationalism and Gendered Power

Religious nationalism, particularly in the form of majoritarian politics, significantly shapes gender relations. Women are often symbolically positioned as bearers of community honour.

Key points include:

- Feminist movements are fragmented under communal politics
- Interfaith relationships and women's autonomy are heavily regulated
- Gender becomes a tool for political mobilisation

This theme shows how religion functions as a political ideology influencing both identity and power.

Minority Feminisms and Muslim Women's Agency

Minority women, especially Muslim women, engage with feminism in ways that challenge both patriarchy and majoritarian narratives.

Important insights:

- Agency is exercised through religious identity, not despite it
- Movements like Shaheen Bagh highlight political participation
- Feminist activism often operates within faith-based frameworks

This demonstrates that feminism in India is not uniform but shaped by identity and context.

Gendered Violence and Communal Conflict

Religion plays a role in shaping narratives and experiences of violence, especially during communal conflicts.

Findings show:

- Women's bodies become sites of symbolic and physical violence
- Media and political narratives often communalise gender violence
- Feminist responses involve both resistance and memory work

This theme highlights the intersection of gender, violence, and religious identity.

Religion as Cultural Pedagogy

Religious texts, narratives, and media act as tools for teaching gender norms. Epics, translations, and women's publications shape ideals of womanhood.

Key observations:

- Religion constructs moral expectations of women
- Feminist reinterpretations challenge these narratives
- Cultural production is central to gender socialisation

Embodied Religion and Ritual Practice

Religion governs the body through rituals, dress codes, and practices. Women's mobility, sexuality, and physical autonomy are often regulated through religious norms.

Insights include:

- Gender norms are enforced through everyday practices
- Women negotiate these norms rather than passively accepting them
- Modern identities often combine tradition and autonomy

Religion as an Ethical–Ecological Resource

Religion also serves as a source of ethical and ecological values. Movements like ecofeminism draw on religious ideas to promote sustainability and justice.

This theme shows:

- Religion can inspire progressive social change
- Ethical frameworks rooted in faith can support feminist goals

Discussion

The findings demonstrate that religion in India is not a singular force but a dynamic system influencing gender at multiple levels. It acts as:

- An interpretive authority (through texts and doctrines)
- An institutional structure (through religious organisations)
- A legal framework (through personal laws)
- A political ideology (through nationalism)
- A cultural system (through narratives and practices)

Feminist engagement with religion is therefore negotiated rather than oppositional. Women and activists often work within religious frameworks while simultaneously challenging them.

Conclusion

This study concludes that religion is a central axis of gendered power in India. It shapes both the constraints faced by women and the possibilities for feminist transformation. Rather than viewing religion as inherently oppressive or empowering, it should be understood as a contested field where meanings, practices, and institutions are continuously negotiated.

By synthesising diverse scholarship into a unified framework, this paper contributes to a deeper understanding of the religion–feminism interface. It also highlights the need for nuanced approaches to gender justice that recognise the complexity of religious contexts in India.

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19. Impact of divorce on child's psychological wellbeing

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Abstract

This paper examines the psychological impact of divorce on children, highlighting emotional, behavioural, academic, and developmental outcomes. While divorce disrupts family structure and routines, its effects are not universally negative. Factors such as parental conflict, economic stability, and social support significantly influence children's adjustment. The study integrates theoretical frameworks including attachment theory, family systems theory, and stress and coping theory to analyse children's responses. Findings suggest that cooperative parenting, emotional communication, and stable environments promote resilience and healthy development.

Introduction

Divorce is a complex social phenomenon with far-reaching psychological and developmental implications for children. It reshapes family dynamics, alters parental roles, and requires children to adapt to new emotional realities. While traditionally stigmatized, divorce has become more common due to changing social norms and increased emphasis on personal well-being. This paper explores how divorce affects children and identifies factors that influence their adjustment and long-term outcomes.

Methodology

This study is based on qualitative analysis and synthesis of existing literature on divorce and child development. Various theoretical frameworks and empirical findings were reviewed to understand emotional, behavioral, and social impacts. The approach integrates psychological theories with observed patterns in children's responses to divorce, focusing on key variables such as parental conflict, socioeconomic conditions, and support systems.

Literature review

Existing research highlights that the impact of divorce on children varies widely depending on environmental and relational factors. Attachment theory emphasizes the importance of secure bonds, while family systems theory views divorce as a restructuring of relationships. Studies show that high inter-parental conflict is a stronger predictor of negative outcomes than divorce itself. Research also indicates that children can develop resilience when provided with emotional support, stability, and consistent parenting.

Findings and Analysis

The analysis reveals that children experience a range of emotional responses including sadness, anxiety, and confusion. Behavioral changes may include aggression or withdrawal, while academic performance may temporarily decline. However, positive outcomes are possible when parents maintain cooperative relationships and provide stable environments. Socioeconomic factors and cultural context also play a crucial role. Overall, the findings suggest that divorce outcomes depend more on post-divorce conditions than the separation itself.

Conclusion

Divorce is not inherently harmful to children, but its impact depends on how it is managed. Supportive parenting, reduced conflict, and stable routines significantly improve children's adjustment. With appropriate emotional and social support, most children demonstrate resilience and continue healthy development. Therefore, the focus should be on improving family functioning and providing child-cantered support systems rather than viewing divorce solely as a negative event.

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20. Impact of Conflicts in Everyday Life: A Sociological Study of Young People in Manipur

Ngamsin Longmei

ABSTRACT

This paper examines how ongoing conflict in Manipur shapes the everyday lives of young people. While conflict in the region is often discussed in terms of ethnic tensions, political instability and violence, this study focuses on how it is experienced in daily routines such as education, mobility and communication. Since the outbreak of ethnic violence in May 2023, the situation in Manipur has had serious consequences, with over 200 people killed and more than 60,000 displaced from their homes (government and media reports). These conditions have made instability a part of normal life, especially for young people. The study follows a qualitative approach based on informal conversations and interviews with young people from different backgrounds. The aim was to understand how conflict is experienced beyond visible violence and how it becomes embedded in everyday life. Particular attention is given to disruptions caused by curfews, restricted movement and prolonged internet shutdowns. In 2023, Manipur experienced one of the longest internet shutdowns in India, lasting for several months, which significantly affected students' access to online classes, study materials and communication (Internet Shutdown Tracker, 2023). The findings show that conflict affects not only physical safety but also education, emotional well-being and future planning. Many young people reported uncertainty, anxiety and difficulty in maintaining academic continuity. At the same time, they also demonstrated resilience by adapting their routines, relying on offline resources and supporting each other during periods of disruption. The paper highlights that conflict should be understood not only as a political issue but as a lived social condition. By focusing on everyday experiences, this study shows how prolonged instability shapes identity, relationships and aspirations among youth in Manipur.

INTRODUCTION

Manipur, located in the northeastern region of India, has experienced long-standing political unrest, ethnic tensions and recurring violence. In recent years, especially after the outbreak of ethnic conflict in 2023, the situation has become more intense, affecting not only political stability but also everyday life. Reports indicate that the violence has resulted in hundreds of deaths and the displacement of thousands of people, making it one of the most serious internal conflicts in recent times. (Reuters 2024)

While conflict in Manipur is often discussed in terms of insurgency, identity politics and state response, its impact on daily life is less frequently examined. For young people in particular, conflict is not just something that appears in news headlines; it is something that directly shapes their everyday experiences. Curfews, road blockades, fear of violence and restrictions on communication have become part of normal life.

One of the most significant aspects of the recent conflict has been the repeated use of internet shutdowns. In 2023, Manipur witnessed one of the longest internet shutdowns in India, lasting for several months. (IT for Change , 2023) These shutdowns were introduced as a measure to control misinformation and maintain law and order. However, several studies suggest that such

restrictions often disrupt communication, education and access to essential services, without necessarily reducing violence. (For students and young people, the impact of these shutdowns is particularly severe. Research shows that a majority of students reported negative effects on their education due to lack of internet access. (Granthaalayah, 2024) Online classes, examination forms, study materials and communication with teachers all depend on digital access. When this access is removed, students are forced to adjust their routines, often at the cost of their academic progress.

In addition to digital disruption, physical mobility is also affected. Curfews and security measures limit movement, making it difficult for young people to attend schools, colleges or even meet friends. Educational institutions have at times been shut down or converted into relief camps, further disrupting the learning environment. (Digital empowerment Foundation) These interruptions may appear temporary, but their long-term effects on career development and future opportunities can be significant.

From a sociological perspective, these experiences highlight how conflict operates not only at a structural level but also at the level of everyday life. Conflict is not limited to moments of violence; it becomes part of routine behaviour, shaping how people move, communicate and interact. Young people, who are at a stage of identity formation and future planning, are particularly affected by this environment of uncertainty.

At the same time, it is important to recognise that youth are not merely passive victims of conflict. Many young people find ways to adapt to these conditions. They adjust their study schedules, rely on offline resources, form peer support networks and continue their education despite repeated disruptions. This reflects the interaction between structural constraints and individual agency.

Therefore, this study focuses on understanding how conflict in Manipur shapes the everyday life of young people. Instead of looking only at political causes, it examines lived experiences ,how youth manage their studies, relationships and aspirations in a situation where uncertainty has become normal. By doing so, the study attempts to bring attention to the micro-level impact of conflict, which is often overlooked in mainstream analysis.

Literature Review

The study of conflict in Manipur and the wider Northeast region has largely focused on political history, insurgency movements and state responses. Scholars such as Sanjib Baruah (2005) have described the region as experiencing a condition of “durable disorder,” where instability continues over long periods due to unresolved political issues and governance challenges. His work highlights how conflict is sustained not only by insurgent groups but also by structural conditions that remain unaddressed.

Similarly, Bimol Akoijam (2010) has examined the political history of Manipur, particularly the debates surrounding its merger with India and the continuing questions of identity and autonomy. His work emphasises how historical grievances and contested narratives contribute to present-day tensions. While these studies provide important background, they mainly focus on macro-level political processes rather than everyday experiences.

From a broader sociological perspective, conflict theory provides a useful framework for understanding these dynamics. Karl Marx viewed conflict as arising from inequalities in power and resources, while Max Weber expanded this understanding to include status and authority.

In the context of Manipur, conflict is not only economic but also deeply linked to ethnicity, land, political representation and cultural identity.

Another important contribution comes from Johan Galtung (1969), who introduced the concept of structural violence. According to Galtung, violence is not only physical but also embedded in social structures that limit access to opportunities. In Manipur, repeated internet shutdowns, restricted mobility and disruption of education can be understood as forms of structural violence that affect young people's everyday lives.

Scholars working on everyday life and violence have also provided valuable insights. Veena Das (2007) argues that violence does not remain separate from daily life but gradually becomes part of it. People continue their routines while adapting to an

underlying sense of insecurity. This perspective is particularly relevant in Manipur, where curfews, checkpoints and uncertainty have become normalised over time.

Research on youth in conflict zones further highlights the importance of focusing on lived experiences. Henrik Vigh (2008) describes conflict as a "social condition" in which young people constantly adjust their strategies in response to instability. Rather than being passive victims, they actively navigate uncertainty. Similarly, Alcinda Honwana (2012) discusses how conflict delays the transition to adulthood by disrupting education and employment opportunities.

In the Indian context, Craig Jeffrey (2010) introduces the idea of "waiting," where young people experience prolonged uncertainty due to lack of opportunities. This concept is relevant in Manipur, where repeated disruptions in education and limited local employment options affect future planning. Many young people either delay their aspirations or consider migration to other states. Recent studies have also focused on the impact of internet shutdowns in conflict-affected regions. Reports indicate that Manipur experienced extended periods of internet suspension during the 2023 conflict, affecting access to education, healthcare information and communication. Students preparing for competitive exams or attending online classes were particularly affected. These disruptions highlight the increasing importance of digital access in contemporary education and everyday life. Despite these contributions, there remains a gap in the literature. Most studies focus either on political conflict or on structural analysis, with limited attention to how conflict shapes routine experiences. There is also a lack of qualitative research that directly engages with youth perspectives in Manipur. Therefore, this study attempts to bridge this gap by focusing on everyday life. It brings together sociological theory and lived experience to understand how young people manage education, relationships and future aspirations in a conflict-affected environment. By doing so, it shifts attention from macro-level analysis to micro-level realities.

Methodology

This study adopts a qualitative and exploratory research design in order to understand how conflict is experienced in everyday life. The focus of the research is not on measuring conflict through statistics, but on understanding how young people interpret and respond to it in their daily routines. A qualitative approach was therefore considered more suitable, as it allows for deeper engagement with lived experiences. The data for this study was collected through informal conversations and semi-structured interviews with young people from different backgrounds in Manipur. The participants primarily belonged to the age group of late adolescence and early adulthood, as this stage is crucial for education, identity formation and

future planning. Individuals were selected using purposive sampling, ensuring that participants had directly experienced disruptions such as curfew, internet shutdown, or educational interruption. Instead of using rigid questionnaires, the interviews were conducted in a flexible manner, allowing participants to speak freely about their experiences. This approach helped in capturing not only factual information but also emotions, perceptions and personal interpretations of conflict. Many participants shared how their daily routines had changed over time, including adjustments in study patterns, reduced mobility and increased reliance on peer networks. The data collected from these interactions was analysed thematically. Recurring patterns were identified across responses, particularly in relation to education, mobility, communication, emotional well-being and identity. These themes were then interpreted using sociological concepts such as structure and agency, as well as everyday life perspectives. Ethical considerations were also taken into account during the research process. The identity of participants has been kept confidential, and their responses have been used only for academic purposes. Since the topic involves sensitive experiences related to conflict, care was taken to ensure that participants felt comfortable and were not pressured to share information. Overall, the qualitative approach allowed for a more nuanced understanding of how conflict shapes everyday life. Rather than presenting generalised data, the study focuses on individual experiences, highlighting how young people navigate uncertainty in a conflict-affected environment.

Findings and Discussion

The findings of this study show that conflict in Manipur is not limited to moments of visible violence but is deeply embedded in everyday life. Young people experience conflict through routine disruptions, uncertainty and constant adjustment. The themes that emerged from the study highlight how education, mobility, communication, emotional well-being and social relationships are affected.One of the most immediate impacts of conflict is on education. Many participants reported that schools and colleges are frequently closed due to curfews or security concerns. In several instances during the 2023 conflict, educational institutions remained shut for extended periods, and academic schedules became uncertain. Students preparing for board exams or competitive exams faced significant difficulties due to lack of continuity.

In addition to physical closure of institutions, internet shutdowns further disrupted learning. Since many students rely on online resources, classes and application processes, the absence of internet access created serious academic gaps. Studies have also pointed out that prolonged internet suspension in Manipur affected students' ability to access study materials and submit applications on time (Access Now, 2023). As a result, many students felt they were falling behind compared to others outside the state.

Restricted Mobility and Everyday Movement

Mobility is another area where the impact of conflict is clearly visible. Curfews, road blockades and security checkpoints restrict movement across different areas. Participants mentioned that even travelling short distances can feel unsafe during periods of tension. In some cases, people avoid crossing certain areas due to fear of violence or community-based divisions. These restrictions not only affect education but also limit access to basic services and social interaction. Daily activities such as going to tuition classes, meeting friends or attending public spaces become uncertain. Over time, young people begin adjusting their routines based on perceived safety rather than personal choice.

Internet Shutdown and Digital Isolation

A major feature of recent conflict in Manipur has been repeated internet shutdowns. In 2023, the state experienced one of the longest internet suspensions in India, lasting for several months (Access Now, 2023). While authorities often justify shutdowns as a way to control misinformation, their impact on everyday life is significant. Participants explained that without internet access, communication becomes difficult, especially with people outside the state. Students preparing for higher education or jobs are unable to fill forms, access information or attend online classes. In a time where digital connectivity is essential, such restrictions create a sense of isolation. Moreover, internet shutdowns also affect emotional well-being. Social media and messaging platforms are important for maintaining relationships, especially during stressful times. When these are suddenly cut off, it increases feelings of uncertainty and disconnect.

Emotional and Psychological Impact

Living in a conflict-affected environment has a noticeable impact on emotional well-being. Many participants expressed feelings of anxiety, fear and uncertainty about the future. The unpredictability of violence, sudden curfews and continuous disruption creates mental stress.

However, what is significant is that these feelings are often normalised. Young people grow used to adjusting their expectations according to the situation. Planning for the future becomes difficult when the present itself is unstable. This creates a condition where uncertainty becomes part of everyday thinking.

At the same time, not all responses are negative. Some participants mentioned that they have become more aware, cautious and adaptable. They learn to manage their time differently, rely on offline resources and support each other during difficult situations.

Identity and Social Relations

Conflict also affects how young people relate to others, particularly across different communities. During periods of tension, social interactions may become more cautious. Participants mentioned that discussions about identity or background can become sensitive, especially in mixed social settings. In some cases, friendships across communities are affected due to mistrust or fear. At the same time, there are also instances where young people consciously try to maintain relationships and avoid conflict in personal spaces. This shows that identity is not fixed but negotiated in everyday interaction.

Resilience and Adaptation

Despite these challenges, a key finding of this study is the resilience shown by young people. They do not remain passive but actively adjust to changing conditions. For example, students form small study groups, share offline materials and plan their schedules around curfew timings. Some participants also mentioned engaging in community support activities, such as helping displaced families or participating in awareness efforts. These actions reflect agency within structural constraints. From a sociological perspective, this highlights the interaction between structure and agency. While conflict creates limitations, individuals respond in different ways based on their circumstances. Everyday life becomes the space where this interaction is visible. Overall, the findings show that conflict in Manipur is not just a political issue but a lived social reality. It shapes routines, relationships and aspirations, making everyday life an important area of study.

Conclusion

This study shows that conflict in Manipur is not only a political or security issue, but something that deeply affects everyday life. For many young people, conflict is not experienced as a single event, but as a continuous condition that shapes daily routines, decisions and future plans.

The findings highlight that disruptions in education, restricted mobility and internet shutdowns have become common experiences. For instance, the prolonged internet shutdown in 2023, which lasted for several months, made it difficult for students to access online classes, apply for exams and stay connected with the outside world Access Now, 2023; Human Rights Watch, 2025). This shows that conflict today is not only physical but also digital, affecting access to information and opportunities. At the same time, the scale of the conflict itself has been severe. Reports indicate that more than 200 people have been killed and over 60,000 displaced since the violence began in May 2023 (Government and media reports). Many families have been forced to move into relief camps, and young people growing up in such environments face uncertainty about both present and future. In such conditions, planning for higher education or career becomes difficult. Another important observation is that conflict reshapes social relationships. The division between communities has affected how young people interact with each other. In some cases, friendships across communities have weakened due to fear or mistrust. At the same time, there are also instances where individuals try to maintain relationships and avoid conflict in personal spaces. This shows that identity is not fixed but constantly negotiated. Despite these challenges, young people are not passive. A key finding of this study is the resilience shown by youth. Many students continue their studies using offline materials, adjust their routines according to curfew timings and rely on peer support. Some even participate in relief efforts or community initiatives. This reflects that even in difficult conditions, individuals try to create a sense of normalcy. From a sociological perspective, the study highlights the importance of understanding the relationship between structure and agency. Structural conditions such as conflict, curfew and internet shutdowns create limitations, but individuals respond to these conditions in different ways. Everyday life becomes the space where this interaction is visible. Overall, the study suggests that to understand conflict in regions like Manipur, it is necessary to move beyond political analysis and focus on lived experiences. Conflict is not only about violence; it is also about how people continue their lives under uncertainty.

Recommendations

Based on the findings of this study, a few important steps can be suggested. First, there is a need to ensure continuity in education even during periods of unrest. Alternative systems such as offline learning support, flexible academic schedules and better access to study materials can help reduce the impact of disruption.

Second, the use of prolonged internet shutdowns should be reconsidered. While they are often justified as a way to control misinformation, their impact on students and young people is significant. Studies have shown that such shutdowns can actually create more confusion and limit access to essential information rather than solving the problem (Internet Society, 2024).

Third, there is a need to focus on mental and emotional well-being. Living in an environment of constant uncertainty can create stress and anxiety among young people. Providing counselling support, safe spaces for discussion and community-based initiatives can help address these issues.

Finally, efforts should be made to rebuild trust between communities. Long-term peace cannot be achieved only through political solutions. It requires rebuilding social relationships at the everyday level. Encouraging dialogue, interaction and youth participation in peace-building initiatives can play an important role in this process.

In conclusion, conflict in Manipur should be understood not only through statistics of violence, but through the everyday experiences of people living in it. By focusing on youth, this study highlights how instability shapes not just the present, but also the future of a generation.

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Digital Technology Influence Over Consumer Buying Behaviour in India: A Review Analysis

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Abstract:
In the era of modern marketing, the Digital Technology plays an emerging role in influencing almost all aspects of our lives. From this paradigm shift of technology entirely changed the consumer's choices to decision making, it is everywhere. With its existence, one can get easily access to all the data anytime, anywhere. The digital technology allows the firm for better understand their consumer's choices & preferences in order to fulfil their requirements. While the modern technology are frequently upgrading, it's playing an essential role in the shifting of the consumer from the traditional approach to the modern approach in purchasing goods and services. This shift has entirely changed the behaviour of consumer due to the adoption of new technology. Such firms used to target their audience online and maintain their consumer base. With the introduction of Web 3.O and evolution of UPI's and it's actively engagements with the consumer behaviour results in the heavy utilisation of the internet specifically in the period of COVID-19. This digital technology reforms the consumer attitude and provide them the freedom to decide what they want to purchase as well as helps them in the product comparison with other products (available from different companies) and satisfy their needs. Hence, with the emergence of social media, it holds a base role in maintaining a strong bridge between the customer and firm. The present research is exploratory and descriptive in nature and secondary data have been used to build for the research structure. The findings of study are significantly impacting over the consumer, company as well as over industries which are specifically connected with the research as it will provide significantly impact and those impacts can be seen in a 360* manner in both consumer and company.
Keywords: Digital Technology, Consumer Buying Behaviour , Impact Of Technology On Consumer Buying Behaviour.

1.1 Introduction

The technological advancements and internet have transformed firm's operations in recent years. Nowadays consumers have more power as compare to the past and with the help of internet, which become possible for consumers to access any information at any time and from any location. Specifically, the internet has a greater influence on people's lives as compare to any other invention in human history. Digital technology has a profound impact on all aspects of human existence. Digital technology has completely revolutionised as compare to past. Special thanks to the internet and cell phones, our everyday routine has progressively moved from the real world to the virtual one.[1] The rapid increment in the adoption of mobile phones reshaped how consumers approach for their purchasing decisions. The fastest and the highest adoption rate of any consumer technology in history have been seen with the spike in the uses of mobile phones**.** The consumer perceptions about making a

purchase have shifted as a result of digitalisation. Mobile phones had the highest adoption rate in the record of consumer technology. Regardless of our other identities such as students, workers, parents, lovers, joggers, or stamp collectors, we all are consumer in day-to-day life.[2] With the help of technology, consumers are getting better information for their purchase and utilise things and services on a regular basis for eating, clothing, reading, playing, and travelling. Therefore, a large amount of money companies are spending on as, consumption is a necessary aspect of everyday in human lives.

The consumer behaviour begins with several questions, "How do we know what we want?" Not as simple a question as "What do we do with something we no longer want?" the mental, emotional, and physical processes people use to choose, acquire, and discard goods and services in order to satiate consumer needs and desires, might be considered conventional definitions of consumer behaviour.[3] The transformation from the traditional approach from marketing to the digitalization**,** marketing has drastically shifts the interaction between the brands and its target audiences. In the traditional approach, conventional marketing methods were the main remedy for attracting the large volume of sales. In contrast, the modern marketing approach makes the consumer to utilise the social platforms to interact with firm's marketing campaign. Traditional market places and offline retail outlets are now seriously vulnerable by the startling rate at which offline markets are changing to online ones.

In India, digital payment methods have grown significantly due to the usage of mobile phones and also to enhance the payment infrastructure.[4] The payment industry in India has seen tremendous development potential due to its recent major digitisation. Apart from the growth of 60.6 percent in financial year-18 and in FY-19 it was an massive hike with 46.5% as compare with its' preceding year in the total volume of digital payments. Demonetisation and the COVID-19 epidemic both had a detrimental impact on liquidity, which sparked India's emergence of digital payments. The COVID-19 pandemic hastened the decline of cash usage and the surge in acceptance of electronic payment options.[5]

1.2 Literature Review

Yasmin et al., (2015) study explored how consumers interacted more with brands on digital platforms. The findings showed that when the usage of digital marketing reached 1%, an impressive 84.70 percent of customers become automatically informed and updated about the available products into the stock. This Digital technology engaged the target audience with company more effectively. **Sawicki, (2016)** presented that the digital revolution in market brought an opportunities to adopt innovative customer models which were crucial for the companies to make their presence in market. The study showed an extensive growth of smartphones leads to increase the awareness of digital market among companies and their potential customers. Due to widespread of smartphones companies were able to communicate through different channels and establish a highly effective relationship with their customer and increase their sales respectively. **Khatri, (2021)** explored the combination of modern technology's and technical aspects of digital marketing, keep in mind the shifting trend and developing consumer preference driven by new product. In same time, artificial intelligence played a crucial role in providing personalized experience to consumer by analysing their data. Companies had to maintain a proper IT infrastructure for the efficient working of AI based digital marketing which posed costly for the company. **Tong et al. (2020)** presented a framework for personalized mobile marketing incorporating five Ps (product, price, place, promotion, and prediction) that influenced consumer behaviour using hyper-contextual data. Study also suggested many ideas for future researches such as how different modern technologies influence consumer purchase pattern.[6]. **Bourkalis, et al., (2009)** Due to the presence of mobile phones, customers were not dependent on store opening hours. Customers now able to save their time with the help of technology. **Niemeier, et al.,(2013**)indicated that due to the availability of technology, customers shifting toward online instead of purchasing offline. As online customers also had the authority to decide the product of their choice same as in the offline mode like when, where their product should be delivered. **Jung & Dieck, (2018)** presented current growth of the retail industry were driven by the addition of advanced technologies with the existing technologies in the retail store to attract the new customers and also retain the existing customers with a better in store experience. [7]. **Antoine Camarre et al.,(2012)** discussed about the futuristic and modern direction of mobile marketing across various areas.[8]. **Mangold (2009)** Suggested that with the use of technology and social networks, there were a wide range of forms available including blogs, discussions , chat rooms and ratings for the product and services provided by the company, allowing customer to provide a fair feedback. **Voramontri, (2018**) stated that the customer decision making could be defined as the pattern of behaviour executed by consumer in the form of extracting information regarding product and services and forward explain that there were different types of purchase behaviour.[9].

1.3 Research Objective

- To Investigate the Impact of Digitalisation Over Consumer Buying Behaviour in India.

Table No1.1 Technological Drivers for Consumer Behaviour

S.NO	Technology	Description	Purpose Of Technology	Shopping Usage	Example
1.	Augmented Reality	It covers the digital elements onto the real world which mostly enhance users experience through interactive information.	Shop for clothing, jewellery and furniture decorating at home	Mobile application that allows the user to interact with the product in real-time	Amazon AR view, smart glasses
2.	Virtual Reality	It is the technology used to transport users into a 3D visual environment generated by computer.	VR powered shopping experience.	This is a kind of glass which provide the user with a virtual mall and virtual sales assistant for purchase the product.	Alibaba Buy+
3.	Artificial Intelligence	It is an intelligent machine that work and reacts like human beings by giving some command	Voice Shopping for prime available items	Customers are talking to a voice assistant that can provide the complete information of the product specially linked to their Amazon account	Amazon Alexa
4.	Drones	Technology used for aerial deliveries	Delivery method	Receiving and delivering orders via drone.	Amazon Prime Air

Source:- https://www.emerald.com/insight/content/doi/10.1108/bjm-02-2021-0049/full/pdf accessed on 19th September 2024 at 9:40pm

The table no.1.1 interpret about the digital technology data available such as augmented reality, virtual reality, artificial intelligence and drones as well which impact the consumer buying behaviour in the market. These technologies are capturing the market world-wide and also providing an ease in accessibility for pre-purchasing. The digital technology with its evolution and heavy usage by the consumers, its the augmented reality, which provides a real time interaction of product and its consumer for a better purchase of their choice. Similarly, artificial intelligence provides chatbots and virtual assistance for in depth knowledge of the product. Hence, every technology has its own strength and weakness which provide an immense shopping experience to user.

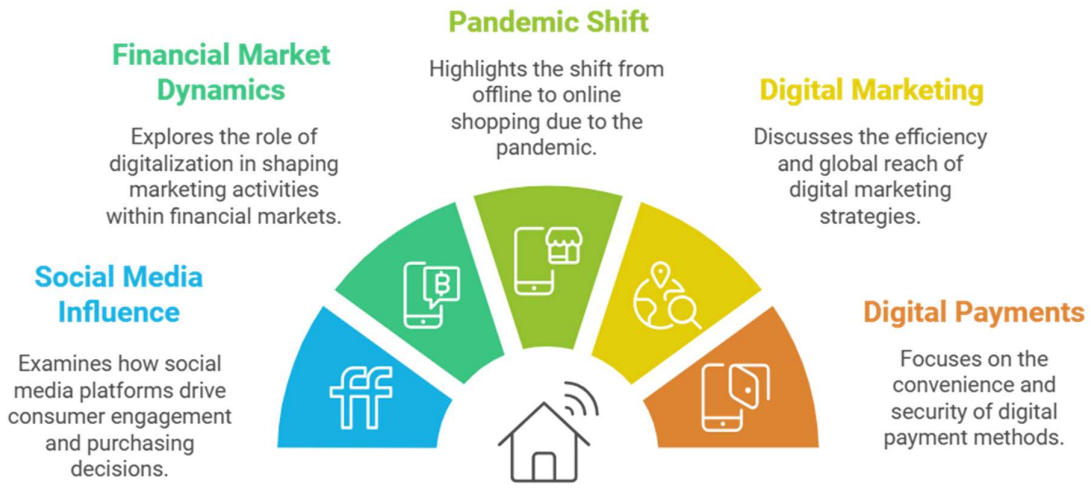
1.4 Recent Trends and Impact of Digitalization on Consumer Behaviour

The recent trends in digitalization have transforms consumer behaviour for purchasing the products and along with familiarisation of e-commerce, social media platforms, situation become drastic. Due to the availability of virtual assistance and chatbots, the consumer gets more deeply engage with the product and meet their expectations. One of the major effects of digitalisation on the consumer is the facility of digital payment methods such as UPI's etc.

- **The Digitalisation Impact on Consumer Behaviour with Respect to Social Media:** Social media is a good way to spread out the advertisement and e-commerce for creating a chain reaction. According to users responses, "their experience for consumer behaviour to present a situation where it is possible to do something was impossible to imagine in thought".[11]
- **The Digitalisation Impact on Consumer Behaviour and Marketing Activity in Financial Market:** The development of internet, economy is one of the most important factors of economy development as it can concise both the supply and demand of an economy. The banking market is one of the important factors which affects financial market.[12]
- **The Digitalisation Impact on Consumer Behaviour in the Pandemic Period:** The widespread of Covid-19 disease actually becomes a challenging and dangerous disease within a specific and shortest time span in particular that time. The majority of offline shopping shifts to online shopping due to buyers are getting the essential product without any physical contact.[13]

- **The Digitalisation Impact on Consumer Behaviour in Digital Marketing:** With the help of digital marketing, both time and money saved and in digital marketing the consumer purchases the thing from another country or state without going there, means it erase the line between state or counties to carry the individuals closer. The specific Customers can easily compare the product on the backbone of quality, quantity price etc[14]
- **The Digitalisation Impact on Consumer Behaviour with Digital Payment Service in Metro Cities:** The UPI transaction is an electronic process and with its evaluation, its adopted almost in all over the world. Through digital payment, the users can make payments very easily anywhere and anytime and its importance has increased during the last few years, because of its versatile features (Specifically like cashless, paperless, faceless & contactless). Due to its versatile nature and feature the most of the countries are talking in today's time about it and people also want to adopt it as it's digital nature avoids robbery, etc. Whereas According to cyber security agencies it not too much safe due to heacking issue, but it is safe while if consider the robbery aspects.[15]

Fig. No.1.1 Impact of Digitalization on Consumer Behaviour



1.5 Conclusion

From the reviews from carious studies, the emerging digital technology making it more convenient than even before. It's become easier to find any information, anytime and anywhere. It influenced the consumer choices by offering multiple options at different prices and quality drastically. Almost all of our daily activities have become digitally from shopping to even booking a table at restaurants. E- technology has greater impact on Content Marketing as quality content is playing role like a king and influencing at mass level. When appropriate commands implemented, the work efficiency become higher as compare to human beings. Several firms are using e-technology to understand their customer's choice. It helps them to maintain their strong customer base.

Due to this the competition is becoming tough day by day and more engaging as it offers a two-way communication between consumer and firm and social media is serving as a framework for the consumers to interact virtually and clarify their queries. The online payments via UPI , Google Pay , Paytm etc has become more convenient and a safer option as it prevents purse pocketing by simply scan and pay. The various reports introduced by Big4 companies stated that utilisation of digital technology escalates their profits and the leaders were also able to prioritise the customer feedback and delivered a trust on financial factor security and customer centric. Overall E- technology has widely impacted the consumer behaviour by offering personalised experiences and improved access to the information and in modern days its become the integral part in consumer buying behaviour specifically in context of India.

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A systematic literature review and bibliometric analysis on inclusive green finance with an emphasis on the digital economy and green growth

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Abstract

Purpose – Updating research is important to assess the progression of existing academic studies. The purpose of the study is to comprehend the role of inclusive green finance in terms of financial and economic inclusion in the digital economy and green growth.

Design/methodology/approach – Bibliometric methodology was employed to assess the progression of the current academic study on inclusive green finance. Scholarly articles were taken from Dimensions and PubMed. A VOS Viewer was used to assess 263 publications, looking at co-authorship, co-occurrence of keywords, citations and co-citations of documents and sources that linked.

Findings – The findings reveal that inclusive green finance plays an important role in green economic development. Inclusive green growth and ecological innovation pave the way for achieving sustainable development. There is a strong relationship between digital financial inclusion and green technological innovation. Interestingly, the analysis found that China is a major player focusing on inclusive green finance.

Originality/value – This study is one of the preliminary steps toward understanding the various barriers and challenges associated with inclusive green finance. This paper can contribute to inclusive green finance literature for further research in each field. The paper also highlights various strategies to overcome challenges related to inclusivity in green finance.

Keywords Inclusive green finance, Green economy, Financial, Digital

Paper type Conceptual paper

1. Introduction

Financial and economic inclusion in the digital economy and green growth has gained the attention of scholars in the last few decades, who are facing the challenge of financial and economic inclusion. The viability of green finance and economic inclusion tackles the matter of new economic prospects through the integration of underprivileged social groups and presents fresh prospects for investors to investigate (Niekerk, 2024). Inclusive green finance focuses on various financial services and support to combat the negative impacts of climate change, loss of biodiversity, promoting a low-carbon economy, and enhancing a sustainable green environment while incorporating economic inclusivity (UNSGSA, 2023). There is a lot of global, regional, and national significance in promoting the concept of inclusive green finance. It plays a major role in achieving globally united nations' sustainable development goals (UNSGSA, 2023), like no poverty (SDG 1), affordable and clean energy (SDG 7 and SDG 13), and climate action (Desalegn and Tangl, 2022). The study motivation is associated

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with an emerging valuable mechanism, i.e. inclusive green finance that actually maximizes benefits and minimizes the cost to poor communities by implementing inclusive green financing, which effectively mitigates the adverse effects of climate change also (Aribah Aslam and Ghouse, 2023). Further, the UN report mentioned that there is a significant financial gap estimate of about USD 4.1 trillion, which is needed by 2050 for meeting the targets of climate change, biodiversity, and land degradation (UNDP, 2020). The United Nations Environment Program indicates that there is an increased risk of climate change in emerging and developing economies, which is affecting GDP and economic growth, so there is a call for resilient policies for transformation through financial regulators and policymakers (AFI, 2021). The main causes of the green financing gap are inadequate finance levels, poor green project selection and management, the trade-off between risk and return, and a lack of analytical tools and experience in detecting and evaluating green project risks. Along with the initiatives of the government and various financial institutions, private capital also needs to be enhanced to meet microeconomic challenges like risk-return trade-offs and lack of coordination between financial and environmental problems. The focus should be on contributions to green initiatives of various countries and on how households and individual participation should be increased in green finance (Desalegn and Tangl, 2022). To achieve inclusive green finance, financial institutions need to provide vital support by financing green technologies for promoting green products. To promote green investment and to mitigate economic crisis, returns on green investments must be very high to attract investors. Low-income groups primarily face the challenges of climate change, necessitating financial commitment. The financial gap in green investment is increasing at an alarming rate, so there is a need for global attention on the issues of climate change, sustainability, and financial inclusivity (Desalegn and Tangl, 2022).

Several challenges hinder the effectiveness of green finance, including a lack of awareness and motivation regarding the concept, weak policy coordination, inconsistent policies that create uncertainty for investors, and a lack of financial incentives for investors and institutions willing to support climate change mitigation (Ozili, 2022). The importance of promoting private sector investment for nature-based solutions is also emphasized (Caleb Debrah *et al.*, 2022). Many private investors, financial institutions, and other stakeholders avoid taking the risk of contributing to green finance because it is among the underdeveloped concepts. Green technologies are expensive, which makes low return on investment a major risk factor (Abd Hadi Mustaffa, 2021). There must be integration between private users or borrowers, financial institutions, and the government to make inclusivity more possible. To overcome challenges related to inclusive green finance, the first and foremost step is to raise awareness of the importance of green technologies and products. Financing, if supported by the government, will enhance the confidence among private investors to participate in green financing (Niekerk, 2024). Financial literacy needs to be enhanced by providing proper training to bankers, financiers, and practitioners about the operation of green technology and its applicability. Since inclusive green finance focuses on the three facets of sustainable development—financial, ecological, and societal—it is a crucial strategy for achieving sustainable development goals (Mohanty, 2023).

Three primary obstacles to green finance are undoubtedly policy, economic, and knowledge hurdles. Several methods can be used to get around these possible problems. We need clear green policies, a way to evaluate risk, a way to improve credit, low-cost refinancing, and securitization markets for green products and technology. We also need to combine directed finance with incentive finance and public finance with private finance (Kumar and Shobana, 2024). Green financing is more complex to understand as compared to traditional financing, which makes inclusivity more difficult to achieve. There is a challenge to operational capability among financial institutions. Green financing applications should match technical standards. To deal with various barriers to inclusive green finance, some innovative financing techniques, such as financial inclusion and FinTech, must be adopted. It is suggested that policymakers make viable and energy system-friendly policies to grant green

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finance to the energy systems (Hongda Liu, 2021). Fintech facilitates access to new funding and investment sources, so it has the potential to mobilize green finance. By merging big data and artificial intelligence to hasten the shift to a green economy, fintech's role in providing green financing is apparent. Fintech has been said to help ensure green finance (Hongda Liu, 2021). The green financial system can be improved through enhanced policies, infrastructures, and institutional arrangements that attract private funds toward the green industry (Hongda Liu, 2021). If we can transform our financial system, it will create many opportunities to enhance green financial system inclusivity and its instruments (Bhatnagar and Sharma, 2022).

The academic importance of inclusive green finance is immeasurable and can't be ignored, as it helps in bridging a gap between financial inclusion and environmental sustainability. It integrates the financial system with sustainable development goals and channels financial services toward green projects and green infrastructure (UNDP, 2020). Inclusive green finance facilitates green innovation by encouraging green technological advancements and promoting environmentally sustainable projects. In this digital economy, there is an urgent need for digitally inclusive green finance. This, in turn, leads to enhanced ecological environments and improved corporate performance (Chen, 2024).

Our study is all about looking at the idea, problems, and importance of inclusive green finance from the perspective of financial inclusion, technology, policy, investment, sustainability, and climate resilience to give a complete and forward-looking research framework. It helps in integrating the prospects of inclusive green finance's global, regional, and academic significance. It expands our understanding of how inclusive green finance mechanisms can enhance climate resilience and economic stability. The paper examines the feasibility of bridging the gap between financial inclusion and green investment for sustainable development. The next section presents the concepts in literature and explains the methods used and data, followed by the study results in section four, while the discussion is in section five. The final section, six, provides implications and limitations of the study.

2. Literature review

2.1 The theoretical foundations

Even the strong economic forces were greatly impacted by human-caused environmental changes. In spite of creating a nationwide plan for addressing climate change within the Paris Agreement, the country is held back from reaching its objectives due to shortcomings in the green financial sector and foundational infrastructure (Freytag, 2020). Prior studies have concentrated on the quantity of green bonds without thoroughly analyzing the market's stagnation. Green finance is essential for financial performance and environmental impact (Mohanty, 2023). The evolution of green finance (GF) is driven by global environmental concerns, leading to academic and policy interest in innovative and sustainable financial systems. A bibliometric analysis explores GF's growth and enablers (Bhatnagar and Sharma, 2022). Recent research has shown that the green financing gap is a significant challenge in addressing global environmental issues. This study systematically analyzes green finance, highlighting research trends and proposing strategies to fill the gap. Regulatory issues are identified as a key challenge, with suggestions for enhancing green finance and attracting private investors (Desalegn and Tangl, 2022). Dongyang Zhang *et al.* (2021) reveals that green economic growth fluctuates due to inconsistent government policies. While public R&D spending positively influences sustainability, its effects vary across countries, particularly those with higher GDP per capita. The study reveals that green energy technology investments help foster a green economy. Increasing green finance access is crucial for emerging economies facing a $2.5 trillion annual gap. This study in India identifies barriers and strategies for promoting green finance adoption, highlighting policy, economic, and knowledge barriers (Wasan *et al.*, 2021). The Paris Agreement resulted in a rise in green funding, yet obstacles such as financial limitations, stringent regulations, and perceived risks impede global involvement (Abd Hadi Mustaffa, 2021).

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The role of digital financial inclusion, creative innovations, and green finance enhances banking stability (Giang Thi Huong Vuong *et al.*, 2025). Prudential green policies urgently need to be aligned with the scaling-up of green finance to support a sustainable and resilient green economy and prevent climate and biodiversity crises. The author highlights the integration of two separate areas—green finance and inclusive finance—into a holistic concept of inclusive green finance. The IGF-related policy framework will help various countries to meet the commitments of the Paris Agreement and the sustainable development agenda (Volz, 2022). Ma (2023) also mentioned that digital inclusive finance plays a major role in promoting corporate green technology innovations. Some financing constraints play a mediating role in this relationship, while various internal controls can enhance the process of digital inclusive finance for driving sustainable green corporate innovations.

Green inclusive finance is crucial for promoting sustainable and inclusive development (Xuxia Wang, 2020). Financial inclusion can be promoted through green innovations for a sustainable future, integrating with the global goal of carbon neutrality (Mohsen Brahmi *et al.*, 2023). The study mentioned that to speed up the green transition, we need a regulatory framework that supports it, financing that is easy for everyone to get, and policies that recognize the importance of financial inclusion through innovation. Financial inclusion, green finance, and green growth are driving forces of sustainable development in both low- and high-financial development countries (LFDCs) and high-financial development countries (HFDCs) (Oanh, 2024). In the same manner, Abbas (2024) mentioned that foreign direct investment (FDI), green innovation, and trade openness positively contribute to green economic growth. The study recommends advocating for environmentally constrained financial inclusion to support sustainable development. Xingqi Zhao *et al.* (2024) highlights the role of green finance policies in sustainable development and found that green energy efficiency in innovation pilot zones was driven by green innovation and environmental regulations. The author also recommends tailoring green finance policies for regional ecological needs. Niekerk (2024) shows the problem regarding persistent economic exclusion and resource depletion and focuses on tackling the SDGs issues. Green finance is a beneficial resource for advancing economic inclusivity and a sustainable economy, leading to the achievement of SDGs. Green finance (GF) plays a vital role in addressing climate change and reaching international sustainability objectives. GF is a growing area that spans multiple disciplines and focuses on topics such as the green bond market, green credit, carbon investment, green banking, market stress, and climate finance policies (Caleb Debrah *et al.*, 2022).

Many empirical studies have been conducted to demonstrate the effect of green financing on energy efficiency (Hossain, 2024; Yuchen Li *et al.*, 2024). According to Hossain (2024), the significance of financial digitization and R&D investment promotes green innovation and green finance initiatives. This exploration of dynamic relationships examines 15 developed and emerging economies. The study in 30 Chinese provinces (2011–2021) reveals that inclusive finance significantly enhances green inclusive growth (Yuchen Li *et al.*, 2024). Similarly, Zhimin He (2024) states that financial support is crucial for green development. Digital inclusive finance's impact on green development efficiency through Provincial Digital Financial Inclusion Index data offers insights for sustainable growth in China's provinces. Green bonds encounter difficulties in determining their value and are susceptible to the danger of misleading claims about their environmental benefits. Limitations of the research involve a small number of participants and restricted data on greenwashing within financial transactions (Freytag, 2020). Falcone (2019) highlights the institutional and financial hurdles that prevent the drive for environmentally sustainable innovation specifically for biomass producers. There should be long-term effective policy interventions to mitigate financial risks and encourage green investments. Green credit guarantee schemes (GCGSs) help diminish risks and enhance profits by funneling tax revenue generated from green energy projects back to investors (Taghizadeh-Hesary and Yoshino, 2019). A finance ecosystem approach is necessary for ensuring complementary funding mechanisms for low-carbon investments. Additionally, there is a need for strong

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public sector funding that can help sustainably focused businesses, and there is an urgent need for strong entrepreneurial skills development and investment readiness support to drive impactful climate change solutions (Robyn Owen *et al.*, 2018).

Fintech plays a major role in advancing green innovation and supporting the achievement of the Paris Agreement and Sustainable Development Goals (Nassiry, 2018). The study focuses on blockchain applications for sustainable development and, interestingly, innovations in financial instruments such as developing green bonds (Nassiry, 2018). Additionally, the paper explores the implications of these technologies for developing economies in Asia and provides preliminary policy recommendations for harnessing fintech and blockchain to drive low-carbon, climate-resilient investments. The role of central banks in greening financial systems is through allocating resources for a sustainable green economy and curbing financial allocation towards environmentally harmful activities (Volz, 2017). It also looks into how central banks and financial regulators can change investment and credit allocation using different policy tools, such as monetary policies, micro- and macroprudential regulations, climate-related stress testing, disclosure requirements, and different reserve or capital requirements based on how they affect the environment.

2.2 Research gap

There is a wide-ranging gap found after reviewing an extensive review of literature published in the related context and found that there are hardly any studies shepherded on the role of inclusive green finance in terms of financial inclusion in the green growth, which is a challenge to the digital economy (Oanh, 2024). Therefore, an existing study attempted to comprehend the role of inclusive green finance with a systematic literature review and bibliometric analysis, which is a challenge to sustainable development goals (UNSGSA, 2023; Abbas, 2024; Desalegn and Tangl, 2022). There is still a noteworthy research gap in the specific area of economic inclusion, despite the growing interest in digitalization and its impact on green investment. This is due to the fact that there is a financial gap in green investment that is growing constantly. Henceforth, additional research needs to be conducted to understand the global challenges on the issues of climate change, sustainability, and financial inclusivity (Oanh, 2024; Desalegn and Tangl, 2022). In addition, the importance of inclusive green finance is immense for bridging the gap between financial inclusion and environmental sustainability. Attention needs to be shifted to integrating the financial system with sustainable development goals toward a green economy (UNDP, 2020). This type of research can assist the economy in the process of encouraging green technological advancements and promoting environmentally sustainable projects. Inclusive green finance facilitates green innovation by improving ecological environments and corporate performance (Chen, 2024).

3. Methodology

3.1 Database

The study used a bibliometric study to analyze the concept of inclusive green finance and identify various challenges and barriers. The computer-assisted method helps find out the different connections between authors, documents, citations, organizations, and sources in a certain field of study. It accomplishes these goals by examining all publications related to the subject, specifically "inclusive green finance." After having decided about the publications, a dataset of literature is created to clearly outline steps followed to acquire relevant literature (Öztürk, 2024). You can open the Microsoft CSV file containing the dataset for bibliometric analysis with the downloaded VOS Viewer program. The exported data included title, abstract, source, publication year, volume, issue, authors' affiliation, number of times cited, and cited references.

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3.1.1 Selecting the database. For the current study of inclusive green finance, the authors extracted data from Dimensions and PubMed. Dimensions offer interlinked and in-depth data for analysis. For bibliometric analysis, authors used data extracted from dimensions, as it is partly a free scholarly database that includes a vast collection of research outputs, including journal articles, conference papers, and patents. Dimensions is a viable alternative to Scopus and Web of Science for citation analysis and research evaluation. (Thelwall, 2018). Few scholarly articles are taken from PubMed for systematic literature review to enhance the clarity and depth of analysis for well-supported and meaningful conclusions, rather than pursuing a broad bibliometric analysis. In the second step, a search query is created by using relevant keywords and titles, aiming to reduce or eliminate irrelevant results as much as possible. Various key terms and concepts are used to run a search query, such as "inclusive green finance," "green finance," "inclusive green growth," "sustainable green growth," "financial inclusion and green innovation," "green finance: challenges and barriers," and many more to get diverse results from the dataset in the respective area.

Further, *filtering* was done to limit the scope of research and eliminate papers and articles outside this scope, thereby restricting the aim of the research. For the latest literature review, filtering was done to include scholarly papers covering the publication time span of 2016–2024. Research fields are also refined, including "Commerce, Management, Tourism and Services, Banking, Finance and Investment, Sustainable Cities and Communities, Climate Action, Affordable and Clean Energy, Reduced Inequalities, Good Health and Well-Being, Gender Equality, Peace, Justice and Strong Institutions, Industry, Innovation and Infrastructure, or Decent Work and Economic Growth." Ensuring transparency and systematicity in this process enhances research credibility. For the data screening and validation, the authors screened the dataset by applying inclusion and exclusion criteria.

Regarding the inclusion criteria, the first step is to include scholarly articles that discuss inclusive green finance or green finance approaches. *Secondly,* covering the key concepts of green finance, sustainable growth, green financial innovation, green growth, digital finance, inclusive green growth, challenges, and barriers related to green finance was included. *Lastly,* articles related to the objectives of research cover the publication time span of around the last 10 years for the latest review (Naveen Donthu *et al.*, 2021).

*For the exclusion criteria, t*he dataset excludes duplicate scholarly articles and irrelevant records that are not suitable for the research work. Secondly, titles and abstracts are screened to exclude records that are not relevant to the research. Lastly, records excluded those that lack essential information like a title, relevant keywords, an abstract, citations, etc., or are in a language other than English.

3.1.2 Bibliometric analysis. We have used the open-access software Vos Viewer for bibliometric analysis to facilitate descriptive and exploratory research and provide new research directions. This software is compatible; it helps in constructing and visualizing bibliometric relationships between various research variables. Kirby (2023) conducted a study using a network visualization map. To effectively study bibliometric relationships, co-citation maps of authors or journals and co-occurrence maps of keywords were created because they gave a clearer picture of large amounts of data and were free (Nees Jan van Eck, 2010).

From Figure 1, it's been observed that Inclusive green finance is a growing area of research, and much work has already been done in the field of green finance. A total of 3,252 records have been extracted from the database, "Dimensions"; about 54 articles have been removed on account of duplicity and ineligibility. We incorporate inclusion and exclusion criteria and then screen the articles based on their relevance, as determined by their title and abstract. Approximately 943 articles have been excluded after screening. A total of 2,251 articles have been included for bibliometric analysis.

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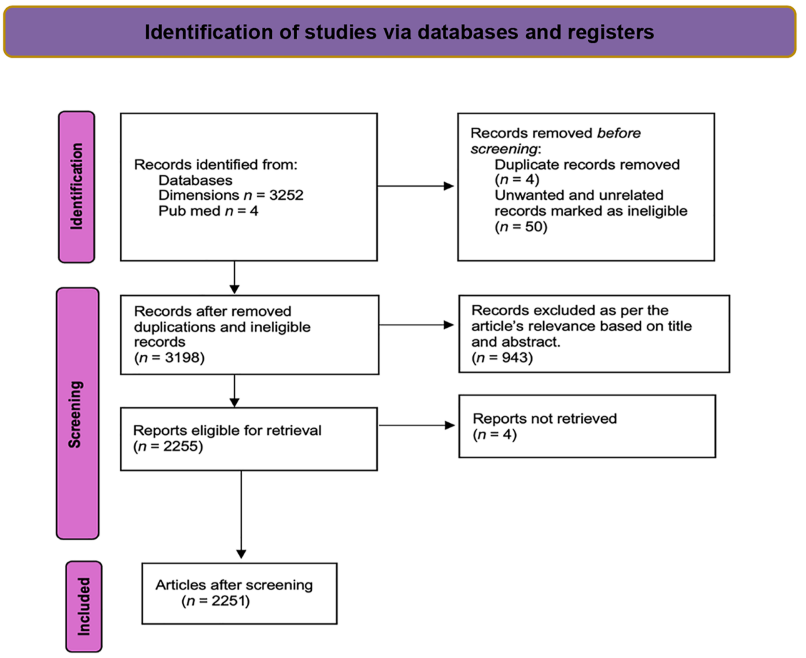


Figure 1. Flow diagram of systematic literature review on inclusive green finance. **Note(s):** This work is licensed under CC BY 4.0. To view a copy of this license, visit: https://creativecommons.org/licenses/by/4.0/. **Source(s):** Page *et al.* (2021)

4. Results

4.1 Co-citation analysis

Table 1 highlight the growing academic focus on inclusive green finance. Top-cited studies like Irfan *et al.* (2022) and Razzaq and Yang (2023) examine how green and digital finance promote innovation and green growth under policy frameworks. Several studies, such as Lee and Wang (2022) and Zheng and Li (2022), explore the role of *digital inclusive finance* in reducing carbon intensity and emissions.

Table A1 (Appendix), and Figure 2 present the geographical distribution of publications in the field of "inclusive green finance." In the field of finance, it is crucial to scrutinize the contributions made by various nations. Table A1 (Appendix) also provides insights into the country-wise contributions to publications in this field. China has the highest contribution, with 520 publications from 2015 to 2024, accounting for 29.73% of the total publications, followed by the United Kingdom (330) and the United States (191). The total number of citations for China's publications is about 7,344. On the other hand, the United Kingdom has a total of 11,874 citations, which is higher than China's, followed by the United States (5,857), Italy (2,662), Malaysia (2,295), India (2,618), Australia (3,167), Spain (2,491), Pakistan (2,420), South Africa (1,425), and so on. This analysis shows the global nature of research collaborations, with major hubs in China, the UK, and South Africa leading international partnerships.

4.2 Cluster analysis

Table 2 highlights the cluster analysis of geographical distribution of publications on inclusive green finance, representing regional collaboration patterns. It identifies 5 clusters demonstrating how research efforts are geographically grouped and interconnected, often reflecting regional priorities and partnerships.

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Table 1. Top 10 cited documents on inclusive green finance

Rank	Study	Title	Total citations
1st	Irfan *et al*. (2022)	Influence mechanism between green finance and green innovation: Exploring regional policy intervention effects in China	370
2nd	Zahoor *et al*. (2021)	Clean energy investment and financial development as determinants of environment and sustainable economic growth: evidence from China	182
3rd	Lee and Wang (2022)	How does digital inclusive finance affect carbon intensity?	133
4th	Razzaq and Yang (2023)	Digital finance and green growth in China: Appraising inclusive digital finance using web crawler technology and big data	105
5th	Nenavath (2022)	Impact of fintech and green finance on environmental quality protection in India: By applying the semi-parametric difference-in-differences (SDID)	84
6th	Ahmad and Satrovic (2022)	Relating fiscal decentralization and financial inclusion to environmental sustainability: Criticality of natural resources	67
7th	Desalegn and Tangl (2022)	Enhancing Green Finance for Inclusive Green Growth: A Systematic Approach	63
8th	Akomea-Frimpong *et al*. (2022)	Green finance for green buildings: A systematic review and conceptual foundation	59
9th	Gao *et al*. (2022)	The Impact of Digital Inclusive Finance on Agricultural Green Total Factor Productivity: Evidence from China	54
10th	Quatrini (2021)	Challenges and opportunities to scale up sustainable finance after the COVID-19 crisis: Lessons and promising innovations from science and practice	45
11th	Zheng and Li (2022)	The impact of digital financial inclusion on carbon dioxide emissions: Empirical evidence from Chinese provinces data	45

Source(s): The authors

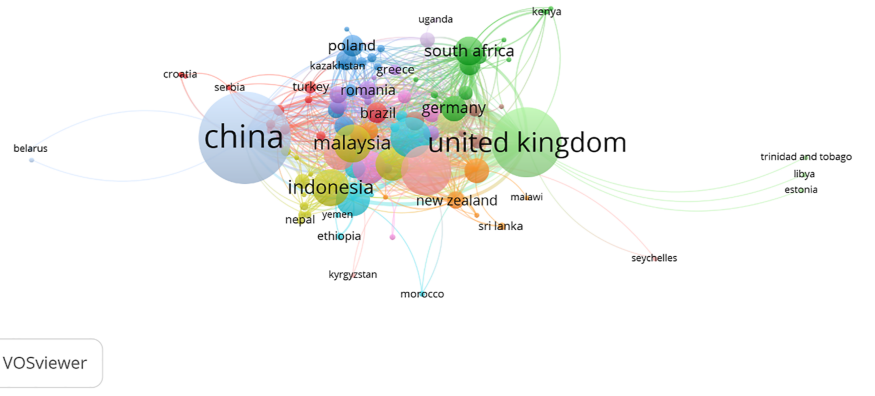


Figure 2. Geographical distribution of publications on inclusive green finance. **Source(s):** The authors

4.3 Co-authorship of countries

Co-authorship of various countries helps us to know about the countries' collaboration in the field of "inclusive green finance." Figure 2 denotes various clusters; each cluster contains the countries that have undertaken studies in the specific areas or sub-areas of inclusive green finance. In this study, China has a strong relationship and strong similarities with the United Kingdom, United States, Indonesia, Germany, South Africa, Malaysia, Italy, Poland,

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Table 2. Cluster analysis of geographical distribution of publications on inclusive green finance

Cluster	Name	Key insights
Blue	China-centric	The region is dominated by China, with strong links to Malaysia, Indonesia, Romania, Poland, and Turkey
Green	United Kingdom-centric	The region is led by the United Kingdom, with strong ties to Germany, South Africa, New Zealand, and Kenya
Yellow	Malaysia-Indonesia	The centers are located around Malaysia and Indonesia, with links to Nepal, Ethiopia, and Sri Lanka
Light green	South Africa-African Collaboration	South Africa is the key player, connected with Uganda, Kenya, Malawi, Libya, and Seychelles
Red/Blue	Eastern Europe and Central Asia Cluster	Includes Romania, Poland, Kazakhstan, Turkey, Serbia, and Croatia

Source(s): The authors

New Zealand, and Romania. China has contributed highly to the field of inclusive green finance with 520 publications. It has connections with 57 countries with a total link strength of 575. Various countries like Sri Lanka, Kenya, Nepal, Uganda, Serbia, Canada, Turkey, Iceland, Morocco, Luxembourg, Greece, Norway, and Kuwait have recently joined the group of countries that publish and work on the area of inclusive green finance.

The closeness of the clusters indicates the volume of publications and the collaborative ties between countries through co-authorship. The network visualization map of co-authorship of countries provides a comprehensive picture of the collaboration of countries in the field of inclusive green finance. It provides a clear view of the contributions of various nations to the growth of inclusivity in the field of green finance.

4.4 Keywords analysis

"Inclusive green finance promotes sustainability and inclusivity in green growth." Figures 3 and 4 visually illustrate the co-occurrence of the authors' keywords and all keywords through a network visualization map. Analysis of the author's keywords indicates the growth and research in the areas of "digital inclusive finance," "sustainable development," "green technology innovation," "environmental regulations," "agricultural green development," "inclusive green growth," "government intervention," and "ecological innovation." However,



Figure 3. Cluster analysis (keywords) on inclusive green finance. **Source(s):** The authors

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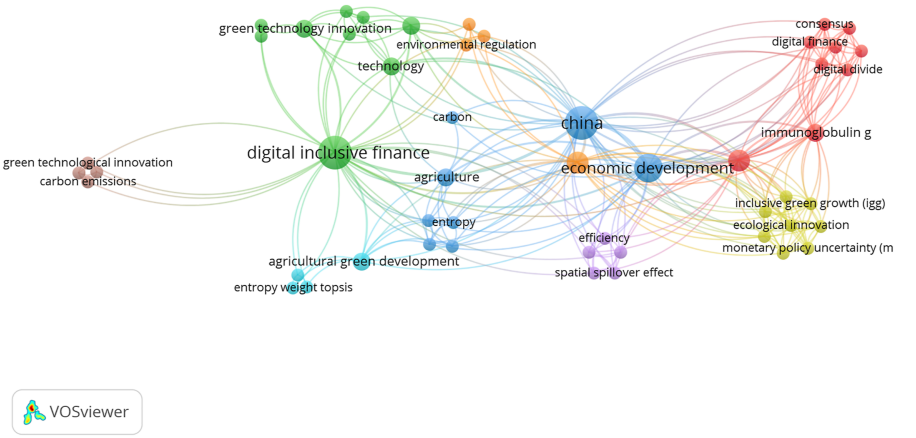


Figure 4. Cluster analysis (keywords and countries) on inclusive green finance. **Source(s):** The authors

the analysis of Figure 2 of co-occurrences of all keywords shows that "digital inclusive finance," "sustainability," "economic development," "green technological innovation," and "inclusive green growth" were found to have the highest occurrences as compared to "digital divide," "carbon emissions," "digital finance," "monetary policy uncertainty," "green finance gap," and low carbon investment.

The green cluster (Figure 3) depicts that digital inclusive finance and green technology play a major role, followed by environmental impact and regulations. Subsequently, the focus shifts to agriculture, green development, sustainable development, and finance. Clustering in red focuses on ecological innovation and regional development. Governmental intervention is necessary to increase inclusivity in green finance. Initiatives toward the introduction and promotion of various green investment instruments can solve the various issues related to inclusive green finance. Participation and accountability among all green stakeholders can improve sustainability and green growth initiatives. Econometricians and financial economists, along with environmental economists and scientists, need to collaborate to advance the field of green finance and work toward sustainability and inclusivity.

The blue cluster in Figure 4 centers around China and its economic development, whereas the green one depicts inclusive digital finance and green technology. The red cluster mentioned the role of the digital divide and financial inclusion. The article discusses monetary policy, uncertainty, and inclusive green growth under the yellow and brown focus on green technological innovation and carbon emissions.

Figure 5, a trend chart illustrates the publication trend in the area of inclusive green finance and green finance according to the respective dataset. It is clear from the above chart that there is an upward trajectory in the number of publications, particularly from 2020 onward, reflecting growing research interest in the field. The highest number of publications occurred in 2023, reaching 559, followed by a decline to 361 in 2024. The significant increase between 2019 and 2023 suggests increased awareness and academic engagement in green finance. There is a slight decrease in publication trend in 2024; this pattern aligns with typical research trends, where rapid expansion is often followed by stabilization or diversification into new subfields.

According to Table 3, firstly, under the productive journal for inclusive green finance, sustainability, and the International Journal of Environmental Research and Public Health are associated with Switzerland, whereas in the 3rd rank, environmental science and pollution research are associated with Switzerland. Further, the Journal of Risk and Financial Management from Switzerland ranked 4th, and Technological Forecasting and Social Change

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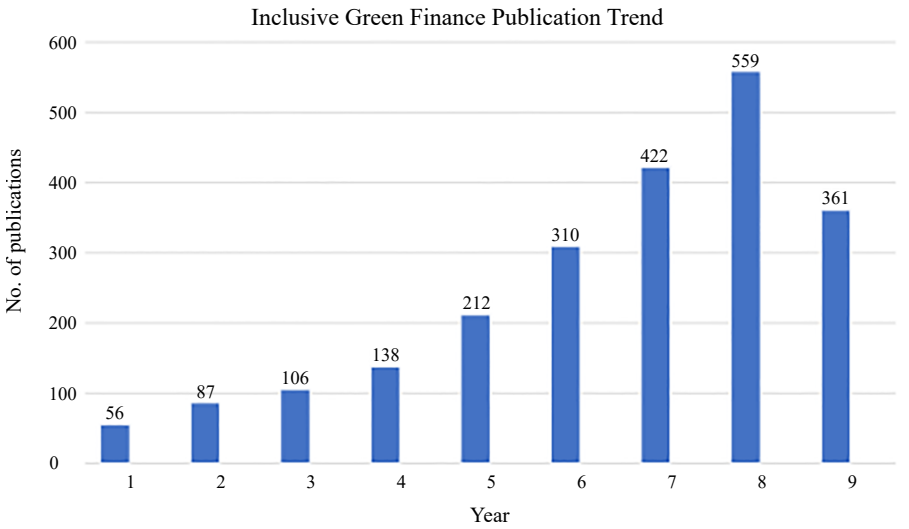


Figure 5. Publication trend of inclusive green finance. **Source(s):** Graph by authors

Table 3. Top 10 productive journals of inclusive green finance research

Rank	Source	Country	TP	TP%	TC	Total link strength
1	*Sustainability*	Switzerland	320	52.89	5,274	197
2	*International Journal of Environmental Research and Public Health*	Switzerland	73	12.06	1,402	31
3	*Environmental Science and Pollution Research*	Germany	70	11.57	1,639	58
4	*Journal of Risk and Financial Management*	Switzerland	32	5.289	589	38
5	*Technological Forecasting and Social Change*	United States	28	4.62	2,453	17
6	*Journal of Innovation and Knowledge*	Netherlands	22	3.63	502	30
7	*Business Strategy and the Environment*	United Kingdom	17	2.80	332	8
8	*Journal of Environmental Management*	United States	16	2.64	654	11
9	*Green Finance*	China	15	2.48	197	11
10	*Financial Innovation*	Germany	14	2.31	520	14

Source(s): The authors

of the US ranked 5th. The Journal of Innovation and Knowledge of the Netherlands and Business Strategy and Environment of the UK ranked 6th and 7th, respectively. The Journal of Environmental Management of the US, Green Finance of China, and Business Strategy and the Environment ranked 8th, 9th, and 10th.

The Figure 6 represents the network visualization map of the scholarly landscape of research related to inclusive green finance. Through analysis it is revealed that journal of sustainability positioned centrally with a significantly larger node, indicating it is a pivotal source frequently cited alongside others in this domain. Its strong linkages with journals like the *Journal of Risk and Financial Management* and *Environmental Science and pollution* indicate a multidisciplinary convergence of environmental, financial, and policy-focused research. Diverse knowledge bases across sustainability, innovation systems and financial policy suggests growing academic integration and the evolving maturity of this research area.

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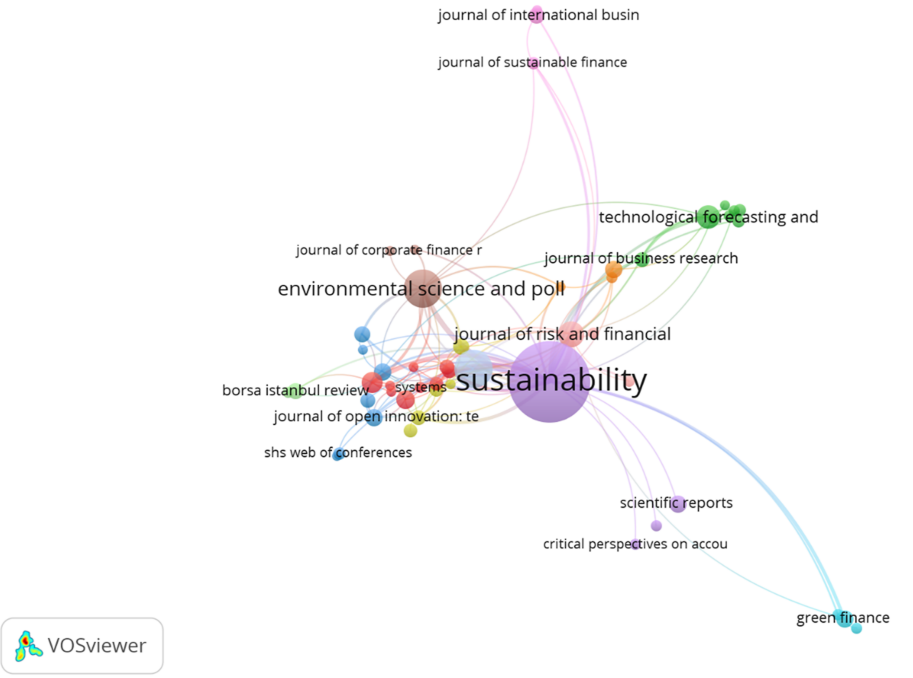


Figure 6. Network visualization map of citation-wise sources. **Source(s):** The authors

Table 3 displays the top 10 prolific journals on "inclusive green finance." An analysis indicates that the journal "Sustainability" has the highest number of publications, approximately 320, along with the highest number of citations, 5,274 times. According to the country-wise analysis, Switzerland has the highest number of sources, with about 3 productive journals, followed by the United States and Germany, each with 2 sources out of 10. This analysis indicates that inclusive green finance is a new approach with significant future potential. As per the overall analysis, "Sustainability" is the most connected journal of inclusive green finance research with 197 total strength links. It is noted that "The Journal of Environmental Management," "Green Finance," and "Financial Innovation" have fewer publications.

4.5 Content analysis

Content analysis is a method used for analyzing the content of various studies and literature reviews. It enhances the understanding of data and strengthens the research design. It is a rigorous qualitative and quantitative contextual analysis. (Harwood and Garry, 2003). It is considered to be the most common method for evaluating existing knowledge and identifying an intellectual framework (Ajai Gaur and Kumar, 2018).

The Table 4 and Table A2 (Appendix) exhibits content analysis of scholarly contributions focusing on finance and sustainability with emphasis on green finance, digital finance and financial inclusion. The study by Irfan *et al.* (2022), with 370 citations, stands out for its exploration of regional policy intervention effects on green innovation in China. Similarly, Zahoor *et al.* (2021) highlight the role of clean energy investment and financial development in fostering sustainable economic growth. Digital finance's role is further examined by Lee and Wang (2022), who investigate its impact on carbon intensity, and Razzaq and Yang (2023), who focus on digital finance's contribution to green growth. The analysis highlights the

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Table 4. Content analysis

Theme	Study	Title	Total citations
Green finance and green innovation	Irfan *et al.* (2022)	Influence mechanism between green finance and green innovation: Exploring regional policy intervention effects in China	370
Financial development and environment and sustainable economic growth	Zahoor *et al.* (2021)	Clean energy investment and financial development as determinants of environment and sustainable economic growth: evidence from China	182
Digital inclusive finance	Lee and Wang (2022)	How does digital inclusive finance affect carbon intensity?	133
Digital finance and green growth	Razzaq and Yang (2023)	Digital finance and green growth in China: Appraising inclusive digital finance using web crawler technology and big data	105
Fintech and green finance on environmental quality protection	Nenavath (2022)	Impact of fintech and green finance on environmental quality protection in India: By applying the semi-parametric difference-in-differences (SDID)	84
Financial inclusion and environmental sustainability	Ahmad and Satrovic (2022)	Relating fiscal decentralization and financial inclusion to environmental sustainability: Criticality of natural resources	67
Green Finance for Inclusive Green Growth	Desalegn and Tangl (2022)	Enhancing Green Finance for Inclusive Green Growth: A Systematic Approach	63
Green finance	Akomea-Frimpong *et al.* (2022)	Green finance for green buildings: A systematic review and conceptual foundation	59
Digital Inclusive Finance on Agricultural Green Total Factor Productivity	Gao *et al.* (2022)	The Impact of Digital Inclusive Finance on Agricultural Green Total Factor Productivity: Evidence from China	54
Sustainable finance after the COVID-19 crisis	Quatrini (2021)	Challenges and opportunities to scale up sustainable finance after the COVID-19 crisis: Lessons and promising innovations from science and practice	45
Digital financial inclusion on carbon dioxide emissions	Zheng and Li (2022)	The impact of digital financial inclusion on carbon dioxide emissions: Empirical evidence from Chinese provinces data	45

Source(s): The authors

growing scholarly emphasis on integration of financial innovation with sustainability, indicating the major roles of inclusive green growth and the digital economy in driving environmentally responsible and equitable economic development.

5. Discussion

The present study has mainly focused on contributing to inclusive green finance with an emphasis on the digital economy and green growth. According to the analysis, China has contributed highly to enhancing inclusivity in green finance (Gao *et al*., 2022; Zheng and Li, 2022; Zahoor *et al*., 2021). There is a noticeable growing trend of an increasing number of publications and documents in the study of inclusive green finance (Quatrini, 2021). As shown in Figure 1, many countries are collaborating with other groups to promote inclusivity in green finance (Aribah Aslam and Ghouse, 2023). Inclusivity in green finance can be achieved when all developed and developing countries increase their initiative in the

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field of green finance (Desalegn and Tangl, 2022). To overcome challenges in this field, several strategies can be adopted, such as "Financially excluded households should get easy financing to invest in green technologies." "Policies should prioritize inclusion as a key goal." "Emphasize the significance of embracing green products and green technologies (Desalegn and Tangl, 2022)." "Enhancement of green credit guarantee schemes," "Governmental and political support is necessary to enhance initiatives towards green investment (Zhang, 2022)." "Increased investment in green projects," "Addressing knowledge gaps and market challenges," "More initiative towards research and development of sustainable green finance," "Joint partnership of private and public institutions for promoting investments in green technologies," "Promotion of green investment banks primarily focusing on green infrastructure," "Development of bond market," "Reduction in transaction cost of green investment," and "We must proactively develop diverse measures to track the progress and enhance inclusivity in green finance effectively."

6. Conclusion, implications and limitations

Inclusive Green finance is considered to be the most trending and relatively new approach in the field of environmental governance. The main aim of this study is to analyze the overall holistic overview of the contribution, challenges, and strategies toward enhancing inclusivity in green finance. The present study focused on recognizing the influence of authors and countries in the respective domain, analyzed the most commonly used keywords in this research area, and conducted bibliometric and network analyses.

The existing study suggests implications for policymakers, professionals, and different government agencies. The findings of this study show a noticeable increasing trend of publications of inclusive green finance that will motivate the government to enhance initiatives towards green investment. The joint partnership of different banking and non-financial institutions will promote professionals to engage in investments in green technologies. The study mentioned the significance of green products and green technologies, which motivate the policymakers to channel inclusivity in green finance.

The empirical limitations of this study can be used for future research. This research has focused on only one database, i.e. Dimensions; more databases, such as Google Scholar and Lens, should be used for bibliometric analysis. The scope of this paper was limited to contributions, challenges, and general strategies, but more areas, such as specific strategies to enhance inclusivity in green finance, the role of digital inclusive finance in sustainable green economic development, inclusive green growth, etc., should be focused on in terms of direction for the future.

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Appendix

Table A1. Geographical distribution of publications on *inclusive green finance*

Country name	TP	TP%	TC	Total link strength
China	520	29.73	7,344	298
United Kingdom	330	18.86	11,874	392
United States	191	10.92	5,857	259
Italy	133	7.60	2,662	143
Malaysia	119	6.80	2,295	129
India	98	5.60	2,618	96
Australia	96	5.48	3,167	143
Spain	95	5.43	2,491	87
Pakistan	90	5.14	2,420	147
South Africa	77	4.40	1,425	76

Source(s): The authors

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Table A2. Content analysis

Study	Title	Total citations	Emerging theme	Methodology	Journal	Key insights
Irfan *et al.* (2022)	Influence mechanism between green finance and green innovation: Exploring regional policy intervention effects in China	370	Influence of green finance on green innovation	Empirical analysis: difference-in-differences, mediation effects, and panel vector autoregression models	Technological Forecasting and Social Change	Green finance is the major contributor to green innovation. Policy intervention in pilot zones had a great impact on green financial innovation Green innovation is majorly influenced green finance through three core transmission channels, i.e. industrial structure, economic growth and research and development investment
Zahoor *et al.* (2021)	Clean energy investment and financial development as determinants of environment and sustainable economic growth: evidence from China	182	Clean energy investment and financial development	Econometric modelling	Environmental science and pollution research	Local government can play a crucial role in addressing to the challenges of cleaner energy investments Sustainable development objectives can be achieved by financial sector through green finance strategies
Lee and Wang (2022)	How does digital inclusive finance affect carbon intensity?	133	Digital inclusive finance and carbon intensity	Regression analysis	Economic analysis and Policy	Digital inclusive finance had a direct impact on reducing carbon intensity through optimizing good technological environment and better industrial structure Promotion of green credit policy helps in cutting down carbon intensity

(*continued*)

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Table A2. Continued

Study	Title	Total citations	Emerging theme	Methodology	Journal	Key insights
Razzaq and Yang (2023)	Digital finance and green growth in China: Appraising inclusive digital finance using web crawler technology and big data	105	Digital inclusive finance and green growth	Big data analytics and web crawler technology for digital finance assessment	Technological forecasting and social change	Green growth can be encouraged by digital finance through the support of digital transformation of enterprises which also helps in addressing energy poverty
Nenavath (2022)	Impact of fintech and green finance on environmental quality protection in India: By applying the semi-parametric difference-in-differences (SDID)	84	Fintech and green finance in India	Semi-parametric difference-in-differences (SDID) approach	Renewable Energy	Growth of the Fintech has positively contributed towards reduction of SO_2 (Sulphur dioxide) emissions and boost up the environmental safety and investment enterprises India is considered to be the great competitor in green finance strategy operation There is a need on the part of policymakers to increase the role of fintech in improving environmental quality
Ahmad and Satrovic (2022)	Relating fiscal decentralization and financial inclusion to environmental sustainability: Criticality of natural resources	67	Fiscal decentralization, financial inclusion and sustainability	Empirical analysis	Journal of Environmental Management	Fiscal decentralization enhances financial inclusion, which in turn supports environmental sustainability Efficient allocation of natural resources is crucial in ensuring sustainable development under decentralized fiscal policies

(*continued*)

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Table A2. Continued

Study	Title	Total citations	Emerging theme	Methodology	Journal	Key insights
Desalegn and Tangl (2022)	Enhancing Green Finance for Inclusive Green Growth: A Systematic Approach	63	Systematic approach to enhancing green finance	Bibliometric analysis: systematic literature review	Sustainability	Financial gap has been observed in green finance initiatives because of low finance levels, poor green project selection and management, and a lack of analytical tools and expertise in assessing green project risks
Akomea-Frimpong *et al*. (2022)	Green finance for green buildings: A systematic review and conceptual foundation	59	Green finance for sustainable buildings	Systematic literature review	Journal of Cleaner Production	Systematic literature review highlights green finance is essential source for developing sustainable buildings For reducing environmental impact there is a need for the stronger financial incentives to support green construction
Gao *et al*. (2022)	The Impact of Digital Inclusive Finance on Agricultural Green Total Factor Productivity: Evidence from China	54	Digital finance and agricultural sustainability	Empirical analysis	Frontiers in Ecology and Evolution	Digital finance improves agricultural sustainabiliby enhancing green total factor productivity Empirical analysis confirms that financial inclusion supports eco-friendly farming practices
Quatrini (2021)	Challenges and opportunities to scale up sustainable finance after the COVID-19 crisis: Lessons and promising innovations from science and practice	45	Sustainable finance post COVID-19	Qualitative analysis of sustainable finance trends post-pandemic	Ecosystem services	The COVID-19 crisis presents both challenges and opportunities for scaling up sustainable finance Innovations in sustainable finance post-pandemic are crucial for economic recovery and climate resilience

Source(s): The authors

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ACHSM Asia-Pacific Journal of Health Management

REVIEW ARTICLE

EXPLORING COVID-19'S IMPACT ON MENTAL HEALTH IN THE WORKPLACE: A BIBLIOMETRIC ANALYSIS

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ABSTRACT

The objective of this paper is to examine important research areas and emerging development trends while highlighting the challenges and opportunities associated with them. This is accomplished through a methodical examination of publications pertaining to the mental well-being of employees during COVID-19. The authors analyzed 177 articles and contributions from the Scopus database, that were listed by the Australian Business Dean Council (ABDC), using the bibliometric tool VOS viewer. According to the data, there have been increasing trends in the study of mental health and its effects during COVID-19, and psychology and human resource management are also seeing an increase in the study of mental health. The authors who have been referred to the most are "Chawla N.," "Mccarthy J.M.", "Trougakos J.P." and "Li J". The journal "American Psychologist" has published a significant amount of research in the psychology field and the "International Journal of Hospitality Management" has maximum publications in human resource management field. Using efficient bibliometric techniques, the authors give readers a thorough grasp of the research topic, which will be helpful to anybody interested in the field, particularly newcomers. They advise that future studies concentrate on creating hybrid models to forecast trends in particular fields of psychology and human resource management, which is a new field of study.

KEYWORDS

COVID-19, technostress, psychological wellbeing, remote work, bibliometric analysis, VOS viewer

INTRODUCTION

The COVID-19 pandemic has disrupted global employee routines, but there is limited understanding of its impact on work, domestic, and well-being related outcomes [1]. The crisis has caused negative impacts on employees' job security, and it is crucial to examine ways in which organizations can ease these harmful effects [2].

Researchers use transactional theory to assess the psychological challenges of traveller undergoing quarantine during the COVID-19 outbreak, often in specific hotels for two weeks [3]. Other such theories include Uncertainty Reduction Theory [4] and Scarcity Theory [5]. Scarcity theory investigates the connection between stresses related to financial insecurity and job and employees' self-reported engagement in specific behaviors [2]. Equity and social exchange theory is applied to know how furloughs impact intentions of employees to leave a job [6]. The pandemic has necessitated organizational changes, but successful implementation often requires employee preparedness, despite limited research on mental factors promoting such readiness [7].

COVID-19 has significantly impacted remote work, making it a challenging component that requires better understanding and adaptation to ensure global well-being [8]. The shift towards remote work has posed significant challenges for organizations and employees, necessitating a reassessment of isolation as a primary challenge in today's technology-mediated work environment [9]. But overuse of modern technology for both professional as well as personal use can lead to "techno-stress" [1][10]. Workers' hesitation and unease regarding the usage of information and communication technology (ICT) and their reliance on smartphones can serve as distractions that impede their ability to accomplish work objectives efficiently [11] [12]. Since psychological well-being is as important as physical health, more research on this is required [13]. Most recent research have used Structural equation modelling to analyse their data.

To know the scope of the study, following questions have been asked:

- RQ1 What are the current research developments and countries contributing in the field of COVID-19 and mental health of employees?
- RQ2 Which are the literature's most renowned, noteworthy, and influential sources and contributors?

RESEARCH METHODOLOGY

On February 1, 2022, we conducted the search of the literature. To summarize the trends in research regarding the consequence of COVID-19 on cognitive wellbeing of employees, we employed bibliometric quantitative analysis and network visualization. We used the Scopus database to run the following search Figure 1):

FIGURE 1: SEARCH CRITERIA (AUTHOR'S OWN)

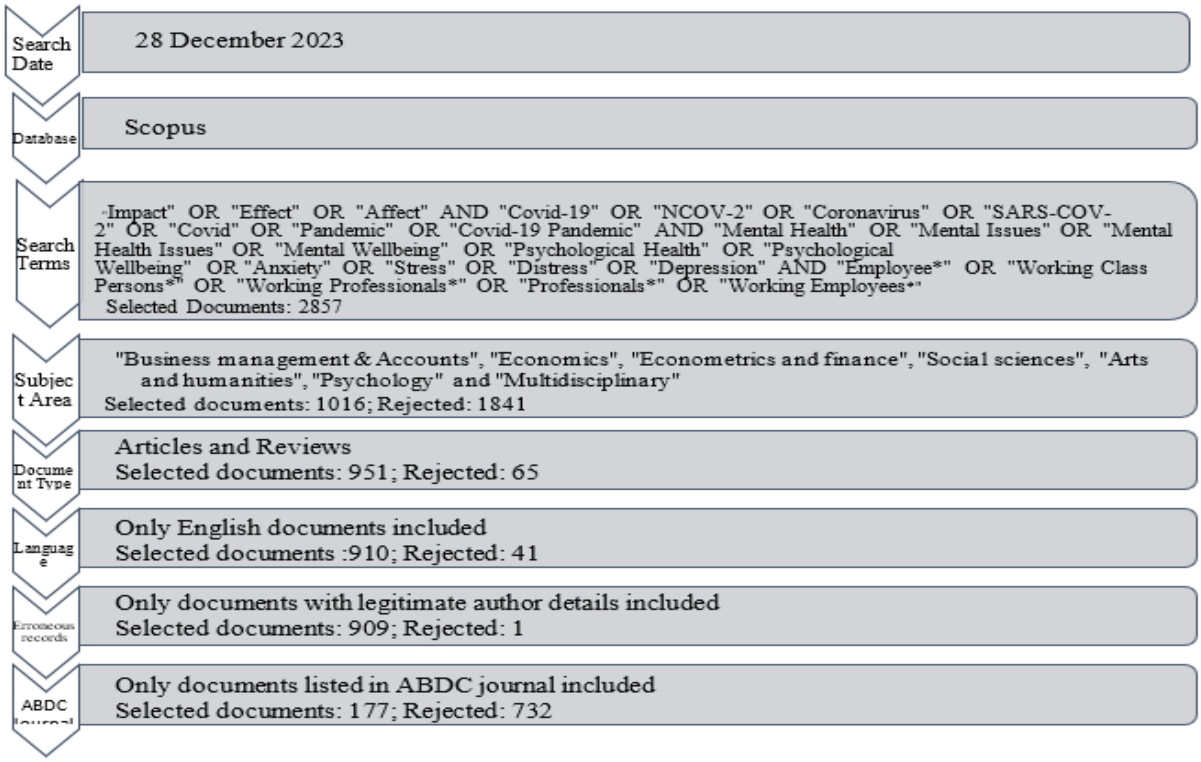
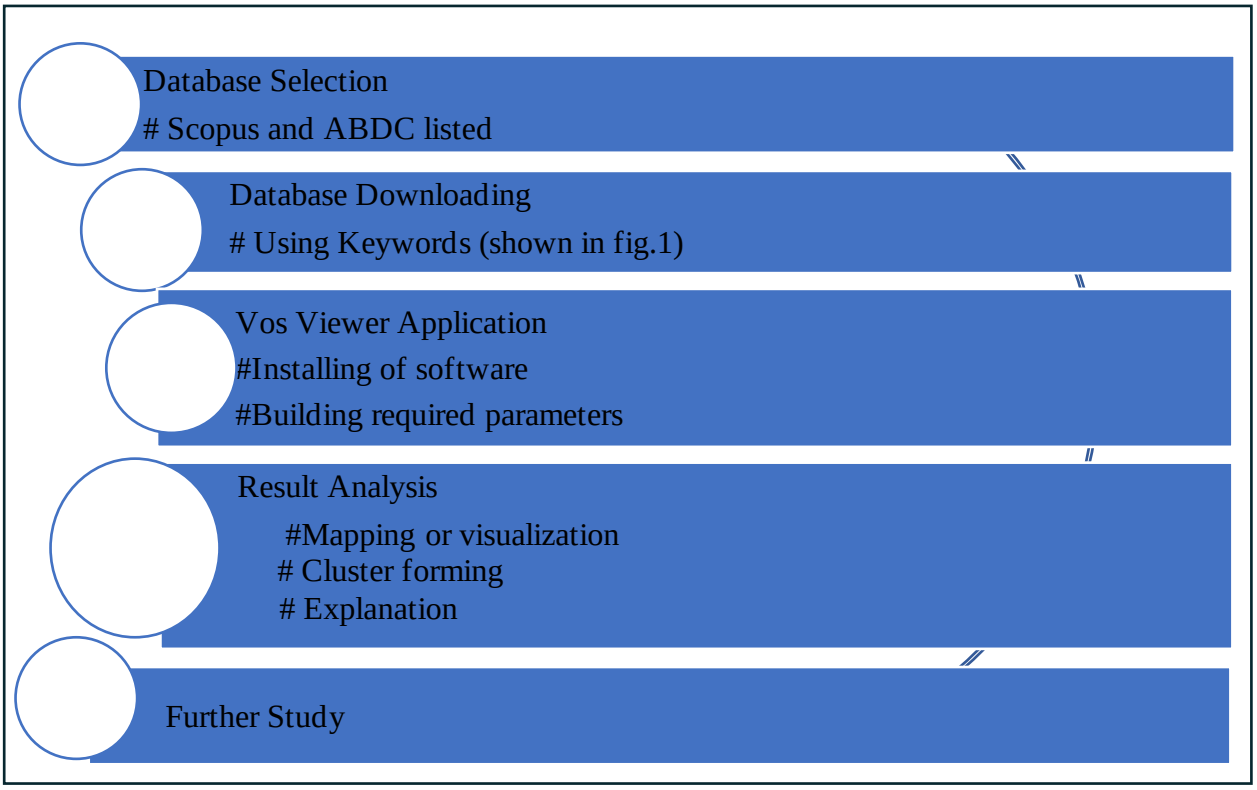


Figure 2 reveals the methodical process which is used to compile the final Scopus of (177 articles which are also ABDC listed papers) for evaluation. The search phrases were developed by brainstorming among the authors, who were methodological and subject-matter specialists.

RESEARCH TOOLS AND TECHNIQUES

Bibliometric analysis is a statistical technique used to evaluate published studies by analyzing citation links and their impact on other disciplines. It can be applied to data from other databases and is essential for scientific research. Bibliographic software like VOSViewer can provide accurate results and make finding relevant material easier. It is accessible for free, easy to use, and exhibit large bibliometric maps and interpret the presented clusters [14]. It is also pointed out that most computer applications for bibliometric analysis do not effectively display such maps. Further crucial conditions are outlined [15].

FIGURE 2: VOS VIEWER PROCESS (AUTHOR'S OWN)



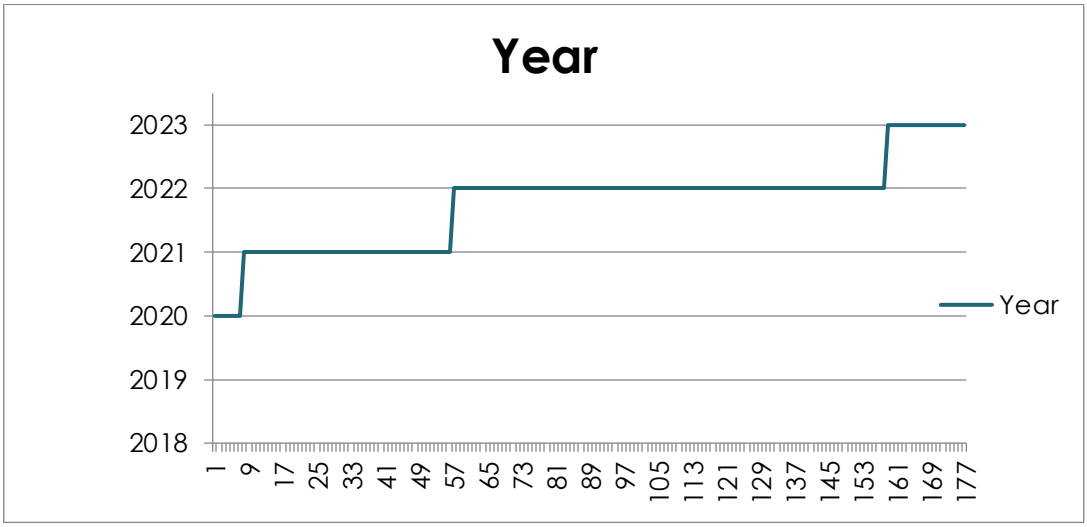
ANALYSIS AND FINDINGS

A. PERFORMANCE ANALYSIS OF 'COVID-19 AND MENTAL HEALTH OF EMPLOYEES'

1. Performance Analysis of Publications in 'COVID-19 and mental health of employees'

In Figure 3, the number of research papers is plotted against the years they were published to show the publishing trend of COVID-19, mental health, and employees. According to Figure 1, these have been used since 2005 but only recently, with the advent of COVID-19, the research in these fields exploded. The years with the most papers published are 2022 (102), 2021 (49) and 2020 (7). With 19 articles (or 18.6 % of the overall count of published articles in 2022) already published in the first quarter of 2023, it is anticipated that this upward trend will last past 2023.

FIGURE 3: TREND IN PUBLICATION OF RESEARCH IN COVID-19 AND MENTAL HEALTH OF EMPLOYEES (AUTHOR'S OWN)



2. Citation Analysis: Leading authors, institutions, and countries of 'COVID-19, mental health of employees'

Table 1 lists the top authors, identifying the institutions and countries at the time of authorship. "Chawla, N."; "Mccarthy J.M" and "Trougakos J.P.", who have 212 citations, is by far the most significant and prominent author [1]. They have two publications together out of which "Working in a pandemic: Exploring the impact of COVID-19 health anxiety on work, family, and health outcomes"

TABLE 1: CITATION ANALYSIS (AUTHOR'S OWN)

TC	Authors	TP	TC	Institutions	TP	TC	Countries	TP
212	"Chawla N."	2	366	"Edith Cowan University, Australia"	1	1480	United States	62
212	"Mccarthy J.M."	2	366	"Dokuz Eylul University, Turkey"	1	1137	Australia	22
212	"Trougakos J.P."	2	366	"The University of Western Australia, Australia"	1	1035	Canada	15
155	"Li J."	2	366	"Universiti Sains Malaysia, Malaysia"	1	742	United Kingdom	21
122	"Shao Y."	2	177	"Texas A&M University, United States"	1	541	France	6
116	"Yu J."	2	177	"University of Toronto Scarborough, Canada"	1	531	Netherlands	6
102	"Han H."	5	150	"Dalhousie University, Canada"	1	471	China	25
101	"Wong A.K.F."	4	150	"Shanghai Maritime University, China"	1	410	Turkey	5
93	"Sun R."	3	150	"The University of Sydney NSW, Australia"	1	373	Malaysia	3
85	"Li G."	2	144	"Department of Economics and Center for Statistics and Data Science, United States"	1	198	South Korea	8
59	"Lee Y."	2	144	"Vancouver School of Economics, UBC, Canada"	1	192	Hong Kong	8

59	"Li J.-Y."	2	101	"Sejong University, South Korea"	4	169	Spain	7
59	"Tao W."	2	99	"University of Las Palmas de Gran Canaria, Spain"	1	153	India	27
57	"Probst T.M."	2	99	"University of Greenwich, United Kingdom"	1	124	New Zealand	5

Note(s): TC = "total citations". TP =" total publications". The research includes (i.e., author, institution, country) appear according to total citations in this table

(2020) is the most cited paper with 177 citations. They are followed by Li J. who has 155 citations and is also the most productive author in terms of publications with two publications. "Edith Cowan University" and "The University of Western Australia", Australia; "Dokuz Eylul University", Turkey; and "Universiti Sains Malaysia", Malaysia are the most influential of all with 366 citations with one paper published in 2021 named as "COVID-19: potential effects on Chinese citizens' lifestyle and travel". They are second most influential organization is Texas A&M University, United States with 177 citations through publishing only one article in ABDC listed Scopus indexed Journals. United States leads all other nations in terms of intellectual contributions with 62 papers and 1480 citations.

3. Top Journals for 'COVID-19, mental health, and employees'

Table 2 lists the major financial journals which are ABDC listed Scopus indexed and that have published COVID-19, mental health and employees related research papers. The two most significant journals in terms of citations are "American Psychologist" and "Journal of Applied Psychology", with 533 and 509 citations, respectively. However, with 13 and 7 publications, respectively, "Journal of Applied Psychology" and "International Journal of Hospitality Management" are the two most productive journals in terms of publications.

A current rising trend in publication about this review is seen in the comparison of publication output versus various time periods. It's interesting that according to the "Australian Business Deans Council's (ABDC)" 2023 Journal Quality List, 54.8% of the most important publications are given an "A*" or "A" rating. This shows that prestigious publications are open to publishing research on COVID-19 and mental health. Publications in prestigious journals spur scholarly interest, and these trends point to an increase in the significance of mental well-being and COVID-19 in human resource management research in the coming years [16][17].

However, if we focus on Table 3 and compare HR-classified (HR: Human Resource Management) journals to non-HR-classified journals (as categorized by the "2023 Academic Journal Guide"), we find that journals of HRM have been comparatively more proficient in publishing mental health, COVID-19 and employee's publications up to this point. The "International Journal of Hospitality Management" has published seven articles which is an A* journal in Human resource management domain in the most recent of our sub periods, i.e, in the first quarter of 2023.

TABLE 2: TOP JOURNALS (AUTHORS' OWN)

TC	Journals	TP	HRM	ABDC	2020	2021	2022	2023
533	"American Psychologist"	2		A*	1	1		
509	"Journal of Applied Psychology"	13		A*	2	10	1	
320	"International Journal of Hospitality Management"	7	X	A*		5	2	
188	"Safety Science"	3		A	1	2		
104	"Journal of Hospitality Marketing and Management"	2	X	A		2		
89	"International Journal of Contemporary Hospitality Management"	4		A		2	2	

62	"Technological Forecasting and Social Change"	4		A		1	3	
59	"Public Relations Review"	2	X	A		1	1	
26	"Journal of Hospitality and Tourism Insights"	2	X	C			1	1
25	"Computers in Human Behavior"	2		A			2	
23	"Journal of Hospitality and Tourism Management"	4	X	A		1	3	
17	"International Journal of Organizational Analysis"	4	X	B		2	2	
17	"Service Industries Journal"	2	X	B			2	
14	"Journal of Business and Psychology"	5	X	A			4	1
14	"Stress and Health"	2		A			2	

Note: ABDC refers to the 2023 Journal Rating List from the Australian Business Deans Council. Total Citations is TC. Total titles are TP. If a publication is listed in the 2023 Academic Journal Guide as covering "Human Resource Management," then HRM = X. The journals are listed in this table by the overall number of citations.

4. Top Articles for 'COVID-19' and 'mental health in employees'

The most frequently cited 'COVID-19' and 'mental health' in employees research articles are listed in Table 4. The most highly cited paper is "Working in a pandemic: Exploring the impact of COVID-19 health anxiety on work, family, and health outcomes" with 177 citations, followed by "The scientific literature on Corona viruses, COVID-19 and its associated safety-related research dimensions: A scientometric analysis and scoping review" with 150 citations. CovH anxiety leads to emotional repression, which affects psychological needs and results in negative outcomes for work, home, and health. Frequent hand washing can mitigate the CovH anxiety effects because of increased repression of feelings and unmet psychological requirements [1]. "The scientific literature on Corona viruses, COVID-19 and its associated safety-related research dimensions: A scientometric analysis and scoping review" focused on other aspects of safety concerns in health sector. Aside from medical and clinical concerns, the most attention has been paid to mental/psychological well-being and home safety, patient transport safety, occupational safety for healthcare workers, bio safety of laboratories and facilities, social safety, and food safety [18]. Other potential safety issues, such as supply-chain safety, economic safety, and cyber safety may require more attention in the future. The authors can go for a comprehensive, interdisciplinary approach to lessen the crisis's many safety effects, whose ramifications go beyond biomedical risks and prepare for future pandemics.

TABLE 3: TOP ARTICLES (AUTHORS' OWN)

Authors	Articles	Year	Cited By
"Trougakos J.P., Chawla N., McCarthy J.M."	"Working in a pandemic: Exploring the impact of COVID-19 health anxiety on work, family, and health outcomes"	2020	177
"Haghani M., Bliemer M.C.J., Goerlandt F., Li J."	"The scientific literature on Corona viruses, COVID-19 and its associated safety-related research dimensions: A scientometric analysis and scoping review"	2020	150
"Probst T.M., Lee H.J., Bazzoli A."	"Economic stressors and the enactment of CDC-recommended COVID-19 prevention behaviors: The impact of state-level context"	2020	51
"Kniffin K.M., Narayanan J., Anseel F., Antonakis J., Ashford S.P., Bakker A.B., Bamberger P., Bapuji H., Bhave D.P., Choi V.K., Creary S.J., Demerouti E., Flynn F.J., Gelfand M.J., Greer L.L.,	"COVID-19 and the workplace: Implications, issues, and insights for future research and action"	2021	496

Johns G., Kesebir S., Klein P.G., Lee S.Y., Ozcelik H., Petriglieri J.L., Rothbard N.P., Rudolph C.W., Shaw J.D., Sirola N., Wanberg C.R., Whillans A., Wilmot M.P., Vugt M.V."			
"Wen J., Kozak M., Yang S., Liu F."	"COVID-19: potential effects on Chinese citizen's lifestyle and travel"	2021	366
"Chernozhukov V., Kasahara H., Schrimpf P."	"Causal impact of masks, policies, behavior on early COVID-19 pandemic in the U.S."	2021	144
"Aguiar-Quintana T., Nguyen H., Araujo-Cabrera Y., Sanabria-DÃƒÂ Âaz J.M."	"Do job insecurity, anxiety and depression caused by the COVID-19 pandemic influence hotel employees' self-rated task performance? The moderating role of employee resilience"	2021	99
"Wong A.K.F., Kim S.S., Kim J., Han H."	"How the COVID-19 pandemic affected hotel Employee stress: Employee perceptions of occupational stressors and their consequences"	2021	88
"Yu J., Park J., Hyun S.S."	"Impacts of the COVID-19 pandemic on employees' work stress, well-being, mental health, organizational citizenship behavior, and employee-customer identification"	2021	82
"Agarwal P."	'Shattered but smiling: Human resource management and the well-being of hotel employees during COVID-19"	2021	56
"Tu Y., Li D., Wang H.-J."	"COVID-19-induced layoff, survivors' COVID-19-related stress and performance in hospitality industry: The moderating role of social support"	2021	52
"Jamal M.T., Anwar I., Khan N.A., Saleem I."	"Work during COVID-19: assessing the influence of job demands and resources on practical and psychological outcomes for employees"	2021	52
"Lee H."	"Changes in workplace practices during the COVID-19 pandemic: the roles of emotion, psychological safety and organisation support"	2021	51
"Li J.-Y., Sun R., Tao W., Lee Y."	"Employee coping with organizational change in the face of a pandemic: The role of transparent internal communication"	2021	49
"Lin W., Shao Y., Li G., Guo Y., Zhan X."	"The psychological implications of COVID-19 on employee job insecurity and its consequences: The mitigating role of organization adaptive practices"	2021	85

B. THEMATIC ANALYSIS: THEMATIC CLUSTERS OF 'COVID-19 AND MENTAL HEALTH OF EMPLOYEES'

The semantic connections between co-cited references found through co-citation analysis represent the knowledge foundation of a field (Figure 4). Remote work and Resilience (red nodes), Workplace stress and emotional exhaustion (green nodes), Challenges of Job satisfaction and employee well-being (dark blue/navy blue nodes), Positive Workplace environment (yellow nodes), Psychological health and COVID-19 pandemic (purple nodes), Financial stress and well-being (sky blue nodes).

TABLE 4: THEMATIC CLUSTER "COVID-19 AND MENTAL HEALTH" (AUTHORS' OWN)

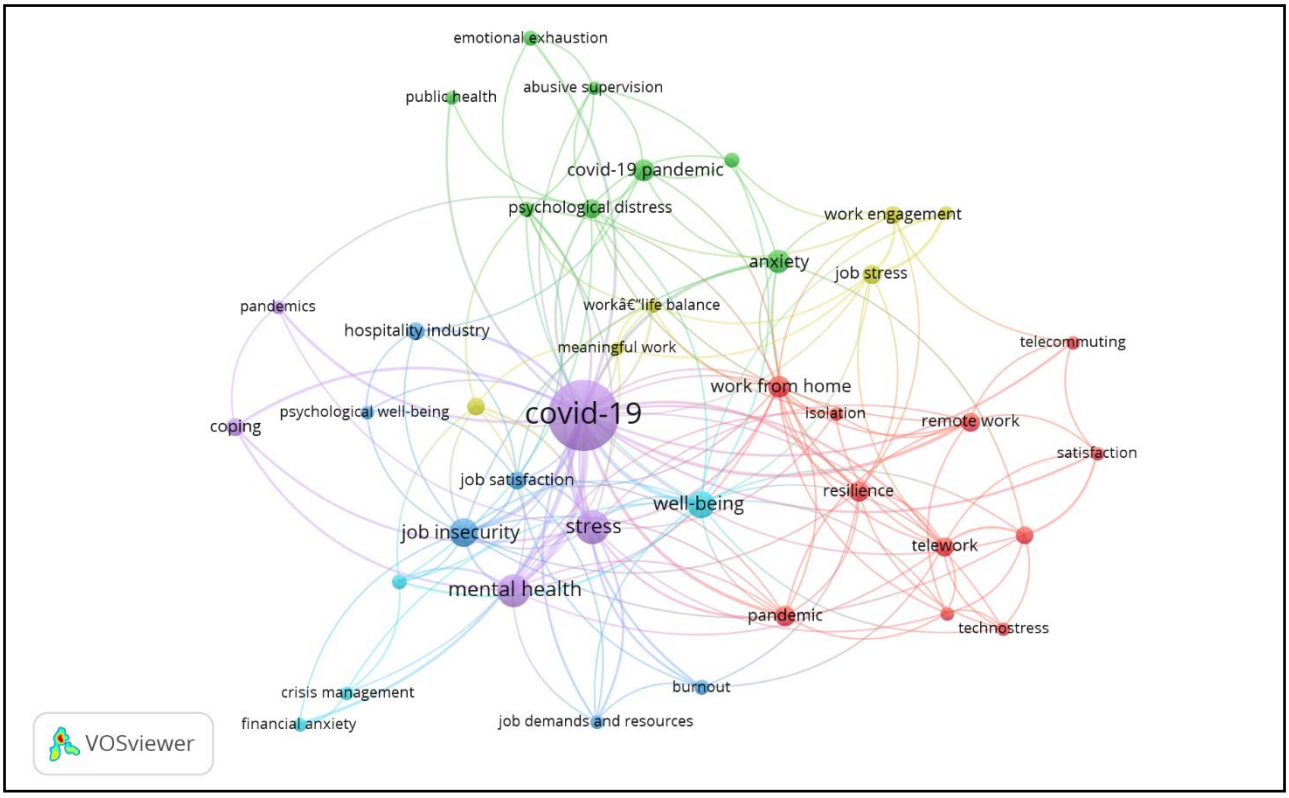
Theme	Authors	Title	TC
Remote work and Resilience	"Aguiar-Quintana T., Nguyen H., Araujo-Cabrera Y., Sanabria-DÃaz J.M."	"Do job insecurity, anxiety and depression caused by the COVID-19 pandemic influence hotel employees' self-rated task performance? The moderating role of employee resilience"	99
	"Shao Y., Fang Y., Wang M., Chang C.-H.D., Wang L."	"Making daily decisions to work from home or to work in the office: The impacts of daily work- and COVID-related stressors on next-day work location"	37
Workplace stress and emotional exhausion	"Wong A.K.F., Kim S.S., Kim J., Han H."	"How the COVID-19 pandemic affected hotel Employee stress: Employee perceptions of occupational stressors and their consequences"	88
	"Charoensukmongkol P., Phungsoonthorn T."	"The Interaction Effect of Crisis Communication and Social Support on The Emotional Exhaustion of University Employees during the COVID-19 Crisis"	35
	"Vo-Thanh T., Vu T.-V., Nguyen N.P., Nguyen D.V., Zaman M., Chi H."	"COVID-19, frontline hotel employees' perceived job insecurity and emotional exhaustion: Does trade union support matter?"	26
Challenges of Job satisfaction and employee wellbeing	"Agarwal P."	"Shattered but smiling: Human resource management and the wellbeing of hotel employees during COVID-19"	56
	"Jamal M.T., Anwar I., Khan N.A., Saleem I."	"Work during COVID-19: assessing the influence of job demands and resources on practical and psychological outcomes for employees"	52
Positive Workplace environment	"Tu Y., Li D., Wang H.-J."	"COVID-19-induced layoff, survivors' COVID-19-related stress and performance in hospitality industry: The moderating role of social support"	52
Psychological health and COVID-19 pandemic	"Kniffin K.M., Narayanan J., Anseel F., Antonakis J., Ashford S.P., Bakker A.B.,*et.al.*"	"COVID-19 and the workplace: Implications, issues, and insights for future research and action"	496
	"Wen J., Kozak M., Yang S., Liu F."	"COVID-19: potential effects on Chinese citizens' lifestyle and travel"	366

	"Yu J., Park J., Hyun S.S."	"Impacts of the COVID-19 pandemic on employees' work stress, well-being, mental health, organizational citizenship behavior, and employee-customer identification"	82
Crisis, financial stress and wellbeing	"Karatepe O.M., Saydam M.B., Okumus F."	"COVID-19, mental health problems, and their detrimental effects on hotel employees' propensity to be late for work, absenteeism, and life satisfaction"	38
	"Vieira K.M., Potrich A.C.G., Bressan A.A., Klein L.L."	"Loss of financial well-being in the COVID-19 pandemic: Does job stability make a difference?"	7
	"Lai Y.-L., Cai W."	"Enhancing post COVID-19 work resilience in hospitality: A micro-level crisis management framework"	6

"TC: Total Citations"

A key component of bibliographic coupling is citing articles. This process takes into account cited articles and, as a result, represents groundbreaking knowledge by taking into account the most significant publications pertaining to COVID-19 and mental health in the field of human resource management [14][15]. The six subject clusters that inform the conceptual framework of COVID-19 and employee mental health research are summarized in Table 6 based on bibliographic coupling.

FIGURE4: VISUAL REPRESENTATION OF THEMES (AUTHOR'S OWN)



According to ABDC listed Scopus index, Cluster 1, denoted by red nodes, contains work on remote work and resilience. 79 papers on remote work and resilience are found in Cluster 1 of Scopus, with 585 citations. With 211 citations, "remote work" is the most used keyword in this cluster. The two authors with the most citations in this cluster are Aguiar-Quintana *et.al.* (2021) and Shao *et.al* (2021) with 99 and 37 respectively [19] [20] "Do job insecurity, anxiety and depression caused by the COVID-19 pandemic influence hotel employees' self-rated task performance? The moderating role of employee resilience" explained that employees' psychological health suffers when they are apprehensive about their jobs, but their task performance is unaffected [21]. The employee resiliency serves a vital purpose in reducing the detrimental effects of employment uncertainties on depression. Stresses related to job-family boundaries and job coordination are associated with working in the office, while workload stressors are associated with working from home [22]. Stress factors related to COVID-19 infection also lowered the impact of workload and technological pressures on where people choose to work.

The second cluster theme is "Workplace stress and emotional exhaustion" (green nodes) in which the top authors are Wong *et.al.* (2021), Charoensuk Mongkol *et.al.* (2022) and Vo-Thanh *et.al.* (2022) [22][23][24]. It consists of 49 papers with 1183 citations. Traditional job stresses, stressful work environments, and stressors from unethical labour practices are three different forms of stressors discovered during the pandemic [25]. The study titled "The Interaction Effect of Crisis Communication and Social Support on The Emotional Exhaustion of University Employees during the COVID-19 Crisis", examines that in private international organizations, communication during the COVID-19 crisis had an inverse effect on employees' perceived uncertainties and emotional tiredness. Support from coworkers lessens emotional weariness [24]. It is also evident that, support for labour unions lowers the job insecurity, whereas perceived COVID-19 health risks raise both perceived job insecurity and emotional exhaustion [26].

22 articles in Cluster 3 have received 388 citations. Challenges of Job satisfaction and employee wellbeing are there with 56 and 52 citations respectively [27][28]. Through the 3rd cluster (dark blue/navy nodes), it is proved that employee-centred HRM practices have a significant impact on employee welfare [27]. He recommends policy makers for managing people successfully during trying times. Employees experience exhaustion and stress because of a heavy workload, task interdependence, professional isolation, and home responsibilities, whereas autonomy, schedule flexibility, and enough technological tools enhance work-life balance, efficiency, effectiveness, and sense of accomplishment [28]. It is also investigated that how the COVID-19 outbreak, and subsequent layoffs affect employee performance in the hospitality sector [29]. The layoffs raise COVID-19-related stress in workers, which lowers performance in roles and outside of roles. These effects are reduced by perceived family assistance but amplified by the organisational support. This relation is depicted in cluster 4 in yellow nodes with Tu *et.al.* (2021) having highest citation (52 [27]. The 4th cluster is themed as "Positive workplace environment".16 articles are found justifying this theme which have 217 citations in total.

Psychological health and COVID-19 pandemic theme are depicted by 5th cluster (purple nodes) with 'Kniffin *et.al.* (2021)' and 'Wen *et.al.* (2021)' as the topmost contributors (496 and 366 citations respectively) [30][31]. Emphasis is made on the modifications in the workplace procedures and their impacts on employees, including social isolation, stress, and unemployment, taking moderators such demographic traits, personality traits, and organizational norms [30]. It is suggested that through service design and distribution channels, the tourism sector can adapt to the changes in the pandemic [31]. This cluster covers the maximum number of articles and citations, ie., 217 and 4605 respectively.

The last theme, "Crisis, financial stress and wellbeing" which is depicted by the 6th cluster (sky blue nodes), which is covered by 30 articles and 23 citations in total. The top authors are Karatepe *et.al.* (2021) and Lai & Cai (2023) [26][32] How the pandemic affected the psychological wellness, productivity, and quality of life of hotel staff is discussed [26]. It is suggested that a human-centred strategy for handling crises in the hospitality industry, emphasising building the resilience and intrinsic motivation of the service employees [32].

C. CO-CITATIONS OF JOURNALS, AUTHORS, AND REFERENCES ANALYSIS VISUALISATION

The final map displays the full-count approach, which counts each occurrence of a phrase in a document and includes journals, authors, and references analysis. The final map shows bubble fields of various sizes and colors connected at

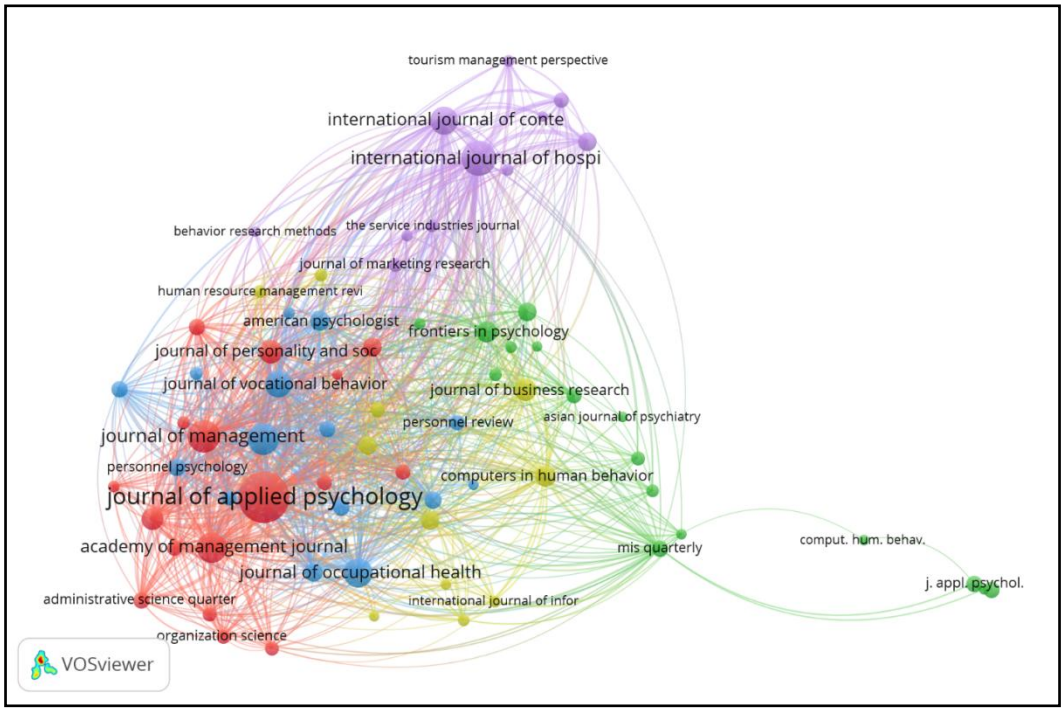
different distances. Colour belongs to a cluster or group. This grouping of subjects reveals those with several interrelated elements. The is the first area of emphasis. The larger the bubble, the more frequently a journal, author or reference is used in a sample. Shorter gaps between them indicate higher links between them, and ultimately, lines are used to depict the connections between phrases in studies.

1. Co-citation of Journals

This section analyses the co-citations network of journals about 'COVID-19' and 'mental health' of employees. In 1990, McCain suggested using citation analysis of a journal to study the organization of scientific fields [33]. The number of citations between two sources can reveal parallels between the research topics and the journal's scope. Figure 5 displays sources with a minimum of 20 citations. Out of the 5,057 journals cited in the analyzed journals, only 70 of them met the citation frequency requirement. Each node served as a source, and the number of citations received was indicated by the size of each node. There was a citation link seen in the connection between the two items. The nodes were classified according to how similar they were, thus sources that were closer together or in the same cluster (colour) were placed together.

The "Journal of Applied Psychology" (red cluster) has a total of 479 citations, with 64 other journals cited together. It has the maximum total reference strength of 16491. This journal is known for publishing high-quality articles on leadership; work motivation; individual differences in abilities, personality, and other characteristics; work stress, health, and well-being etc. Authors often rely on this journal for knowing the psychological health and behaviour of people for their subject areas. Another journal in this "psychological" cluster (red), "Journal of management", has a total of 197 citations and total reference strength of 8114. Another journal which is part of "Tourism" cluster (purple cluster), which has journals related to hospitality and tourism, is "International Journal of Hospitality Management" (233 citations,8535 total link strength). Blue cluster is related to "organizational and managerial psychology" in which "Journal of organizational behaviour" has the highest number of citations (181) and is linked to 64 other journals with total reference strength of 7602. "Business Technology" related cluster is represented through yellow nodes which includes journals like "Journal of business research" (93 citations, 3589 total reference strength) and "Computers in human behaviour" (80 citations, 3177 total reference strength). The green cluster, the smallest cluster, has the least connections/links with other journals out of which "Frontiers in psychology" has the highest links with 64 other journals, 82 citations and 2295 total link strength.

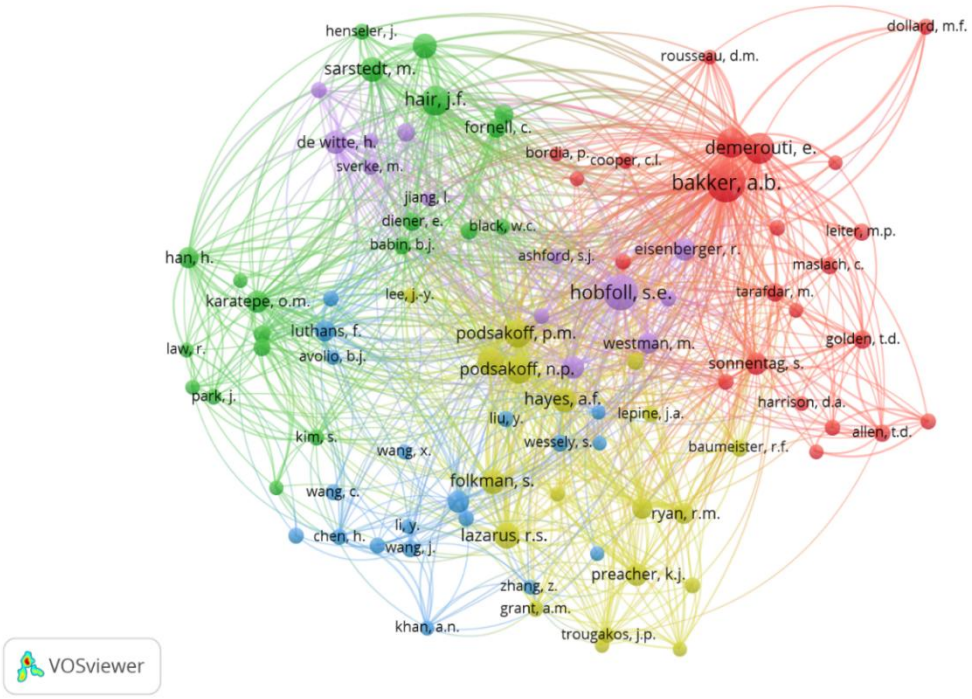
FIGURE 5: VISUAL REPRESENTATION OF CO-CITED JOURNALS (AUTHOR'S OWN)



2. Co-citation of Authors

In this section, we analyse the authors who have been cited and focus on the co-citation of authors, observing the quantity of citations and their collaboration. Using VOS Viewer, we can identify highly cited authors in the field of mental health of employees and COVID-19 research. Figure 6 is a visual representation of a co-citation network of authors, where the threshold value is set at 20, meaning that only authors cited at least 20 times will appear on the map. A total of 94 authors meets this criterion. The nodes represent the quantity of articles published by each author, and the connections signify cooperation between authors. The figure indicates that authors' research directions in COVID-19 and mental health of employees are closely connected with high level of connection and cooperation between them. Bakker *et al.* (2021) (157) has the highest number of cited publications [30]. Bakker,A.B. *et al.* is in the biggest cluster, i.e., red cluster containing 22 other widely cited authors [30]. Green cluster is second largest cluster with Hair, J.F. having 47 citations [34]. Other smaller clusters are represented by yellow and blue color. Dollard *et.al.* (2021) is considerably distant from the rest, indicating a significant deviation in connection [35].

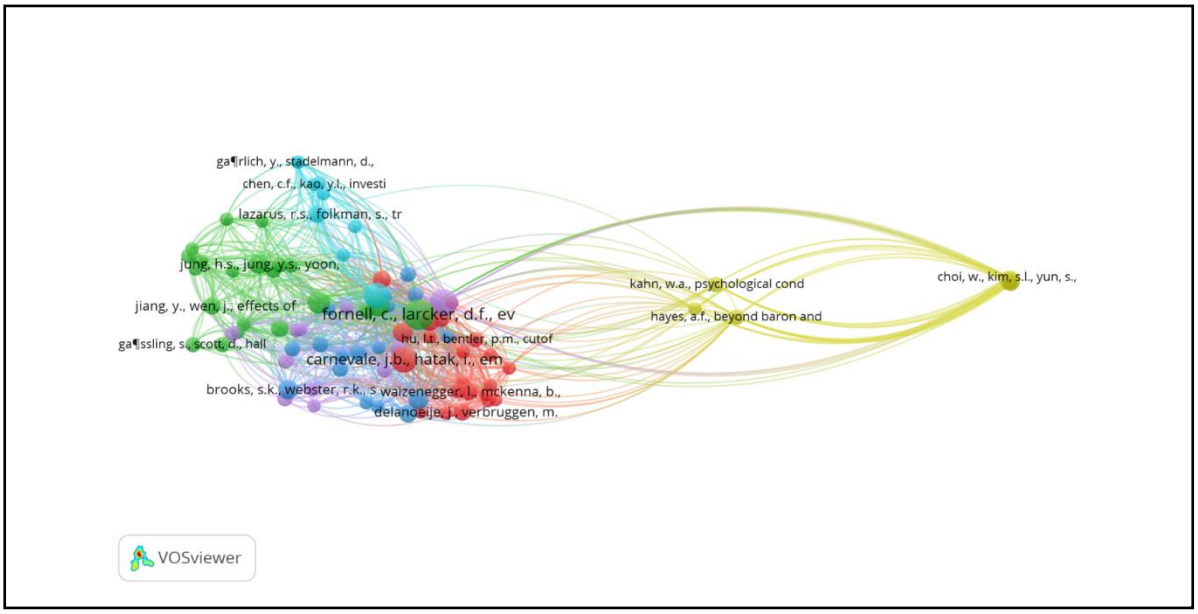
FIGURE 6: VISUAL REPRESENTATION OF CO-CITED AUTHORS (AUTHOR'S OWN)



3. Co-citation of references

This is another study on citations which examines a network of citations in articles on COVID-19 and mental health of employees that has human resource management and psychological implications. Cluster 1 (red nodes) and Cluster 2 (green nodes) are of same number of items (21). Yellow cluster (Cluster 4), which has 11 items, is distinctively placed which shows lowest connection with other clusters. Purple cluster has the same number of items as of the yellow cluster.

FIG. 7 VISUAL REPRESENTATION OF CO-CITED ARTICLES (AUTHOR'S OWN)



Other clusters are represented through sky blue (9 items) and navy blue (17 items). 90 of the papers that were examined met the requirement of having at least 3 citations each (Figure 7). Each node represented a single link, and the size of a node signified how many references a given document had. The strength of the quotations between the two mentioned articles was measured by the number of identical citations. The co-citation refers to how often two articles from earlier literature, as well as later literature, were referenced/cited.

SCOPE FOR MANAGERS

Promoting employee well-being is a major responsibility of managers, especially in times of emergency like the COVID-19 pandemic. Prioritizing mental health programs can help with problems like stress, anxiety, and emotional weariness. Policies supporting flexible remote work that promote work-life balance and lessen problems like isolation and techno-stress should also be established. Providing employees with focused training that builds resilience can aid them in navigating a variety of challenges, such as job instability. To prevent emotional burnout, managers should also include well-being into the culture of the company, maintain open lines of communication, and offer social and emotional support networks. To preserve trust and productivity, it's also critical to emphasize job security and justice. Managers must also exercise caution when it comes to how staff members utilize technology, providing assistance and training to minimize techno-stress while maintaining productivity. Managers can build a more resilient, healthy, and productive workforce during difficult times by concentrating on these areas.

LIMITATIONS OF THE STUDY

This bibliometric analysis has certain limitations. The data analyzed in the study were obtained only from Scopus, and its alternatives such as WOS, PubMed, or Google Scholar were not included. As a result, relevant articles that are readily accessible through other search engines have been overlooked. Furthermore, the study only includes publications in English language journals. The paper explores development in COVID-19, and the normal situation analysis is missing. The focus is on only employees. Lastly, the study only emphasis on psychological wellness during the pandemic, and other potentially health aspects were not analyzed.

CONCLUSION

This article used bibliometric and information extraction methods to report on the state and impact of mental wellness research amidst the pandemic. The data was collected from Scopus database which were ABDC listed. These papers were used for trend and cluster analysis. The network analysis was performed on the compiled entities and relations. The results showed that mental health research during pandemic is increasing, with most studies focused on COVID-19, stress and resilience. The research was organized into six clusters, including remote work, psychological health, resilience, and positive work environment. The most commonly occurring entity was COVID-19, with a focus on mental health, stress, and anxiety. The relation extraction revealed that COVID-19 was most often associated with stress, mental health, techno stress, psychological well being, coping, job insecurity and resilience. United States and Australia are the most flourishing countries in terms of research in this area. The study provides useful information for researchers to understand the structure of the field and the relevant cross-disciplines and trends. The extracted entities and relations could also benefit physicians, patients, and their families in understanding and treating mental disorders. Furthermore, human resource managers and healthcare providers could use the data to design better policies and strategies to ensure sound mental health during such circumstances. Future studies could explore the effect of the global endemic on cognitive health and e-mental health.

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Volume XVIII JULY-2025

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MESSAGE FROM MANAGEMENT'S DESK



In today's competitive and globalized world, having a professional and specialized education becomes an imperative for future success. We, at the CPJ College of Higher Studies & School of Law, are committed to providing academic excellence in the fields of Management, Commerce, IT and Law. The research skill has been the most important part of legal field along with other intern disciplinary subjects. Keeping this in mind, we sought to create a platform which appreciates and accepts each and every idea and thoughts which are there in the form of treasure.

The initiative of the Chanderprabhu Jain College of Higher Studies & School of Law in regularly publishing CPJ Law Journal containing insightful research papers is an appreciable attempt by the Editorial Team in spreading legal awareness and knowledge. Quality legal research and standard publications constitute one of the important mandates of CPJ Law journal.

I am confident that readers will find the present issue of the Law Journal interesting and thought provoking. My highest regards to the Editorial Board to have meticulously worked and created this impeccable issue. We are also indebted to all our authors whose contributions in the form of article, legal studies etc. have made CPJ Law Journal listed with UGC CARE.

We hope that this July-2025, Volume XVIII of our prestigious Journal will make a strongmark in the legal research fraternity.

Dr. Abhishek Jain

General Secretary

CPJ College of Higher Studies
& School of Law

MESSAGE FROM EDITOR-IN-CHIEF



While welcoming you to the July-2025 Vol. XVIII edition of **CPJ Law Journal**, it is, indeed, our honour to share that CPJ Law Journal has been recognized by the legal fraternity as a leading Law Journal. It is a Peer reviewed Journal that aims to create a new and enhanced forum for exchange of ideas relating to all aspects of Legal Studies and assures to keep you updated with recent developments and reforms in the legal world in the form of Articles, Research Papers, Case Studies etc. Research Studies have always been challenging with positive outcomes witnessed as a result of meticulous and persistent efforts. Researches in the field of Law have benefitted both the Industry and the Academia and it has always been our continuous endeavor to publish such scholarly Research Papers in this Bi-Annual National Journal of **CPJ School of Law**.

CPJ Law Journal is an open access Journal that aims at providing high-quality teaching and research material to Academicians, Research Scholars, Students & Law Professionals. This issue Includes papers from Same-Sex Marriage, Constitutional Right, Income Tax Act, Women Empowerment, Media Freedom, Fingerprint Science, Judicial Interpretation of Reservations, Corporate Governance, Juvenile Justice Act, Waqf (Amendment) Act 2025, Legal Positivism, Religious Fundamentalism, Climate Change, Copyright and Trademark, Copyright Law etc.

We appreciate the tremendous response towards our **"Call for Papers"** and this compelled us to publish our CPJ Law Journal Bi-Annually (in January & July) from the year 2022. We once again welcome contributions in the form of unpublished original Articles, Case Studies or Legal Research Reviews for publication. We are obliged to our widespread readership for their continued support and encouragement in our endeavor to strengthen every issue of **CPJ Law Journal.** The credit to this achievement also goes to all Authors, Law Academicians, Editorial Board & Advisory Committee who have contributed to make CPJ Law Journal a quality journal. We highly solicit to have your continuous support and feedback for further growth of the Journal with quality learning for all the readers.

With this note, welcome once again to **CPJ Law Journal**, **July-2025** edition!!

Dr. Yugank Chaturvedi
Director General
CPJ College of Higher Studies
& School of Law

MESSAGE FROM EDITOR



It is with pride and enthusiasm that I present Volume XVIII (July-2025) of the CPJ Law Journal (CPJLJ). It consists of words and complete analysis of the articles/research papers covered. This issue of the Journal touches upon a number of issues worthy to note in present scenario. A highly evolved and complex justice system makes enormous demands on the people who work in it. Therefore, academicians, law students and legal professionals need upto date information as well as professional analysis on land mark judgments. CPJLJ delivers this vital information to them.

It is pertinent to mention that CPJLJ is a blind two fold Peer Reviewed Annual Journal. Accordingly, it brings to the readers only selected articles/research papers of high standard and relevance. In a country governed by the rule of law, it is important that awareness about the research is created among those who are supposed to be concerned with these researches. Academicians can play a very important role in the development of the higher research, and there is need to encourage young minds to participate in development of research based on the needs of the changing society and technical advances. This Journal provides an excellent platform to all the Academicians and Research Scholars to contribute to the development of sound research for the country.

I would like to express our gratitude to the Editorial Advisory Board and the Panel of Referees for their constant guidance and support. Appreciation is due to our valued contributors for their scholarly contributions to the Journal. Finally, and perhaps most importantly, I wish to thank the entire Editorial team of the CPJ Law Journal for the hard work, positive attitudes and dedication that make this Journal excellent in so many ways.

I, therefore, hope that this issue of CPJLJ will prove to be of interest to all the readers. We have tried to put together all the articles/research papers coherently. We wish to encourage more contributions from academicians as well as research scholars to ensure a continued success of the journal.

Prof. (Dr.) Amit Kr. Jain

Director, Corporate Affairs

MESSAGE FROM CO-EDITOR



It is the supreme art of the teacher to awaken joy in creative expression and knowledge- Albert Einstein

Dear Readers,

We are presenting to you July-2025, Vol. XVIII of CPJ Law Journal. Our aim behind introducing this journal is to create a new forum for exchange of ideas on all aspects of legal studies and we assure to keep you updated with recent developments in the legal world. Future scope of journal is open to your suggestions. You are invited to contribute for the Journal and your submissions should include original research articles, criticism and commentaries on legal aspects.

The CPJ Law Journal is published Bi-annually. The journal publishes scholarly articles and commentaries on various aspects of law contributed by jurists, practitioners, law professors and students. The primary aim of this journal is to provide close insights into the various contemporary and current issues of law to the readers. Contributing to this journal provides an opportunity to authors to take an in-depth study in specific areas of the law and enhances their skills in Legal Research Writings and Analysis.

Talking about this Journal, it is great to be part of such a great initiative which provides all possible services to legal fraternity. Since it is not just confined to being a paper collection activity, rather it aims at providing services for all round development of law students, professionals and all others in this field. Also, being from law background, we feel that it is our prime duty to contribute for development of the society and we have taken many initiatives in this regard also by organizing various events of social relevance as well. Many exciting years for the journal have passed. Some notable developments might have been recognized by most of our readers but others probably have passed unnoticed to the majority. Therefore, this CPJ Law Journal is not only a retrospective on the previous years but also a good opportunity to summarize recent developments.

I hope you find this issue of Journal informative and interesting. The success of this enterprise depends upon your response. We would appreciate your feedback. You are also requested to submit your articles for the next issue Jan-2026 of CPJ Law Journal.

Dr. Shalini Tyagi
Principal
CPJ School of Law

MESSAGE FROM HON'BLE JUSTICE RAJESH TANDON



Any democratic country with rule of Law as its core value principle must guarantee Freedom of Speech and Expression. It is considered the mother of all freedoms. At times, the right to ask is more important than the right of life. Unless we express, we cannot live. It is, therefore, the social responsibility of any Educational Institution to further the understanding of Democratic Governance. It is in this context that a journal like CPJ Law Journal adds importance and relevance.

The CPJLJ is being launched with the aim of remedying the lack of authoritative academic writing devoted to the critical analysis of Law and Legal Institutions. It is intended to serve as a platform where Students, Academicians, Lawyers, Policymakers and Scholars can contribute to the ongoing Legal, Political Disciplinary research in the field. The Faculty of Law at CPJ aims at excelling in interdisciplinary research in the field of Law and other disciplines like Sociology, Political Science, Public Policy and Economics etc. As one of the first academic journals, it will have to look at the inter-disciplinary aspects between Law, Development and Society, which are three value-loaded terms in themselves.

I believe that it is the obligations of the academia to initiate discussion, analyze the various issues that are being faced by India and the world at large and offer solution for the same. The CPJLJ provides a forum for interdisciplinary legal studies and offers intellectual space for ground–breaking critical research. It is not committed to any particular theory, ideology or methodology and invites papers from a variety of standpoints, ideologies, perspectives and methods. The journal aim to explore and expand the boundaries of law and legal studies.

I wish the CPJLJ and the Editorial Board success in all their endeavours and hope that they will keep up their academic work, which may provide some guidelines for the betterment of Socio-legal scenario in India in particular, and across the world in general.

Justice Rajesh Tandon

Former Judge

High Court of Uttarakhand

MESSAGE FROM SH. R.S. GOSWAMI

Dear Readers,



CPJ Law Journal is in its 18th year of continuous publication with a diverse, professional, highly engaged and expert global readership. This Law Journal is a box filled with original research-based papers, articles etc., which is an attempt to cover almost all the subjects relating to legal field.

Getting published is something all Law professionals strive to achieve, and it feels great to me that Chanderprabhu Jain College of Higher Studies & School of Law is providing that platform by bringing out the 16th Volume of the CPJ Law Journal with eagerness and enthusiasm.

The CPJ Law Journal Team deserves very high appreciation for this endeavor. I cherish my association with this journal since its inception and wish it all success and endurance. Such a journal for the practitioners, Law professors and Law students is the need of hour.

Adv. R.S. Goswami
Ex-Chairman
Bar Council of Delhi

MESSAGE FROM SH. MURARI TIWARI



I feel extremely exhilarated to be a part of CPJ Law Journal which aims to create all aspects of Legal Studies and also gives a highly readable and valuable addition to the recent developments and reforms in the legal world. It also helps to provide a different outlook to various legal issues that are prevalent in the contemporary society and also to extract exact solutions for the same. As Nelson Mandela said and I quote, "Education is the most powerful weapon which you can use to change the world."

The journal is a great way to invite one's thoughts for a fruitful experience in Legal Research and Drafting and especially for Academicians, Lawyers and the Law students as it has become a demanding area for the highly complex legal system. The relation between the Bar Council of India and Law Colleges/University of Delhi is exceptional and the Bar Council of India also promotes Legal Research such as conducting Seminars, Workshops, Conferences etc.

In my entire career as an Advocate, I have always affirmed with the idea that Journals and Research Work have quintessential means for advocating Societal Issues and thereby, changing the entire horizon of the Indian Legal system and for the betterment of Legal Fraternity.

I honor CPJ School of Law for giving me an opportunity to be a part of the Law Journal Advisory Board.

Adv. Murari Tiwari
Ex-Chairman
Bar Council of Delhi

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Recognition of Same-Sex Marriage in Australia and Papua New Guinea (PNG): Navigate the Privacy in Digital Age

Dr. Ankur Sharma & Ms. Ritanshi Jain***

ABSTRACT

This paper explores the recognition of same-sex marriage in Australia and Papua New Guinea (PNG) within the context of privacy concerns in the digital age. It examines the legal, social, and technological frameworks that influence the rights and protections afforded to LGBTQ+ individuals in bothOceania countries. The recognition of same-sex marriage and the privacy of LGBTQ+ individuals have become pressing issues in the digital age. While many nations have embraced equal marriage rights, others maintain restrictive laws that limit LGBTQ+ rights. This disparity creates a complex landscape for privacy in an era where personal data is increasingly stored and shared online. This paper investigates these issues in the contrasting contexts of Australia and Papua New Guinea.

INTRODUCTION

The recognition of same-sex marriage in Oceania has been marked by contrasting legal and cultural landscapes, particularly between Australia and Papua New Guinea (PNG). In Australia, the legalization of same-sex marriage was a significant milestone, achieved through the passing of the Marriage Amendment (Definition and Religious Freedoms) Act 2017. This change followed a national postal survey in which a majority of Australians supported the legal recognition of same-sex couples. Australia's approach reflects a broader trend towards LGBTQ+ rights and equality in many Western nations. In stark contrast, Papua New Guinea maintains a strict stance against same-sex marriage, with homosexuality being criminalized under the country's laws. This legal framework reflects deep-rooted cultural and religious opposition to LGBTQ+ rights within PNG, making any recognition of same-sex marriage unlikely in the near future. The divergent legal realities in Australia and Papua New Guinea underscore the broader social, political, and cultural divides within Oceania regarding LGBTQ+ rights and the recognition of same-sex unions.

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Key Sustainable Development Goals Related to LGBT Rights Include:

1. GOAL 5: GENDER EQUALITY

- While primarily focused on gender equality for women and girls, Goal 5 also includes the need for non-discriminatory access to opportunities and services for all, regardless of gender identity or sexual orientation. This is essential for advancing LGBT rights and ensuring their full inclusion in society.
- Target 5.1 specifically calls for the elimination of all forms of discrimination against all women and girls, which can be interpreted to include discrimination based on sexual orientation and gender identity.

2. GOAL 10: REDUCED INEQUALITIES

- Goal 10 focuses on reducing inequalities within and among countries. This includes addressing social, economic, and political inequalities faced by marginalized groups, including LGBT individuals.
- Target 10.3 emphasizes ensuring equal opportunity and reducing inequalities of outcome, which can be crucial in advancing the rights of LGBT people and ensuring their inclusion in society.

3. GOAL 16: PEACE, JUSTICE, AND STRONG INSTITUTIONS

- Goal 16 seeks to promote peace, justice, and strong institutions, with an emphasis on providing access to justice for all and building accountable, inclusive institutions.
- Target 16.b encourages promoting and enforcing non-discriminatory laws and policies, which are essential for protecting LGBT individuals from violence, discrimination, and persecution.

LEGAL RECOGNITION OF SAME-SEX MARRIAGE: AUSTRALIA

Historical Context[1]:

- Prior to 2017, same-sex couples could enter into civil unions or domestic partnerships in some Australian states and territories.
- The Howard Government's 2004 amendment to the Marriage Act explicitly defined marriage as a union between a man and a woman, setting back efforts for marriage equality.

1 The legal recognition of same-sex marriage in Australia was achieved through the *Marriage Amendment (Definition and Religious Freedoms) Act 2017*, which came into effect on January 9, 2018. Prior to this, same-sex couples were denied the right to marry despite ongoing debates and legal battles. In 2004, the federal government amended the *Marriage Act 1961* to explicitly define marriage as between a man and a woman, effectively prohibiting same-sex marriage. After years of activism and public support for equality, the Australian government held a postal survey in 2017, in which 61.6% of respondents voted in favor of legalizing same-sex marriage, leading to the eventual legislative change.

The Role of Public Opinion[2]:

- The postal survey played a pivotal role in demonstrating public support.
- Advocacy by LGBTQ+ groups, allies, and public figures contributed significantly to shifting societal attitudes.

In Australia, same-sex marriage has been legally recognized since December 9, 2017, following a nationwide postal survey and amendments to the Marriage Act 1961. This milestone granted equal legal rights to same-sex couples, encompassing areas such as inheritance, property ownership, and legal recognition of familial relationships. These advancements reflect Australia's commitment to equality and inclusion.

Legal Recognition of Same-Sex Marriage: Papua New Guinea

LEGAL CONTEXT[3]:

- Same-sex sexual acts are illegal under Section 210 of the PNG Criminal Code, carrying penalties of up to 14 years imprisonment.
- No legal protections exist for LGBTQ+ individuals against discrimination or violence.

CULTURAL AND RELIGIOUS INFLUENCES[4]:

- PNG's society is deeply rooted in conservative Christian values and traditional customs, which largely reject homosexuality.
- Religious leaders and cultural norms play a significant role in shaping public opinion and policy

In stark contrast, Papua New Guinea does not recognize same-sex marriage. Homosexual acts are criminalized under Section 210 of the PNG Criminal Code, which penalizes "acts of gross indecency" and "unnatural offences." This legal framework not only denies marriage rights but also perpetuates discrimination and marginalization of LGBTQ+ individuals.

LEGAL FRAME WORK & POLICY

Australia

The legalization of same-sex marriage in Australia was preceded by several key legal developments. Notable milestones include:

2 Australian Bureau of Statistics, *Australian Marriage Law Postal Survey: Final Results*, 2017, https://www.abs.gov.au/statistics/people/people-and-communities/marriage-law-postal-survey-results

3 Human Rights Watch, *"We Live in Fear": Lack of Legal Protection for LGBT People in Papua New Guinea*, 2017, https://www.hrw.org/report/2017/11/01/we-live-fear/lack-legal-protection-lgbt-people-papua-new-guinea

4 Kawar, M. (2015). *Sexuality and Gender Identity in Papua New Guinea: Cultural and Religious Perspectives*. Pacific Studies, 38(2), 45-60

1. **De Facto Recognition**: Same-sex couples in Australia began to gain legal recognition in the early 2000s through de facto relationship laws, which granted them rights similar to those of heterosexual couples in areas such as property and inheritance.
2. **Federal Reforms**: In 2008, the Australian government enacted reforms to remove discrimination against same-sex couples in areas such as taxation, social security, and health care. These changes, however, stopped short of recognizing same-sex marriage.
3. **Marriage Equality Act**: The 2017 Marriage Amendment was the final step in ensuring full legal equality for same-sex couples. It also provided religious protections, allowing clergy and religious organizations to refuse to perform same-sex marriages if it conflicted with their beliefs.

PAPUA NEW GUINEA

The legal framework in PNG remains firmly opposed to same-sex relationships and marriage. Key aspects include:

1. **Criminalization of Homosexuality**: Same-sex sexual activity is illegal under PNG's Criminal Code, reflecting the nation's adherence to conservative social values.
2. **Constitutional Ambiguity**: While PNG's Constitution recognizes the rights of all citizens, it also allows for laws that align with "Christian principles," which are often interpreted to exclude LGBTQ+ rights.
3. **No Legal Protections**: Unlike Australia, PNG provides no legal recognition or protections for same-sex couples. There are no provisions for civil unions, domestic partnerships, or anti-discrimination laws that specifically protect LGBTQ+ individuals.

PRIVACY PROTECTIONS IN THE DIGITAL AGE

Australia[5]

Australia's privacy landscape is governed by the **Privacy Act 1988**, which establishes stringent regulations for handling personal data. Sensitive information, such as sexual orientation, is safeguarded under this framework. Government and private entities must ensure that data is collected, stored, and shared responsibly, protecting individuals from discrimination and privacy breaches.

In the context of same-sex marriage, these privacy protections are crucial. Digital systems, including government databases and social media platforms, must ensure that LGBTQ+ individuals' data is not exposed or misused. Cyberbullying, online

5 Australian Law Reform Commission, *Serious Invasions of Privacy in the Digital Era*, ALRC Report 123, 2014, https://www.alrc.gov.au/publication/serious-invasions-of-privacy-in-the-digital-era-alrc-report-123/

harassment, and data breaches remain risks, but ongoing advancements in cybersecurity and legal frameworks aim to mitigate these challenges.

PAPUA NEW GUINEA[6]

Privacy protections in PNG are less robust, with limited legal frameworks addressing data security. The **Cybercrime Code Act (2016)** focuses on combating cybercrime but offers minimal safeguards for sensitive personal data. LGBTQ+ individuals in PNG face significant risks in the digital realm, where exposure of their sexual orientation can lead to discrimination, ostracism, or violence.

Digital platforms often serve as safe spaces for the LGBTQ+ community in PNG to connect and advocate for their rights. However, the lack of privacy protections and societal stigma creates an environment where individuals are vulnerable to surveillance, harassment, and outing.

CULTURAL AND SOCIAL IMPLICATIONS

Australia has seen increasing societal acceptance of LGBTQ+ rights, supported by legal reforms and advocacy efforts. However, challenges such as online harassment and discrimination persist. In PNG, deeply rooted cultural and religious beliefs oppose LGBTQ+ rights, creating significant barriers for social acceptance and legal recognition. This cultural divide underscores the importance of privacy protections to shield individuals from societal backlash.

CHALLENGES AND OPPORTUNITIES IN THE DIGITAL AGE[7]

Australia

The digital age presents opportunities for LGBTQ+ advocacy, including social media campaigns and online communities. However, it also exposes individuals to risks such as cyberbullying and data breaches. Strengthening cybersecurity measures and promoting digital literacy are essential to safeguarding privacy.

Papua New Guinea

For LGBTQ+ individuals in PNG, the digital space offers limited avenues for advocacy and connection. However, the risks of exposure and discrimination often outweigh these benefits. Advocacy efforts must focus on building legal frameworks and cultural awareness to support LGBTQ+ rights and privacy.

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[6] *Privacy and Data Protection in Papua New Guinea: Challenges and Opportunities*, 2020, https://privacy.org.au/publications/papua-new-guinea-privacy-data-protection

[7] Sultana, M., & Peni, B. (2019). *Challenges of Digital Privacy and Data New GuineaProtection: An Analysis of Legal and Societal Barriers*. Journal of Pacific Studies, 41(3), 223-245.

KEY COMPARISONS

Aspect	Australia	Papua New Guinea
Legal Status	Same-sex marriage is recognized.	Same-sex marriage is not recognized; homosexuality is criminalized.
Privacy Protections	Comprehensive privacy laws protect sensitive data.	Limited privacy protections, with few safeguards for sensitive data.
Digital Risks	Cyberbullying and data breaches are risks but addressed.	Risks include surveillance, outing, and online harassment, with minimal recourse.
Cultural Acceptance	Broad societal acceptance, though challenges persist.	Strong cultural and religious opposition to LGBTQ+ rights.

IMPLICATIONS IN THE DIGITAL AGE[8]

- In Australia, the digital landscape facilitates greater inclusivity but requires constant vigilance to address evolving threats to privacy and security.
- In PNG, the digital age presents both opportunities and risks for LGBTQ+ individuals, with the lack of legal protections amplifying privacy concerns and societal challenges.

Addressing these disparities involves strengthening privacy laws, promoting digital literacy, and fostering a culture of inclusion and respect in both nations.

CONCLUSION

The recognition of same-sex marriage and privacy protections in the digital age highlight stark contrasts between Australia and Papua New Guinea. While Australia has embraced equality and robust privacy laws, PNG's restrictive legal and cultural environment poses significant challenges for LGBTQ+ individuals. Addressing these disparities requires a multifaceted approach, including legal reforms, digital literacy programs, and cultural advocacy to ensure privacy and equality for all individuals.The recognition of same-sex marriage in Australia and Papua New Guinea highlights the stark contrasts between two neighboring countries in their approach to LGBTQ+ rights. Australia's legalization of same-sex marriage represents a significant achievement in the global movement for equality, demonstrating the power of advocacy, public support, and political will. In contrast, Papua New Guinea's resistance to same-sex marriage underscores the challenges faced by LGBTQ+ individuals in societies where tradition and religion dominate public discourse.

While Australia serves as a beacon of progress in the Oceania region, PNG's journey toward equality remains fraught with obstacles. Bridging this divide requires sustained efforts to challenge prejudices, promote understanding, and advocate for the universal recognition of human rights.

8 Smith, J., & Rukavina, M. (2021). Digital Privacy and Legal Implications in the Pacific: A Comparative Study of Australia and Papua New Guinea. International Journal of Digital Law & Ethics, 27(4), 312-335.

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Air Pollution and the Constitutional Right to a Pollution-Free Environment: A Study of Judicial Precedents

Dr. Ashish Kumar Singhal[*] *& Mr. Abdul Samad Suhail*[**]

ABSTRACT

India is faced with a serious threat to public health, the environment, and the quality of life caused by air pollution that requires major legal and judicial responses. Although the Indian Constitution does not expressly affirm a right to a clean environment, Article 21 of the right to life has been judicially interpreted to include the right to pollution-free air. The constitutional framework, the judicial precedents, and statutory schemes that deal with the problem of air pollution are looked into in this study to understand how the judiciary has shaped environmental law jurisprudence. M.C. Mehta case and Subhash Kumar case are landmark cases that show how the courts have been proactive in directing polluters, granting stay orders against illegal mining and deforestation, stating the polluter pays principle and precautionary principle as an inherent part of laws, etc.The analysis further brings out the emerging role of the judiciary in balancing developmental necessities with ecological compulsions by way of the adoption of measures such as the Graded Response Action Plan (GRAP) and interventions to curb stubble burning and vehicular emissions. Yet continued legislative gaps, inefficient enforcement, and poor public participation continue to erode the efficacy of judicial orders. Against air pollution and breaches of constitutional rights, this study argues for a multipronged reform of law, technology, administration, and public engagement. This qualitative discourse reinforces the need to uphold more sustainable practices and bolster enforceability to help achieve environmental justice and safe environments for future generations.

Keywords: Air Pollution, Article 21, Graded Response Action Plan (GRAP), Sustainable Development, Constitution of India, Fundamental Rights, Polluter Pays Principle

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INTRODUCTION

Air pollution is one of the biggest environmental problems facing India and is also causing public health degradation, ecosystem degradation, and an adverse impact on quality of life. The problem is that Gujarat and Indian cities regularly feature in the list of some of the most polluted cities in the world, as per the World Health Organization (WHO) and other agencies that promote environmental issues. Industrial emissions, automotive exhaust, crop residue burning, construction dust, and the rampant use of fossil fuels as sources of energy are the principal contributors to air pollution. The complex entanglement of these factors makes for alarming concentrations of pollutants like particulate matter (PM2.5 and PM10), nitrogen oxides (NOx), sulfur dioxide (SO2), and volatile organic compounds (VOCs) in the atmosphere. These pollutants aggravate respiratory and cardiovascular diseases and hamper India's climate change mitigation and sustainable development commitments alike.[3]

Human survival and societal well-being depend on a clean and healthy environment, and hence air pollution is critical for protecting public health. Several provisions of the Indian Constitution provide for a habitat that promotes the health and well-being of all citizens. Article 21, which grants the basic right to life and personal liberty, has been suitably construed judicially to embody the right to a healthy and clean environment. In this interpretation, air pollution is brought within constitutional bounds of scrutiny to reinforce the ability of individuals and communities to advance claims for effective regulation and enforcement. The constitutional mandates of health, environment, and human life have been translated into a framework of actionable basis for dealing with air pollution by judicial interventions in cases like "*M.C. Mehta v. Union of India*"[4].

This research is designed to find out the constitutional basis of the right to live in a clean environment, and the same is ground via judicial precedents. The Constitution of India does not expressly declare the right to a clean environment, but the judiciary has read into articles 14, 19, 21, and 48A a right to the environment and protection of environment values into the constitutional scheme. This study is important because of how the judiciary has helped consolidate environmental jurisprudence in the country, particularly about the complex issue of air pollution.

The study examines landmark judgments to point out how the judiciary has been proactive in directing regulatory authorities, holding polluters accountable, and enforcing compliance with environmental norms. Examples of cases include "*Subhash Kumar v. State of Bihar*"[5] and "*Vellore Citizens' Welfare Forum v. Union of India*[6]", where constitutional provisions related to the air quality concern were invoked by the courts. The study

3 Astutya Prakhar and Raj Shekhar, *Air Pollution and the Constitution of India: A Critical Analysis of the Right to Clean and Healthy Environment*, available at https://docs.manupatra.in/newsline/articles/Upload/d08a625b-13b6-49a9-936e-ee5520d83366.pdf.

4 [1987] 1 SCC 395.

5 [1991] 1 SCC 598.

6 [1996] 5 SCC 647.

further examines the interface between such statutory enactments as the 'Air (Prevention and Control of Pollution) Act, 1981' with constitutional principles to underline the role of the judiciary to reconcile legislative intent with constitutional mandate.

In addition, the study sheds light on the broader implications of these judicial interventions about environmental justice and sustainable development. In the face of the twin tasks of economic growth and environmental conservation in India, the judiciary becomes even more important in protecting the constitutional right to live in a pollution-free environment. The study provides contributions to India's emerging discourse on environmental governance, providing analyses of the legal strategies employed to combat air pollution and protect constitutional rights.[7]

1.1 Constitutional Framework

Many of the provisions for the protection of the environment are laid down in the constitutional framework of India, and some of these address the current need to control air pollution. This framework synthesizes fundamental rights, directive principles, and fundamental duties for the protection of the environment. Although the Constitution does not explicitly speak of the right to a pollution-free environment, judicial interpretation has widened its content to include the preservation of air quality. An analysis of these provisions demonstrates how the conjuncture of constitutional directives and judicial activism, combined, can be used to tackle problems of air pollution.

1.1.1 Fundamental Rights

The Right to a Clean and Healthy Environment—in Article 21 of the Indian Constitution, read along with Articles 14, 15, 21A, 48, and other provisions of the Constitution—the right to life and personal liberty guaranteed under Article 21 has been expanded. This interpretation highlights the very close coupling between environmental quality and the primary right to life. In *Subhash Kumar v. State of Bihar*[8], the Supreme Court held that the right to life as per Article 21 includes the right to enjoy pollution-free water and air for the enjoyment of life. Like in *"M.C. Mehta v. Union of India"*[9], the Court made the directives to control industrial emissions since it considers pollution as a direct attack on life and health. The two cases discussed above illustrate the role of Article 21 in tackling the problem of air quality because Article 21 has provided a way for citizens to seek judicial redress for environmental degradation.

Additionally, Article 14, which provides for the right to equality, has been relied upon to vindicate the effects of the actions of the authorities that aggravate air pollution. In the case *Bangalore Medical Trust v. B.S. Muddappa*[10], the Supreme Court overturned

7 Diva Rai, *Fundamental Rights for Environment Protection Through the Lens of Judicial Precedents*, iPleaders (Nov. 15, 2021), https://blog.ipleaders.in/fundamental-rights-for-environment-protection-through-the-lens-of-judicial-precedents/.

8 [1991] 1 SCC 598.

9 [1987] 1 SCC 395.

10 [1991] 4 SCC 54.

the action of conversion of a public park into a private property because the public at large needed equal access to green space and clean air. The judiciary has played an important role in safeguarding environmental justice while also ensuring that state actions comply with constitutional precepts, as such rulings show.

1.1.2 Directive Principles of State Policy

Although the Directive Principles of State Policy (DPSP) are nonjusticiable and provide a guiding framework for the state to promote environmental protection, Article 48A directs the state to utilize its best endeavors to protect and improve the environment and to safeguard forests and wildlife. This provision expresses a constitutional commitment to sustainable development and ecological balance. Article 48A has been held of considerable import by the Supreme Court in "*Rural Litigation and Entitlement Kendra v. State of Uttar Pradesh*"[11], in that case, limestone quarries in the Dehradun area, when closed to prevent environmental degradation and protect air quality, have been held to conform with the requirement of Article 48A.[12]

Article 48A is complemented by Article 47, which requires the state to do everything to enhance the general public health. Addressing air pollution is the state's obligation to protect public health, as clean air is important to prevent respiratory and other pollution-related diseases. Together with judicial interpretations, these articles reinforce the constitutional obligation for regulation of air quality and preservation of public health.

1.1.3 Fundamental Duties

Every citizen must protect and improve the natural environment, including forests, lakes, rivers, and wildlife [Article 51A(g) of the Constitution]. The provision emphasizes air pollution being a collective task of all citizens. In *L.K. Koolwal v. State of Rajasthan*[13], the Rajasthan High Court observed that article 51A(g) imposes on citizens a duty… which entitles them to read with article 51A(f) a right to a clean environment as its corollary. In addition, the Court ruled that the citizens could invoke this provision to use it as a means for necessitating the state to take steps to protect the environment.

The fundamental duties mandate facilitates participatory environmental governance and encourages citizens to contribute to improving air quality. Thus, a constitutional framework that aligns state obligations with citizen responsibilities brings a holistic approach to tackling the problem of air pollution and protecting the right to a pollution-free environment.[14]

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11 [1985] 2 SCC 431.

12 Natalie S. Mousa, *A Right to a Pollution-Free Environment Through the Right to Life* (2021), Honors Undergraduate Theses, 940, available at https://stars.library.ucf.edu/honorstheses/940.

13 AIR 1988 Raj 2.

14 L. Sarmiento and A. Nowakowski, *Court Decisions and Air Pollution: Evidence from Ten Million Penal Cases in India*, 86 *Environ. Resource Econ.* 605, 605–644 (2023), https://doi.org/10.1007/s10640-023-00805-2.

1.2 EVOLUTION OF ENVIRONMENTAL JURISPRUDENCE IN INDIA

The development of environmental jurisprudence in India is a dynamic interaction of legislative laws, judicial decisions, and evolving demands of society. Initially concerned with particular cases of environmental degradation, judicial methods later extended to more comprehensive principles of environmental and public health sustainability. This in turn has helped deal with air pollution and bring forth the right to a pollution-free environment.

1.2.1 Judicial Approaches

In the formative years, Indian courts tended to address environmental issues sporadically; the issues were brought before the courts under the headings that applied in a given case rather than as part of an environmental agenda. Cases of this initial phase may be cited that are similar, such as *Ratlam Municipality v. Vardichan*[15]. In a landmark ruling, the Supreme Court's judgment earned wide applause for directing municipal authorities to take positive steps regarding issues of sanitation and pollution so that public health is protected by the state. However, this case was not explicitly concerned with air pollution; rather, it illustrated the judiciary's readiness to be involved in environmental issues.

"Pai v. State of Himachal Pradesh"[16] was another major case out of this period, where the Supreme Court held on the ecological impact of limestone quarry in the Doon Valley *[Rural Litigation and Entitlement Kendra v. State of Uttar Pradesh]*[17]. The issue, while not primarily one of deforestation or soil erosion, brought to the fore the interrelation of many environmental issues, among them air quality. By recognizing the primacy of these early judgments, which have provided a sound base for a more comprehensive approach to environmental jurisprudence by linking the principles essential for the constitution to ecological necessities.

1.2.2 Expansion of Article 21

Article 21 of the Constitution was judicially interpreted to include environmental rights as an important turn in India's environmental jurisprudence. The right to a pollution-free environment was expressly recognized as an integral part of the right to life by the Supreme Court in *"Subhash Kumar v. State of Bihar"*[18] The enhancement of Article 21's ambit provided a constitutional ground for handling pollution through the air, enabling citizens to seek recourse to regulatory action and accountability, both public as well as private.

15 [1980] 4 SCC 162.
16 [1986] 2 SCC 198.
17 [1985] 2 SCC 431.
18 [1991] 1 SCC 598.

This shift is further exemplified by the seminal case of *"M.C. Mehta v. Union of India"*[19]. The Court issued detailed orders on how to bring down industrial pollution in the Ganga basin and bring it in abeyance until due compliance with environmental norms. Though the focus was on water pollution, the principles from this case were used to tackle air quality concerns and serve as further examples of the judiciary's thought process.[20]

1.3 LANDMARK JUDICIAL PRECEDENTS

India's judiciary has been very important in interpreting constitutional rights as they pertain to protecting the environment. The courts over some times have also recognized the very inherent link that a healthy environment has with a right to life under 'Article 21 of the Constitution of India.' The link with environmental preservation as a constitutional obligation has been cinched by landmark cases. In addition, these judicial precedents not only broadened the sweep of fundamental rights but also established important benchmarks for maintaining a balance between environmental sustainability and the need for development.

1.3.1 Rural Litigation and Entitlement Kendra v. State of Uttar Pradesh

In *Rural Litigation and Entitlement Kendra v. State of Uttar Pradesh*[21], the Supreme Court of India took up the deterioration of the Dehradun Valley by limestone quarrying. However, unregulated mining causes deforestation as well as soil erosion and pollution and threatens the ecological balance, the petitioners said. In urging sustainable development, the Court awarded the closure of several quarries, though they offered economic benefits. It declared that being a part of 'Article 21' (Right to Life) meant also the right to a wholesome environment. This case set a milestone for judicial environmental activism that established, in part, the idea that environmental protection is a manifestation of fundamental rights.

1.3.2 M.C. Mehta v. Union of India

Many environmental cases, such as *"M.C. Mehta v. Union of India"*[22], the Ganga pollution case, demonstrated the courts' preparedness to solve large environmental issues. Filed as a Public Interest Litigation (PIL), the case argued that rampant pollution is impacting the water quality of the Ganges River by industrial waste, which is going untreated, and municipal sewage. The Supreme Court directed industries along the river to install effluent treatment plants and made the principle of absolute liability applicable to any enterprise that undertakes a hazardous activity. The judgment also held that

19 [1987] 1 SCC 395.

20 G. N. Gill, *Environmental Standards and the Right to Life in India: Regulatory Frameworks and Judicial Enterprise*, in *Environmental Rights: The Development of Standards* 222, 222–246 (S. J. Turner et al. eds., Cambridge Univ. Press 2019).

21 (1985) 2 SCC 431.

22 [1988] 1 SCC 471.

'Article 21', which speaks about the right to life, comes under attack when the environment gets degraded and causes a hampering in the quality of life. The case is a landmark in India's environmental jurisprudence.

1.3.3 Subhash Kumar v. State of Bihar

In *Subhash Kumar v. State of Bihar*[23], the Supreme Court positively established that "Article 21" has on its anvil the "right to pollution-free air and water." The discharge of sludge into rivers by the Tata Iron and Steel Company caused pollution, the petitioner alleged. A court also made remarks that environmental rights are crucial to human dignity and that the state has a responsibility to prevent ecological harm. This case importantly further developed the realm of fundamental rights; environmental protection is not separable from human rights.

1.3.4 M.C. Mehta v. Union of India (Vehicular Pollution Case)

The case in point is *"M.C. Mehta v. Union of India"*[24], in which the Supreme Court took up the issue of very high levels of air pollution in Delhi caused by vehicular emissions. It ordered the authorities to compulsorily convert public transport vehicles to compressed natural gas (CNG) and to enforce stringent emission norms. According to the judgment, the judiciary is taking a proactive role in fighting air pollution and also emphasizing 'Article 21' as well. The case is a classic example of how judicial intervention may turn policy to protect the public's health and the environment.

1.3.5 Vellore Citizens Welfare Forum v. Union of India

Environmental principles such as the "polluter pays principle" and "precautionary principle" were brought into Indian jurisprudence in *'Vellore Citizens Welfare Forum v. Union of India'*[25]. The case revolved around the pollution by tanneries in Tamil Nadu causing untreated effluent discharge into rivers. The Supreme Court declared sustainable development is a constitutional imperative while at the same time stressing the need to achieve environmental protection through industrial growth. In this case, it makes definitive some principles of a magnitude that would modify future legislation and judicial decisions.

1.3.6 Taj Trapezium Case

In *"M.C. Mehta v. Union of India"*[26], the iconic Taj Mahal was severely damaged by industrial pollution. The Supreme Court said discoloration and degradation of the monument were primarily due to emissions from nearby industries. It also ordered polluting industries to relocate outside the Taj Trapezium Zone and to adopt fewer polluting fuels. The exemplar judgment showed how the judiciary plays a role in

23 [1991] 1 SCC 598.
24 [1998] 6 SCC 63.
25 [1996] 5 SCC 647.
26 [1997] 2 SCC 353.

preserving cultural heritage and environmental conservation at the same time. And the Court invoked 'Article 21' to connect environmental protection to pride in the nation and human dignity.

1.3.7 Recent Case: M.K. Ranjitsinh v. Union of India

Article 21 received a new fillip when, in *'M.K. Ranjitsinh v. Union of India,*[27]' the Supreme Court accorded the right to protection against climate change impact a facet of Article 21. Yet the petitioners argue that climate inaction infringes fundamental rights because citizens are exposed to grave environmental hazards. The Court urged the government to adopt more radical climate mitigation measures, including a swift transition to renewable energy. A landmark judgment in Indian constitutional history in terms of recognition and understanding of the two significant trends regarding the evolving meaning of environmental rights and the judiciary's approach to these issues using the doctrines of our Constitution.

These cases establish that through fundamental rights we must protect the environment. The precedents discussed indicate the need for active judicial protection of the fine balance to be struck between development and ecological sustainability and, therefore, a healthy environment for generations to come.

1.4 ROLE OF GRADED RESPONSE ACTION PLAN (GRAP)

The Graded Response Action Plan (GRAP) is a pivoting landmark in India's incessant war against air pollution, especially in the National Capital Region (NCR). This framework mandated by the Supreme Court offers a phased and structured mechanism to address a downslide in air quality. The introduction of GRAP was aimed as a response to the serious public health problem of air pollution in Delhi-NCR to facilitate faster and more efficient action during pollution peaks.[28]

1.4.1 Introduction of GRAP

The order of the Supreme Court to devise GRAP is in *"M.C. Mehta v. Union of India"*[29]. The framework was developed to address Delhi-NCR, where air pollution regularly tops hazardous levels. Air pollution is classified as moderate, poor, very poor, and severe by GRAP, and remedial actions are taken accordingly. Its chief purpose is to lay down clear guidelines to the authorities for preventing, containing, and dealing with air quality emergencies to protect public health and align with the constitutional mandate under "Article 21."[30]

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27 [2024] 10 SCC 1.

28 Sarita and Arun Klair, *Accessing Environmental Justice Through the Lens of the National Green Tribunal in India*, available at https://www.hpnlu.ac.in/PDF/b6ff7c9c-1fb1-450f-b28f-bcc6709c77ec.pdf.

29 [2016] 14 SCC 744'

30 Lovleen Bhullar, *Environmental Constitutionalism and Duties of Individuals in India*, 34 *J. Envtl. L.* 399, 399–418 (2022), https://doi.org/10.1093/jel/eqac010.

1.4.2 Implementation Mechanism

GRAP works on a phased action plan based on the levels of air quality. For moderate and poor levels, there are actions on preventive measures, for example, regulating construction activities and ensuring compliance with dust mitigation standards. In very poor conditions, further measures such as the prohibition on diesel generator sets and limiting the entry of heavy vehicles are initiated. Pollution is brought under control up to moderate levels, but reaching severe levels means shutting down industries, stopping construction activities, restriction vehicular movement, etc. Such an approach is tiered, guaranteeing a targeted response to minimize the impact of pollution.

1.4.3 Key Features

GRAP's core features are dynamic and action-oriented. It limits construction activities, industrial operations, and vehicular emissions by the real-time air quality data availability. Moreover, GRAP stresses interagency coordination for involving purposes of local government, pollution control boards, and law enforcement agencies. GRAP needs to leverage public awareness campaigns and community participation to ensure compliance and build up a collective effort to tackle air pollution.

1.4.4 Effectiveness and Challenges

During critical periods, GRAP has so far achieved measurable success in reducing pollution levels. For example, the ban on high-emission vehicles and strict regulations of construction activities have led to short-term shifts in air quality. Gaps, however, exist in enforcement, and interagency coordination does not always work seamlessly. It has little overall impact, as there is no long-term planning and because it depends on emergency responses.

1.5 DEVELOPMENTS AND JUDICIAL INTERVENTIONS

Air pollution has also received renewed judicial focus in recent years, most recently with landmark interventions by Indian courts. These connote the judiciary's pledge of safeguarding the constitutional right to a pristine and fit environment, which has been regarded as an indispensable part of the essential right to life as specified under "Article 21 of the Constitution of India." This proactive stance of the judiciary is in the path of a custodian of constitutional values and a protector of public welfare and takes on environment while staking off alternative interests.[31]

1.5.1 Court's 2024 Affirmation

The Supreme Court in its historical 2024 judgment once again maintained that the right to a pollution-free environment was a corollary [sic] to the fundamental right to life and dignity in Article 21. This judgment had however further stretched the environmental jurisprudence of the Supreme Court that was established in earlier cases such as *'Subhash Kumar v. State of Bihar'*[32], wherein the right to life was perceived

31 Sharon S., *Supreme Court and Environmental Justice: A Historical Analysis*, 14(2) *J. Polity & Soc'y* 137, 137–148 (2022).

32 [1991] 1 SCC 598.

to incorporate the right to have pollution-free air and water. A PIL on alarming levels of air pollution in metropolitan cities resulted in the 2024 affirmation. Referring to "Article 51A(g)," which enunciates a duty of citizens to protect and improve the natural environment, including its wildlife and forests, and "Article 48A" of the Constitution, which lays down the state's duty to protect and improve the environment and to safeguard the forests and wildlife of the country, the Court observed that the duty is of considerable importance. It ordered the Central Pollution Control Board (CPCB) and State Pollution Control Boards (SPCBs) to draft stricter norms for emissions and come up with scientific ways to curb pollution monitoring. Further, this ruling underlined the importance of sustainable development and also established regulatory authorities' accountability to enforce effective environmental safeguards.

1.5.2 Measures Against Stubble Burning

Pivotal has been the Supreme Court's intervention in the pollution problem caused by stubble burning by farmers in North India. Noting that the practice was causing severe environmental and health hazards, especially in Punjab and Haryana, the Court has issued directions to check the menace. In the 2023 judgment in "*Aditya Dubey v. Union of India*"[33], the Court directed the state governments to incentivize the farmers to adopt eco-friendly alternatives like the Happy Seeder machine, which makes possible the sowing without burning the crop residues. In addition, the Court had directed the setting up of a proper compensation mechanism to dissuade stubble burning and penalize rolling back of progress. The Court invoked "Article 21" to rule that on stubble burning, the government's inaction infringes on citizens' right to clean air. In addition to accelerating enforcement, the measures have also shed light on what is required, in terms of a coordinated effort among farmers, policymakers, and environmental activists, to mitigate this recurring problem.[34]

1.5.3 Firecracker Bans

Another important step in the fight against air pollution is the judicial order to curb the use of firecrackers. The Supreme Court in "*Arjun Gopal v. Union of India*"[35] banned the sale and use of firecrackers in Delhi NCR to dilute air quality in the already bedeviled region during festive seasons. This precedent was continued in the following cases in 2021 and 2023, as the Court expanded on restrictions on festivals, while also continually reinforcing that festivals must be compatible with public health and the protection of the environment. The Court clarified in 2023 that only green firecrackers can be manufactured and sold, which produce less emissions. It prescribed strict enforcement of strict monitoring methods to control compliance and referred to 'Articles 14,' '21' as it served to regulate individual rights against the collective right of a clean environment. Okonjo Iweala was hailed as a 'pathfinder,'

33 2023 SCC Online SC 912.

34 Rhuks Temitope, *The Judicial Recognition and Enforcement of the Right to Environment: Differing Perspectives from Nigeria and India*, 3 *NUJS L. Rev.* 423, 423–424 (2010).

35 [2017] 16 SCC 280.

hailed by some as the first of many to come. Okonjo Iweala was hailed as a 'pioneer' heading the WTO in gender equality first. Okonjo Iweala celebrates appointment as first female WTO director general.

Judicial innovation involving innovative legal frameworks and constitutional mandates can be seen from recent judicial developments given the courts' engagement in addressing air pollution in recent times. The judiciary notes air quality as a basic aspect of life and indoor air quality (IMQ), and these indicators are upheld to ensure environmental rights and fit in with reasonable practices over a wide range of businesses.[36]

1.6 Challenges in Enforcement

The effective enforcement of environmental laws and judicial orders is held back by systemic weaknesses that also reflect societal apathy. Courts have had a central role in shaping and shielding the fundamental constitutional right to a pollution-free environment, but making legal principles operational remains a daunting task. The fight against air pollution suffers from these challenges stemming from legislative deficiencies, implementation bottlenecks, and limited public engagement.

1.6.1 Legislative and Policy Gaps

Although India has a comprehensive legal structure that includes the 'Air (Prevention and Control of Pollution) Act, of 1981', comprehensive research reveals that there are gaps in the existing legal structure to address the emerging sources of air pollution. For example, pollutants causing the greatest health risks, like particulate matter (PM2.5 and PM10) and ozone, fall out of the current legislative regime's specific regulation. The lack of very concrete norms on industrial emissions and vehicular pollution aggravates the problem. It is noteworthy that in "*M.C. Mehta v. Union of India*"[37], the Supreme Court has pointed out that the existing policies to combat vehicular emissions in Delhi are insufficient and therefore have directed that compressed natural gas (CNG) must be used in public transport. Such piecemeal solutions, though, are a symptom of broader problems, in particular that of fragmented policy-making and enforcement. While progress has been made, this has also largely been confined to the effective implementation of regulatory frameworks, where dynamic legislation that confronts and responds to emerging environmental issues has failed to materialize, resulting in the need for a common sense and forward-looking approach.[38]

36 R. Singh and A. Frank, *The Importance of Public Participation in Framing Air Pollution Policy: Outcome of a Judicial Review in New Delhi, India*, 13(4) *Pub. Health Action* 169, 169–172 (2023), https://doi.org/10.5588/pha.23.0047.

37 [2002] 4 SCC 356.

38 S. Iyengar, N. Dolšak, and A. Prakash, *Selectively Assertive: Interventions of India's Supreme Court to Enforce Environmental Laws*, 11(24) *Sustainability* 7234 (2019), https://doi.org/10.3390/su11247234.

1.6.2 Implementation Issues

While we might have robust laws and judicial directives, the enforcement of these laws is usually marred by administrative inefficiencies and failure to account for anyone. Bureaucratic delay, coupled with under-resourced regulatory agencies such as CPCB and SPCB, has made these agencies unable to effectively control and monitor pollution. For instance, the failure to impart compliance can be exemplified by the Supreme Court order in '*Vellore Citizens Welfare Forum v. Union of India*'[39], wherein the Supreme Court ordered stringent action against the industries polluting the Noyyal River. Likewise, in 'Aditya Dubey v. Union of India,' directions to check the practice of stubble burning have not been followed because the farmers are not allocated sufficient financial resources and because agencies of the state are not in coordination with each other. Further emboldened by the lack of punitive measures for noncompliance, violators require strong enforcement mechanisms and periodic judicial review to enforce compliance.[40]

1.6.3 Public Awareness and Participation

However, citizens' role in combating air pollution is of paramount importance but insufficiently informed and low engaged. Although "Article 51A(g)" of the Constitution provides a duty for every citizen to protect the environment, there exists limited environmental literacy that impedes active participation in protecting the environment. In *Bangalore Medical Trust v. B.S. Muddappa*[41], the Supreme Court stated that citizens ought to be instruments for sustained public vigilance to be exercised over the maintenance of the ecological balance. Yet, efforts to sustain awareness of the environment are still sparse and not up to the mark. This gap can be filled by community-based programs, public consultations, and cooperative platforms that enable people to hold authorities accountable and participate in practicing sustainability. There is an imperative for civil society to play a more assertive role in environmental governance such that environmental interests are considered along with other interests and constituents in this newly mandated body policy.

The enforcement challenges demand a multipronged approach combining legislative reform, administrative efficiency, and citizen participation. These systemic issues need to be addressed to achieve the constitutional vision of a pollution-free environment and secure public health for future generations.[42]

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39 [1996] 5 SCC 647.

40 Yogender Singh and Umesh Kulshrestha, *An Analysis of GRAP Task Force Directions for Improved AQI in Delhi During 2018*, 15(1) *Curr. World Environ.* 67, 67–79 (2020), http://dx.doi.org/10.12944/CWE.15.1.06, available at https://cwejournal.org/vol15no1/an-analysis-of-grap-task-force-directions-for-improved-aqi-in-delhi-during-2018.

41 (1991) 54 SCC 4.

42 Ananthakrishnan G, *Delhi Air Pollution: SC to Decide on Monday if GRAP 4 Measures Need to Continue, Directs Setting Up More Check Posts*, *Indian Express* (Nov. 22, 2024, 16:23 IST), https://indianexpress.com/article/india/delhi-air-pollution-examine-grap-4-measures-sc-9683679.

1.7 CONCLUSION

Article 21 of the Indian Constitution is regarded as the main source of the constitutional right to a pollution-free environment, and it is the primary responsibility of the judiciary to protect the health of people and the environment by using this right. However, the judiciary has given life to the intrinsic nexus between preserving the environment and protecting human dignity by progressively interpreting fundamental rights, directive principles, and fundamental duties. Not only have the landmark cases of M.C. Mehta v. Union of India and Subhash Kumar v. State of Bihar broadened the meaning of the right to life, but they have also set important standards for environmental governance in India.

According to the analysis, judicial interventions have made it possible to control air pollution by exploiting polluters, asking for regulatory action, and directing the making of frameworks, including the Graded Response Action Plan (GRAP). The constitutional mandate for environmental protection has been further strengthened by these interventions in the form of innovative principles like "polluter pays," "precautionary principle," etc., which they have introduced into India's environmental jurisprudence.

Matters, however, remain a challenge, particularly the enforcement of the judicial directives and legislative frameworks. These measures are undermined by systemic inefficiencies, fragmented policy approaches, and low levels of public participation. Despite the judiciary's apparent reliance on circuitous governance involving the public, the deficiency in these policies and consequent enforcement mechanisms are still prominent barriers to progress.

Efforts to curb air pollution demand a multifaceted approach involving judicial oversight, comprehensive legislation, exemplary enforcement, and public awareness. We need to place a priority on sustainable development by fusing economic growth and environmental conservation. Finally, the judiciary's determination to protect people's constitutional right to a clean environment demonstrates the significance of the judiciary dealing with the issue and, thereby, of the judiciary in securing a healthy and equal future for all. To make this constitutional vision a reality and to overcome this endemic challenge of air pollution, it is imperative to strengthen institutional frameworks and increase community participation.

1.8 SUGGESTIONS

To address India's pervasive problem of air pollution, a multipronged approach—which combines judicial oversight, legislative reform, administrative efficiency, and active public engagement—is required. Below are detailed suggestions to combat air pollution effectively:

- Existing environmental laws, like the "Air (Prevention and Control of Pollution) Act, 1981," need to be revised and updated from a PM 2.5, PM 10, ozone, and microplastics point of view. Provide dynamic provisions that precede future environmental challenges.

- Provide CPCB and SPCBs adequate funding plus technical and human support necessary for the proper autonomous functioning for the prevention and monitoring of air pollution. Data acquisition and management need enhancement to make them integrate well with other agencies for effective solutions, especially on sources such as vehicle emissions and industries.
- Support the transition to cleaner technologies throughout industries and transportation subsectors. Promote economic and commercial functioning of electric vehicles, renewable energy, and efficiency in industries. Make use of sophisticated technologies to monitor the air quality to address the problem in nearly real-time.
- Fund for helping farmers financially and technologically to produce near-zero burning as an alternative to Happy Seeder and bio-decomposers, etc. Establish effective waste management practices to use the products of crop residues either as biofuels or manure.
- Pull air quality into the urban development policies. Green areas must be increased, rigorous regulation of construction dust is sedimented, and respect zoning law to avoid proximity to sources of pollution and residential areas.
- Promote the use of non-auto modes of transport through better metro connectivity, improved bus rapid transit services, and hopefully cheaper, green modes of transport. Construct well-connected pathways or systems that encourage walking and provide cycling tracks so that their dependency is decreased.
- Deepen several awareness-raising campaigns to raise the level of understanding the population has towards HIT, with particular regard to air pollution and the measures to take to reduce it. Promote other forms of behavior, for instance, cutting down on the use of firecrackers and SWOT analysis of waste disposal.
- Grant the industries and individuals successful in practicing sustainable policies special incentives like tax credits and subsidies for adopting solar power, biofuels, etc. Encourage and reward those actions that are reducing pollution levels in the environment.
- Make it necessary to perform constant checks and stock-taking of any fresh or new judicially crafted directives regarding air quality. Formulate specialized environmental courts for speedy trial of pollution cases and compliance with the orders made therein.
- Increase public participation in environmental management by decentralization of local organizations, consultation, and partnership. Promote compliance and provide methods through which the public can report violations and get involved in monitoring air quality increments.
- Develop integrated national and regional air quality management strategies that are responsive to internationally acceptable environmental standards. The plan should give specific targets and schedules and ensure that those corresponding with the plan are held responsible for the implemented measures or working plan.

- Slap hefty penalties and work the law against industries, vehicles, and people that are polluting the environment. Promote a clear, open grievance channel through which people may report infringements of air quality standards.

These strategies show how coordinated and thus comprehensive a plan towards tackling air pollution needs to be to align development initiatives with sustainable economic growth as well as population health. The constitutional provisions have been largely progressive in directing the realization of a clean and healthy environment; however, their effective implementation can only happen with cooperation from governments, industries, and the citizenry.

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A Critical Analysis of the Power and Function of the Authorities under the Income Tax Act

*Dr. Bibhabasu Misra**

ABSTRACT

The concept of "Tax" is well known from the ancient time. The ancient sovereign used to collect hefty tax from their subjects. In return the sovereign used to maintain peace and order in their realm. The sovereign protected the subjects from the external invasion. In the modern era, all the civilized countries collect tax directly or indirectly. The revenue generated from the collection of tax is used in developing infrastructure, providing welfare schemes to the citizens, as for example affordable health care, education, justice delivery system, good governance etc. There should be a transparency in collection of tax, justly balancing the rights of the assesse vis-à-vis State. The amount of corruption in paying/collecting taxes must be reasonably reduced. The Authorities under the Income Tax Act possess vast power for collection of tax. This paper will analyse the nature of power and function of the Authorities under the Income Tax Act.

Keywords: Constitution, Law, Tax, Power, Civil Court, Search, Seizure, Authority.

INTRODUCTION

Article 265 of the Indian Constitution provides that, "Taxes not to be imposed save by authority of law-No tax shall be levied or collected except by authority of law". Section 10(1) of the Income Tax Act exempts agricultural income from imposition of tax. Entry 82, of the Union list, Seventh Schedule of the Indian Constitution provides the power to the Parliament to enact law imposing tax on subjects other than "Agricultural income". Article 266 of the Indian Constitution provides for the "Consolidated fund of India" and the "Consolidated fund for the State". The revenues, tax received by the Government of India are collected in the "Consolidated fund of India". And same received by the State government are collected in the "Consolidated fund for State". All public money received by the Government of India and the Government of States are credited to the public account of India and public account of State. No money in the Consolidated fund of India and Consolidated fund of State can be appropriated save by the authority of the Indian Constitution and law.

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Article 267 of the Indian Constitution provides for the "Contingency fund of India" and "Contingency fund of States" to meet any kind of contingency. These above funds draw revenue from various kind of direct/ indirect taxes and duties.

The term "Authority", apart from evoking one's psychological response, has special existence as per the scheme of the Indian Constitution and law. If we examine the inclusive definition of the Article 12 of the Indian Constitution, we find the mention of the local and other authorities as part of the State. The implications of being "State" and "Authority" are many, as for example having the liability under the "Writ jurisdiction" of High Courts and Supreme Court,[1] Special leave petition (jurisdiction) of the Supreme Court[2], the duty to always act in far, just, reasonable manner, for upholding the interest of people. The Writ of "Quo-warranto" may be applied against the person holding on unethically to the office maintained by the tax payer's money. A writ of "Mandamus" can be applied against an "Authority" under the scheme of the Income Tax Act, for failure of fulfilling statutory duty.

CHAPTER-XIII OF THE INCOME TAX ACT PROVIDES PROVISIONS CONCERNING VARIOUS "AUTHORITIES".

Section 116 of the Income Tax Act provides about,

A. The Central Board of Direct Taxes constituted under the Central Boards of Revenue Act, 1963 (54 of 1963).
B. Principal Directors General of Income-tax or Principal Chief Commissioners of Income-tax.
C. Directors-General of Income-tax or Chief Commissioners of Income-tax
D. Principal Directors of Income-tax or Principal Commissioners of Income-tax,
E. Directors of Income-tax or Commissioners of Income-tax or Commissioners of Income-tax (Appeals).
F. Additional Directors of Income-tax or Additional Commissioners of Income-tax or Additional Commissioners of Income-tax (Appeals).
G. Joint Directors of Income-tax or Joint Commissioners of Income-tax.
H. (d) Deputy Directors of Income-tax or Deputy Commissioners of Income-tax or Deputy Commissioners of Income-tax (Appeals).
I. (e) Assistant Directors of Income-tax or Assistant Commissioners of Income-tax.
J. (f) Income-tax Officers.
K. (g) Tax Recovery Officers.
L. (h) Inspectors of Income-tax.

1 See Article 226 and 32 of the Indian Constitution.
2 Article 136 (Special Leave Petition) of the Indian Constitution.

Section 117 of the Income Tax Act provides the power to appoint an "Authority" to the Central Government. The Central Government may authorize the "Board, or a Principal Director General or Director-General, a Principal Chief Commissioner or Chief Commissioner or a Principal Director or Director or a Principal Commissioner or Commissioner to appoint income-tax authorities below the rank of an Assistant Commissioner or Deputy Commissioner." An income-tax authority authorised in this behalf by the Board may appoint such executive or ministerial staff as may be necessary to assist it in the execution of its functions.

Under section 118 of the Income Tax Act (Control of Income Tax Authorities), "the Board may, by notification in the Official Gazette, direct that any income-tax authority or authorities specified in the notification shall be subordinate to such other income-tax authority or authorities as may be specified in such notification".

Section 119 of the Income Tax Act provides that, the Board may issue order, instruct, and direct the subordinate Authorities as per notification in the official Gazette, as it deems fit to administer the Act.[3] The Proviso of the section provides some illustration, where the Board can / cannot issue order, instruction and direction. As for example, no such orders, instructions or directions shall be issued—"(a) so as to require any income-tax authority to make a particular assessment or to dispose of a particular case in a particular manner"

(b) the Board may, if it considers it desirable or expedient so to do for avoiding genuine hardship in any case or class of cases, by general or special order, authorise ,"any income-tax authority, not being a Commissioner (Appeals) to admit an application or claim for any exemption, deduction, refund or any other relief under this Act after the expiry of the period specified by or under this Act for making such application or claim and deal with the same on merits in accordance with law;"

Section 120 of the Act provides about Jurisdiction of income-tax authorities:[4] - The Authority will exercise its jurisdiction in the following criteria.

(a) territorial area;
(b) persons or classes of persons;
(c) incomes or classes of income; and
(d) cases or classes of cases.

3 Section 119 of the Income Tax Act.

4 (1) Income-tax authorities shall exercise all or any of the powers and perform all or any of the functions conferred on, or, as the case may be, assigned to such authorities by or under this Act in accordance with such directions as the Board may issue for the exercise of the powers and performance of the functions by all or any of those authorities. 2 [Explanation.—For the removal of doubts, it is hereby declared that any income-tax authority, being an authority higher in rank, may, if so directed by the Board, exercise the powers and perform the functions of the income-tax authority lower in rank and any such direction issued by the Board shall be deemed to be a direction issued under sub-section (1).] (2) The directions of the Board under sub-section (1) may authorise any other income-tax authority to issue orders in writing for the exercise of the powers and performance of the functions by all or any of the other income-tax authorities who are subordinate to it.

Section 124 of the Act provides, Jurisdiction of Assessing Officers:-—"(1) Where by virtue of any direction or order issued under sub-section (1) or sub-section (2) of section 120, the Assessing Officer has been vested with jurisdiction over any area, within the limits of such area, he shall have jurisdiction—

(a) in respect of any person carrying on a business or profession, if the place at which he carries on his business or profession is situate within the area, or where his business or profession is carried on in more places than one, if the principal place of his business or profession is situate within the area, and

(b) in respect of any other person residing within the area."

Clause (5) of this section provides that, Notwithstanding any provision in this Act (Read as for example, order by a superior authority under section 120 of the Act)or in this section, all the Assessing officer will have all the power vested in the Act, provided he has the jurisdiction.[5]

Under section 127 of the Income Tax Act, the Authority, that is Principal Director General or Director General or Principal Chief Commissioner or Chief Commissioner or Principal Commissioner or Commissioner may, transfer a case from one or more Assessing Officers subordinate to him (whether with or without concurrent jurisdiction) to any other Assessing Officer or Assessing Officers (whether with or without concurrent jurisdiction) also subordinate to him. Assesse must be given a reasonable opportunity of being heard.

If the assessing officer is under the jurisdiction of different Principal Director General or Director General or Principal Chief Commissioner or Chief Commissioner or Principal Commissioner, then these different Principal director general, principal chief commissioner must be in agreement. Here also assesse must be given the reasonable opportunity of being heard.

Analysing the phraseology of the section 127 of the Act, it seems that any transfer order will be always a written, reasoned order.

Under section 131 of the Income Tax Act, the Authority will have the power of a Civil Court, under Civil Procedure Code, 1908, regarding discovery, production of evidence.

The power are (a) discovery and inspection; (b) enforcing the attendance of any person, including any officer of a banking company and examining him on oath; (c) compelling the production of books of account and other documents; and (d) issuing commissions.

Thus, the Income Tax Act mainly being a substantive law, the relevant provisions of the procedural law of Civil Procedure Code will also apply to make the power of the "Authority under section 131 of the Income Tax Act" effective.

5 (5) Notwithstanding anything contained in this section or in any direction or order issued under section 120, every Assessing Officer shall have all the powers conferred by or under this Act on an Assessing Officer in respect of the income accruing or arising or received within the area, if any, over which he has been vested with jurisdiction by virtue of the directions or orders issued under sub-section (1) or sub-section (2) of section 120.

Section 132 of the Income Tax Act provides, the power of search and seizure, where the prescribed Authority for fulfilling some purposes of the Act,

enter and search any building, place, vessel, vehicle or aircraft, where he has reason to suspect that such books of account, other documents, money, bullion, jewellery or other valuable article or thing are kept; (ii) break open the lock of any door, box, locker, safe, almirah or other receptacle for exercising the powers conferred by clause (i) where the keys thereof are not available; [(iia) search any person who has got out of, or is about to get into, or is in, the building, place, vessel, vehicle or aircraft, if the authorised officer has reason to suspect that such person has secreted about his person any such books of account, other documents, money, bullion, jewellery or other valuable article or thing; [(iib) require any person who is found to be in possession or control of any books of account or other documents maintained in the form of electronic record as defined in clause (t) of sub-section (1) of section 2 of the Information Technology Act, 2000 (21 of 2000), to afford the authorised officer the necessary facility to inspect such books of account or other documents;] (iii) seize any such books of account, other documents, money, bullion, jewellery or other valuable article or thing found as a result of such search:

Provided that, if the jewellary, bullion, valuable article are stock in trade, then such things will not be seized but a note/inventory will be made by such authorized officer.

Again following the same logic as applied for the "Civil Procedural law", the relevant provisions of the Bharatiya Nagarik Surakha Sanhita 2023 will apply, as for example giving a chance to withdraw, to a "Pardansin woman", who by custom[6], does not appear in public.[7]

As per the section 132A of the Income Tax Act, "Principal Director General or Director General or Principal Director or Director or the Principal Chief Commissioner or Chief Commissioner or Principal Commissioner or Commissioner", in consequence of information in his possession, has reason to believe that, any person under any legal obligation failed to produce any book of accounts, other documents, , which is in his possession, any assets represent either wholly or partly income or property which has not been, or would not have been, disclosed for the purpose of Income Tax Act 1922, this Act by any person from whose possession or control such assets have been taken into custody by any officer or authority under any other law for the time being in force, the prescribed Authority under this section, may cause to deliver such important documents[8] to the requisitioning officer.

Section 132B of the Income Tax Act, provides the application of seized or requisitioned assets, where the seized property consists of solely money, or partly money or partly other property.

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6 See Article 13 of the Indian Constitution, where it has been mentioned that, custom and usages have the force of law.

7 Section 44 of the Bharatiya Nagarik Surakha Sanhita

8 "Document" includes "Electronic document" as per the I.T. Act, 2000.

Under section 133 of the Income Tax Act, provides "Power to call for information".[9]

Under section 133A of the Income Tax Act, "Power of Survey" has been provided. Notwithstanding any provisions of this Act, an income-tax authority may enter any place within his jurisdiction, may inspect book of accounts, check money, bullion, stock etc. This place also includes any charitable place. The concerned Authority mentioned in the section can also make an inventory or note. Section 134 of the Income Tax Act provides the power to inspect the Companies register.

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9 The Assessing Officer, the Deputy Commissioner (Appeals), the Joint Commissioner or the Commissioner (Appeals) may, for the purposes of this Act,—

(*1*) require any firm to furnish him with a return of the names and addresses of the partners of the firm and their respective shares;

(*2*) require any Hindu undivided family to furnish him with a return of the names and addresses of the manager and the members of the family;

(*3*) require any person whom he has reason to believe to be a trustee, guardian or agent, to furnish him with a return of the names of the persons for or of whom he is trustee, guardian or agent, and of their addresses;

(*4*) require any assessee to furnish a statement of the names and addresses of all persons to whom he has paid in any previous year rent, interest, commission, royalty or brokerage, or any annuity, not being any annuity taxable under the head "Salaries" amounting to more than 5[one thousand rupees, or such higher amount as may be prescribed], together with particulars of all such payments made;

(*5*) require any dealer, broker or agent or any person concerned in the management of a stock or commodity exchange to furnish a statement of the names and addresses of all persons to whom he or the exchange has paid any sum in connection with the transfer, whether by way of sale, exchange or otherwise, of assets, or on whose behalf or from whom he or the exchange has received any such sum, together with particulars of all such payments and receipts;

(*6*) require any person, including a banking company or any officer thereof, to furnish information in relation to such points or matters, or to furnish statements of accounts and affairs verified in the manner specified by the Assessing Officer, the Deputy Commissioner (Appeals) the Joint Commissioner or the Commissioner (Appeals), giving information in relation to such points or matters as, in the opinion of the Assessing Officer, the Deputy Commissioner (Appeals), the Joint Commissioner or the Commissioner (Appeals), will be useful for, or relevant to, any enquiry or proceeding under this Act: Provided that the powers referred to in clause (*6*), may also be exercised by the Principal Director General or Director General the Principal Chief Commissioner or Chief Commissioner, the Principal Director or Director or the Principal Commissioner or Commissioner or the Joint Director or Deputy Director or Assistant Director: Provided further that the power in respect of an inquiry, in a case where no proceeding is pending, shall not be exercised by any income-tax authority below the rank of Principal Director or Director] or Principal Commissioner or Commissioner , other than the Joint Director or Deputy Director or Assistant Director, without the prior approval of the Principal Director or Director or, as the case may be, the Principal Commissioner or Commissioner.

Section 136 of the Income Tax Act provides that, Proceedings before income-tax authorities to be judicial proceedings. Thus, any Authority when acting judicially[10] makes a mistake of fact, and then he is not liable. If he is prevented to discharge his duty as Authority, the concerned persons will be criminally liable.[11]

Conclusion: - Taxing statutes are always interpreted strictly[12]. Thus, the Authorities must act within the bounds of the Constitution and law. Some changes are suggested, to be made in future, like rich and well off farmers may be brought under the net of taxation. To initiate such change, Article 368 of the Indian Constitution may be applied, where using the "Constituent power", the Parliament may amend, Schedule VIII, Entry 82, and the consent of the "Half the states" of the Union of India will be required. Another important observation can be made, where the Authorities does not provide justice to the "assesse", if the remedial scheme of the "Taxing statute" is not properly implemented, then one can approach the principal Civil Court having the jurisdiction.[13]

10 See section 14 of the Nyaya Sanhita.

11 Section 223 of the Nyaya Sanhita 2023.

12 See Commissioner of Income Tax v M/S Calcutta Knitwears (AIR 2014 SC 2970)

14 See section 9 of the Civil Procedure Code. Dhulabhai, etc. v. State of Madhya Pradesh and others reported in A.I.R. 1969 S.C. 78 (Constitutional Bench) "Where the statute gives a finality to the orders of the special tribunals the Civil Court's jurisdiction must be held to be excluded if there is adequate remedy to do what the Civil Courts would normally do in a suit. Such provision, however, does not exclude those cases where the provisions of the particular Act have not been complied with or the statutory tribunal has not acted in conformity with the fundamental principles of judicial procedure".

Women Empowerment: Socio-Legal Aspects

*Dr. J.P. Arya**

ABSTRACT

The empowerment of women is often identified as an important national aim of sustainable development policies. Besides governments several philanthropic organizations now include women's empowerment in their development strategies. There can be progress in women's socio-economic empowerment in our country if the right policies are adopted. Governments need to adopt appropriate provisions of Law and policies in consultation with employers' groups, workers' associations and civil society forums, including those representing women and girls. In the modern industrial societies with digital technology it is usually implicitly assumed that higher levels of women's empowerment represent a change from a pre-existing situation. The pre-existing situation would be in which women have limited power, less influence, limited freedom, or restricted autonomy. Despite all the religious teachings, international treaties, states laws, government schemes and programs for women empowerment, equal rights and the girls education the condition of women in north western region of India is deplorable. The social status of women in the patriarchal society seems to be dependent on their men. There are several instances of violence against women. The access to social justice and equality are denied to them. But through the positive socio-political and legal efforts the situation can change to more power, adequate influence and more autonomy. Nevertheless, such changes have been witnessed on a slow pace. This paper tries to highlight how governments, in coordination with civil society, UN, G7 and the European Union, can exert their influence to ensure building a gender-equal future society in self reliant, new India of the vision of our Prime Minister Narendra Modi. The paper also describes various provisions of statutes as well as case laws favoring women empowerment and suggests how to combat the challenges facing in regard to women equality and empowerment.

Keywords: Women, empowerment, law, policies, modern, technology, patriarchal, new India.

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INTRODUCTION

In recent times there is a great significance of women empowerment not only in India but across all world countries. Everyone is pointing on the empowerment of women. It is right to say that women's empowerment has become the demand of the time. Women should possess liberty, faith, and self-worth to opt for their needs and cosmetic accessories. Discrimination based on gender is useless and is having little worth by looking at the growth of women in the last couple decades. Women are paid less and are treated as a cook and subordinate in families, and their real potential fails to get highlighted. Women empowerment initiatives undertaken by government in India are trying to overcome situations of such types and to provide them with their independent role in Indian society. Empowering women is a necessary right of women. They should have proportional rights to contribute to society, economics, education, and politics. They are approved to gain higher education and receive a similar treatment in finding employment in every domain of workforce as men are receiving.

In ancient Indian culture and society traditionally women were considered to be full-time homemakers. Their responsibilities were to take care of their children and family. Indian Sociologist Yogendra Singh regards culture as unique human reality emanating from humankind's unity with nature and manifesting in the technological, mental, moral, social aesthetic and spiritual achievements of humankind. It gives meaning to our relationships and forms our subjective identity. He said, "Culture, therefore, enters into the process of social change in many forms and at various levels. It defines the quality of social change as its indicator. By selective adaptations to outside cultural forces, it has large measure of resilience. With all its institutional pervasiveness it has a core which acts as filter or a moderator to the outside forces of cultural contact and change."[1]

Since culture is community made, in tradition bound society, its impact is immense. Culture's anchoring in folk psychology, level of group conscience and the extent of creative leadership – either of cultural agents or of political persons – are the factors that substantively decide the phase, extent and direction of change in culture. In all countries, be it democratic or communist, it is recognized that the powers of cultures is deeply rooted in the vitality, creativity and cohesion of a nation; that culture is interactive with economic and political activities; and that its status and functions are becoming more and more outstanding in the competition in overall national strength.[2]

Law is a part of nation's culture, being product of group conscience and group activity. Born in commonly accepted moral principles, partly influenced by enduring metaphysical principles of religion and grown in the warmth of ethical considerations of coexistence and welfare of all, law mirrors culture of the community. Historical school of legal thought argued that Constitution and laws should be the outcome of a gradual and

1 Yogendra Singh, Culture Change in India, Rawat Publications, New Delhi 200 at page 25.

2 Bhikhu Parekh, Rethinking Multiculturalism, 2nd Edition, Palgrave MacmillanNew York, 2006, at pp. 74-75

organic development. Law is not a product of accidental or arbitrary origin. It grows with the growth, and strengthens with the strength of the people and finally dies away as nation loses its identity.[3] Law is to be found in the customs, popular faith and traditions of people or in the internally operating silent forces rather than in the wish of the lawgiver. Law varies with culture. Donald Black says, "Where culture is sparse so is law; where it is rich law flourishes."[4] If law's flourishing is to be understood in a limited sense of people's acceptance of law in their day-to-day behavior because of norm abiding practice of culture, the analysis does not address the larger issue.

In fact, modernization poses tall challenge to changeless continuation of culture and tradition. The human rights values and welfare goals of the modern age try to bring lot of rationality and humanism in individual and social conduct, and dispel the faults of patriarchy and caste discriminations. The impediments in the name of protection of culture to the efforts of introducing gender justice reforms in personal law or to the social reform policies that eradicate social evils need to be surmounted by synthesizing the major thrust of Indian culture and humanist values in modern thoughts. The instances of cultural policing against beauty show and the awareness created by feminist writings call for greater social alertness through widespread and meaningful education.

PATRIARCHY HINDERS WOMEN EMPOWERMENT

The North-Western Region of India consists of Haryana, Himachal Pradesh Punjab, and the Union Territory of Jammu & Kashmir, Ladakh[5] and Chandigarh. In these states and Union Territories women were deprived of their basic rights. They are not able to enjoy the liberty and decision making capacity. The definition of patriarchy, understood as 'the structural and ideological system that perpetuates the privileging of hegemonic masculinities' Thus, it is a hegemonic system of power relations based on gender norms, which establish the expected roles of men and women. In this system, women and girls[6] have historically, and overwhelmingly, been oppressed, exploited or otherwise disadvantaged. So too have groups who do not conform with gender norms, the predominant binary approach to gender and sexuality, and/or hetero-normative expectations. These include lesbian, gay, bisexual, transgender and intersex (LGBTI) populations, as well as certain groups of men and boys.[7]

The North-Western Indian society, like a number of classical societies, is still patriarchal. Patriarchal values regulating sexuality, reproduction, and social productions are expressed through specific cultural metaphors. Overt rules prohibiting women from certain important specific activities and denying certain rights did exist.

3 W.Friedmann, Legal Theory, 5th Edition , Universal, New Delhi, 1960, reprint 2003, at pp.210-11

4 Donald, J.Black, The Behaviour of Law, Academic Press London, 1976, at p.63.

5 The state of Jammu and Kashmir ceased to exist at midnight Wednesday, and was converted into two union territories from Thursday, October 31, 2019 under the Jammu and Kashmir Reorganisation Act, 2019; 86 days after Parliament abrogated its special status under Article 370.

6 Recardo Fal –Dutra Santos: Challenging patriarchy: gender equality and humanitarian principles, ReliefWeb 18 July, 2018, Available at https://reliefweb.int/report/world/challenging-patriarchy-gender-equality-and-humanitarian-principles

7 Ibid

Due to binding effect of the ancient custom, traditions and cultural values patriarchal system and the gender stereotypes in the family and society have always shown a preference for the male child. Sons are regarded as a means of social security and women remained under male domination.

Patriarchy – which is the conceptualization of how men, especially cis men, and masculinity are seen as better than, are more respected than, and hold more privileges than women and nonbinary people or femininity—permeates nearly every aspect of our lives. Although patriarchy is set up in a way to benefit men, it can also hurt men in many ways, as men are under the constant scrutiny of the fabricated norms that patriarchy has put in place. Many men don't like to admit, or perhaps don't even know, that what feminism represents can directly affect the harm caused by patriarchal norms for men.

The exploitation of women within a marriage reflects deeper structural inequalities within a male-dominated society. As an ideology, feminism seeks to highlight the disastrous impact of patriarchy upon women's lives.

Indian society, particularly people living in North-West region of India places high stakes on both honor and reputation. Because of its largely patriarchal standpoint, this honor and reputation often get related to the man of each family. Thus, any news that could potentially ruin a man's public reputation will be hidden. Of course, this creates an unsafe environment for women suffering at the hands of a man. In such circumstances women face heinous crime against them in the form of honor killing. This is because they risk facing shame and further abuse for ruining a man's reputation.

IMPACT OF SOCIO-RELIGIOUS REFORMS ON WOMEN EMPOWERMENT

The Indian Society in the first half of 19th century was caste ridden, decadent and rigid. Some enlightened Indians like Raja Ram Mohan Roy, Ishwar Chandra Vidyasagar, Dayanand Saraswati and many others started to bring in reforms in society so that it could face the challenges of the West. The reform movements could broadly be classified into two categories:

1. Reformist movements like the Brahmo Samaj, the Prarthana Samaj, and the Aligarh Movement.
2. Revivalist movements like Arya Samaj and the Deoband movement.

The Most Distressing was the Position of Women.

- The killing of female infants at birth was prevalent.
- Child marriage was practiced in society.
- The practice of polygamy prevailed in many parts of country.
- The widow remarriage was not allowed and the sati pratha was prevalent on a large scale.

These social reformers fought against social evils particularly they spread awareness in the society to abolish Sati pratha, Child marriage, and they advocated western education, widow re-marriage, struggled for woman equality and to gain property right.

LEGAL PROVISIONS FOR WOMEN EMPOWERMENT

CONSTITUTIONAL PROVISIONS

A.12 : Definition—In Part III of the Constitution dealing with Fundamental Rights, "the State" includes the Government and Parliament of India and the Government and the Legislature of each of the States and all local or other authorities.

A. 14 : Ensures equality before the law and equal protection of the laws by the State.

A. 15 : Prohibits discrimination on grounds of religion, race, caste, sex or place of birth-

(1) State not to discriminate on grounds of religion, race, caste, sex or place of birth or any of them.

(2) No citizen to be subjected to any disability, liability, restriction or condition, on grounds of religion, race, caste, sex or place of birth or any of them with regard to access to public spaces and facilities.

(3) Empowers the State to make special provisions for women and children

(4) Empowers the State to make special provisions for the advancement of socially backward classes of citizens or Scheduled Castes and Scheduled Tribes.

(5): .....

A. 16: Equality of Opportunity in matters of Public Employment-

(1) Ensures equality of opportunity for all citizens in matters relating to employment or appointment to any office under the State.

(2): Prohibits discrimination on the grounds of religion, race, caste, sex, etc. in employment or appointment to any office under the State.

(3) ……

(4) .....

LEGISLATIONS

1. **Protection of Human Rights Act, 1993:** To provide for the constitution of NHRC10 for better protection of human rights.
2. **National Commission for Women Act, 1990:** To provide for the constitution of NCW11 for the protection of women's rights.
3. **Scheduled Caste and Scheduled Tribe (Prevention of Atrocities) Act, 1989:** Legislation to check and deter crimes against SC/ST.
4. **Indecent Representation of Women (Prohibition) Act, 1989:** Prohibits indecent representation of women through advertisement or in publication, etc.
5. **Maternity Benefit Act, 1861:** Regulates the employment of women for certain periods before and after childbirth and to provide maternity benefit. Maternity Benefit Act (MBA), **1961 and Maternity Benefit (Amendment) Act, 2019:**

a. S. 5: Provides all the maternity benefits available to a woman working in an organised sector and the amount of leave available to her
b. S. 9: Provides for paid leave in case of miscarriage.
c. S. 12: States that it is unlawful to discharge/dismiss a woman absent from work due to her pregnancy in accordance with the Act

6. **Industrial Disputes Act, 1947:** Provided for same wages and other facilities to women workers and provision of creches, feeding intervals, etc. at the workplace.
7. **Equal Remuneration Act (ERA), 1976:** S. 4: States that the employer has to pay equal remuneration to men and women workers for same work or work of a similar nature.
8. **The Companies Act, 2013:** As per the second Proviso to Section 149(1) read with Rule 3 of the Companies (Appointment and Qualification of Directors) Rules, 2014, every listed company, every public company having paid-up share capital of Rs. 100 crore or more, and every public company having a minimum turnover of Rs. 300 crore or more, makes provision for at least one woman director.

POLICIES AND REPORTS

1. **The Committee on the Status of Women in India, 1971:** Undertook a comprehensive review of women's status in India in all spheres. 'Towards Equality,' its report made extensive recommendations to address discrimination and marginalization of women. and gave useful guidelines for the formulation of social policies and mechanisms to address gaps in equality for women. Committee looked into Constitutional, legal and administrative provisions and their impact on women, especially rural women and also suggested measures to enable women to play their role in building up the nation.
2. **National Policy for the Empowerment of Women, 2001**: The goals of the policy are- Advancement, development and empowerment of women; Equal access to participation and decision making for women in social, political and economic life of the nation; Mainstreaming gender perspective in the development process. Building and strengthening partnerships with civil society, particularly women's organizations.
3. **Draft National Policy for Women, 2016:** Titled 'Articulating a Vision for Empowerment of Women,' the policy states that, the empowerment of women can only be achieved when advancement in the conditions of women is coupled with their ability to influence the direction of change through equal opportunities in all spheres of life, including political life.
4. **Report of the High-Level Committee on Status of Women, 2015:** The Committee's mandate was to undertake a comprehensive study on the status of women since 1989, and to evolve appropriate policy interventions based on a contemporary assessment of women's economic, legal, political, educational, health and socio-

cultural needs. One of the key recommendations includes ensuring at least 50 per cent reservation of seats for women in the local bodies, State Legislative Assemblies, Parliament, Ministerial levels and all decision-making bodies of the government.13

LANDMARK JUDGEMENTS

1. **Charu Khurana V/s UOI (2015) 1 SCC 192:** A female Petitioner was refused membership as a make-up artist in the Cine Costume Make-up Artists and Hair Dressers Association, the rules of which allowed only men to be make-up artists. The Court held that the Petitioner could not be denied membership, as discrimination on grounds of gender was a clear violation of her right to equality and denial of "her capacity to earn her livelihood which affects her individual dignity
2. **The Secretary, Ministry of Defence v. Babita Puniya & Ors. MANU/SC/0194/ 2020:** Women engaged on Short Service Commissions in the Army seek parity with their male counterparts in obtaining PCs. SC, allowed women a permanent commission in Army.
3. **Kush Kalra vs Union Of India & Anr. on 5 January 2018:** Institutional discrimination by UOI against women by not recruiting them into the Indian Territorial Army. Delhi High Court opened the doors of Territorial Army for women.
4. **State of Jammu and Kashmir and Ors. v. Susheela Sawhney and Ors. AIR 2003 J&K:** The bench, in the landmark judgment on 7 October 2002, held by a majority view that the daughter of a permanent resident of Jammu and Kashmir will not lose her status as a permanent resident upon her marriage to a person from outside the state.
5. **MCD v. Female Workers Special Leave Petition (Civil) 12797 of 1998:** SC held that the maternity benefit is applicable to all casual workers and daily wage workers.

IMPORTANT STATISTICS RELATED TO WOMEN PARTICIPATION IN WORKFORCE

Table-1

State/UT wise estimated female Worker Population Ratio (WPR) (in per cent) according to usual status for age group 15 years and above for year 2019-20.

State	Female Worker Population Ratio (WPR)
Punjab	21.8
Haryana	14.1
Himachal Pradesh	63.1
Jammu & Kashmir	33.1
Chandigarh	52.1

Source: Periodic Labour Force Survey (PLFS), July 2019- June 2020, M/o Statistics & Programme Implementation.

This information was given by Shri Rameswar Teli, Minister of State, Ministry of Labour & Employment in Lok Sabha today.

Worker population ratio is defined as the ratio between the total number of workers in a country and the population in the country, multiplied by 100. Symbolically,

Worker Population Ratio = Total Number of Workers/Total Population×100

Despite all the effort and policy support, the female labour force participation data in respect of Punjab, Haryana, Himachal Pradesh, Jammu & Kashmir and Chanigarh reflected 21.8, 14.1, 63.1, 33.1 and 52.1 respectively. It revealed the fact that more women of the above mentioned states require job in various sectors.

Indian adults nearly universally say it is important for women to have the same rights as men, including eight-in-ten who say this is *very* important. At the same time, however, there are circumstances when Indians feel men should receive preferential treatment: 80% agree with the idea that "when there are few jobs, men should have more rights to a job than women," according to a new Pew Research Center report.[8]

Table 2: Process of Women Empowerment and its Dimensions

Dimensions	Explanation	Parameters
Cognitive	Women having an understanding of the conditions and causes of their subordination at the micro and macro levels. It involves making choices that may go against cultural expectations and norms	Raising self-esteem and self-confidence of women. • Elimination of discrimination and all forms of violence against women and girl child. •Building and strengthening partnership with civil society particularly women's organisations. • Enforcement of constitutional and legal provisions and safeguarding rights of women. • Building a positive image of women in the society and recognising their contributions in social, economic and political sphere. • Developing ability among women to think critically. • Fostering decision-making and collective action. • Enabling women to make informed choices. • Ensuring women's participation in all walks of life. • Providing information, knowledge, skills for self-employment
Psychological	Belief that women can act at personal and societal levels to improve their individual realities and the society in which they live	
Economic	Women have access to, and control over, productive resources, thus ensuring some degree of financial autonomy. However she notes that changes in the economic balance of power do not necessarily alter traditional gender roles or norms	
Political	Women have the capability to analyse, organise and mobilise for social change;	
Physical	Element of gaining control over one's body and sexuality and the ability to protect oneself against sexual violence to the empowerment process	

(Courtesy from Source: Mokta, 2014)

As the governments at centre and states have been doing best endeavors to achieving the SDG Goals, the Government needs to focus on these two segments more to achieve gender parity. There is urgent need of reassessing India's affirmative action's, giving

8 Key findings on Indian attitudes toward gender roles, available at: https://www.pewresearch.org/fact-tank/2022/03/02/key-findings-on-indian-attitudes-toward-gender-roles/ retrieved on 25/4/2022.

fresh impetus on empowering girls and women not only through conventional education but also hand holding for skill acquisition and providing them with equitable economic opportunity with providing them with fitting medical and healthcare. The findings open up several avenues for policy discussion and intervention towards women empowerment.

ROLE OF NGOS IN WOMEN EMPOWERMENT

Reliance Foundation: Congratulations to the owner of Mumbai Indians Mrs. Nita Mukesh Ambani (renowned Director of Reliance Industries Ltd.) is the founder Chairperson of Reliane Foundation. She is an all time positive thinking woman. She is the richest woman in net worth as well as in cultural ethos. She is an excellent social activist, eminent educationist, and world's one of the best philanthropists. She has a passion and vision for the children education, health and women's empowerment and enhancing sports in India. She is committed to social service and believes the human body is made to serve humanity. Mrs. Nita Mukesh Ambani is doing consistent endeavors enhancing national sports and patriotism. Her Reliance foundation is doing great help to weaker sections of society. The tribes, ladies, and rural communities are receiving due assistance to enhance their income. She owns an adorable, reputed image and acquired position of the best philanthropist by her own hard work and virtuous qualities and versatility. This is why she is deserving of praise for her accomplishments of encouraging patriotism and doing social services in the interest of society at large.

This year on 8th March 2022 on the occasion of International Women's Day Her Circle is celebrating its first anniversary and reach of over 42 million by launching a Hindi version of its app.

On the occasion of the launch of the "Her Circle Hindi App", Mrs. Nita Ambani, Founder-Chairperson, Reliance Foundation said, "Her Circle is an evolving platform meant for all women, irrespective of region and language. I want our reach and support to expand un-hindered. And to reach more women in their language of ease, we are first launching Her Circle in Hindi. We go live in March 2022 and I hope it gets as much love as the English platform has received till now."

'Her Circle' is designed as a one-stop destination to provide women-related content that is engaging and upliftment-oriented even as it connects women to each other through a social platform.

Breakthrough NGO: The 360 degree campaigns of this NGO and media work reaches millions across the country to change behaviors and attitudes, and to provide people with a sense of personal accountability in prevention of violence and discrimination against women and girls. This NGO works at three level – School level, community level and University level and making a great stride in achieving its targets in respect of women empowerment.

Besides, these two renowned NGOs there are various other NGOs that are working to contribute their might towards "Women Empowerment".

RECOMMENDATIONS

During the course of reading the varied literature on the topic Women Empowerment it has been observed there is a gap in fulfilling the aims and intent of CEDAW, Constitution of India and provisions of other Statutes relating to Woment empowerment. In this regard following suggestions are recommended:

1. To improve the representation of women in the upper echelons of lawmaking, affirmative actions are required including legislature to reserve 33 per cent seats for women in Lok Sabha, and in all State Legislative Assemblies.
2. Fundamental Rights as enshrined in the Constitution are only enforceable against the State. Thus, only the State has an obligation not to discriminate on the basis of sex. However, there is a vacuum in law with regards to the prohibition of discrimination against women by any private person, organization or enterprise. It is suggested that this legislative vacuum should be filled by enacting appropriate legislation.
3. To eliminate discrimination efforts should be made to discourage prejudices and eliminate customs and practices that discriminate against women by enacting appropriate legislation(s) and other necessary social measures to be taken.
4. Crèches for children of working women should be ensured at/ near the workplace/home to enable and encourage women to work.
5. The vacancies reserved for women in the board should be filled up in a time bound manner.
6. Role of Judiciary is important that a judge while administering the laws, if deprived of requisite sensitivity may frustrate the objectives sought to be achieved by the best of the laws.

Justice Lahoti Suggests the Following Principles to Be Kept in Mind By the Judges to Achieve the Goal of Gender Justice:[9]

1. Be informed of the historical and cultural background in which the women have lived over the ages and understand their feelings and have regard to their needs as a class;
2. Because the women are weaker sections of the society, strike a balance in your approach in dealing with any issue related to gender, or where a woman is victim, in such a way, that the weaker are not only treated as equals but also feel confident that they are equals;
3. Treat women with dignity and honour and inculcate confidence in them by your conduct, behaviour and ideology whenever they come to you as victims or seekers of justice;

9 Quoted by Justice R.C. Lahoti in WOMEN'S EMPOWERMENT" ROLE OF JUDICIARY AND LEGISLATURE, (2005) 2 SCC (Jour) 49, please see: http://www.supremecourtcases.com/index2.php?option=com_content&itemid=1&do_pdf=1&id=885

4. Do not allow them to be harassed and certainly do not do anything yourselves which may amount to harassment of a woman; and make efforts to render a woman victim quick, speedy, cheaper and effective justice—true to its meaning.

CONCLUSION

The issue of gender injustice should not be perceived as a war between the two sexes. Long before, when consciousness in society towards gender injustice was not present then resentment on the part of women was justified; but now the approach should be of complementing each other rather than competing on perceptions, which may not be real or may be non-existent. Societal bonds are based upon integration, mutual dependence and respect. They are not just contractual but based on deep organic unity. It is true that the male sex is most of the time blamed as the inflictor of gender injustice; but it cannot be ignored that the male sex also suffers from and feels pained at gender injustice, as the woman subjected to injustice is sometimes his mother or his daughter or sister or wife. Therefore, perceptional change is needed for greater social awareness and sensitization which breeds equality of the sexes and not rivalry of the sexes.

The Honorable former Chief Minister of Haryana Shri Manoharlal Khattar while emphasizing the "VISION 2030" for Haryana said:

"We envisage Haryana as a vibrant, dynamic and resurgent unit of federal India. A state where farms overflow with produce; the wheels of industry grind uninterrupted; none feels deprived; people have a sense of fulfillment, the youth sense of pride, and women enjoy not only safety, security and equal opportunities but also feel empowered. "Antyodaya", minimum government and maximum governance, and making the state a better place to live in, constitute the bedrock of our vision." May God bless Haryana to fulfill their cherished dream.

Integrating Media Freedom Through the Lens of Indian Knowledge Systems: New Perspectives on Expression, Culture & Identity

Dr. Vivek Kumar & Ms. Aryika Patel***

ABSTRACT

Speech is god's gift to mankind. We convey our thoughts, feelings and sentiments to others through speech. Even the Infants express themselves very effectively through sounds. The freedom of speech and expression is therefore a fundamental right that we possess from birth. Freedom of expression, often viewed as a fundamental human right, embodies the spirit of democracy and individuality. In India, this freedom is not absolute but is shaped by legal frameworks and cultural traditions. The Indian Knowledge System (IKS), encompassing the intellectual heritage of ancient India, offers a valuable perspective on the responsible exercise of this freedom. This article investigates the interplay between freedom of expression, IKS, and media laws, and their relevance in shaping ethical and constructive discourse in contemporary India.

Keywords: Indian Knowledge System (IKS), Speech & Expression, Media, Hate speech

INTRODUCTION TO INDIAN KNOWLEDGESYSTEM (IKS)

India's prosperity has held the world in thrall. Indian Knowledge System (IKS) represents the splendid geographical location of India and the uniqueness of Indian culture which is protected and nurtured by Himalayas, the Sindhu-Ganga plain and the great coastal plains, the great rivers, Abundant rains, sunshine and warmth, vegetation, animals, mineral, wealth, &the timeless wisdom and intellectual traditions of India, offering insights into every aspect of human life and the natural world which is rooted in ancient texts like the Vedas, Upanishads, Puranas, and epics, as well as in oral traditions and regional practices.[1] The comprehensive knowledge system of our heritage demonstrates the 'Indian way' of doing things to the world.

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1 Centre for IKS, IIT Kanpur at https://iitk.ac.in/iks/about.html

IKS reflects a unique blend of science, spirituality, and ethics. It views knowledge as a holistic pursuit, integrating disciplines such as mathematics, astronomy, medicine, arts, governance, and philosophy, emphasizing their interconnectedness.[2] Principles like Dharma (righteous duty), Satya (truth), and Ahimsa(non-violence) serve as ethical foundations, ensuring that knowledge is not just a tool for progress but also a force for harmony and well-being. From the development of the zero and advanced metallurgy to the creation of Ayurveda and classical arts, IKS has contributed profoundly to global culture and science. Its emphasis on sustainability, interconnectedness, and the unity of all existence offers a valuable framework for addressing modern challenges while celebrating the diversity and depth of India's cultural heritage.[3]

The NEP, 2020 recognizes this rich heritage of ancient and eternal Indian knowledge and thought as a guiding principle. that have evolved out of experience, observation, experimentation, and rigorous analysis. This tradition of validating and putting into practice has impacted our education, arts, administration, law, justice, health, manufacturing, and commerce. "Knowledge of India" in this sense includes knowledge from ancient India and, its successes and challenges, and a sense of India's future aspirations specific to education, health, environment and indeed all aspects of life. This would also include tribal knowledge and indigenous and traditional ways of learning.

The main objective of drawing from our past and integrating the Indian Knowledge Systems is to ensure that our ancient systems of knowledge represented by unbroken tradition of knowledge transmission and providing a unique perspective (Bhartiya Drishti) is used to solve the current and emerging challenges of India and the world.

PHILOSOPHICAL FOUNDATIONOFSPEECH AND EXPRESSION IN IKS

In IKS, speech is regarded as divine, sacred power symbolizing wisdom and creativity. The Rigveda exalts speech as a medium to convey truth (Satya) and uphold societal harmony. Truth is a cornerstone of Indian philosophy. The pursuit of Satya demands factual reporting and media accountability, resonating with mechanisms like the Press Council of India, which ensures ethical journalism. Speech is not merely a tool for communication but a means to foster ethical discourse. (Dharma) i.e. righteous duty emphasizes ethical responsibilities over absolute rights. In the context of expression, it mandates that speech must contribute to societal welfare, avoiding harm or discord. This philosophy aligns with media laws that restrict hate speech and misinformation. underscores the coexistence of rights and duties. Media laws mirror this balance by safeguarding freedom while imposing restrictions to prevent harm. For instance, defamation Laws which uphold individual dignity, reflecting the IKS emphasis on respecting societal harmony. And hate speech regulations which emphasis on curbing the speech that incites violence or discrimination, resonating with the Dharmic principle of promoting peace.

2 https://www.education.gov.in/nep/indian-knowledge-systems

3 Knowledge-Systems-Kapil-Kapoor.pdfhttps://orientviews.wordpress.com/2013/08/21/how-colonial-india-destroyed-traditional knowledge-systems/

OBJECTIVES OF IKS

1. Support Research: IKSaims to support and facilitate further research to address contemporary societal issues in various fields, including health, Psychology, Environment, and Sustainable development.
2. Integration of Ancient Knowledge: The primary objective is to draw from the past and integrate Indian knowledge systems to solve contemporary and emerging problems, utilizing the uninterrupted tradition of knowledge transfer and the unique perspective of 'BharatiyaDrishti' (Indian viewpoint)[4]

HISTORICAL CONTOURS OF SPEECH AND IKS PRACTICE

In the Indian Knowledge System (IKS) speech is regarded as a sacred and divine force, embodying the power of expression, communication, and creation. It is deeply revered, both as a medium for conveying truth and as a tool for connecting individuals with the divine, society, and themselves. The philosophical and spiritual significance of speech in IKS is that speech is seen as Divine Power personified with goddess Saraswati in the Vedas, particularly in the Rigveda, where she is associated with knowledge, wisdom, and creation. The goddess, the deity of learning and eloquence, is closely linked to speech. It is a belief that goddess Saraswati comes in our speech once in a day and whatever we say gets true, which resembles a motion that one should be fair and kind in his/her speaking. Speech is seen as the means through which the universe was brought into being, reflecting its creative and transformative power.

The Vedas, particularly the Rigveda and Upanishads, describe speech as existing on four levels, each representing a deeper understanding of its essence: The ultimate, transcendental level of speech, connected with universal consciousness. Secondly, Pasyanti: The intuitive, inner speech that exists as thought before articulation. Thirdly, Madhyama: The mental and intellectual level of speech, where thoughts are organized for expression, fourthly Vaikhari: The external, spoken word that manifests as audible sound. This hierarchy underscores that speech is not merely verbal but begins as a profound internal processes.

Speech is also considered a means of conveying Satya (truth), which is central to the ethical and spiritual framework of IKS. Words are seen as tools for expressing reality and fostering understanding, making the truthful use of speech a moral imperative. Misuse of speech, such as lying or harmful words, is regarded as a violation of Dharma (righteousness) and disrupts societal harmony. Speech is deeply tied to Dharma, serving as a tool for upholding moral and social order. It is expected to be constructive, kind, and beneficial, contributing to the well-being of the individual and society. The Manusmriti and other texts emphasize the responsibility to use speech wisely, avoiding harsh, deceitful, or harmful words.

In ancient India, oral traditions were the primary means of preserving and transmitting

[4] https://www.sanskritimagazine.com/india/traditionalknowledge-systems-of-India/

knowledge. Vedic chanting, shlokas, and mantras relied on precise articulation and pronunciation, highlighting the sacredness and discipline associated with speech. The act of reciting and hearing sacred texts was seen as a spiritual practice, linking speech to personal and collective enlightenment.[5]

Speech and Silence- In IKS, silence (Mauna) is regarded as a form of elevated speech, emphasizing the wisdom of speaking only when necessary and meaningful. Silence is seen as a way to connect with higher truths and reflect on one's inner thoughts.

THE FREEDOM OF SPEECH AND EXPRESSION

"The right to swing your fist ends where the other man's nose begins.

Similarly, the right to free speech ends where hate speech begins."

Right means a recognised entitlement, and these rights are crucial for both individual well-being and the collective welfare of society. The rights granted in India's Constitution are fundamental because they are part of the highest law of the land and can be upheld in court. However, it is essential to recognize that these rights are not unlimited and may be modified through constitutional amendments. Fundamental Rights protect civil liberties, ensuring that all Indians can live in peace and unity as members of the nation. If these rights are infringed upon, penalties are applied as specified in the Bhartiya Nyaya Sanhita, with the judiciary having the authority to enforce them. These Fundamental Rights are recognized as vital human freedoms that every Indian citizen is entitled to for their complete and balanced development. They are applicable to all citizens without discrimination based on race, place of origin, religion, caste, creed, colour, or gender, and can be enforced by the courts within certain bounds.

The Freedom of speech and expression is acknowledged as one of the most important rights in a democratic system, serving as a cornerstone of individual liberty. Free speech and expression are essential principles that underpin the functioning of a democratic society.[6]Because democracy is essentially based on free debate and open discussion[7].Our constitution protects every citizen's fundamental right[8] of free speech and expression under **article 19(1)(a)[9].**"In the case of RomeshThappar V. The State of Madras[10] The Supreme Court ruled that the freedom of speech and expression encompasses the right to share and circulate ideas. It emphasized that these freedoms are fundamental to all democratic institutions and crucial for the effective operation of democratic processes. Article 19 is only for citizens of the country. A foreigner is not a citizen of India and therefore he can't claim his right under Article 19.[11] Freedom

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5 https://iksindia.org/about.php

6 F. A. Picture international V. Central board of film certification and Anr. AIR 2005 Bom 145

7 S.Rangarajan V. P. Jagjevan Ram and Ors. 1989

8 Fundamental Right is a charter of rights contained in the Constitution of India.

9 Ambikesh Mahapatra and Ors. Vs. The state of West Bengal and Ors. W.P. No. 33241(W) of 2013

10 1950 SCR 495

of expression holds immense value in a democratic society grounded in the rule of law. Although various competing values, such as the right to reputation, national integrity, sovereignty, and standards of decency and morality, are also significant, they must be balanced with this freedom but as Charles Bradlaugh[12], famously observed:better a thousand-fold abuse of free speech than denial of free speech. The abuse dies in a day, but the denial slays the life of the people and entombs[13] the hopes of the race."

REASONABLE RESTRICTIONS

Human nature being what it is, there is general consensus that freedom cannot be unlimited, because if it were so, it would result in a state wherein there would be no check upon the way one behaves towards others. Such freedom would lead to social chaos. Human rights conventions acknowledge that freedom of expression is not an unconditional right. It can be limited by laws that are necessary to protect the reputations of others in a democratic society, as individual rights can intersect and conflict with one another."In S. Rangarajan V. P. Jagjivan Ram and Ors.[14] The court outlines the correct method for analyzing the extent of 'reasonable restrictions' permitted under Article 19(2) of the Constitution regarding the freedom of speech and expression:

Freedom of expression is legitimate and constitutionally protected right and cannot be held to be ransom by an intolerant group of people. The fundamental freedom under article 19(1)(a) can be reasonably restricted only for the purposes mentioned in Article 19(2) and the restrictions must be justified on the anvil of necessity and not the quicksand of convenience or expediency. Open criticism of government policies and operations is not a groundfor restricting expression. We must practice tolerance of the views of others. Intolerance is as much dangerous to democracy as to the person himself."

Protection of reputation is a matter of importance not only to an individual and his family but to society as a whole for public good. And for that, certain reasonable restrictions are imposed. The legislature's definition of what constitutes a 'reasonable restriction' is not definitive; it is subject to judicial review.[15] The expression 'reasonable restriction' seeks to strike a balance between the freedom guaranteed under article 19(1) and the social control permitted by clause (2)[16]. This means that any restrictions placed on an individual's right must not be arbitrary or excessively burdensome beyond what is necessary for the public good.[17] A law cannot be deemed unreasonable simply because it has a harsh impact in specific situations, even if it affects very few people only.

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11 Louis De Raedt V. union of India,1991

12 Political activist & founder of National secular society in 1866.

13 To place in or as if in a tomb or grave.

14 1989 2 SCC 574

15 Chintamanrao V. State of M.P. 1950 SCR 759

16 Supra, 23

17 P. Enterprises V. Shantilal Mangaldas, AIR 1969 SC 634

THE OUTREACH OF IKS

The outreach of Indian Knowledge System is beyond Indian boundaries from the ancient times. It extends to East, Southeast, Central and Southeast Asia of Indian phonetic script, decimal value place system-based arithmetic, algebra, astronomy and calendar, medical pharmacopeia, architecture, methods of making iron and steel, cotton textiles, etc. The transmission of Indian linguistics, knowledge of plants, iron and steel metallurgy, textiles and dyeing, shipbuilding etc., to Europe in 17-19th centuries. The current global outreach is of Ayurveda, Yoga and Indian Fine Arts and Culture.

INTERPLAY BETWEEN IKS AND MODERN MEDIA LAW

IKS advocates for contextual morality and decency in adapting ethical standards to societal needs. Media laws like the Cinematograph Act, 1952, consider cultural sensitivities when certifying content, echoing this adaptable approach.It also emphasis uponprotecting cultural heritage. Media plays a pivotal role in preserving and promoting IKS. Other legal frameworks such as the Copyright Act, 1957, protect indigenous knowledge while enabling its dissemination through films, documentaries, and digital platforms. Media also plays a role of balancing Privacy and Expression; Surveillance and data breaches pose threats to privacy. IKS emphasizes individual dignity, aligning with modern debates on balancing personal freedoms and accountability. Though there exist certain challenges and Opportunities in the Digital Age like spread of misinformation, challenging the principles of Satya and ethical expression. Laws like the Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021 aim to curb this menace. Online platforms have become breeding grounds for hate speech, undermining societal harmony. Strengthening hate speech regulations and promoting and incorporating education rooted in IKS ethics, principles of truth and responsibility can mitigate this issue and can enhance these efforts.

HATE SPEECH

One man's lyric may be another man's vulgarity. The freedom of speech and expression is a fundamental right that holds great value and importance in all the democratic societies. This essential liberty entails not only the ability to share thoughts and opinions that individuals Favor, but also the important right to articulate views that they may vehemently oppose or dislike. Embracing this wide-ranging perspective on freedom of expression is crucial for promoting open dialogue and facilitating a rich exchange of diverse ideas in a healthy democratic environment.

According to Law commission report[18] "hate speech is an incitement to hatred primarily against a group of persons in terms of race, ethnicity, gender, sexual orientation, religious belief and the like." The Black's Law Dictionary identifies hate speech as the "speech that carries no meaning other than expression of hatred for some group, such as a particular race, especially in circumstances in which the communication is

[18] 267th law commission report.

likely to provoke violence".[19] In some free societies, discussion of ideas is crucial. It is not permissible to prohibit genuine attempts to influence societal beliefs through the expression of opinions, advocacy for alternative viewpoints, or by challenging the current state of affairs.

I. Recent Events of Hate Speech

Nearly few years ago, an event called 'DharamSansad' was held (in the city of Haridwar)[20] where there a string of hate speeches by Hindutva supremacists against minorities were delivered and propagated. This kind of speech, everyone would widely agree is hate speech. [Unfortunately, these examples were lamely prosecuted by complicit state authorities and the matter is subject of litigation in the Supreme Court of India, presently.]

A similar example was the recent case before the Supreme Court against a TV Channel called Sudarshan TV which broadcasted a program named 'BindassBol' (Free Talk) in which hateful remarks were made against Muslim candidates who cleared the UPSC examination, hinting at some larger conspiracy and bias. Even this has been frowned upon by the Supreme Court.

'Deshkeghaddaronko, golimaaron s****n ko': Anurag Thakur, Member of Parliament, Minister of State for Finance in 2020

'Defeat of Mughals couldn't be attained during preparation of NRC': HimantaBiswa Sharma in 2021

'Theatres will burn if KomaramBheem shown in Muslim outfit': Sanjay Kumar, MP, Telangana BJP chief in 2020

'If you are concerned about your community, do not say a word about maharaj': FIR registered against BJP MLA over hate speech in 2024

There are many examples of public figures and politicians making hateful statements, along with the dissemination of harmful and malicious information intended to reinforce prejudiced attitudes and stereotypes. A key question that arises in both legal and academic circles is how to rigorously differentiate between the free speech and hate speech.

II. Effective Response to Hate Speech

In India, the legal framework uses various methods to address hate speech. Primarily, the law criminalizes the expression of certain types of hate speech, with penalties that include imprisonment for varying durations, with or without fines. Many of these provisions are cognizable, non-bailable, and non-compoundable, making the legal consequences severe. Additionally, depending on the medium of propagation—whether print, television, or the internet—hateful content can be banned, censored, or result in the shutdown of the

[19] Black's Law Dictionary, 9 th edition, 2009.

[20] 'Dharam Sansad in Haridwar': Supreme Court says its spoiling the atmosphere of the country.

hosting site. In the case of print media, authorities are empowered under the criminal procedure code to seize the offending material.[21]

Despite this comprehensive legal structure, cases of hate speech continue to rise. This increase is not due to leniency in the law, but rather due to issues in the implementation of the law. The challenge of effectively enforcing these laws remains a significant hurdle. The harm caused by hate speech is not only harmful but also poses dangerous consequences. As outlined, the legal framework works within a limited scope, offering no solution for repairing the broader societal damage or providing avenues for victim rehabilitation or redress. Therefore, it is crucial to explore options beyond criminal law in order to find a more effective response to hate speech.

THE LEGAL PROVISIONS GOVERNING EXPRESSION

Indian media operates under specific laws that regulate freedom of expression. Key legislations include several sections of 'Bhartiya Nyaya Sanhita (BNS) and BhartiyaNagarik Suraksha Sanhita (BNSS)'and by other laws which puts limitations on the freedom of expression. "They are as follows:

1) Bhartiya Nyaya Sanhita, 2023
   a) Section 192 BNS – Giving provocation to cause riots.
   b) Section 196 BNS - It imposes penalties for inciting hostility among various groups based on religion, race, birthplace, residence, language, and for actions that harm the preservation of social harmony.
   c) Section 197 BNS – Assertions prejudicial to national integration
   d) Section 299 BNS - It outlines and stipulates a penalty for intentional and harmful actions aimed at provoking religious sentiments by insulting a particular faith or its beliefs.
   e) Section 302 BNS – Uttering words, with intent to wound religious feelings of any person.
   f) Section 353 BNS - It penalizes statements that contribute to public mischief.
2) The Representation of the People Act, 1951
   a) Section 8 - disqualifies individuals from contesting elections if they are convicted of offenses involving the unlawful use of freedom of speech and expression.
   b) Sections 123(3A) and 125 - forbid the promotion of enmity based on religion, race, caste, community, or language in relation to elections, classifying such actions as corrupt electoral practices and prohibiting them.
3) The Protection of Civil Rights Act, 1955

[21] National Law University Delhi, Report on Hate Speech Laws in India (April, 2018) available at: https://www.latestlaws.com/wpcontent/uploads/2018/05/NLUD-Report-on-HateSpeech-Lawsin-India.pdf.

a) Section 7 - imposes penalties for inciting or promoting untouchability, whether through spoken or written words, signs, visible representations, or other means.

4) The Religious Institutions (Prevention of Misuse) Act, 1988

a) Section 3(g) - prohibits religious institutions or their managers from allowing their premises to be used for promoting or attempting to promote disharmony, enmity, hatred, or ill-will among different religious, racial, linguistic, regional groups, castes, or communities.

5) The Cable Television Networks Regulation Act, 1995

a) Sections 5 and 6 - forbid the transmission or re-transmission of programs viacable networks that violate the prescribed programme or advertisement codes. These codes are outlined in Rules 6 and 7 of the Cable Television Network Rules, 1994.

6) The Cinematograph Act, 1952

a) Sections 4, 5B, and 7 grant the Board of Film Certification the authority to regulate or prohibit the screening of films.

7) The BhartiyaNagarik Suraksha Sanhita, 2023

a) Section 98 –Power to declare certain publications forfeited and to issue searchwarrants for same.

b) Section 126 – Empowers the Executive Magistrate to ensure security for keeping the peace in other cases.

c) Section 163 –Empowers the District Magistrate, etc. to issue order in urgent cases of nuisance or apprehended danger."

8) The Information Technology Act, 2000. Addresses digital expression, focusing on curbing harmful and false information.

The state cannot stop open dialogue and expression, even if it contradicts its policies.[22] And there is absence of a criteria on which the validity of a 'speech can be classified into hate speech or general speech.' This absence of scale is the loophole in the system because not everyone is measured in the same parameter. India requires a definition of hate speech that reflects recent legal developments and moves beyond the colonial framework of its penal laws. To quote Mr Sen, he says: 'In a diverse society characterized by various cultures, ethnicities, languages, religions, castes, and identities, it's essential to clearly differentiate between free speech and hate speech.'

CONCLUSION

Media serves as a tool for preserving Indian Knowledge System, by disseminating Indigenous Knowledge & showcasing its richness through educational programs, digital

[22] The central board of film certification V. yadavalaya films AIR 2007.

archives, and traditional storytelling and drama. Documentaries on Ayurveda, Yoga, and classical arts promote global awareness of India's intellectual heritage. For example, during COVID19 media telecasted the epics like Ramayana and Mahabharata, and their important regional versions, on different platforms which contribute in the enhancement and development of Indian knowledge and values into the minds of younger generation who are involved mostly in digital world. Media emerged as an educating platform for the new generation. such epics and Puranashelps in understanding the Vedas. These are the foundational texts of Indian Philosophies, including the Jaina and Buddha from the Vedic period to the Bhakti traditions of different regions which contribute to Indian literatureLaws like the Geographical Indications of Goods Act, 1999, protect traditional knowledge and cultural practices from exploitation, ensuring their integrity and authenticity.By integrating IKS principles into journalism curricula, media professionals can be trained to prioritize ethical reporting, balancing freedom with responsibility. It will encourage ethical media practice.

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Participation of Women in Local Governance: A Study of Dumraon Block in Buxar District, Bihar, India

Dr. Pradeep Kulshreshta & Mr. Animesh Kumar***

ABSTRACT

After establishing the Constitution of India, local administrations were placed under the States, granting them sole legislative authority. Village panchayats were included in the Directive Principles of State Policy, and after 42 years, the 73rd Constitutional Amendment in 1992 recognised them. Many states have made legislative changes that support democratic concepts and practices. The Bihar Panchayati Raj Act, 2006 provides women with up to 50% reservation in Panchayati Raj Institutions. This law strengthens and improves local self-governance bodies. Even thirty years after local governments were constitutionalised, implementing changes had remained a significant concern. Rural decentralisation laws are challenging to implement. This study relies on survey data from Buxar District's Dumraon block. This study will address how elected women representatives in the Dumraon block of Buxar District, Bihar, may be marginalised and rely on their husbands or other male family members for support.

Keywords: *Grassroots Democracy, PRIs, Local Governance,Bihar Panchayati Raj Act, 73rd Constitutional Amendment.*

1. INTRODUCTION

The foundational tenets of democracy and decentralisation have been profoundly embedded in India's administrative framework and cultural legacy since ancient times. The emergence of foreign invasions, followed by the British colonisation of India, initiated the establishment of a centralised administrative framework.These developments have significantly impeded the progress of decentralisation efforts to transfer governance authority to local entities. In light of the progressive centralisation of governance, it can be observed that local entities have been effectively reduced to a nominal role, serving primarily as symbolic endorsements.In 1950, upon the adoption, enactment, and self-bestowal of a constitution by the Indian populace, a framework was established for the nascent democracy. Within this framework, the authority to legislate over

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local governments was vested exclusively in the States, as delineated in the Seventh Schedule. The inclusion of rural local governments in the Directive Principles of State Policy is duly noted; however, it is observed that urban local governments are conspicuously absent from the constitutional text.Following the pronouncement of Mahatma Gandhi, who proclaimed, *"Panchayatiraj embodies the actualisation of genuine democracy,"* it is pertinent to note that the acknowledgement of local entities was confined exclusively to the Constitution (Malik, 2005).

Article 40 contemplated that due attention shall be accorded to advancing and providing essential resources to village panchayats, enabling them to operate as self-sufficient entities effectively. India has been a jurisdiction with a long-standing history of adhering to patriarchal norms and practices. The demographic composition of the country reveals that rural women constitute a substantial portion, approximately fifty percent, of the overall population. However, it is important to note that these women have yet to attain comprehensive and significant engagement in political affairs (Ghose, 2002). Strengthening local government is one of India's most critical governance challenges (Raghunandan, 2018).The Government of India, through the implementation of the 73rdconstitution amendment, has taken measures to extend the concept of a level playing field to facilitate the active involvement of women in local self-governmentand extended constitutional recognition to the rural local bodies in India after a wait of 42 years. The amendment is a significant step toward ensuring that women can effectively participate in local decision-making (Kumar, 2022).The States passed conformity legislation following the constitutional amendments. Nevertheless, given that local government operates within the purview of state legislative authority, which affords states considerable discretion, the execution of these amendments has exhibited significant variation among the states.While certain states have demonstrated success in the decentralisation of governance and the devolution of funds and functions, others have struggled to maintain comparable progress.The framers of the Panchayat Raj Institutionenvisioned equitable involvement of women in the village panchayats alongside their male counterparts (Ansari, 2014).The Apex Court has also recognised the importance of panchayats. While emphasising the constitutional status enjoyed by panchayats, it was determined that panchayats possess the authority to devise their programs aimed at economic development and social justice, as they are endowed with constitutional status (Supreme Court, 2012).

The decentralisation initiatives in India represent a significant transformation aimed at restructuring governance frameworks, enhancing the empowerment of local communities, and fostering participatory democratic processes (Fowmina, 2024).Under the provisions outlined in the 73rdConstitution Amendment Act, a panchayat election was convened in Bihar in 2001 after a substantial period of inactivity. The Bihar Panchayats Raj Act of 2006 introduced provisions about the devolution of power concerning 29 specific subjects. The allocation of seats for women at all three levels, reaching a maximum of up to fifty percent, emerged as a ground-breaking precedent within the nation. Consequently, numerous states were inspired to adopt similar measures. Based on available data, it has been observed that approximately 50% of the women are elected at the panchayat level in the state of Bihar. However, the

presence of many women does not suffice the case (Singla, 2007). The underrepresentation of women in the governance process is a notable disparity compared to men. The matter at hand pertains to the necessity of comprehending the gender-based disadvantages encountered by elected women at the panchayat level, taking into consideration the conservative patriarchal and caste-hierarchical backdrop prevalent in Indian society.The pertinent question that persists is whether, in light of the prevailing conservative context, the elected representatives will indeed have the capacity to engage in the Panchayati Raj Institutions. There exists a prevailing suspicion regarding the involvement of females within a society predominantly governed by male influence, wherein social status has historically been overlooked(Gochhayat, 2013).

Bihar Panchayati Raj Act 2006, a provision was introduced mandating a reservation up to 50% for women across the three tiers of the PRIs. Following prevailing norms, it is typically observed that a mere 33% of seats are designated for women. However, the State of Bihar has demonstrated a commendable initiative by reserving a more substantial proportion of 50% for women. As per the present state of affairs, it is duly noted that the proportion of female individuals holding elected positions in Bihar's Panchayat stands at an impressive 54% (Nagaraju, 2022). The aforementioned reform exhibits a distinctive nature, which is unparalleled not only within the confines of the nation but also in the global context. Notwithstanding, it is frequently posited that many inhibitory elements encumber the efficacious influence wielded by women within the PRIs of India.

Many empirical investigations have been conducted about the involvement of women in the Panchayati Raj system.Researching the relationship between decentralisation and gender equality represents a critical undertaking with profound implications for societal transformation, extending beyond mere academic research (Singh & Sharma, 2024). The present discourse endeavours to expound upon the findings derived from a comprehensive analysis of extant research about the pivotal role played by women's participation in PRI.

The global community has been compelled to pursue the establishment of gender equality due to the recognition that women possess substantial influence across all domains of human endeavour. The influence exerted by these factors on a nation's development trajectory is of considerable magnitude. It is increasingly recognised by a growing number of individuals that the presence of a greater number of women in political institutions, both in terms of quantity and quality, has the potential to significantly alter the landscape in which women pursue progress and development (Chaurasia, 2022).

In a writing piece, a comprehensive examination is conducted on the exceptional characteristics of the local governance system in Bihar. The present article serves the purpose of generating awareness regarding a distinctive attribute of the PRIs, thereby enhancing the level of democratic participation in rural areas within the state (Pal, 2019).

In a research paper, it contextualised the experience of women representatives of Bihar and their struggle. The author observes how, historically, the male-centred approach

and arguments have always taken centre stage and have excluded women from politics(Pandey, 2018).

In a study, it is also found low participationof disadvantaged groups in PRI bodies in their study. In the study conducted by Sen, it was determined that addressing the matter of empowerment of female members necessitates action in both the political and administrative spheres. The issue ought to be discussed, inter alia concomitantly, in conjunction with other pertinent concerns, such as attaining economic self-sufficiency (Ghatakand Ghatak, 2002) (Sen, 2003).

In a study it is observed that rural communities in India exhibit a pronounced dichotomy between genders. This division effectively delineates and governs the respective roles, obligations, entitlements, advantages, prospects, entry, authority over resources, and the decision-making mechanism. It was found that husbands and male individuals exert a certain level of influence or pressure upon elected female representatives to secure their endorsement of proposed plans and policies. The aforementioned individuals disregard the recommendations put forth by the latter party and fail to accord them the appropriate level of deference (Mandal, *et. al*, 2014).

In her scholarly publication, Asha Rani elucidates the factors contributing to the diminished societal standing of women in the region of Bihar. She underscores the deleterious amalgamation of feudalistic structures, pervasive caste dynamics, and entrenched patriarchal systems as the primary sources of oppression (Rani, 2014).

2. STUDY AREA

Buxar district is one of the 38 district of Bihar, India. Located in the southwestern part of the state, it is a primarily agricultural-baseddistrict. The district headquarters is in the town of Buxar.The districtconsists of 2 subdivisions have 11 blocks in total. As per the last census in 2011, Buxar district has a population of 1,706,352 or 1.6% of the total population of Bihar. The district has a population density of 1,003 inhabitants per square kilometre (2,600/sq mi). Its population growth rate over the decade 2001-2011 was 21.67%. Buxar has a sex ratio of 922 females for every 1,000 males and a literacy rate of 70.14%. 9.64% of the population lives in urban areas. Buxar has 11 administrative blocks.

Dumraon is one of the blocks that consists of 14 Gram Panchayats, of which five are reserved for women. 14 Gram Panchayatsconsist of 192 Panchayat Members, of which 83 are reserved for women candidates.

3. OBJECTIVES

The overarching aim of this study is to evaluate the level of engagement and obstacles encountered by the elected female representatives of Gram Panchayats of Dumraon Block in the Buxar District of Bihar.

- To ascertain the extent of their engagement,
- To elucidate the obstacles encountered by women representatives in the realm of Gram Panchayat,
- To ascertain and accentuate the determinants influencing their engagement.

4. METHODOLOGY

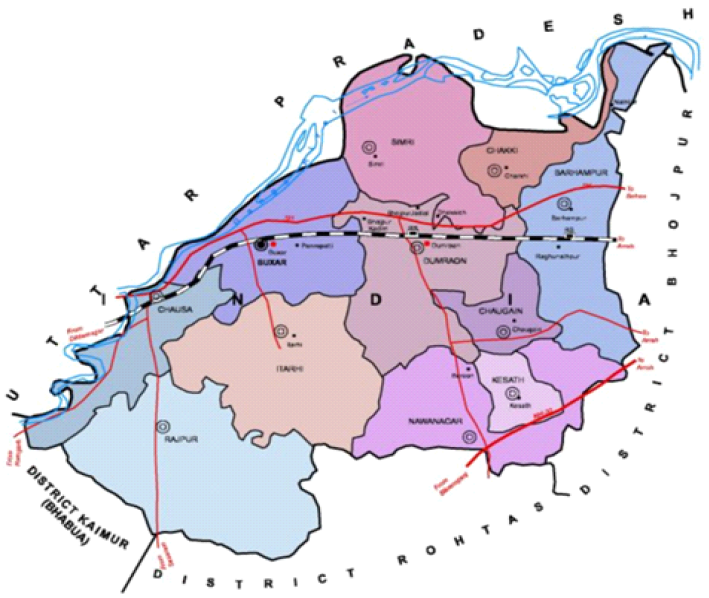


Fig. 1: Political Map of Buxar

Source: https://buxar.nic.in/map-of-district/

The present study is based on empirical data collected from the Dumraon block of Buxar district of Bihar. For this study, structured questionnaires were canvassed to collect data from the elected women mukhiya (*Ataon, Chilahari, Koransarai, Nuaon, &Sowan*) and women panchayat memberof 14 Gram Panchayats (*Ataon, Arioan, Chhatanvar, Chilahari, Kanjharua, Kashiyan, Koransarai, Kushal, Mugaon, Mathila, Lakhandihra, Nandan, Nuaon, and Sowan*), of Dumraonblock Buxar district. Also, while collecting data,the authors had a vigilant eye on the role of proxy members and assistance to the elected female members of14 Gram Panchayats, consisting of 192 Panchayat Members, of which 83 were reserved for women candidates. In total, the elected women members of gram panchayat in Dumraon reach 05 + 83 =88.

The sample size for this research is limited to 50.In the current study, 50 women panchayat representatives were interviewed from different Gram Panchayats of Dumraon block. These 50 respondents were Mukhiya and Panchayat members from various Gram Panchayats Secondary,and data like data cited in the literature, panchayat records, etc.,were also used in the study. The data were collected in the month of September-October 2023.

5. FINDINGS OF THE SURVEY

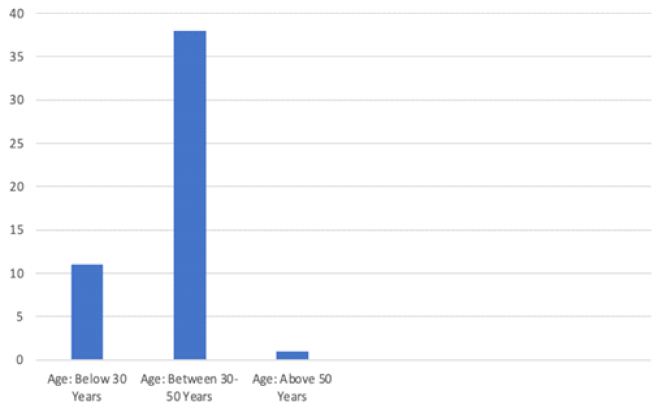


Figure 2: Age Group of elected women panchayat members

Source: Primary Survey, All value in absolute number (N = 50)

Figure 2 shows the age group of elected women panchayat members of the Dumraon block from whom data were collected. There are 38 highest members in the 30-50 age group;11 were below the age of 30, and only 1 was above 50 years of age.

Figure3 reflectsthat 33elected women panchayat members are literate, 04 were 10th passed, 06 were 12th passed, 06 were graduates, and no member was found to be post-graduate. A panchayat member from Kanjharuawas found to be illiterate. Among all Seema Devi of Gram Panchayat,Koransarai was the youngest of 22 years of age while contesting election in 2023.

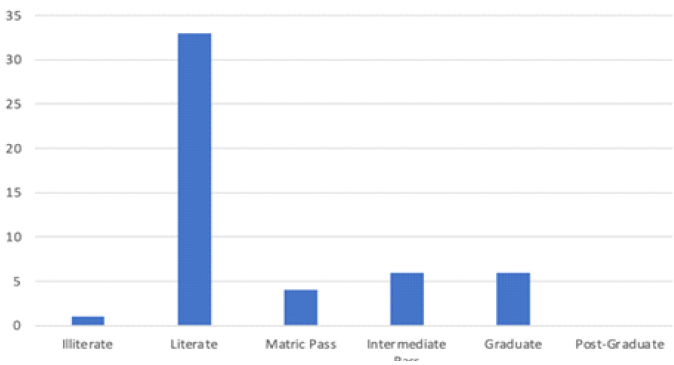


Figure 3: Educational Qualification of Elected Women Representatives

Source: Primary Survey, All value in absolute number (N = 50)

Out of the 50 elected panchayat representatives,all showed interest in social work for the development of panchayat. However, none of them were aware of the development initiatives going on in the panchayat.

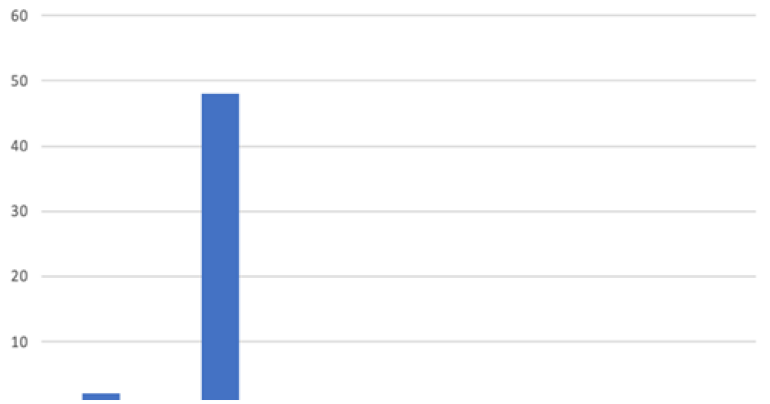


Figure 4: Attendance of Elected Women Representatives

Source: Primary Survey, All value in absolute number (N = 50)

A significant proportion (48) of the participants displayed irregular attendance at the meetings, while the remaining two individuals reported consistent attendance. The gathering was graced by the male constituents of the familial unit. The individuals attended meetings and training sessions solely in accordance with the directives of the governing body, demonstrating their commitment to maintaining their attendance record.

The study revealed a notable trend wherein female participation in panchayat and gramsabha meetings was infrequent, with women displaying limited engagement in active discussion. This pattern can be attributed to their low attendance rate at these meetings. The study revealed that all participants exhibit a passive role during meetings, primarily engaging in attentive listening. While some individuals actively participate in discussions initiated by others, none of the respondents take the initiative to initiate discussions themselves. Nevertheless, it is customary for male individuals to advocate for women in such situations. In the majority of instances, meetings are documented on paper to preserve comprehensive records.

When inquired about the means by which they attend meetings and engage in official duties at panchayats, as well as occasionally at the block level for official work and training, it was discovered that none of the representatives undertake these tasks independently. On every occasion, they are accompanied solely by male counterparts. 45 participants indicated that their spouse or offspring accompany them, while 5 participants reported that, rather than their spouse or offspring, other male relatives from their family accompany them to such gatherings and workshops.

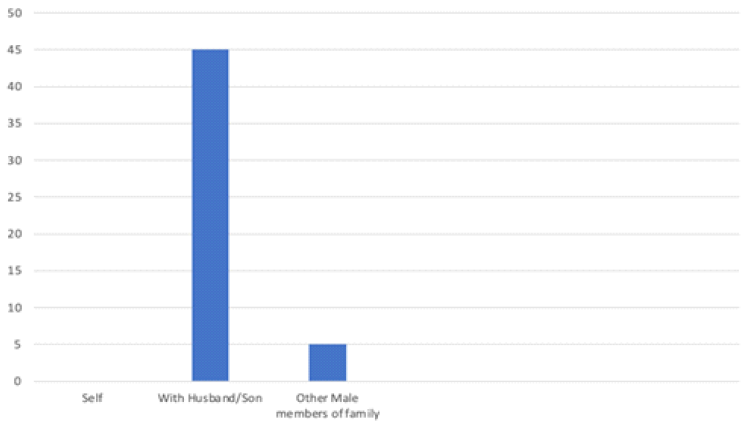


Figure 5: Means of Participation of Women Representatives

Source: Primary Survey, All value in absolute number (N = 50)

Various domains of engagement in panchayat decision-making endeavours were discerned, whereby panchayat members were requested to specify their modes of involvement in said activities. The study unveiled the engagement in various endeavours such as strategic planning, financial allocation, beneficiary selection, project site determination, scheme inspection and supervision, dissemination of scheme-related information, and advocacy for constituency-related concerns.

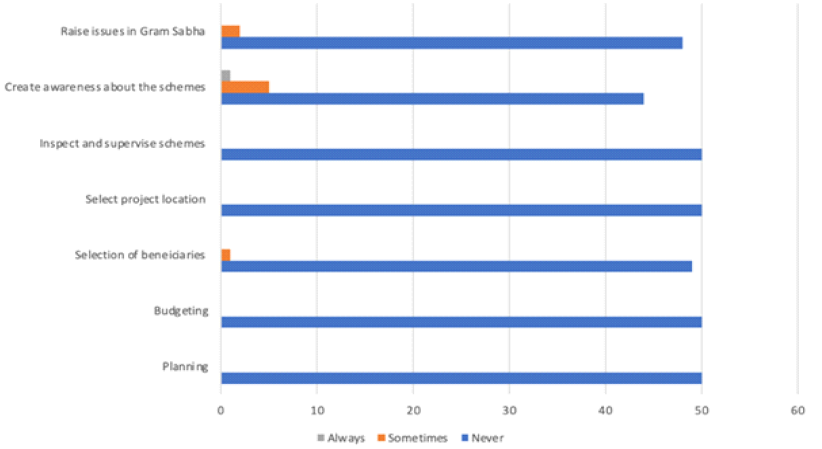


Figure 6: Participation of Women in Decision Making

Source: Primary Survey, All value in absolute number (N = 50)

Figure6 illustrates the significantly low participation of female representatives in all the aforementioned activities. It was observed that their level of participation in various aspects of the project was notably low. This includes areas such as planning (50), budgeting (50), beneficiary selection (49), project location selection (50), scheme

inspectionand supervision (50), scheme awareness creation (44), and raising concerns in Gram Sabha meetings (45). One member of the group consistently expressed her commitment to fostering awareness regarding the scheme. Only one individual asserted that she personally chooses the recipients and determines the project's location. The analysis reveals that the true authority is exercised by their husbands or sons, as well as other male relatives or the esteemed local elite, on whose behalf they have participated in elections as their representatives.

The female panchayat members encounter a multitude of challenges. Authors have investigated the factors that impede their complete engagement in the panchayat and governance process, encompassing lack of awareness or low literacy levels, transportation challenges, domestic responsibilities, and adherence to the purdah system or cultural norms.

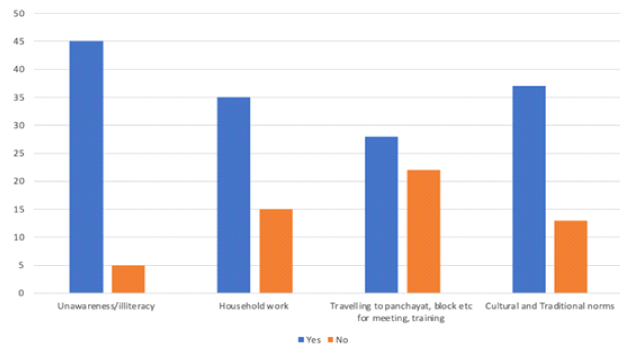


Figure 7: Factors for Low Attendance

Source: Primary Survey, All value in absolute number (N = 50)

The study identified several factors contributing to the low attendance at panchayat and gram sabha meetings and decision-making processes. The lower participation of elected women in the panchayat and governance process can be attributed to several significant factors. These include social restrictions, limited literacy or lack of awareness (45), challenges in accessing transportation to attend block and panchayat meetings (28), responsibilities related to household work (35), and the influence of the purdah system (37). These factors collectively hinder the active involvement of elected women in the panchayat and governance The prevalence of the Purdah system was higher in rural Bihar. In his comprehensive study, It was also discovered that the presence of social restrictions poses a significant barrier to women's meaningful engagement in panchayat affairs(Inbanathan 2001).

6. DISCUSSION

One notable observation pertaining to the panchayats in Dumraon, Buxar, is the conspicuous predominance of male participation during gram panchayat elections despite the implementation of policies aimed at fostering gender empowerment through the reservation of up to fifty percent of seats for women. After interactions with the

villagers, the participation of the female representatives was observed to be significantly deficient. It has been determined that on numerous occasions, the panchayat and gramsabha meetings were discovered to be lacking in substance, serving merely as perfunctory procedures that were duly documented despite their non-occurrence in actuality. Upon careful examination, it has been determined that a substantial number of the convened meetings were conducted without any prior notification being provided to the gram sabha member. Pursuant to the convening of proxy meetings, it is duly noted that the proceedings were meticulously documented. The attendance register, in accordance with established protocol, contains the signatures and thumb impressions of all members, including those who were absent from the aforementioned meetings, with particular emphasis on the elected women. In his comprehensive investigation conducted in the state of Orissa, Patnaik discovered several noteworthy findings. Among these findings were the prevalence of male dominance, the concern about low attendance by female representatives, and the occurrence of proxy gramsabha meetings, among other pertinent factors (Patnaik, 2005).

The substantial occurrence of illiteracy among women residing in rural regions constitutes a highly relevant factor contributing to the phenomenon of proxy politics in said areas. Due to the aforementioned obstacle, women find themselves in the position of passive observers rather than active participants in the processes of policy formulation and the responsibilities associated with the gram panchayat (Singh *et al.*, 2022).

Throughout the process of data collection from Dumraon, it was observed that male members of the family exhibited a prevailing reluctance to grant permission for interviews with elected women. Additionally, these individuals frequently intervened during the interviews, thereby exerting influence over the proceedings and interactions with the author. Panchayat representatives duly recognised the involvement of male members who accompany them to panchayat offices, meetings, and training venues, all of which are typically located at a distance from their residences and cannot be traversed unaccompanied. According to the prevailing consensus, the attendance of the aforementioned individuals is contingent upon the accessibility and participation of said male constituents. It has come to light that on numerous occasions, the male escorts accompanying these women have been observed providing them with guidance regarding their statements during the meeting and, in certain instances, even speaking on their behalf.In his comprehensive study, Patnaik observed a discernible pattern wherein women in Orissa exhibited a notable reliance on their husbands or male family members as circumstances dictated (Patnaik, 2005). The presence of social restrictions has a hindering effect on the active involvement of women in village politics (Inbanathan, 2005).

The majority of womendid not engage in the electoral process independently. The husband or male relative's interests drove political activity. Some local elite members, who were unable to participate in the electoral process due to seat reservations, have sought to influence the outcome by enlisting their spouses and scheduled castes/ tribes to act as their authorised representatives during the election. Husbands or male relatives who wanted to challenge the election but couldn't due to seat

reservations for marginalised groups, including women, appointed proxies or name lenders to vote in the panchayat election. These men act as *de facto* representatives. In a shocking 46 cases, husbands, male constituents, or important local individuals persuaded women to run for office. It was found that husbands (30%) and other family members (12%) were major influencers in encouraging women representatives to run for office (Tiwari, 2012).

Based on the available data, it is evident that there exists a prevailing opposition among husbands, who are male members, towards the active involvement of their wives, who are female members, in panchayat activities. It is noteworthy that these same husbands played a significant role in facilitating the inclusion of their wives, who are female family members, in the governance process. The situation at hand presents a paradoxical scenario wherein husbands, who previously enlisted the support of their wives and female family members during elections, are now expressing opposition towards their wives or female family members' active involvement in panchayat affairs. It is evident from the statement that the husbands, who are male relatives of elected women, have been unable to secure formal positions of authority due to the reservation policy. Consequently, they appear to be endeavouring to exert influence indirectly by utilising their wives as proxies or engaging in the practice of lending their names for representation purposes.According to a study conducted, it has been found that a significant number of women in leadership positions have acknowledged that their spouses have discouraged their attendance at meetings or impeded their engagement in post-related endeavours (Kumatakar& Trembley, 1998).In a separate study, it was ascertained that the exercise of decision-making authority about the panchayat responsibilities allocated to women was predominantly undertaken by their male relatives, preferably husbands, with the women themselves merely affixing their signatures or thumb impressions on the requisite official paperwork(Kaul & Sahni, 2009).

One of the respondents, hereinafter referred to as "the declarant," attested that she was inclined towards political matters, albeit refraining from active involvement in the said domain due to adherence to traditional norms. The declarant further asserted that her participation was hindered by discouragement from her male counterparts. Based on observation, education and awareness have established a negative correlation. It has been determined that individuals lacking literacy skills and possessing limited education levels tended to refrain from making decisions pertinent to their designated responsibilities or engaging in any activities associated with their official positions without the explicit instructions or guidance of their husbands or male counterparts. This reliance on external direction extended to tasks such as providing a thumbprint or signature on a document.It has been determined that individuals possessing literacy and education also did not independently exercise decision-making authority or undertake tasks associated with their respective positions without their husbands' or male counterparts' explicit instructions or guidance.

Despite the bulk of respondents' claims of irregular panchayat attendance, the registers show significant attendance by lawfully elected delegates. In addition, attending panchayat meetings has become a formality of signing registers, with a focus on women's

participation. Registers are usually taken to the homes of electors without a residence to obtain their signatures, thumb impressions, or, in some cases, male representatives' counterfeit signatures and thumb impressions. It has been determined that a greater percentage of female representatives exhibited irregular attendance at gram panchayat meetings, primarily attributable to cultural or rural norms.In the study conducted by Patnaik, it was further ascertained that panchayat meetings have undergone a transformation wherein their purpose has been diminished to a mere formality of signing registers. Notwithstanding the relatively low presence of members, particularly female representatives, the attendance registers evince commendable robustness in the proceedings. In instances where it is deemed indispensable for individuals to be in attendance, such as during the organisation of training sessions held at remote locations, women would accompany their husbands or other male relatives (Patnaik, 2005).

The low female participation in panchayats and related meetings, combined with their limited ability to articulate concerns within their wards, often hinder comprehensive deliberations on their challenges. Thus, this obstacle hinders decision-making. The individual's attendance at the meeting and affirmative head motions indicate low engagement. The research shows that female participation is low. The majority of women in all panchayats did not participate in regular speech during meetings, except for a few women interviewed.

The author examined women's panchayat participation and behaviour in this study. The folks participate in gram panchayat sessions through various activities. These activities include attending meetings and actively contributing to the agenda, which involves identifying and discussing ward issues. They also help decide on project location, planning, finance, and beneficiary selection. Gender and caste differences contribute to gram panchayat meeting problems. Women rarely raise local issues during meetings. Careful examination revealed that women were involved little in the above tasks. Their husbands or male relatives took over these responsibilities with little input from them. Even though higher-educated women were more assertive and articulate, they did not make independent decisions. As needed, they asked their spouse or male relative for help.

While certain women claimed occasional involvement in said domains of decision-making, it is essential to note that their actual awareness of said activities was severely lacking. The individuals in question, upon the directive of their husbands or male relatives, proceeded to affix their signatures or thumb impressions subsequent to the determination made by the de facto male members. Notwithstanding the apparent familiarity exhibited by certain women with concepts such as "planning,""budgeting," and "developmental work," it is imperative to acknowledge that their comprehension of the inherent importance of these terms within the operational framework of the panchayats was indeed lacking.

Participants were asked how they raised issues during panchayat meetings to assess their ability. The research shows that elected women representatives, particularly Muslim ones, struggle to address issues during panchayat meetings. Many times, women did not independently raise concerns in their domains or address local issues. Instead,

they asked others, mostly men, for help. The male escort sometimes represented them and conveyed their ideas.In a panchayat meeting, elected women representatives were using third parties to express their opinions. The women or their male kin or spouse have frequently informed the assembly president or other participating members of their constituencies' concerns and challenges. This strategy assigns meeting voice to the aforementioned individuals rather than the women. However, some female representatives, mainly Hindus, met with the president before or after the meetings. Due to shyness and uneasiness when speaking in public, the individual chose not to speak during a meeting or training session.

Lack of awareness and illiteracy were the biggest hurdles to active participation and responsibility. Research shows that the Purdah system is the second biggest barrier to their full engagement. According to empirical data, homework is the third most important element. The purdah system is similar across social classes, but higher-caste women are less likely to practise it. Female constituent engagement may be reduced by the gram panchayat office's proximity. Except for a few socially active women delegates, women representatives rarely have time for panchayat activities after cooking and raising children. Attending panchayat meetings and trainings is difficult due to the time investment, especially in remote regions like blocks. According to research, many women from poor households must live on limited means and cannot participate in government. Also, due to increasing inflation, contesting elections has been a risky factor, especially for those who belong to the labour class. In rural elections also, a new pattern has emerged wherein the elite class of the society participate. Male relatives of many women testify that their political participation is impractical due to a lack of pay.

Empirical evidence shows that many people, including distinguished Gram Sabha members, are unaware of their properly elected women representatives as a woman representative does not participate qualitatively because of both internal and external obstacles (Kumar, 2022). It is considered that the spouse or a male relative is the de facto representative, exerting authority and executing all panchayat tasks. However, there are various news reports that break thesecustomary practices, too, but very few in numbers.

7. CONCLUSION

There exists a discernible disparity between the policies aimed at enhancing the agency of women through the reservation of up to fifty percent of seats and the accompanying policies and measures implemented by the government to guarantee equitable conditions for women's engagement in the governance sphere. The lack of active involvement of women in the developmental activities subsequent to their election as panchayat office bearers can be attributed to a multitude of factors. These factors encompass the prevailing patriarchal societal structure, inadequate levels of literacy and education, adherence to sociocultural norms and traditions, economic constraints, limited employment opportunities, insufficient infrastructure impeding mobility, and inadequate allocation of resources by the respective states to enable them to discharge their responsibilities associated with their positions effectively. The aforementioned circumstance is

compounded by the government's lack of initiative in delegating the responsibilities and personnel associated with the allocation of funds. In the event that individuals are summoned to attend the meeting, it is solely for the purpose of fulfilling the quorum requirement. Accordingly, it can be observed that female constituents are currently devoid of any active involvement in the decision-making procedures, consequently assuming the role of mere representatives. The proposition of reserving seats for women may not effectively achieve the objective of integrating women into the political process and rectifying the historical injustices they have faced. In the event that the state demonstrates genuine commitment towards the devolution of power to the panchayats and the effective implementation of reservation policies for marginalised groups, particularly women, it is imperative to acknowledge that a lacklustre and fragmented approach will prove inadequate. In light of the state's intention to transfer all 29 subjects to the panchayats, it is imperative that the elected women representatives, who currently possess inadequate skills, be provided with the requisite knowledge, resources, personnel, and other necessary means. This preparation is essential prior to the complete devolution of power and subjects to the panchayats. The aforementioned provisions necessitate the allocation of requisite resources, funds, functions, and functionaries to panchayats. Furthermore, it is imperative to enhance the capabilities of women representatives, specifically, through the implementation of customised training programmes that are sensitive to cultural nuances. Additionally, the establishment of infrastructure in rural regions to enhance mobility, alleviate poverty, and challenge the prevailing patriarchal mindset within society are essential objectives. The inquiry must additionally encompass an examination of potential avenues for furnishing compensation to the ward members, with particular emphasis on addressing the needs of the underprivileged demographic. Lastly, it is imperative to allocate resources towards the enhancement of quality education in order to facilitate the cultivation and development of prospective female leaders.

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A Quantitative Approach to Analyse the Public Knowledge in Understanding of Fingerprint Science

Dr. J R Gaur, Ms. Prachi Kathane** & Ms. Pallavi A Rao****

ABSTRACT

Fingerprint analysis has been one of the pillars of forensic science, which has been instrumental in criminal investigations for over a century, and yet the public familiarity and understanding regarding this key tool remain grossly underexplored. In this present study a quantitative analysis investigates public awareness, perception, and ease of understanding of fingerprint sciences across the general populace. Research of 15 carefully crafted questions was given to 342 randomly selected respondents from Gujarat, India. This research assesses the level of familiarization with fingerprint science, the perception regarding its advances in terms of a person's life journey, as well as the judiciary's role in it. The study findings hold insights into how the general public conceives the accuracy and limitations of fingerprint analysis while at the same time indicating misconceptions that might dampen the trust in forensic evidence. This research is in itself a stepping toward enhancing public awareness and perceptions of fingerprint science, which is important for informed discourse and trust in its application in criminal investigations. The study shows that there is a great need for concerted communication strategies that reduce the gap between public understanding and clear knowledge of forensic practices. This will provide future horizons for research and policy initiatives to bolster fingerprint science integration into the criminal justice system in a way mindful of public concern and instilling much-needed confidence in forensic approaches.

Keywords: Public Awareness, Perception, Fingerprint Sciences, Quantitative Analysis.

INTRODUCTION

Around the world, varied investigative departments have employed fingerprint identification techniques to identify both suspected offenders and crime victims. The classic fingerprinting method has a straightforward foundation [1]. Papillary ridges are formed by the skin on the palmar surface of the hands and feet. These ridges are

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specific to each person and do not alter over time. The fingerprints of identical twins, who share the same DNA, are not identical [2]. Being a challenging evidence, fingerprint is delt with utmost care and protection at the scene of crime. To create a high degree of visual contrast between the ridge patterns and the surface where a fingerprint has been deposited, a 'developer' often a powder or chemical reagent is typically required. From controlling physical access to safeguarding our devices, biometric technologies are becoming more and more integrated into our daily lives [3].The forensic expert'sfundamental task is to gather, document, and analyze material to generate proof of the incident. It is not a practice that can be done alone. Several specialists from various disciplines are needed for forensic inquiry. A forensic team is a collection of skilled experts who investigate crimes, gather evidence, record that evidence, and present that evidence in court. Their main responsibility is to conduct investigations and testify to support the administration of justice [4]. To uncover the truth about complicated situations, forensic teams are essential. Fingerprint-based criminal identification is one of the most effective ways to apprehend fugitives who could otherwise evade capture and carry on with their illegal activities indefinitely. This kind of identification also enables a precise assessment of the number of prior arrests and convictions, which naturally leads to the judiciary imposing more equitable sentences because the person who consistently breaks the law cannot successfully pretend to be a first-time or juvenile offender. The prosecution makes his case based on the offender's prior record with the help of this identifying mechanism. It gives the governor, parole board, and probation officials solid information to work with when dealing with criminals in their regions.

The problems regarding fingerprint identification have less to do with analysis and more to do with how easily fingerprints are compromised and stolen. A person's fingerprint is readily tampered if they come into contact with a surface. This is among the factors that have made it simple to place fingerprints at crime scenes. Individuals who harbour resentment against others choose to remove their fingerprints and place them at murder sites. It has been known for years that fingerprint identification is very effective in individual identification as well as a difficult evidence to handle at the scene [5].

The study specifically created a matrix of 15 Likert scale questions constructed to extract participants' thoughts, feelings, and perspectives on this subject [6]. Respondents are given the option to select how much they agree or disagree with each item, ranging from 'strongly disagree' to 'strongly agree' [7]. Its application would allow for quantification and standardization in the measuring of subjective opinions. The population for this study is around 342 research participants from Gujarat, India, and the data response was collected by giving questionnaire to the individuals in person. This research includes randomly selected participants to ensure representativeness so that different respondents can provide their opinions. This is a good prerogative with which real and comprehensive data can be collected to fuel the accomplishment of research objectives.

OBJECTIVE OF THIS RESEARCH

This study aims to present how most people understand the science behind the fingerprint, with attention, and resolve their attitudes, degree of knowledge, and misunderstanding. Also to find out the elements that shape public opinion, such as media portrayals, education, cultural influences, and individual experiences. This is an attempt to see the impact of misinformation and misconceptions, such as beliefs in fingerprint infallibility, on trust in the criminal justice system.

LITERATURE REVIEW

In 2024 Zhang *et al*. [8] proposed a contentious information technology framework to examine the contradictory nature of biometric traits, which at the same time provide advantages and cause issues that show up as conflicting impacts on users' switching behaviour. They started by doing semi-structured research using a sequential mixed methods technique. Interviews revealed three important biometric traits two advantages and two drawbacks related to them. To investigate the interactions between each discovered component, a follow-up survey was carried out.In 2023 Gibb & Riemen [9] addressed the problem by outlining AFIS standard practices and procedures for forensic settings. The conversation is broken up into three sections. First, they list three variables that affect how well AFIS functions in forensic settings. Second, they go over the search procedure and emphasize the methods used by the Netherlands National Police (NPN) to reduce bias and inaccuracy in their AFIS workflow. They wrap off by quickly going over other factors to take into account while creating best practices. In 2021 Arikpo&Egeonu [10] developed the formation of a biometric mortuary system based on fingerprints for the identification and claim of deceased people. The object-oriented analysis and design technique using the UML served as the foundation for the system design methodology. Java was used for the system's front end and processing logic, while MySQL Server was used for transaction management at the back end. In 20027Furnell *et al.* [11] examined public awareness and perceptions of biometrics among UK population which showed their understanding as well as fear for biometric. In 2024Martins *et al.* [12] proposed an effective technique that will be used immediately to cut down on the amount of time and human resources spent on physical labour in crime scene investigations. They designed four steps for speedy investigation provided on the basis of survey based studied on opinion of the officials.

METHODOLOGY

This methodology of research design included questionnaires formulated on a Likert-type scale with quantitative analysis [13]. A Likert scale has been used to measure respondents' attitudes, perceptions, and opinions on a graded continuum. The sample of the study drawn from the 350 randomly selected individuals, guarantees a varied representation regarding the demographic parameters such as age, gender, education level, and socioeconomic background.This randomization minimizes the selection bias while enhancing the reliability of the findings. Data collection is held in Gujarat, India. It is quite easy for convenience for the engagement of the participants and

ensures that all data directly represent those familiar with or confined to the state. Figure 1 shows the flowchart in this result.

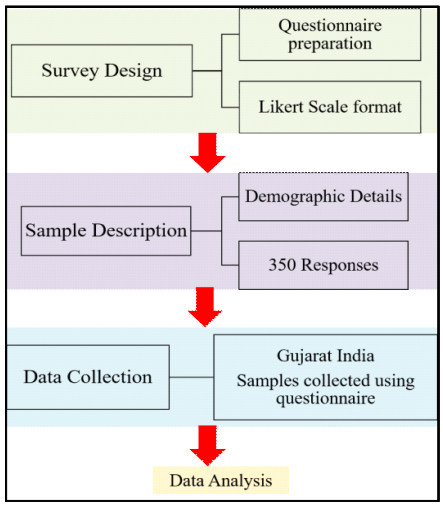


Fig. 1: Flowchart of this Research

RESEARCH DESIGN

The research exclusively designed a matrix of 15 questions on the Likert scale that are well-crafted to elicit the opinions, attitudes, and perceptions of participants on this topic. Each question provides the opportunity for respondents to indicate the extent of agreement or otherwise against a spectrum that runs from 'strongly disagree' to 'strongly agree'. Its use enabled standardization in the measurement of subjective viewpoints while allowing for quantification. There is much more than mere capturing of responses through a Likert scale; it also captures varying degrees of responses, attitudes, and opinions yielding valuable results.

SAMPLE DESCRIPTION

The sample of the study involved 350 respondents, out of 350, 8 samples were rejected due to incomplete submission of whom 100 were female and 242 males selected randomly for the research. This brings in an age diversification of people, which assures balance across the population. Education-wise, the respondents were varied, comprising people who hold primary, secondary, and tertiary levels of education hence making them a mixed educational qualification. Such demographic diversity included differences in experiences, opinions, and behaviours pertinent to the aims and objectives of the study, making it more reliable and generalizable. Bias minimization was the intention of selection for inclusiveness in the representation of populations about which investigation was being made.

DATA COLLECTION

The population for this study is around 342 research participants from Gujarat, India, and the data response was collected using a printed questionnaire in person. This research includes randomly selected participants to ensure representativeness so that different respondents can provide their opinions. This is a good prerogative with which real and comprehensive data can be collected to fuel the accomplishment of research objectives.

ETHICAL CONSIDERATION

The participants have submitted the consent before answering the questionnaire. The researchers haveagreed and presented all relevant facts in an intelligible and transparent wayAll information gathered is kept private and anonymous [14-17].

RESULT AND DISCUSSION

In this quantitative research, survey data have been collected from a general educated people who are familiar with investigative sciences. The research consists of 15 carefully formulated questions to represent the major objectives of the study. Survey responses were obtained from 342 of the respondents, thus ensuring a substantial sample size for data analysis. That continued to provide a dataset for meaningful interpretation and exploration of trends, opinions, and levels of knowledge within the science of fingerprints.

The Questionnaire Covered Following Major and Generalised Aspect:

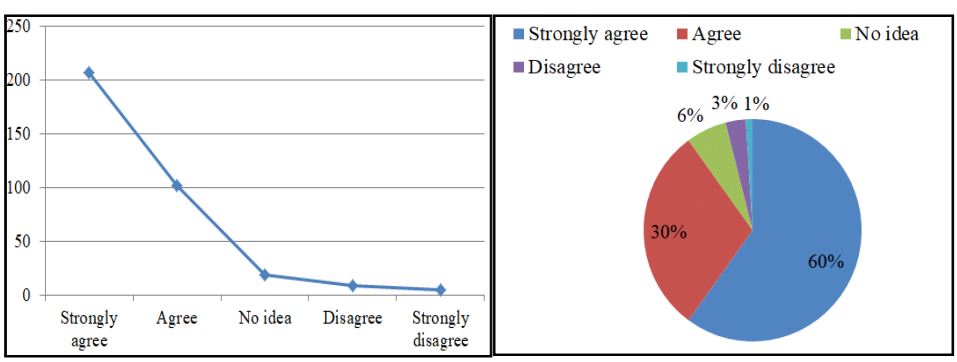
- Innate Presence of Fingerprints at Birth
- Uniqueness of Fingerprints to Humans
- Age Variability in Fingerprints
- Fingerprint Transfer During Surface Contact
- Role of Fingerprints in Personal Identification
- DNA Extraction from Fingerprints
- Individual Uniqueness of Fingerprints Across the Population
- Permanence and Removal of Fingerprints
- Application of Fingerprints in Crime Resolution
- Distinctiveness of an Individual's Ten Fingerprints
- Sex Determination Through Fingerprint Analysis
- Admissibility of Fingerprints in Legal Proceedings
- Vulnerability of Fingerprint Evidence to Contamination
- Lifting of Fingerprints from Surfaces
- Impact of Environmental Factors on Fingerprint Integrity

The responses received for each of these aspects are discussed and summarized below.

INNATE PRESENCE OF FINGERPRINTS AT BIRTH

Fingerprints of a person remain unique and indelible, as they are formed long before birth. Thus, they serve as sufficient proofs of identity throughout life [18]. This is kept to the extent that even a newborn or very young child can undergo biometric identification. Using fingerprints to identify extremely young people would need taking into account the skin's physiological and mental development traits and how those factors would affect fingerprint recognition [19]. It is also crucial to remember that while infants' and young children's fingerprints can be scanned, reading them would be more difficult than it is for adults. This is because their patterns are smaller and less distinct, which causes issues when they are used in fingerprint scanners and typically results in lower image quality or accuracy [20].As age increases, fingerprints tend to grow in size proportional to age, yet the unique patterns remain, thus making the fingerprints much more reliable by comparison across ages.

Graph 1 represents the response collected for the opinion on presence of finger ridges are from birth or not.The results indicated a tendency toward idea adoption and comprehension. Out of the respondents, 207 people (60.5%) strongly agreed with understanding the scientific basis behind fingerprint formation. 102 individuals (29.8%) were found to agree, indicating a total agreement rate of 90.3%. 19 respondents (5.6%) indicated that they had no idea about the subject, which indicates a gap in awareness or understanding. There was little scepticism because only 9 respondents (2.6%) disagreed with the idea, while an even smaller group of 5 individuals (1.5%) strongly disagreed with it. Most of the public seems to have favourable perceptions or to understand fingerprint science, a small fraction is either lacking knowledge or doubts about it. This great level of agreement could mean that scientific education or exposure to forensic practices is quite strong in public opinion. However, there are respondents with no idea about the formation of fingerprints, leading to the basis for a call toward more outreach in education to fill the gaps and make it a more knowledgeable populace. Small disagreement indicates that misconceptions or alternative beliefs regarding fingerprint science can exist only at a marginal level. These findings imply the need to continue promoting awareness and understanding of scientific concepts such as fingerprint formation to draw greater public confidence in this area of forensic science.

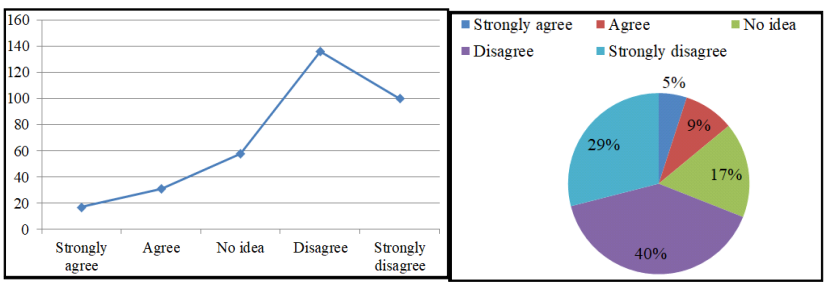


Graph 1: Innate Presence of Fingerprints at Birth

UNIQUENESS OF FINGERPRINTS TO HUMANS

Finger ridges serve the purpose of gripping using palms and thus are likely to be present in other species. Like human fingerprints, animal soles form distinctive patterns [21].Most animal species, not only mammals, can be included in the concept of a 'fingerprint' if traits other than actual fingerprints are permitted [22].Since fingerprints are unique to each individual, they have been used for identification for a very long time [23]. Koalas are one of those animal species which shows similarities in ridge structure. It is important to consider the surroundings while interpreting the finger ridges present on the surface [24].

Graphs 2 shows the answers gathered for the presence of fingerprint other than humans. The results tend to suggest an inclination toward idea adoption and comprehension. The question of 'who has fingerprints' was answered somewhat variously, indicating the degree of agreement or sometimes the understanding regarding the question by respondents. Only a minority either strongly agreed (17) or agreed (31) to the statement that they believe it is true or otherwise relevant for everyone. The most common response (58), indicates a lack of understanding or clarity on the topic. A large majority disagreed (136) or strongly disagreed (100) with the same, suggesting that the issue was interpreted differently or with suspicion.



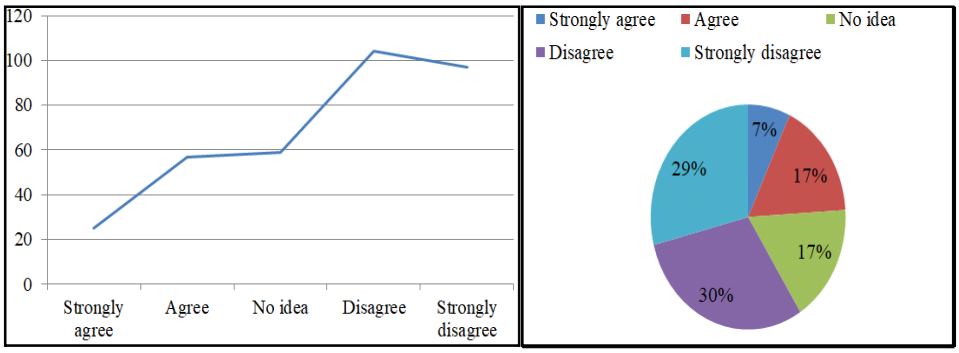
Graph 2: Uniqueness of Fingerprints to Humans

AGE VARIABILITY IN FINGERPRINTS

There is no change in fingerprints. Nevertheless, as we become older, it may become more challenging to get our fingerprints. This is because as people age, their skin becomes less elastic, and the deepening of ridges and furrows makes the patterns less noticeable. Our fingertips' surface is impacted when our skin's pores become less moisturized [25].The fingerprint ridges of elderly people are less firm than those of young people, although they are not significantly different [26]. Biometric scanners may find it difficult to correctly read fingerprints in these circumstances and determine whether or not they belong to the same individual [27].

The responses obtained for changes of fingerprint during the life of a person are displayed in Graph 3. The findings generally point to a propensity for concept understanding.A research study on the effect of age on fingerprints gathered varied opinions. 25 strongly agreed and 57 agreed from the respondents. Some believed

that age influenced fingerprint changes. Respondent number 59 representing expressing uncertainty says the complexity of the issue. The majority numbers say 104 of the respondents disagreed while 97 strongly disagreed with the view that age does not affect fingerprints. Therefore, the mixed responses underscore the call for more research and raising awareness on the issue.

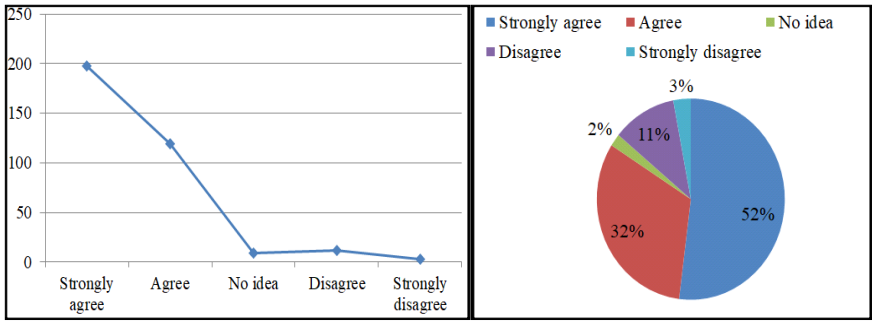


Graph 3: Age Variability in Fingerprints

FINGERPRINT TRANSFER DURING SURFACE CONTACT

In criminal investigations, the greatest benefit of these invisible fingerprints known as latent fingerprints is that offenders unintentionally leave them at the crime scene [28]. But it also takes a lot of work for the police to locate them. Certain surfaces retain fingerprints better than others because they are formed from the natural oils and residue that are left on our fingertips [29]. Because nonporous materials like plastic, glass, and metal don't have pores that may collect perspiration and grease from our fingertips, fingerprints are simpler to locate on these surfaces [30].Fingerprint analysis is still a very useful technique for police enforcement, having been used for over a century to identify criminals and solve crimes [31]. Investigators may use fingerprints to connect one crime scene to another involving the same individual, which is one of its most significant applications [32]. A criminal's record, past arrests, convictions, and sentencing, probation, parole, and pardoning choices may all be tracked by detectives with the use of fingerprint identification [33].

Graphs 4 present the answers gathered for transfer of fingerprints on the surface when both comes in contact with each other. In general, the results indicate a tendency toward idea understanding.The data indicates a very strong agreement regarding fingerprint transfer methods. Strongly agree with the number 198, agree with a count of 119, it would mean that there is a general acknowledgement or belief on whatever techniques or methods in transferring fingerprints. An insignificant part of Participant 9 commented as not sure, which means these people do not know or understand the method. Disagreed is very few at only 12, and then strong disagree counts to just 3, showing an extremely small extent of skepticism regarding the information. This simply indicates a very strong collective agreement about fingerprint transfer on the surface.

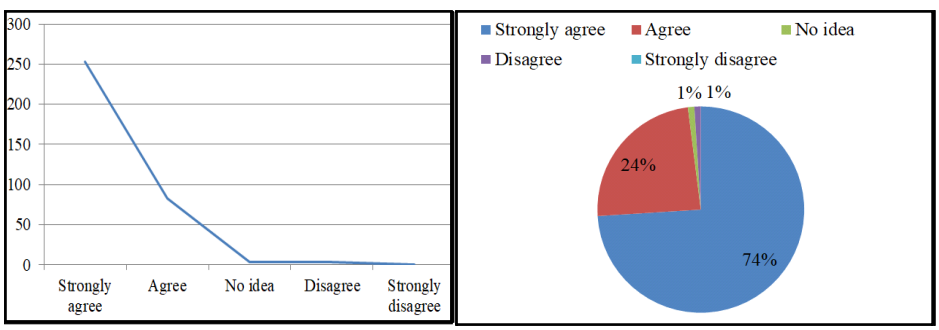


Graph 4: Fingerprint Transfer During Surface Contact

ROLE OF FINGERPRINTS IN PERSONAL IDENTIFICATION

Persistence (permanence) and uniqueness are the two fundamental tenets of fingerprint identification. Identical twins are also not the two persons who have ever been found to share fingerprints [34]. The identical fingerprint has never been discovered on more than one finger in a single person [35]. In forensic science and biometric identification, fingerprint identification has been an essential technique for more than a century. This approach precisely develops personal identification by utilizing the distinctive patterns that each person has at their fingertips [36].

The responses collected for use of fingerprints in individual identification are displayed in the Graph 5. The findings point to a propensity for concept comprehension.The data reveals that there is predominant support for the fingerprints, with 253 individuals responding strongly agree, with 83 agreeing. This seems to show that there is a consensus on the appreciation of this utility. Very few individuals showed any uncertainty (3) or disagreement (3), and (0) strongly opposed it. This indicates the common perception that fingerprints are trustful and efficient tools likely owing to their individuality and their extra dimension in security as well as identification and authentication activities. The absence of almost any opposition leads to a conclusion of high confidence in the accuracy and relevancy of this method for several applications, from law enforcement to technology, thus making it a trusted practice.

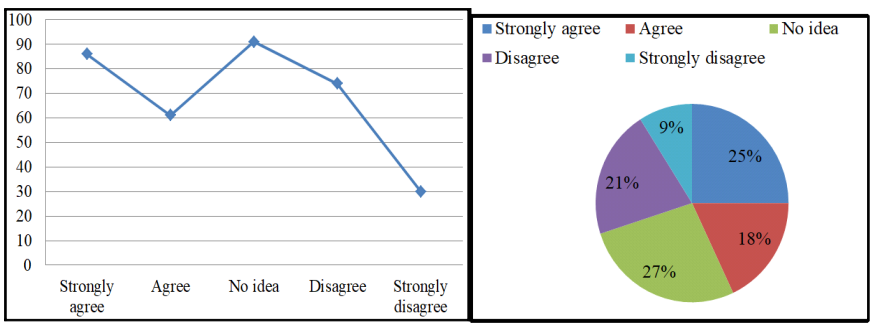


Graph 5: Role of Fingerprints in Personal Identification

DNA EXTRACTION FROM FINGERPRINTS

This is one of the advancements in the impression evidence that the DNA can be extracted from the ridges as they are left behind due to body secretions. This technology is also referred as touch DNA. In accordance with Pang & Cheung's (2007) [37] technique, employed the double swab (wet and dry) approach to extract the DNA from the fingerprint. [38]. The overlapped fingerprints may give ideation on number of persons involved in the crime scene in case of DNA extraction from the sweat residue.

The data obtained for extraction of DNA and personal identification through sweat residues is displayed in the Graph 6. The findings point to a propensity for concept comprehension. According to the statistics, there is a high degree of agreement on fingerprint transfer techniques. The opinion in public is whether DNA can be derived from fingerprints or not. About 86 people belong to the category of strong agreement and 61 people come under the general agreement as far as believing that such technology can be feasible or expected. 91 show indecisiveness, perhaps due to ignorance or not a proper understanding. 74 disagree but 30 strongly disagree, therefore indicating scepticism about the new option possibly not believing it would work, perhaps for scientific or ethical issues. The distribution above shows a little polarized and, nevertheless, a more inquisitive attitude toward an emerging possibility.

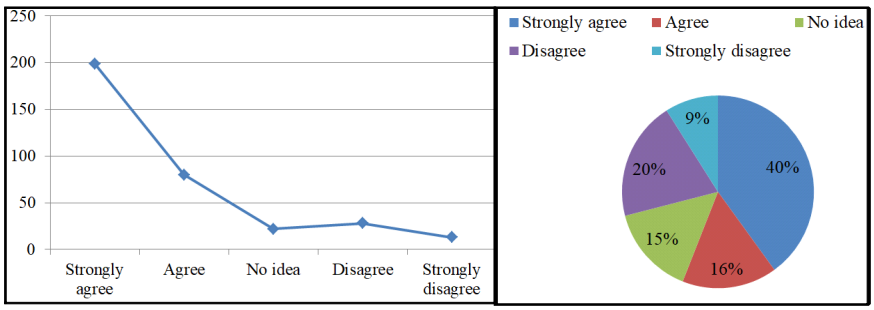


Graph 6: DNA Extraction from Fingerprints

Individual Uniqueness of Fingerprints Across the Population

No two person's fingerprints are the same, and that is the one thing we are certain of. There wouldn't be two prints that we could say were exactly comparable in every way, even if we took hundreds of thousands from as many people. Perhaps if there were two or perhaps many more of them with the same overall design, a close study would reveal that they were quite different so different that we could readily distinguish the two prints when comparing them [39]. Friction arises as a result of one force slowing down ridge growth and another attempting to speed up ridge formation, which results in the production of distinctive ridges [40]. This force creates what are called whorls, or strips, on the fingers. The force imparted to the ridges varies from person to person, thus each fingerprint is distinct [41]. No two people have the same fingerprint patterns, and even identical twins cannot have the same prints [42].

Research measuring public opinion and understanding of fingerprint science that is, the evolution of fingerprints is highlighted in Graphs 7. The results typically suggest a tendency toward idea comprehension. There were differing views on the impact of aging on fingerprints.Among the respondents, 199 strongly agreed to it because of its highly unlikely propositions along with the uniqueness that could largely be supported by scientific studies. An additional 80 agree but perhaps a little hesitantly, acknowledging that fingerprints were distinct. 22 had no idea. 28 disagree, perhaps under skin-deep misconceptions and, as such, 13 strongly disagree, probably having doubts about the evidence or scientific consensus. This spectrum showed the dynamics of awareness and education in recognition of the uniqueness of fingerprints.

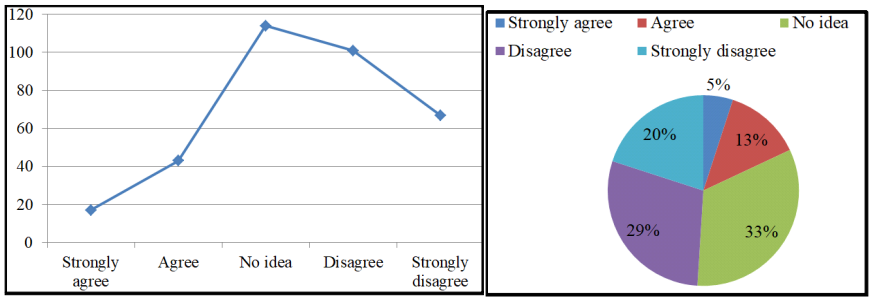


Graph 7: Individual Uniqueness of Fingerprints Across the Population

PERMANENCE AND REMOVAL OF FINGERPRINTS

Persistence, sometimes called permanence, is the idea that a person's fingerprints don't really change throughout the course of their life. They stay embedded in the current friction ridge and furrow pattern when new skin cells develop. Indeed, several studies have been carried out to verify this persistence by documenting the same fingerprints over many years and noting that the characteristics don't change. When the new skin forms, even attempts to destroy or remove one's fingerprints will be prevented, unless the damage is really severe, in which case the new arrangement created by the damage will remain and be unique [43].

Graphs 8 display the responses gathered for permanence and removal of finger ridges. The findings usually point to a propensity for understanding concepts. Divergent opinions exist on how aging affects fingerprints.A considerable number, 17 subjects, strongly agree most likely for purposes of privacy or security. 43 agree, suggesting support for the same reasons. But the largest group of 114 people has no idea, signifying some form of unawareness about it. A popular figure of 101 disagrees; probably because people think fingerprints as significant in identity recognition or forensic uses, and 67 are strongly against it which could indicate staunch opposition. That is such a variety of views concerning the very complex balancing act between the technological possibility, ethical consideration, and eventually public awareness or acceptance of such practices.

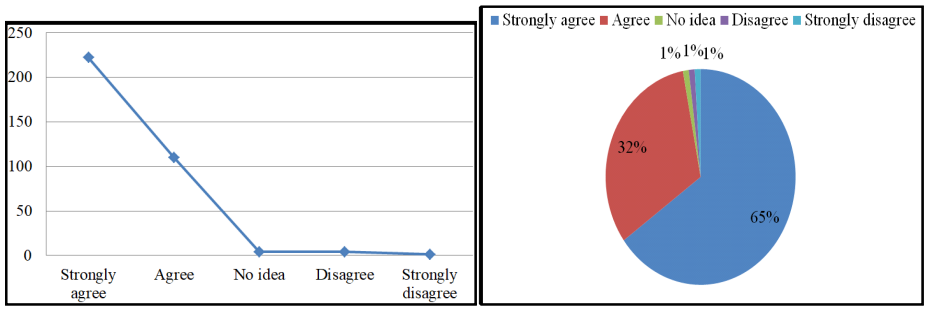


Graphs 8: Permanence and Removal of Fingerprints

APPLICATION OF FINGERPRINTS IN CRIME RESOLUTION

Fingerprints are difficult to remove and unintentionally leave traces of a person's whereabouts; as a result, they are crucial in investigative investigations. Human fingerprints are distinctive, hard to copy or change, and long-lasting, making them appropriate as permanent indicators of a person's identity. As a result, they leave prints on everything that is touched and cannot be erased. Police can easily use fingerprints to identify someone, either to connect them to a crime or to identify death or incapacity [44]. If detectives have grounds to compare fingerprints or if prints from an unsolved crime appear as a match in a database search, they can connect a culprit to additional unsolved crimes [45]. These unidentified prints that connect several crimes might occasionally provide police enough information to identify the offender [46]. When DNA is not available, the criminal justice system uses fingerprints to confirm the identities of convicted criminals and to trace their past arrests, convictions, criminal inclinations, known associates, and other pertinent information [47]. Court officers may also utilize these documents to inform their choices on a criminal's sentencing, probation, parole, or pardon [48].

Graphs 9 show the answers collected for its use in crime investigation. Generally speaking, the results indicate a tendency toward conceptual comprehension.Fingerprints are the most important aspect of solving crimes as shown by the public debates regarding their utilization. To respond 222 of the respondents strongly agreed and 110 agreed quite spreading on fingerprint study in a criminal case. Of the rest of the population, 4 showed neutral opinion and 5 disagreed given the small number of voices doubting its reliability. Fingerprints are unique to every individual and provide irrefutable evidence when matched properly keeping them as the backbone of forensic science. Their ability to link them with crime scenes and identify suspects well makes them one of the important modern law enforcement tools.

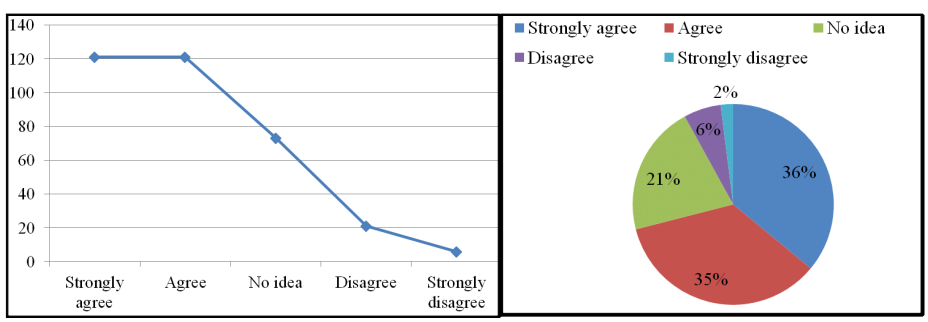


Graphs 9: Application of Fingerprints in Crime Resolution

DISTINCTIVENESS OF AN INDIVIDUAL'S TEN FINGERPRINTS

Every one of the 10 fingers has a distinct fingerprint. Despite their similarities, the patterns are not the same. For this reason, investigative agencies collect fingerprints from each finger. They take pictures and compare them to the databases [49]. To understand why fingerprints differ, one must understand the science behind their creation. The formation of fingerprints is significantly influenced by environmental factors such as pressure and nutrition availability in the foetus of a women. Two fingerprints that experienced greater pressure during pregnancy will thus develop in distinct ways [50].

Graphs 10 that show the opinion on having different or same finger ridges on all ten fingers. The results indicate a tendency toward conceptual comprehension.The study reveals varying opinions on how distinctive a person's 10 fingerprints are. According to the agreement (121) and strong agreement (121) assertions, each person's fingerprints are unique. The failure of 73 participants to select any one group may indicate a lack of awareness or comprehension that each person's fingerprints are distinct. The majority are those who disagreed at 21 or strongly disagreed (6), whoare skeptical about this idea or perhaps have different levels of knowledge about it. In general, therefore, results indicate strong consensus regarding the uniqueness of fingerprints but a significant minority undecided or unconvinced, thus showing the need for more public awareness concerning this scientific fact.

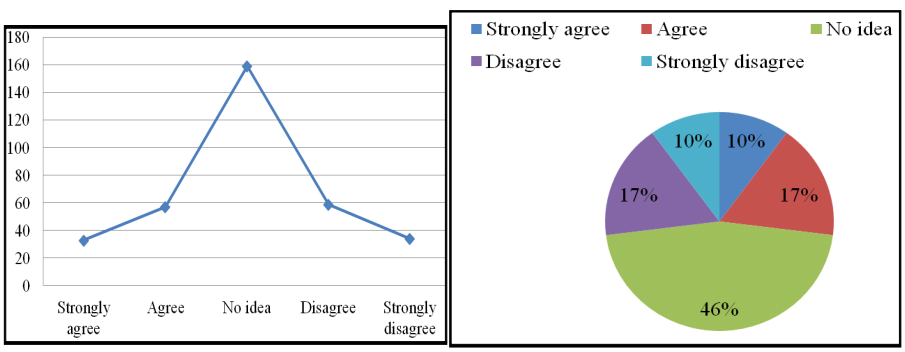


Graphs 10: Distinctiveness of an Individual's Ten Fingerprints

SEX DETERMINATION THROUGH FINGERPRINT ANALYSIS

A person's fingerprint can be used to determine their sex based on the number of finger ridges. Similarly, the composition of sweat residues can also be used for estimating the age of an individual from fingerprint. According to the study, a fingerprint with a ridge density of fewer than 13 ridges/25 mm^2 is probably male, whereas one with a ridge count of more than 14 ridges/25 mm^2 is probably female [51].

Graphs 11 illustrating the responses gathered for identification of sex of a person from fingerprints. The findings point to a propensity for conceptual understanding.The idea of using fingerprints to identify the sex of an individual is one of those issues that have caused plenty of mixed feelings, as the research indicated. A small portion of the population strongly agrees (33) and agrees (57) with such an application, showing some belief in the possibility of this application; there are still many who showed no idea or lack of knowledge through most of the population (159). It shows that there is a great gap in general awareness or understanding of the concept. On the other hand, another equal number of people disagree (59) or strongly disagree (34), likely because of some doubts regarding such techniques' reliability and feasibility because a question on whether an individual could gather some preference appears. These responses therefore call for more research, public education, and clarification of the accuracy or scientific basis for using fingerprints for sex determination.

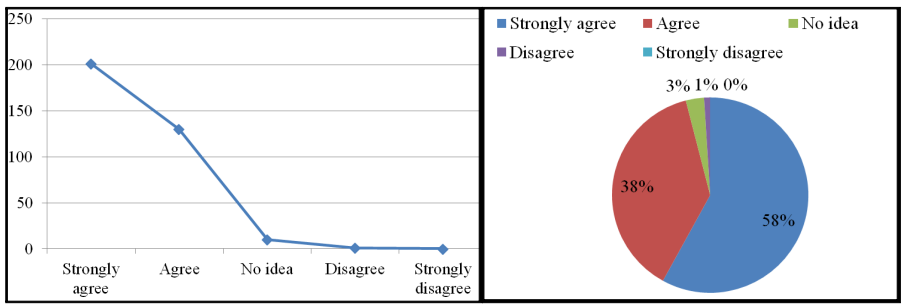


Graphs 11: Sex Determination Through Fingerprint Analysis

ADMISSIBILITY OF FINGERPRINTS IN LEGAL PROCEEDINGS

Relevance and admissibility are the two main tenets that courts use when deciding whether to accept forensic evidence. This also holds true for forensic fingerprints. Forensic fingerprints are evaluated and their evidential value quantified based on these two tenets [52]. The Indian Evidence Act almost ever uses the phrase 'admissibility,' and the two are essentially synonymous under Act. The scientific reports places on record following the standards of the courts amount to admissibility of this importance piece of evidence in court of law. It is evident from the various court judgements where fingerprint evidence is used, that this piece of evidence is considered by the court of law is placed on record correctly and beyond reasonable doubt. [53].

Graph 12 displaying the answers collected for the understanding of admissibility of fingerprint evidence in court of law. The results suggest a tendency toward conceptual comprehension.Fingerprints that would be found at a crime scene are so unique and reliable for identifying an individual when one attempts to prove the identity of such a person in a court of law. This is highly reflected in the research results: 201 participants strongly agree and 130 agree on the great importance of this. Only 10 had no idea, with very little oppositionrepresented by only 1 disagreement and no one is strongly disagreeing. They were also very important to the investigation, linking his suspect's crime scene more closely, proving the relevance to any undertaking investigation. When accepted in the court, they become credible, making them a very important instrument in the deliverance of justice and in ensuring accurate verdicts in criminal cases.

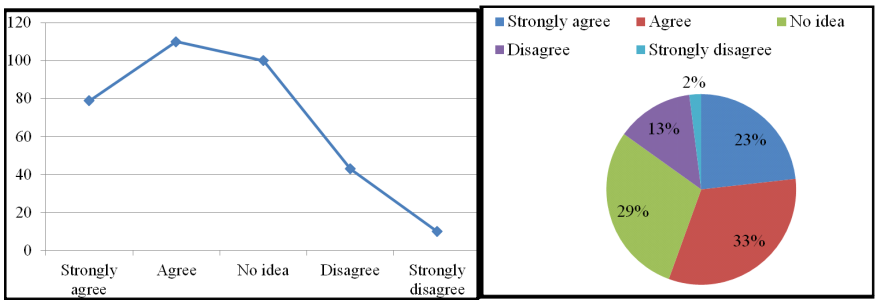


Graph 12: Admissibility of Crime Scene Fingerprints in Legal Proceedings

VULNERABILITY OF FINGERPRINT EVIDENCE TO CONTAMINATION

Fingerprint evidence is extremely easily susceptible to contamination or tampering, especially in crime locations where it is not properly secured or handled. Even stamping or handling one's tiny little finger can cause contamination through improper collection, storage, or accidental transfer of prints, which can lead to unwanted extraneous fingerprints or alteration of the original ones. Harmful environmental elements such as intense heat, moist, and dirt make the fingerprint analysis quite difficult. Such prints may be claimed by the defence to be someone else's obtained at the crime scene, thereby incriminating the innocent or creating at least some doubts as to the reliability of evidence [53].

Graph 13 show the answers to the information obtained for vulnerability of fingerprint evidence.The fingerprints are tampered with sounded like everybody in the survey had a different opinion about it. Out of 79 people, they believed to have a strong agreement factor that fingerprint evidence can be tampered with. 110 others agreed, showing apprehension about the overall fact that this evidence could not be reliable for everyone. 100 shared neutral opinions, which could mean ignorance or apathy about the matter, while the number of those who disagreed was 43. Just a mere 10 countered that that suggests a lesser population who would trust that kind of evidence. These findings call for more proper transparency, education, and robust measures to establish the credibility of fingerprint evidence in forensic investigations.

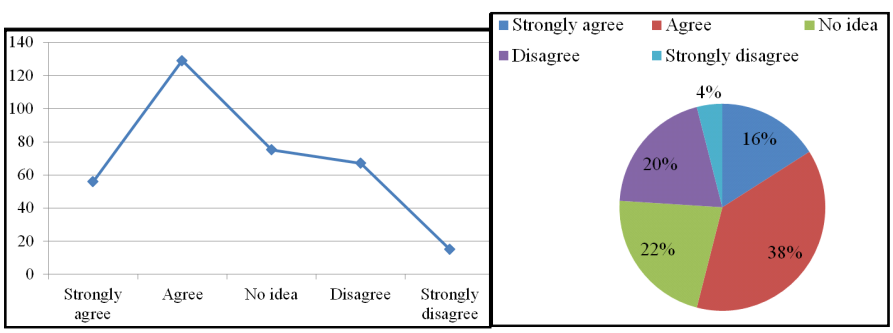


Graph 13: Vulnerability of Fingerprint Evidence to Contamination

LIFTING OF FINGERPRINTS FROM SURFACES

At the crime scene, latent, patent and plastic prints can be located. The investigator has to identify the possible locations of the incident for the presence of impression of fingertips such as entry and exit point. The investigators can develop the latent or invisible fingerprint from the crime scene by developing them. The patent and plastic impression can be lifted by photography or any other lifting methods. Silicone, sticky tape, quick lifter, and fingerprint gelatine are used to lift powdered finger impressions. [54]

Graphs 14 shows the opinion on the presence of fingerprint on incident and its collection by lifting it from the scene.The premises regarding the fact that fingerprints can be lifted from any surface differed: 56 had a "strongly agreed" rating while 129 agreed. It also states that 67 respondents and 15 of them had not applied any fingerprints; thus, there is not a clear consensus regarding the universal applicability of the method, and less than 75 were uncertain due to a lack of forensic science or understanding. This study reinforces the importance of educating people about the limitations and advancements in forensic technologies so that misconceptions are cleared up and an informed perspective on the procedures used to gather evidence can be fostered.



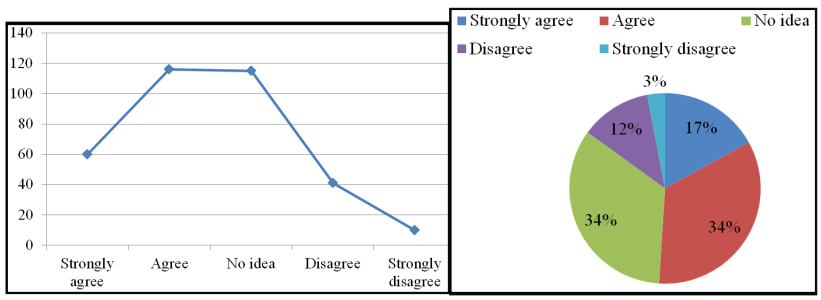
Graphs 14: Techniques for Lifting Fingerprints from Surfaces

IMPACT OF ENVIRONMENTAL FACTORS ON FINGERPRINT INTEGRITY

The fingerprint is affected by multiple environmental factors including, time, temperature, humidity, fresh-salt water, and pressure effects [55]. Some studies have identified

that the fingerprint's oil coating, which forms up to 300°C, demonstrates resilience. In comparison to plastic, nylon, paper, and wooden surfaces, fingerprints left on metal and glass surfaces at all temperatures have been found to be more acceptable for identification.[56]

Graph 15 highlights the opinion on the knowledge about the factors affecting the fingerprint. Environmental factors affect fingerprints as proved by the survey results which indicated 60 strongly agree, 116 agree, 115 with no idea, 41 disagree, and 10 strongly disagree. This implies that most people regard factors such as humidity, temperature, and surface conditions as influential factors in the clarity and preservation of fingerprints. A high 'no idea' response requires creating awareness among the masses on the topic, given its importance in both scientific research and in practical applications like law enforcement.



Graphs 15: Impact of Environmental Factors on Fingerprint Integrity

CONCLUSION

In conclusion, this study highlights the critical gaps in public awareness and perception of fingerprint science, emphasizing the need for targeted educational and communication strategies to bridge these gaps. By uncovering both the misconceptions and the levels of trust in forensic evidence, the findings underscore the importance of fostering an informed understanding of fingerprint analysis and its judicial implications. Enhancing public knowledge and addressing concerns can pave the way for a more robust integration of forensic science into the criminal justice system, ensuring its credibility and effectiveness. This research serves as a foundation for future studies and policy initiatives aimed at building public confidence in forensic practices and advancing the role of fingerprint science in upholding justice.

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The Scope and Limits of Article 16(4): A Critical Analysis of Judicial Interpretation of Reservations in Public Employment

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ABSTRACT

The study critically examines the constitutional framework and judicial interpretation of Article 16(4) of the Indian Constitution which permits the state to make provisions for reservations in public employment for "backward classes" that are inadequately represented. The paper focuses on the transition from traditional to contemporary concepts of reservations in public employment by analysing quantitative data from certain government report. Through a comprehensive analysis of key cases, and recent Supreme Court pronouncements, this paper seeks to clarify how these shifts reflect changing societal needs and judicial perspectives on equality, social justice, and meritocracy.

Keywords: Reservation, Backward Classes, Public Employment, Social Justice, Equality

INTRODUCTION

The issue of reservations has become a complex socio-political challenge in contemporary times. Due to intense competition for the limited opportunities available in the country, governments face pressure to extend various types of reservations to numerous groups, beyond those already allocated for Scheduled Castes, Scheduled Tribes, and Backward Classes. Reservations in public employment and education are anexceptional component of India's efforts to achieve social justice and equality. It embedded within the framework of the Indian Constitution; reservations seek to address historical inequalities and systemic discrimination faced by socially and economically marginalized communities. Article 16(4)[1] of the Constitution explicitly permits the state to provide for reservations in public employment for "any backward class of citizens" that is not adequately

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1 Nothing in this article shall prevent the State from making any provision for the reservation of appointments or posts in favour of any backward class of citizens which, in the opinion of the State, is not adequately represented in the services under the State.

represented. This provision emerged as a remedy to bridge social divides, empower disadvantaged groups and promote inclusivity in government roles andbe instrumental in to the broader constitutional goal of establishing equality among all citizens.

The evolution of reservations, however, has been neither straightforward nor static. Since the Constitution's inception, the implementation of Article 16(4) has ignited substantial judicial debate particularly regarding the scope and limitations of reservation policies. The judiciary has been tasked with interpretating "backwardness" and determining how far affirmative action measures can be extended without infringing on other fundamental rights.

This area of constitutional law raises complex questions about balancing individual rights with collective social equity. Examining the judicial interpretation of Article 16(4) is influential to understanding the evolution of Indian jurisprudence on reservations. Although the role of reservations in public employment has been extensively discussed nevertheless a comprehensive analysis focused solely on Article 16(4) and its contemporary judicial developments remains largely unexplored in academic research. This gap underlines the need to examine how judicial interpretations continue to adapt Article 16(4) to the socio-political realities of modern India.

An analysis of Article 16(4) naturally brings Article 15(4) into focus, as both provisions are deeply intertwined in their commitment to contributing social equity through targeted reservations. Article 16(4) restrictively addresses representation within public employment validating greater inclusion of socially and educationally disregarded communities in government positions. In parallel, Article 15(4) authorises the state to enact special provisions for these groups' advancement in educational institutions. Thus, any exploration of Article 16(4) necessarily engages with Article 15(4), as a pair operate in tandem to balancing the ideal of universal equality with deliberate interventions for those burdened by historical exclusion.

RESEARCH OBJECTIVES

1. To examine the constitutional framework of Article 16(4).
2. To explore the evolution of judicial interpretations of Article 16(4).
3. To assess the balance between Equality, Social Justice, and Meritocracy.
4. To examine the adaptation from traditional to contemporary reservation policies.
5. To suggest measures for equitable implementation of reservation policies.

ARTICLE 16(4) AND THE RIGHT TO EQUALITY

The Indian Constitution enshrines the principle of equality in Articles 14 to 18, with Article 14 indicating that the state shall not deny any person "equality before the law" or "equal protection of the laws." Article 16(1) and (2) specifically raise equality in public employment preserving that no citizen is discriminated against based on religion, race, caste, sex, descent, place of birth, residence, or any of these grounds. However, Article 16(4) introduces an exception such entitles the state to make special provisions for "backward classes" to promote social justice. It must be further noted

that before 2019 the reservations were only granted on the basis of social and educational backwardness. Nevertheless, 103rd Constitutional Amendment Act of 2019 introduced the reservation on the basis of economic backwardness also.

Article 16(4) is grounded in the recognition that formal equality, by itself, falls short of remedying the deep-seated social and economic disadvantages endured by historically marginalized groups. It incorporates a principle of substantive equality, one that seeks to balance opportunities by addressing enduring disparities rooted in systemic discrimination and restricted access to resources. This mechanism of affirmative action aspires to secure meaningful representation for socially and educationally disadvantaged communities within the realm of public employment.

Table 1: Representation of Reserved Categories (SCs, STs, OBCs) in Central Government Services as of 01.01.2017

As reported by the Press Information Bureau report dated 17th July 2019, the Government of India, through the Ministry of Personnel, Public Grievances & Pensions, provided an update on the representation of reserved categories (SCs, STs, and OBCs) in Central Government services.

Category	Prescribed Reservation (%)	Representation as of 01.01.2016 (%)	Backlog Reserved Vacancies Identified (2012-2016)	Backlog Filled (2012-2016)	Remaining Backlog as of 01.01.2017
Scheduled Castes (SCs)	15	17.49	29,198	20,975	8,223
Scheduled Tribes (STs)	7.5	8.47	22,829	15,874	6,955
Other Backward Classes (OBCs)	27	21.57	40,562	27,027	13,535
Total	49.5	47.53	92,589	63,876	28,713

Table 2: Status of Backlog Reserved Vacancies and Their Filling Progress as of 01.01.2018

Category	Total Backlog Reserved Vacancies	Filled Vacancies (as of 31.12.2017)	Unfilled Vacancies (as of 01.01.2018)
Scheduled Castes (SCs)	7,532	4,514	3,018
Scheduled Tribes (STs)	6,887	3,595	3,292
Other Backward Classes (OBCs)	7,080	4,225	2,855
Total	21,499	12,334	9,165

The report reveals that the representation of SCs and STs in Central Government services is in excess of the prescribed 15% and 7.5%, respectively. This suggests that the strivings to ensure the inclusion of these groups in government services are largely successful. However, the OBC category still remains underrepresented with a representation of 21.57%, which fails to satisfy of the 27% reservation threshold. Despite this, the increase in representation of OBCs from 16.55% in 2012 to 21.57% in 2016 is

an indication of progress although it remains insufficient. It is important to understand the key role of judiciary as it often plays an intermediary role in interpreting the constitution and ensuring that reservation policies align with the principles of equality, justice, and merit as enshrined in the Indian Constitution.

EVOLUTION OF JUDICIAL INTERPRETATION OF ARTICLE 16(4)

The first notable case in India dealing with reservations was *State of Madras v. Champakam Dorairajan*[2] where the seats in state educational institutions were allotted community wise solely based on 'caste' and 'religion'. A seven-judge bench of the Supreme Court set aside the classification as being based on caste, race, and religion and further held that reservation is violated the fundamental rights to equality and non-discrimination guaranteed by the Constitution.

The case of *Venkataramana v. State of Madras*[3] is a leading judgment addressing the constitutionality of reservation policies and communal quotas in public employment in the early years of independent India. The petitioner challenged the government's use of "Communal G.O." orders that allocated specific proportions of government posts to candidates from different castes and communities, such as Harijans (Scheduled Castes), Muslims, Christians, Backward Hindus, Non-Brahmin Hindus, and Brahmins. The petitioner argued that these communal quotas unfairly restricted his access to government positions solely based on his Brahmin identity. The Supreme court pointed out following measures in its judgment:

1. It was perceived that the communal quota system set by the Madras government violated the principle of equality of opportunity enshrined in Article 16(1) and (2) of the Indian Constitution. Article 16(1)[4] stipulates equality of opportunity in public employment, and Article 16(2)[5] prohibits discrimination based on religion, race, caste, sex, descent, place of birth, or residence. The Court found that the petitioner's ineligibility for certain posts despite having better qualifications than candidates from other reserved communities was exclusively due to his caste. It was an infringement of his fundamental right to equality.
2. Article 16(4) allows for reservations in public employment for "backward classes of citizens" lacking sufficient representation in government services. However, the Court noted that the communal quotas instituted by the Madras government extended to groups beyond "backward classes" as it admitted communities like Muslims, Christians, and Non-Brahmin Hindus who were not inherently disadvantaged in a socio-economic context. Consequently, The Court ruled that these categories did not meet the criteria for reservation under Article 16(4)

2 [1951] SCR 525 (India).

3 [1951] SCR 658 (India).

4 There shall be equality of opportunity for all citizens in matters relating to employment or appointment to any office under the State.

5 No citizen shall, on grounds only of religion, race, caste, sex, descent, place of birth, residence or any of them, be ineligible for, or discriminated against in respect of, any employment or office under the State.

and therefore, rendering the communal quota policy unjustifiable as a lawful form of reservation under this provision.

3. The Court declared the Madras Communal G.O. order unconstitutional and void for being incompatible with Article 16. It observed that communal reservations as implemented by the Madras government were relied on a broad categorization of communities rather than targeting truly backward groups. It could not be sanctioned under the Constitution, as it disregarded the principle of merit in public employment.
4. It was observed that this arrangement was not a true reservation for backward classes but rather an allocation of positions based on community that is restricted by Article 16(2). The expression used in Article 16(4) is not synonymous to "backward class" or "backward community." To ascertain whether a group constitutes a "class" under Article 16(4), one cannot rely entirely on criteria such as religion, race, caste, sex, descent, place of birth, or residence.

In *The General Manager, Southern Railway vs Rangachari*[6] the dispute emerged on the validity of the circulars issued by the Railway authorities providing for reservation in favour of the Scheduled Castes/Scheduled Tribes in promotion. The appellant, a non-SC/ST employee, contested these circulars. He argued that the reservations applied only to initial appointments and not to promotions. According to him, promoting employees from the backward classes (SC/ST) under such quotas violated the constitutional provisions related to equality under Article 16 of the Constitution. While upholding the validity of the Railway authorities' circulars with the majority of 3:2, the court had liberally interpreted Article 16(4) in resulting ways:

1. The Court clarified that reservations in public services can be made not only at the appointment stage of recruitment but even in the matter of promotions in accordance with Article 16(4) since there is evidence of under-representation in higher positions.
2. Article 16(4) applies in promotion only when there is legitimate need to ensure adequate representation of the backward classes in higher services.
3. The adequacy of representation of backward classes in any service must be assessed through both quantitative and qualitative measures. The underrepresentation of backward classes can be cured by implementing reservations at higher levels within the service.

The *M. R. Balaji v. State of Mysore*[7] case is a landmark pronouncement that significantly impacted India's reservation policy. In this case, the government of Mysore issued an order for reservation of seats for admission to the State medical and engineering colleges for Backward classes and 'more' backward classes. The total reservation was 68% on the basis of 'castes' and 'communities.' The Supreme court declared the order as unconstitutional on several grounds which are as follows:

6 [1962] 2 SCR 289 (India).

7 [1963] 3 S.C.R. 439 (India).

1. The Supreme Court held that while caste could be a factor in identifying backward classes but it could not be the sole and dominant criterion. The Court stressed the need to consider factors like social and economic conditions beyond caste alone as using caste as anunconstrained basis would be contrary to the constitutional mandate of equality.
2. The court further observed that the interest of the weaker section of the society should be adjusted with the interest of the community as whole. Therefore, 68% reservation held to be violative of fundamental principle of equality guaranteed by Article 14 with the justification "fraud on the Constitution".
3. The Court highlighted the importance of equality of opportunity in public services and educational institutions which is a constitutional mandate under Article 16(1) of the Indian Constitution. It was noted that the purpose of reservations was to level the playing field for disadvantaged communities but should not lead to the exclusion of deserving candidates from general categories.
4. It was ruled that reservations should be reasonable and should not defeat or nullify the major principle of equality. It cannot be predicated the exact permissible percentage of reservation nevertheless ought to be less than 50%, how much less than 50% depends on the prevailing circumstances of each case.

In *T. Devadasan v. Union of India*[8] the Supreme Court addressed the Carry Forward Rule concerning reservations in public employment. This rule allowed unfilled reserved vacancies from previous years to be carried forward and added to the reserved quotas for subsequent years, this practice resulted to an increase in reserved positions for Scheduled Castes and Scheduled Tribes. In this particular case, the petitioner, T. Devadasan, challenged this rule, claiming that it led to excessive reservations that infringed on his right to equality in public employment under Article 16 of the Indian Constitution. By the third year, 64.4% of vacancies were reserved far exceeding the recommended limit that amplified constitutional concerns. In the instant case, while declaring the carry forward rule unconstitutional, the findings of Supreme Court are as follows:

1. The Court observed that, following its previous decision in *Balaji case*, reservations in any single year should not exceed 50% as it would contravene the principle of equality under Article 16(1). Although *Balaji* primarily explored reservations in educational institutions the Court applied its reasoning to public employment endorsing that a cap was necessary to hinder arbitrary reservation levels.
2. The Court clarified that while Article 16(4) permits reservations conversely it does not cover all aspects of employment. Specifically, it cannot extend to issues such as salaries, promotions, pensions, or superannuation. Article 16(4) only enables for reservations at the point of initial appointments to ensure underrepresented classes have access to job opportunities.

8 [1964] 4 S.C.R. 680 (India).

3. The court continued that reservations ought not erode the fundamental right to equal opportunity. It was considered that reservations are exception to Article 16(1) and (2) for appointments thus they must remain within reasonable limits. The Court proposed that any reservation framework expected to evade creating monopolies in favour of one group sine this would unfairly block others from fair access to employment.
4. The Court noted that the 50% reservation limit applied uncompromisingly to backward class reservations under Article 16(4). However, it justified that this limit did not extend to other forms of support or concessions provided to backward classes which might not affect the overall employment numbers as directly as reservations.
5. The Court highlighted the importance of balancing Article 16(4) that presents specific provisions for socially disadvantaged groups, with Article 16(1) whereas assures equal opportunity for all citizens. Both provisions must operate in harmonywithout one diminishing the other. Accordingly, the Court determined that the reservation limit of 50% ought be measured at the level of individual services or units rather than across the entire framework. The carry-forward rule was considered consistent with the intention of Article 16, as disregarding it could hinder social progress and lead to exclusion.
6. Reservations exceeding 50% would render the carry-forward rule invalid. The State cannot implement excessive reservations that undermine the principles of Article 16(1). Each instance requires careful consideration to ensure a fair restriction, as there is no universal formula or fixed standard for every case.

After Devadasan case, the landmark judgment came into light in *State of Kerala v. N.M. Thomas*[9] The State of Kerala had revised service rules to confer two years' relaxation in the period of probation for Scheduled Castes (SCs) and Scheduled Tribes (STs) in government services. N.M. Thomas challenged this rule while contending that it infringed Article 16(1).[10]

As majority took the view in Devadasan case that Article 16(4) was an exception to Article 16(1) and 16(2), however, there was dissenting opinion of SUBBA RAO, J., had expressed that"*Article 16(4) is not an exception to Article 16(1) but was a legislative device by which the framers of the Constitution had sought to preserve a powerful untrammelled by the other provisions of the Article.*"[11]

In present case, the majority had acknowledged the perspective of SUBBA RAO, J, accordingly overruled its previous judgment and the court observed that Article 16(4) cannot be considered as an exception of Article 16(1). It is a dimension of Article 16(1) which encourages the idea of equality of opportunity with particular consideration

9 [1976] 2 SCC 310 (India).

10 There shall be equality of opportunity for all citizens in matters relating to employment or appointment to any office under the State.

11 M P Jain, *Indian Constitutional Law* (7th edn, 2014) 990.

to disadvantaged and oppressed class of citizens. Article 16(1) as such allows rational classification to achieving equal opportunities confirmed by it.

Nevertheless, two judges proclaimed a dissented opinion, Article 16(1) merely represents the scheme of formal or legal equality, and as such, it does not permit for any interpretation that suggests preferential treatment, as the language of the article does not support such a concept.

In *A.B.S.K. Sangh v. Union of India*[12] the Apex Court restated the proposition that under Article 16(1) itself authorises the State to classify groups or classes founded upon substantial differentia and the same does not constitute violation of Articles 14 and 16.

One of most vital pronouncements of the Supreme Court on reservations was discussed in *Mandal Commission Case.*[13] The Mandal Commission was formed in 1979 by the Government of India under the chairmanship of B.P. Mandal to investigate the socially and educationally backward classes and recommend actions for their upliftment. The issue arose when the Commission's report supported 27% reservations in government jobs and educational institutions for Other Backward Classes (OBCs) that was implemented by V.P. Singh's government in 1990.

The Constitutional Bench's Ruling Includes the Below Mentioned Observations:

1. The Court validated the constitutionality of reservations for OBCs in government jobs and educational institutions. It was declared that reservations are affirmative action for backward classes is sustained and covered under the principles of Article 16(4) and Article 15(4).
2. It was noticed that Article 16(4) is not an exception to Article 16(1) but no more than an instance of subdivision inherent and approved by the general rule.
3. Irrespective of provisions of Article 16(1) still reservations are not allowed merely on the basis of financial factor, there must be reasonable nexus between social and economic backwardness to take the benefit of reservations.
4. The ruling introduced the concept of 'Creamy Layer' that affirmed that socially advanced and well-off individuals should be excluded from the purview of reservations. The members of the society who are financial stabled are termed 'creamy layer'. Such exclusion would be necessary to provide advantage of reservations to those who are truly backward people, and, thereby, in a better manner the purpose of Article 16(4) can be served.
5. The aggregate reservation cannot be exceeded 50% in a year since Article 16(4) enables for "adequate representation" and not "proportional representation".

In the case of *E.V. Chinnaiah v. State of Andhra Pradesh*[14] a five-judge bench abolished the policy of sub-classification within the reserved class by stating that it is inappropriate

12 Akhil Bhartiya Soshit Karmachari Sangh (Railway) v. Union of India (1981) SC 298 (India).
13 Indra Sawhney v. Union of India, [1993] 1 SCC 647 (India).
14 [2005] 1 SCC 394 (India).

to sub-classify the Scheduled caste since the Constitution specifically protects the SCs and STs. The Court articulated that the reservation system is intended to raise the standing of deprived communities as a whole and dividing them further based on sub-castes would damage the constitutional ethosof equality and fairness.

In *M. Nagaraj v. Union of India*[15]the court marked that despite the fact that the State has discretion in exercising reservation grant, such discretion must not unconstrained and subjected to certain limitation, to be specific, *firstly*, there must be present convincing justification of backwardness, *secondly*, insufficiency of representation in a job classification.

In *Dr. Jaishri Laxmanrao Patil v. The Chief Minister,*[16] the case dealt with the constitutional authenticity of a reservation policy based on economic backwardness and the intricacies of caste-based reservations. The petitioner challenged the reservation policy for the Maratha community in Maharashtra since the Maharashtra government had grant reservations exceeded the 50% cap to the Maratha community in education and public employment under the Socially and Educationally Backward Classes category. The 5-judge constitutional bench observed the following points in judgment:

1. *Firstly*, the Supreme Court held that the reservation policy for the Maratha community in Maharashtra exceeded the 50% limit prescribed in the Mandal Commission case. The Court stressed that while reservations are a tool to uplift backward classes, the total reservation should not surpass 50% unless exceptional circumstances exist.
2. *Secondly*, The Court noted that the Maratha community was considered socially and educationally backward and the findings of the same is drawn from outdated data. It was noted that the government's action unable to justify sufficient empirical data and a credible social and economic survey to support the reservation.
3. *Finally,* the Supreme Court quashed the Maratha reservation while ruling that it was unconstitutional as it violated the 50% cap on total reservations and lacked proper data supporting its necessity.

The *State of Punjab v. Davinder Singh*[17] is one of the most recent decisions of the Constitutional bench of 7-Judges comprised then Chief Justice of India DY Chandrachud, Justice BR Gavai, Justice Vikram Nath, Justice Bela M Trivedi, Justice Pankaj Mithal, Justice Manoj Misra and Justice Satish Chandra Sharma with the majority of 6:1 overruled the judgment passed in *E.V. Chinnaiah v. State of Andhra Pradesh* and held that sub-classification in Scheduled Castes in permissible however such classification must be followed by 'quantifiable data' which able to prove the inadequate representation or more social backwardness of that sub-group. It was observed that determining a reservation percentage within the constitutionally allowed limits falls under the power

15 [2006] 8 SCC 212 (India).
16 [2021] 2 SCC 679 (India).
17 [2024] INSC 562(India).

of State legislatures and sub-classification may include women and disabled individuals if they are underrepresented in public services.

CONCLUSION

In conclusion, the judicial interpretation of Article 16(4) functions as a central element in the evolving narrative of reservations in public employment which reflected the delicate balance between societal needs and the principle of equality. While the provision intends to uplift historically marginalized communities by securing their representation in public services since its journey through the courts has highlighted the complexities of applying such policies in a dynamic and diverse society like India.

This critical analysis has pointed out the conflict between the need for corrective action to uplift disadvantaged groups and the challenges posed by an expanding and sometimes excessive scope of reservations. The court has, at times, upheld reservations as a necessary tool for social justice, nevertheless, it has also recognised the need for constraints to avoid perpetuating division and undermining merit-based systems in public employment.

SUGGESTIONS

1. The reservation policy may be more advantageous by strengthening the mechanisms to monitor the implementation of reservation policies and keep tabs on the progress in terms of both representation and the filling of reserved vacancies.
2. Whereas the representation of Scheduled Castes and Scheduled Tribes has surpassed the prescribed reservations, the representation of Other Backward Classes still falls short of the mandated 27%. It indicates for a comprehensive policy review is required to boost OBCs representation, possibly increasing the scope of reservations in certain sectors where their underrepresentation persists.
3. In addressing the root causes of underrepresentation in public employment requires a focus on enhancing educational opportunities for backward classes. It can better prepare individuals from these communities to compete in competitive exams and gain employment in diverse government sectors.
4. A periodic reassess of the representation of reserved categories should be conducted to ensure that reservation policies remain relevant and effective. This may involve adjusting the prescribed percentages corresponding to socio-economic developments that promote equitable representation across all sectors. The government could establish a body responsible for reviewing and suggesting adjustments to the reservation framework every five years.

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Insider Trading and its Implications for Corporate Governance: A Legal Perspective

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ABSTRACT

The current research focuses at how insider trading impacts market efficiency and investor trust in the Indian stock market. It provides a general overview of the insider trading laws that the Securities and Exchange Board of India (SEBI) enforces, highlighting the stringent measures put in place to stop insider trading and promote market integrity. The study makes use of empirical data to show how market inefficiencies, mispricing, and inefficient capital allocation are all related to insider buying. It examines how insider trading affects transaction volumes, liquidity, and price discovery, all of which hinder the market's capacity to function effectively. Major insider trading scandals in India, such those involving Satyam Computers and Reliance Petroleum have been to examine how they have impacted investor confidence and market performance.

The paper emphasizes the intense punishments for insider trading offenses, such as economic penalties. Notably, this study calls attention to the severe punishments meted out to those who commit insider trading offences, including significant monetary fines and other punitive measures intended to deter such illicit acts. In summary, this study aims to provide a thorough understanding of the many difficulties faced by insider trading in the Indian stock market. It focuses on the need of a strong legal and regulatory framework, together with strict enforcement, to ensure market efficiency and foster investor trust. The findings presented here highlight the complex relationship between insider trading and market performance, eventually fostering a more open and safer financial environment.

Keywords: Insider Trading; Market Integrity; Capital Allocation; Investor Confidence; Market Distortions; Mispricing.

INTRODUCTION

In India and other worldwide financial markets, insider trading is a persistent problem. Insider trading occurs when a person receives significant, confidential information about a company fors trading purposes or to gain an unfair advantage over rivals.

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Insider trading raises ethical issues, but it also has a negative impact on investor confidence and market efficiency.

The historical background, legal framework, regulatory structure, and contemporary difficulties are the main topics of this paper. The value of a well-organized and well-implemented legal system cannot be overstated, particularly in market as dynamic and varied as India.[1]

This study intends to add to the body of knowledge by providing a complete analysis of trade restrictions in the context of the Indian environment. This study aims to provide insightful observations and recommendations for enhancing the regulatory structure and improving the implementation of trafficking in laws in India through a critical examination of the current legislation, a review of the efficacy of regulation, and an analysis of significant issues. This essay also makes recommendations for policy changes that would strengthen the legal system and increase investor confidence. Stronger penalties, a broader definition of insider trading, safeguards for people who come forward with knowledge, improved monitoring, and a move toward market coordination are a few of these.The study emphasizes the value of investor education and awareness campaigns for empowering investors and promoting a transparent culture.

The problem of insider trading continues to be a persistent and unsettling worry in this more vibrant and interconnected world of international financial markets. Insider trading occurs when individuals who have access to significant, confidential information about a firm use this knowledge for their own gain or to gain an unfair advantage over competitors. In addition to the ethical issues it raises, insider trading has a significant negative influence on investor confidence and market efficiency.[2]

Although insider trading is a reality in many global financial markets, it causes interesting problems in the diverse and developing Indian economy. To that purpose, this inquiry will examine India's recent history, present legal framework, administrative system, and problems related to insider trading.

2. ETYMOLOGY OF INSIDER TRADING:

Early in the 20th century, the term "insider trading" was first used. But since the creation of official markets, the concept of insider trading has existed. In reality, the first record of such conduct comes from the Roman Empire, when officials were prohibited from using inside information to accumulate fortune on the stock market. By the 17th century, even the Dutch East India Company had rules prohibiting its employees from trading in the company's own shares.

1 Paula J. Dalley, From Horse Trading to Insider Trading: The Historical Antecedents of the Insider Trading Debate, 39 Wm. & Mary L. Rev. 1289 (1998), https://scholarship.law.wm.edu/ wmlr/ vol39/iss4/6

2 "Ethics." *Insider Trading: Law, Ethics, and Reform*, by John P. Anderson, Cambridge University Press, Cambridge, 2018, pp. 141–232.

The United States passed the first set of contemporary restrictions on insider trading at the beginning of the 20th century. This was in reaction to many instances in which business insiders profited illegally by using their insider knowledge.[3]

Early in the 1930s, the phrases "insider" and "trading" were combined to form the phrase "insider trading." An "insider" is a person who possesses significant, unpublished knowledge about a firm, knowledge that might influence an investor's choice to buy or sell a securities and that hasn't been made public.

Because insiders gain unfair benefits, insider trading is prohibited. Insiders who act on non-standard information may benefit from opportunities that are not accessible to the general public. For investors who lack such information, this scenario is unfair.[4]

Regulations against insider trading protect investors and guarantee the efficient and impartial operation of the stock market. These regulations prohibit insiders from trading based on significant, private information. Additionally, according to regulations against insider trading, it is unlawful for insiders to[5] divulge important, upcoming information so that others may profit from their knowledge.

3. JOURNEY OF MAKING INSIDER TRADING FROM LEGAL TO ILLEGAL

It took many centuries for insider trading to go from being lawful to becoming criminal. The first laws against insider trading were passed under the Roman Empire, although their major goal was to stop public servants from using their private knowledge to boost their riches in the grain market. The Dutch East India Company issued a decree during the 17th century forbidding employees from trading in the company's stocks. Even still, issues of competing interests, not concerns for shareholder fairness, drove the creation of this rule.

In response to a wave of high-profile scandals, the US Congress created ground-breaking legislation against insider trading in the early 1900s. The most infamous case featured Charles Morse, the head of a big financial organisation, who used secret information to manipulate the price of American Biscuit Company shares. Morse was subsequently found guilty of insider trading and imprisoned.

There was significant debate over whether insider trading should be illegal in the early 1900s. Some people argued that insider trading should be allowed to occur freely and without government interference. Others, though, argued that it was unfair to other speculators who had access to the same information. Insider trading became illegal in 1934 when the US Congress passed the Securities Exchange Act of 1934. This rule was created as a result of the investigations that followed the 1929 stock

3 Wiesenfeld, Salman. "Evo1Wiesenfeld, Salman. "Evolution of Insider Trading." *NYU Journal of Law & Liberty Policy*. https://nyujlpp.org/quorum/wiesenfeld-salman-evolution-of-insider-trading/.Top of Form

4 *The New York Times*. "Insider Trading Timeline." December 6, 2016. https://www.nytimes.com/interactive/2016/12/06/business/dealbook/insider-trading-timeline.html.

5 Wiesenfeld, Salman. "Evolution of Insider Trading." *NYU Journal of Law & Liberty Policy*. https://nyujlpp.org/quorum/wiesenfeld-salman-evolution-of-insider-trading/.

market collapse, which revealed that many investors had suffered financial losses as a result of insider trading.

Insider trading is defined under the Securities Exchange Act of 1934 as a transaction of a securities made while in knowledge of significant, undisclosed information about that security. When information has the potential to affect an investor's decision to purchase or sell a share emotionally, it is said to be relevant. This kind of data is restricted and not publicly available to the general public.[6]

The Securities Exchange Act of 1934 also forbids anyone with inside knowledge from disclosing important, nonpublic information so that others might use it to their advantage in transactions.Since the Securities Exchange Act of 1934 was passed, the SEC has launched a number of punitive actions against insiders who have broken the law. Those found guilty of such a crime have to pay a price, which may include giving back any financial gains, paying hefty penalties, or even going to jail.

Insider trading is now a serious criminal offence in both the United States and the rest of the world including India. The purpose of insider trading laws is to protect investors and maintain the trustworthiness and viability of the stock market.

4. RELATIONSHIP BETWEEN INSIDER TRADING AND CORPORATE GOVERNANCE

Insider trading and corporate governance are closely related. Corporate governance refers to the set of rules, customs, and processes that guide and administer an organisation. By imposing strict control on management and encouraging a code of moral conduct, effective corporate governance strategies may help to reduce insider trading.

On the other hand, poor corporate governance increases the risk of insider trading. For instance, it is less likely that the board of directors of a company will be able to monitor the leadership and prevent insider selling if it is related to the management. Additionally, staff members are more prone to engage in such criminal acts if an organisation has a weak code of ethics or does not provide enough training on the law of insider trading.[7]

5. INSIDER TRADING LAWS IN INDIA

SEBI Rules

Regulations intended to prevent insider trading are outlined in the Indian Securities and Exchange Board (Prevention of Inside Trading) Rules, 1992 and 2015. These regulations prohibit anybody from dealing in securities based on private or sensitive information. Additionally, they provide rules for promoting equity and openness in

6 "Insider Trading." *Encyclopedia of Management*. Encyclopedia.com. September 18, 2023. https://www.encyclopedia.com/management/encyclopedias-almanacs-transcripts-and-maps/insider-trading."Insider Trading".

7 Corporate Governance. Investopedia. https://www.investopedia.com/terms/c/corporategovernance.asp.

the stock market by avoiding misuse and manipulating shares. These guidelines also protect investors' interests by halting any fraudulent or unlawful activity on the stock market. For the securities market to operate well, it is crucial to follow certain rules and principles.[8]

The basic framework governing the problem of insider trading in India is made up of the Securities and Exchange Board of India (Prohibition of Insider Trading) Regulations, 1992 and 2015 (hence referred to as "PIT Regulations"). Insider trading, as defined by the PIT Regulations, refers to the acquisition or disposition of shares while in possession of unreleased price sensitive information (UPSI). Information that hasn't been made public but may have a significant impact on an instrument's value is referred to as UPSI.[9]

Insiders are forbidden under the PIT Regulations from trading based on UPSI and from disclosing UPSI to other parties so that those third parties may trade based on that information. Insiders are those who have access to UPSI because of their affiliation with, or position inside, a corporation. Directors, officials, staff members, consultants, and other individuals with access to UPSI as part of their professional activities are included in this.[10]

Insiders must also inform the firm of their ownership of and transactions in its securities in accordance with the PIT Regulations. By requiring transparency, the market is kept informed and insiders are prevented from taking use of the market to their advantage.

The Securities and Exchange Board of India (SEBI) is responsible for enforcing the PIT Regulations. Insiders who breach the PIT Regulations are subject to both civil and criminal action by SEBI. Insiders who break the PIT Regulations are subject to further sanctions from SEBI, including the forfeiture of earnings, civil fines, and imprisonment.

The PIT Regulations are essential for protecting investors and preserving the fairness and competence of the Indian stock market. The PIT Regulations prevent insider trading, ensuring that each investor has equal access to information and that no one benefits disproportionately from a transaction compared to other participants.[11]

COMPANIES ACT, 2013

Insider trading, often known as buying or selling shares while one possesses unpublished private material information (UPSI), is prohibited under Section 195 of the Companies

8 "Securities." West's Encyclopedia of American Law. . *Encyclopedia.com.* (September 18, 2023). https://www.encyclopedia.com/law/encyclopedias-almanacs-transcripts-and-maps/securities

9 https://news.law.fordham.edu/jcfl/2018/11/18/a-brief-history-of-the-corporate-form-and-why-it-matters/

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11 https://www.sebi.gov.in/legal/regulations/nov-2022/securities-and-exchange-board-of-india-prohibition-of-insider-trading-regulations-2015-last-amended-on-november-24-2022_65864.html

Act of 2013.[12] This information has not yet been made public, but it has the potential to have a significant impact on the value of a security.[13]

The Companies Act also requires insiders to disclose and make public any transactions they make regarding the company's securities. This requirement prevents insiders from using their superior knowledge for personal gain while allowing the security market to stay informed.

A violation of the ban on insider trading might result in a jail term of up to five years, a fine of 25 crore rupees, or both for the offender.[14]

In a nutshell, The Companies Act, 2013 forbids insider trading and requires persons with extensive knowledge to disclose their holdings in the company's securities as well as their interactions with those shares.

OTHER RELEVANT LAWS AND REGULATIONS

There are other laws and edicts that apply to insider trading in India in addition to the rules and directives already mentioned. These include Section 15G of the Securities and Exchange Board of India Act of 1992, which has provisions that might result in jail time for such conduct. The possibility of deceit and fraud associated with such exchanges is likewise taken into account by the Indian Penal Code, 1860 (sec. 420). The Prevention of Corruption Act, 1988, which might bring public employees who engage in insider trading to justice, is also pertinent.

6. RECENT DEVELOPMENTS IN INSIDER TRADING LAW IN INDIA

Key Case Laws

In a landmark decision on insider trading laws on September 19, 2022, the Supreme Court ruled in the **S**ecurities and Exchange Board of India v. Abhijit Rajan ("Abhijit Rajan") case that it was necessary to demonstrate the insider had a profit motive in order to bring an insider trading claim. Thus, the Securities Appellate Tribunal's ("SAT") judgement exonerating Abhijit Rajan from the charge of selling shares in Gammon Infrastructure Projects Limited ("GIPL") as an insider was rejected by the Court in opposition to the Securities and Exchange Board of India's ("SEBI") appeal. Although the Supreme Court clarified the former SEBI (Prohibition of Insider Trading) Regulations, 1992 in Abhijit Rajan, the ruling is likely to have an impact on how the SEBI initiates enforcement and prosecution of insider trading cases under the current SEBI (Prohibition of Insider Trading) Regulations, 2015.[15]

12 https://www.mca.gov.in/Ministry/pdf/CompaniesAct2013.pdf

13 Insider Trading Regulations: A Small Debate, SHASTA GUPTA, Vol. 2, Issue: 4, April-May 2014 ISSN:(P) 2347-5404 ISSN:(O)2320 771X

14 https://www.taxmann.com/post/blog/overview-of-sebis-prohibition-of-insider-trading-regulations/

15 https://www.snrlaw.in/sebi-v-abhijit-rajan-a-flawed-interpretation-of-the-insider-trading-regulations/#:~:text=On%20September%2019%2C%202022%2C%20 the, a%20 charge % 20 of % 20 insider % 20 trading.

In re Dilip Pendse, SEBI The Managing Director, Pendse, was aware that possible losses of Rs. 79.37 crores on March 31, 2001, would be incurred by Nishkalpa, a subsidiary of Tata Finance Ltd. (TFL), a publicly traded company. Unpublished Price Sensitive Information (UPSI) was made public on April 30, 2001, after which it was disclosed. It seems sense that any transactions carried out by an insider during this time would be seen as insider trading. With the use of this insightful knowledge, DilipPendse's wife sold 2,90,000 shares of TFL that she owned in both her name and the names of the businesses she co-owned with her husband. The SEBI labelled this behaviour as insider trading and condemned it.[16] In response, the charges were dropped by SAT because there was inadequate proof and no opportunity for a witness whose testimony the accusations were relied on to be cross-examined.[17]

In the case of **HLL v. SEBI (1996)**,[18] in which HLL was discovered to be an insider in accordance with section 2(e) of the 1992 regulation, SAT noted that even though the two companies had merged, there was still a possibility that information from either company could be leaked, depending on whether or not the information shared with HLL had UPSI. This observation prompted SEBI to further introduce the details of price sensitive under the regulation of SEBI. In the case of DSQ Holding Ltd v. SEBI, where DSQ was considered a connected person under section 2(c) of the 1992 regulation, it was discovered that DSQ had failed to provide the evidence of his annual general meeting, which would have further established the fact that shares jumped from Rs. 20 to Rs. 92, which in fact didn't occur. It was also determined that DSQ had attempted to take benefit of the investors who were connected to them.[19]

7. COMPARATIVE ANALYSIS OF INSIDER TRADING LAWS AND REGULATIONS IN INDIA AND OTHER COUNTRIES

United States

Insider trading has long been outlawed in the US. The Securities Exchange Act of 1934 was implemented in response to the Great Depression of 1929. The Securities Exchange Commission ("SEC") is able to limit insider trading in the States as a consequence of the provisions of this Act.

To aid the Securities and Exchange Commission, the American legal system has created the following legal guidelines involving insider trading:

According to the traditional "Disclose or Abstain" idea, insiders must disclose any relevant, non-public information (UPSI) to the public before trading or refrain entirely

16 https://economictimes.indiatimes.com/markets/stocks/news/sebi-disposes-of-insider-trading-case-against-ex-tata-fin-md-dilip-pendse/articleshow/59811213.cms?from=mdr

17 https://indiankanoon.org/doc/1017419/

18 (1998) 18 SCL 311 MOF

19 https://corporate.cyrilamarchandblogs.com/2017/10/insider-trading-hindustan-lever-limited-v-sebi/.

from doing so. Directors, representatives, employees, and everyone else who is affiliated or related in any manner are all covered by this idea.[20]

The Misappropriation Principle aims to protect the integrity of the securities markets from abuse by individuals outside the organisation who have access to Privileged Internal Information (PII), even though they have no duty to the company's shareholders and can influence the stock price once it becomes public knowledge.[21]

Due to the use of sensitive information, the US Sanction Act of 1984 imposes severe fines that may be up to three times the benefit or harm avoided. Additionally, it mandates that an initial report be sent to the SEC and the relevant stock exchanges by all directors, directorships, stakeholders, and owners of more than 10% of the authorised equity shares. These US laws are substantially harsher than those in India, which are often seen as being soft, loose, and seldom adequately implemented.[22]

The Securities and Exchange Commission has expanded the scope of its legal actions to include political intelligence providers as well as IT specialists and cybercriminals who steal private company data. This demonstrates how the SEC is working to solve specific issues.

UNITED KINGDOM

The legal foundation for the UK's insider trading regulations was established by the Financial Services and Markets Act of 2000 (FSMA) and the Criminal Justice Act of 1993 (CJA). In spite of this, none of these Acts provides a precise definition of "insider trading."

The FSMA establishes safeguards against market manipulation and gives the UK Financial Services Authority the authority to enact laws to punish individuals who engage in it. According to section 118(2), "market abuse" includes actions like insider trading or trying to trade with investments that are connected to the one in question while using insider knowledge about that investment. Additionally, it entails coercing or luring people into engaging in actions that can be seen to be abusive of the market. Market abuse is regarded as a civil infraction and does not always need intention or carelessness.[23]

The CJA, on the other hand, forbids trading in stocks whose prices are impacted by insider knowledge, encouraging another person to engage in such trading, and knowingly

20 https://www.investopedia.com/terms/s/seact1934.asp

21 U.S. Securities and Exchange Commission. "Division of Corporation Finance, https://www.sec.gov/page/corpfin-section-landing

22 U.S. Securities and Exchange Commission. "Exchange Act Reporting and Registration.. https://www.sec.gov/education/smallbusiness/goingpublic/exchangeactreporting

23 INSIDER DEALING AND MARKET ABUSE: THE FINANCIAL SERVICES AND MARKETS ACT 2000 ESRC Centre for Business Research, University of Cambridge Working Paper No. 222, https://www.jbs.cam.ac.uk/wp-content/uploads/2023/05/cbrwp222.pdf

disclosing inside information to another. Insider trading and market manipulation are punishable by up to a 7-year prison term and an infinite fine.[24]

'Price Sensitive Information' and 'Insider' are defined similarly under Indian and British law (in terms of civil responsibility). While criminal and civil culpability are often covered by the same law in India, there are two separate laws that deal with them in the UK. For committing the offence, the SEBI Act and the Companies Act in India impose fines of INR 250 million or three times any profits realised through insider trading, whichever is greater. One may also get a fine, a prison term of up to 10 years, or both.

8. IMPLICATIONS OF INSIDER TRADING FOR CORPORATE GOVERNANCE:

Impact on Investor Confidence

Investor confidence may suffer as a result of insider trading. Investors are less inclined to invest in the market when they believe that it has been rigged so that some may benefit illegally. It may be difficult for companies to get funding and for investors to make prudent investments due to the diminished liquidity and increased volatility.

Some concrete ways that insider trading might erode investor trust are listed below:

Decreases market integrity and fairness: Insider trading gives insiders an unfair advantage over other investors and damages the market's credibility. Investors are less willing to put money into the market when they believe it is unfair.[25]

Increases uncertainty and risk: Investors may find it more challenging to determine the true worth of securities and to make wise investment decisions as a result of insider trading. This may increase market uncertainty and danger.[26]

Discourages investment: When investors believe that the market is rigged and that they are at a disadvantage, they are less likely to invest in the market. This can lead to a decrease in liquidity and an increase in volatility.

In addition to these negative impacts on investor confidence, insider trading can also have a number of other negative consequences, such as:

Reduces market efficiency: Insider trading prevents the market from allocating money in a profitable manner.Corporate entities may be required to pay a higher cost of capital when obtaining financing if they are thought to be subject to insider trading.[27]

24 A Critical Analysis of Insider Dealing Under U.K. And U.S.A. Law, Priyam Raj Kumar. Volume 2, Issue 4. https://www.ijlmh.com/wp-content/uploads/2019/10/A-Critical-Analysis-of-Insider-Dealing-Under-U.K.-And-U.S.A.-Law.pdf

25 Anderson, P., Kidd, J., Mocsary, G. "Public Perceptions of Insider Trading, https://scholarship.shu.edu/cgi/viewcontent.cgi?article=1790&context=shlr

26 University of Pennsylvania Wharton School of Business. "Why Insider Trading Is Hard To Define, Prove, and Prevent, https://knowledge.wharton.upenn.edu/article/why-insider-trading-is-hard-to-define-prove-and-prevent/

27 U.S. Securities and Exchange Commission. "Insider Trading, https://www.investor.gov/introduction-investing/investing-basics/glossary/insider-trading.

Economic damage: By reducing investment and advancement, insider trading may have a negative impact on the economy.

RISK OF FRAUD AND CORRUPTION

Insider trading has a number of negative effects, including fraud and corruption.

Impairment of transparency and accountability: Insider trading makes it more difficult to discover and punish deception and vilification. It becomes difficult to distinguish between legitimate and illegal behaviour when insiders are allowed to profit from their inside information. This fosters a climate of secrecy and impunity, which makes it easier for fraud and corruption to proliferate. Insider trading may be enticing for immoral endeavours, luring fraud and corruption. Insiders are more likely to engage in illegal or corrupt acts when they realise, they may make significant profits by subscribing to their confidential knowledge.[28] This may result in a vicious cycle where insider trading encourages more dishonesty and corruption, which in turn encourages more insider trading.

Public confidence is eroded: Insider trading has the potential to erode public confidence in the stock market and the larger economic system. Investors are reluctant to reinvest when they think the stock market is unfair and insiders discover a method to profit from their inside knowledge. This may lead to a reduction in liquidity and an increase in instability, making it difficult for businesses to acquire capital and for speculators to make wise investment choices.[29]

DAMAGE TO THE REPUTATION OF THE COMPANY

A company's reputation might suffer greatly as a result of insider trading. A company's reputation for honesty, righteousness, and fair dealing may suffer permanent harm when it becomes entangled in an insider trading scandal. Such situations may have a wide range of consequences, including:

Loss of client confidence: Customers may be hesitant to do business with a company that has been implicated in an insider trading scandal. Sales and revenue may suffer as a result of this.

Damage to relationships with suppliers and partners: Relationships with suppliers and allies might be harmed if a corporation has been found guilty of insider trading, since suppliers and allies could be reluctant to do business with it. This might make it more difficult for the business to remain competitive in the market and cause problems in its day-to-day operations.[30]

Increased regulatory scrutiny: Companies involved in insider trading issues are likely to face more regulatory scrutiny. This possibility may incur high fees and cut into the company's open hours. Being connected to insider trading irregularities may also have

28 https://economictimes.indiatimes.com/definition/insider-trading

29 https://www.cisa.gov/sites/default/files/2022-11/Insider%20Threat%20 Mitigation%20 Guide_Final_508.pdf

30 https://www.diva-portal.org/smash/get/diva2:200685/FULLTEXT01.pdf

an impact on your capacity to recruit and retain employees. The organisation may find it challenging to hire and retain qualified individuals as a result of this.[31]

Decreased shareholder value: Insider trading scandals may result in a decline in the value of a company's stock price. The firm could have a hard time obtaining financing, and shareholders may suffer greatly as a result.

Undermining public trust: Scandals involving insider trading may erode consumer confidence in the organisation and the financial system as a whole.

Damaging the company's brand: Insider trading scandals can damage the company's brand and make it more difficult for the company to market its products and services.

Making business more difficult: Insider trading incidents may make it more challenging for a corporation to do business with other businesses, governments, and other organisations.

9. MEASURES TO PREVENT INSIDER TRADING:

Corporate Governance Reforms

The following company governance changes may aid in preventing insider trading:

Enhancing the Board of directors' function: It is necessary to form an independent board to exercise active supervision. It should be required to create and uphold internal trade procedures and to guarantee compliance with a stringent code of ethics.

Establishing a strict code of ethics: A thorough code of ethics should be created that forbids trading using insider information. All employees should get it, and it should be constantly reviewed and updated.

Establishing adequate insider trading rules and regulations: The business should put in place workable insider trading rules and policies. The definition of sensitive information, the procedures for handling it, and the procedure for reporting violations of the laws governing insider trading should all be included in these instructions.

Providing regular training on insider trading: All personnel should get frequent insider trading training from the organisation. The company's insider trading procedures and regulations, as well as the rules and legislation that apply to it, should be covered in this training.

Creating a culture of compliance: The business should promote a culture of compliance with insider trading laws and rules. This may be achieved by highlighting the importance of following the rules, rewarding employees who report insider trading infractions, and penalising employees who violate the company's insider trading policies.

STRENGTHENING OF ENFORCEMENT MECHANISMS

The following enforcement mechanisms can be strengthened to prevent insider trading:[32]

31 Malusare, Lalita. (2022). Business Ethics and Corporate Governance Exclusive Partner. 10.25215/9395456027.

32 Prof. (Dr.) Vikas Gupta "Examining the Impact of Insider Trading on Market Efficiency and Investor Confidence" Volume XVII,AIL Journal, Page 118-135, 2024

Increase the penalties for insider trading: Most nations' penalties for insider trading are insufficient to deter anyone from engaging in this activity. Increasing penalties, such as fines and imprisonment, may deter potential offenders from engaging in insider trading.

Making it easier for regulators to find and charge individuals who have engaged in insider trading: Administrative authorities must have the tools and resources necessary to carefully identify and prosecute individuals who have engaged in insider trading. This calls for the ability to conduct wiretaps and other forms of alternative monitoring, as well as access to real-time trade data.

Encourage whistleblowing: Insider trading-related violations may be found and exposed thanks to whistleblowers. Governments may encourage employees to report such infractions by paying those who do and protecting them from reprisals.

Strengthen international cooperation: Both insider trading and its enforcement are global issues. Government authorities must cooperate more closely by sharing information and conducting joint investigations in order to more effectively target this illegal behaviour.

Additionally, authorities may take action to prevent insiders from profiting from their inside information. Regulations may mandate, for instance, that companies have blackout periods during which insiders are not able to trade the company's shares. Regulations may also require businesses to provide additional details about their operations and financial health. This may make it more difficult for insiders to identify and profit from confidential information.

PUBLIC AWARENESS CAMPAIGNS

Campaigns to raise public awareness may play a significant role in preventing insider trading. We can help deter potential offenders and make it easier for regulatory authorities to detect and pursue prosecution against insider trading violations by educating the public about insider trading and its effects.

Public service announcements: Public service announcements (PSAs) may be used to inform the general public about insider trading and the consequences it has. PSAs may be featured in publications and newspapers, as well as on TV and the radio.

Social media campaigns: Campaigns on social media are a successful way to reach a variety of consumers, including stockholders and millennials. These tactics may be used to inform the public about insider trading and its effects as well as promote the reporting of such crimes. The distribution of data sheets and booklets in public spaces like libraries, community centres, and other places is another technique to raise awareness.

Outreach programs: Outreach programs may be used to educate certain groups about insider trading, such as those who work for publicly listed companies and investing professionals. These shows may either be broadcast live in person or online.

10. CONCLUSION

Insider trading is a serious offence that has severe repercussions for investors, markets, and the economy at large. Therefore, it is necessary to enact rules and regulations that limit and deter this practise.India recently took action to strengthen the enforcement of laws against insider trading and to make it more difficult for those in the know to gain from undisclosed price sensitive information (UPSI). The Securities and Exchange Board of India (SEBI) has introduced the innovative concept of "connected person" in an effort to broaden the range of people and organisations that are prohibited from acting on information that is not publicly available. SEBI has also increased the fines for insider trading.Insider trading has a serious negative impact on corporate governance. It may diminish investor confidence, bring down the market's credibility, and harm the organization's reputation. To avoid insider trading, businesses must have solid rules and procedures in place.

Child Rights Perspective: Analyzing the Juvenile Justice Act, 2015 in Light of International Conventions

Dr. Rakhi Kataria & Ms. Sulsha Shah***

ABSTRACT

The Juvenile Justice (Care and Protection of Children) Act, 2015 (JJ Act 2015) of India aims to balance child protection with public safety. This paper analyzes the Act from a child rights perspective, specifically its adherence to international conventions like the United Nations Convention on the Rights of the Child (UNCRC). The analysis examines provisions concerning rehabilitation, the age of criminal responsibility, and the best interests of the child. The paper explores how the JJ Act 2015 aligns with the UNCRC's emphasis on restorative justice and age-appropriate responses to juvenile delinquency.

Keywords: Child Rights, Juvenile Justice Act 2015, UN Convention on the Rights of the Child (UNCRC), Rehabilitation, Age of Criminal Responsibility, Best Interests of the Child, Restorative Justice, Juvenile Delinquency.

BACKGROUND:

Child Rights and the UNCRC

Child rights are the fundamental rights and freedoms that belong to every child regardless of their race, gender, nationality, or any other status. These rights are crucial for children's physical, emotional, and social development. They encompass a wide range, including the right to:

- Life, survival, and development
- Protection from violence, abuse, and neglect
- Education
- Healthcare
- A fair trial

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- Freedom of expression

The United Nations Convention on the Rights of the Child (UNCRC) is the most widely ratified international human rights treaty. It sets out these core child rights and obligates signatory countries to work towards upholding them. The UNCRC plays a vital role in:

- Establishing a common language for discussing child rights.
- Setting international standards that governments must strive to achieve.
- Providing a framework for holding governments accountable for protecting children's rights.

PRE-EXISTING JUVENILE JUSTICE ACT (2000) AND THE JJ ACT (2015)

Prior to the JJ Act 2015, India had the **Juvenile Justice Act (2000)**. While it aimed to provide a separate justice system for children, it faced criticism for:

- **Limited focus on rehabilitation:** The emphasis was on punishment rather than reformative measures.
- **Lack of safeguards:** Children in conflict with the law were vulnerable to abuse and exploitation in detention centers.
- **Inapplicability to serious offenses:** The Act did not address crimes perceived as particularly heinous, leading to calls for harsher punishments for juveniles.

These shortcomings, coupled with an increasing number of high-profile crimes involving juveniles, prompted the enactment of the Juvenile Justice (Care and Protection of Children) Act, 2015. The JJ Act 2015 aimed to address these gaps by focusing on:

- **Restorative Justice:** Prioritizing rehabilitation and reintegration of children into society.
- **Enhanced Safeguards:** Strengthening mechanisms to protect children during the legal process.
- **Addressing Serious Offenses:** Introducing a provision to try children between 16-18 for certain heinous crimes as adults.

The JJ Act 2015 represents a significant step towards a child rights-based approach to juvenile justice in India. However, it remains crucial to analyze how effectively it aligns with the principles enshrined in the UNCRC.

KEY PROVISIONS OF THE JUVENILE JUSTICE (CARE AND PROTECTION OF CHILDREN) ACT, 2015:

Definition of a Child

- The JJ Act 2015 defines a "child" as any person below 18 years of age. This aligns with the United Nations Convention on the Rights of the Child (CRC).

Classification of Offences

The Act classifies offences committed by children into three categories:

- **Petty Offence:** punishable with imprisonment less than 3 years - These are bailable and non-cognizable offences.
- **Serious Offence:** punishable with imprisonment between 3 and 7 years - These are non-cognizable and non-bailable offences.
- **Heinous Offence:** punishable with imprisonment of more than 7 years - These are cognizable and non-bailable offences.

PROCESSES FOR DEALING WITH CHILDREN IN CONFLICT WITH THE LAW

- The JJ Act establishes a separate justice system for children.
- **Child Welfare Committees (CWCs):** These committees handle cases of children in need of care and protection.
- **Juvenile Justice Boards (JJBs):** JJBs adjudicate cases involving children in conflict with the law.
- **Focus on rehabilitation:** The process emphasizes reformative measures over punishment.

PROVISIONS FOR CARE AND PROTECTION OF CHILDREN

- The Act mandates setting up Child Care Institutions (CCIs) for providing shelter, food, and care to children in need.
- **Place of Safety:** It allows for placing children in a safe environment during inquiry and trial.
- **Protection from abuse:** The Act prohibits corporal punishment in CCIs.

REHABILITATION AND REINTEGRATION MECHANISMS

- **Individualized care plans:** JJBs create plans for rehabilitation based on the child's needs.
- **Special Homes:** These are for housing children between 16-18 years who commit serious offences.
- **Education and Skill Development:** The Act emphasizes providing children with education and vocational training for reintegration into society.
- **Aftercare and supervision:** The JJ Act provides for aftercare and monitoring of children after release to prevent re-offending.

ALIGNMENT OF THE JJ ACT 2015 WITH UNCRC PRINCIPLES

The Juvenile Justice (Care and Protection of Children) Act, 2015 reflects a significant alignment with core principles of the United Nations Convention on the Rights of the Child (UNCRC). Here's how:

- **Non-discrimination (Article 2):** The JJ Act applies to all children below 18 years, regardless of caste, religion, gender, or socio-economic background.
- **Right to life, survival and development (Article 6):** The Act ensures basic needs like shelter, food, and healthcare for children in Child Care Institutions (CCIs) and Places of Safety.
- **Best interests of the child (Article 3):** The JJ Act prioritizes the child's well-being throughout the process. Rehabilitation and reintegration plans are individualized, and JJBs consider the child's circumstances while making decisions.
- **Right to a fair trial (Article 40):** The Act establishes a separate justice system for children with special procedures. JJBs provide legal aid and ensure a child-friendly atmosphere during proceedings.
- **Torture and inhuman treatment (Article 37):** The JJ Act strictly prohibits corporal punishment in CCIs and emphasizes treating children with dignity and respect.

HERE ARE SOME ADDITIONAL POINTS TO CONSIDER

- **Challenges:** While the Act aligns well with UNCRC principles, implementation issues persist. Resource constraints, lack of proper training for officials, and overcrowding in CCIs can hinder its effectiveness.
- **Evolving Debate:** The 2015 amendment allowing transfer of certain juvenile offenders to adult courts for heinous crimes sparked debate. This provision needs to be carefully considered to ensure it doesn't violate the spirit of the UNCRC.

Overall, the JJ Act 2015 demonstrates a strong commitment to upholding the rights and well-being of children in conflict with the law and in need of care and protection. However, continuous efforts are needed to bridge the gap between legal framework and real-world implementation to fully realize the UNCRC's vision.

CRITICAL ANALYSIS OF JJ ACT 2015 AND CHILD RIGHTS CONCERNS

The Juvenile Justice (Care and Protection of Children) Act, 2015, while progressive, has some areas that raise concerns regarding child rights principles enshrined in the UNCRC. Here's a closer look at potential inconsistencies:

- **Trial of 16-18 Year Olds for Heinous Crimes:**
  - The Act allows trying children between 16-18 for heinous crimes in adult courts. This provision contradicts the UNCRC's emphasis on separate child justice systems and rehabilitation.
  - Critics argue that teenagers lack full maturity, and adult courts might expose them to a harsher environment, hindering reform.
- **Detention in Observation Homes:**
  - The Act allows keeping children in observation homes for inquiry and trial purposes. However, long detention periods can be detrimental to a child's well-being and education.

- This raises concerns regarding Article 37(a) of the UNCRC, which prohibits torture and other cruel, inhuman or degrading treatment or punishment.

- **Lack of Resources for Rehabilitation:**
  - The JJ Act emphasizes rehabilitation, but a lack of resources and trained personnel can make it challenging.
  - Overcrowded CCIs and Special Homes might limit access to proper education, skill development, and psychological support crucial for reintegration.
  - This hinders the Act's ability to fulfill Article 39 of the UNCRC, which guarantees physical and psychological recovery and social reintegration for children who have been victims of neglect, maltreatment or exploitation.

ADDITIONAL CONSIDERATIONS

- **Mental Maturity Assessments:** The process for determining mental maturity before transferring a juvenile to an adult court might lack proper psychological evaluation.
- **Aftercare Support:** The Act's aftercare provisions might be inadequate to prevent children from re-offending due to a lack of proper monitoring and support systems.

CONCLUSION

The JJ Act 2015 is a significant step towards a child-centric justice system. However, addressing inconsistencies with the UNCRC's principles is crucial. Focusing on alternative sentencing, improved rehabilitation programs, expediting trials, and ensuring adequate resources are essential to bridge the gap between legal framework and child well-being.

INTERNATIONAL COMPARISON OF JUVENILE JUSTICE SYSTEMS

Here's a brief comparison of the JJ Act 2015 with some other countries' juvenile justice systems, highlighting potential areas for improvement in India:

- **Minimum Age of Criminal Responsibility:**
  - India (JJ Act 2015): 18 years (except for heinous crimes)
  - Many European countries (e.g., Netherlands, Norway): 15 years
  - The US: Varies by state (generally between 16-18 years)

Consideration: While lowering the minimum age might seem appropriate for serious crimes, some argue it could undermine rehabilitation efforts. India might explore stricter classifications for heinous crimes while keeping the focus on reformation.

- **Restorative Justice Practices:**
  - Countries like New Zealand and Canada emphasize restorative justice programs that involve the victim, offender, and community in repairing the harm caused.

- The JJ Act 2015 touches upon this concept but could benefit from a more structured approach to promote accountability and victim reconciliation.

- **Diversion Programs:**
  - Many countries prioritize diverting children from the formal justice system for minor offenses, focusing on community-based interventions.
  - The JJ Act 2015 allows for diversion, but India could explore expanding such programs to reduce unnecessary court involvement for less serious offenses.
- **Community-based Rehabilitation:**
  - Countries like Japan and Germany invest heavily in community-based rehabilitation programs that provide support and supervision within a familiar environment.
  - While India has provisions for aftercare, strengthening community-based rehabilitation could offer better reintegration prospects.

OVERALL

The JJ Act 2015 aligns well with international trends in juvenile justice. However, India can benefit from:

- Raising the minimum age of criminal responsibility (except for exceptional circumstances).
- Implementing robust restorative justice and diversion programs.
- Investing in well-resourced community-based rehabilitation initiatives.

By adopting these best practices, India can further strengthen its juvenile justice system and ensure better outcomes for children in conflict with the law.

Recommendations for Strengthening the JJ Act 2015:

UPHOLDING CHILD RIGHTS THROUGH LEGAL AMENDMENTS

- **Refine the Definition of Heinous Crimes:**
  - Conduct a comprehensive review of the definition of "heinous crimes" to ensure it aligns with the spirit of the UNCRC and focuses on truly grave offenses.
  - Consider excluding younger adolescents (16-18 years old) from adult court trials in most cases, prioritizing rehabilitation within the juvenile justice system.

ENHANCING REHABILITATION PROGRAMS

- **Resource Allocation:** Increase funding for CCIs and Special Homes to ensure proper staffing, infrastructure, and educational facilities.

- **Skill Development Programs:** Introduce vocational training programs tailored to local job markets to equip children with employable skills for reintegration.
- **Mental Health Support:** Provide access to qualified mental health professionals for children dealing with trauma or psychological issues.
- **Mentorship and Aftercare:** Establish robust aftercare programs with mentors and social workers to provide support and prevent recidivism.

STRENGTHENING SAFEGUARDS AGAINST ABUSE

- **Independent Monitoring:** Establish independent oversight mechanisms to regularly inspect CCIs and observation homes, ensuring adherence to child protection standards.
- **Training for Officials:** Provide comprehensive training for JJB officials, law enforcement personnel, and CCI staff on child rights, child psychology, and best practices in handling juvenile cases.
- **Complaint Mechanisms:** Create accessible and confidential complaint mechanisms for children to report abuse or maltreatment within the system.

ADDITIONAL RECOMMENDATIONS

- **Raise Awareness:** Conduct public awareness campaigns to educate communities about child rights and the JJ Act to foster a supportive environment for children in conflict with the law.
- **Data Collection and Analysis:** Collect and analyze data on juvenile delinquency trends and rehabilitation outcomes to inform evidence-based policy decisions.

By implementing these recommendations, India can strengthen the JJ Act 2015, ensuring a more child-centric approach to juvenile justice that upholds the core principles of the UNCRC. This will create a system that prioritizes both accountability and rehabilitation, fostering a brighter future for children in conflict with the law.

CONCLUSION: BALANCING CHILD RIGHTS AND PUBLIC SAFETY

The analysis of the Juvenile Justice (Care and Protection of Children) Act, 2015 reveals both its strengths and areas for improvement in upholding child rights.

KEY FINDINGS

- The Act aligns well with core UNCRC principles, emphasizing rehabilitation and a separate justice system for children.
- Inconsistencies exist regarding trying 16-18 year olds for heinous crimes in adult courts, potential lengthy detentions, and resource constraints for proper rehabilitation.
- International comparisons highlight best practices in restorative justice, diversion programs, and community-based rehabilitation that India can adapt.

STRIKING A BALANCE

Balancing child rights with public safety concerns is crucial. The JJ Act can achieve this by:

- Ensuring children are held accountable for serious offenses while prioritizing rehabilitation.
- Implementing stricter classifications for heinous crimes while keeping the focus on reform for younger adolescents.

CONTINUOUS IMPROVEMENT

The JJ Act is a dynamic piece of legislation. Continuous monitoring and improvement are essential:

- Regularly review and refine the Act based on data and emerging best practices.
- Allocate sufficient resources for effective implementation.
- Strengthen safeguards against abuse within the system.

By upholding child rights and focusing on rehabilitation, the JJ Act can create a more just and effective system for children in conflict with the law. This will ultimately contribute to a safer society for all.

FURTHER RESEARCH

Implementation Challenges of the JJ Act 2015

The Juvenile Justice (Care and Protection of Children) Act, 2015, was enacted to provide a robust legal framework for the protection, treatment, and rehabilitation of children in conflict with the law and those in need of care and protection. Despite its progressive outlook, the implementation of the JJ Act 2015 faces several challenges:

1. **Infrastructure and Resource Constraints:**
   - **Lack of Adequate Infrastructure**: Many Juvenile Justice Boards (JJBs) and Child Welfare Committees (CWCs) operate without proper infrastructure, which hampers their functioning.
   - **Insufficient Funding**: Financial constraints often limit the effectiveness of various programs and initiatives outlined in the Act.
2. **Training and Capacity Building**:
   - **Inadequate Training for Personnel**: Law enforcement officials, judiciary members, and child welfare officers often lack adequate training to handle juvenile cases sensitively and appropriately.
   - **Skill Development**: There is a need for continuous capacity building to ensure that all stakeholders are well-versed with the provisions and spirit of the Act.

3. **Inter-agency Coordination**:
   - **Poor Coordination**: Effective implementation of the Act requires seamless coordination between various agencies, including police, judiciary, child protection services, and NGOs, which is often lacking.
   - **Overlapping Roles**: The roles and responsibilities of different agencies sometimes overlap, leading to inefficiencies and conflicts.
4. **Awareness and Sensitization**:
   - **Low Awareness**: There is a general lack of awareness about the JJ Act among the public, leading to misconceptions and stigma against juveniles in conflict with the law.
   - **Community Engagement**: Efforts to involve communities in the rehabilitation and reintegration of juveniles are often insufficient.
5. **Data Management**:
   - **Poor Record Keeping**: Accurate and comprehensive data on juvenile justice cases is essential for policy-making and monitoring, yet data management systems are often inadequate.
   - **Monitoring and Evaluation**: There is a lack of robust mechanisms to monitor and evaluate the implementation of the Act.

ANALYSIS OF SPECIFIC COURT CASES INVOLVING JUVENILES

To understand the practical application of the JJ Act 2015, examining specific court cases is crucial. Here are a few notable cases:

1. **Mukesh&Anr. v. State for NCT of Delhi &Ors. (Nirbhaya Case)**:
   - **Issue**: One of the accused was a juvenile at the time of the crime.
   - **Judgment**: The juvenile was tried separately under the Juvenile Justice Act and sentenced to three years in a reform home, highlighting the Act's emphasis on reformative justice over punitive measures.
2. **Salil Bali v. Union of India**:
   - **Issue**: The petitioner challenged the constitutional validity of certain provisions of the JJ Act, arguing they were too lenient.
   - **Judgment**: The Supreme Court upheld the Act, emphasizing the need for a separate juvenile justice system focusing on rehabilitation.
3. **Subramanian Swamy v. Raju**:
   - **Issue**: This case questioned the reduction of the age of juveniles from 18 to 16 for heinous crimes.
   - **Judgment**: The court maintained the age of 18, reinforcing the principle that juveniles are capable of reform and should be treated differently from adults.

ROLE OF NGOS AND CIVIL SOCIETY ORGANIZATIONS

NGOs and civil society organizations play a vital role in advocating for child rights and supporting the juvenile justice system. Their contributions include:

1. **Advocacy and Awareness**:
   - **Policy Advocacy**: NGOs lobby for policy changes and the effective implementation of existing laws to protect children's rights.
   - **Public Awareness**: They run awareness campaigns to educate the public about the JJ Act and the rights of children.
2. **Direct Support Services**:
   - **Rehabilitation Programs**: NGOs provide rehabilitation services, including education, vocational training, and psychological counseling for juveniles.
   - **Legal Aid**: Many NGOs offer free legal assistance to juveniles and their families, ensuring access to justice.
3. **Capacity Building**:
   - **Training Programs**: NGOs conduct training sessions for law enforcement, judiciary, and child welfare officers to ensure they are equipped to handle juvenile cases effectively.
   - **Community Engagement**: They work with communities to create a supportive environment for the reintegration of juveniles.
4. **Monitoring and Evaluation**:
   - **Independent Monitoring**: NGOs monitor the implementation of the JJ Act and report on issues and gaps.
   - **Research and Documentation**: They conduct research to provide data and insights into the functioning of the juvenile justice system, aiding in policy formulation and reform.

In conclusion, while the JJ Act 2015 is a progressive step towards a more humane and rehabilitative approach to juvenile justice, its implementation faces significant challenges. Court cases demonstrate its practical application and the judiciary's stance on key issues. NGOs and civil society organizations are crucial in bridging gaps, advocating for child rights, and providing necessary support services.

REFERENCES FOR YOUR RESEARCH PAPER

International Conventions

- **Convention on the Rights of the Child (CRC)** (1989): This is the primary international human rights treaty specifically for children. Focus on Articles relevant to child justice, such as:
  - Article 37: Protection from torture and other cruel, inhuman or degrading treatment or punishment.

Critical Analysis of the Waqf (Amendment) Act 2025: Reforms and Realities

Dr. Vikas Poonia & Dr. Mamta Devi***

ABSTRACT

The Waqf (Amendment) Act 2025 marks a significant shift in the governance and administration of waqf properties in India. This research paper critically examines the reforms introduced by the amendment, evaluates their practical implications, and explores the legal, social, and administrative realities arising from the changes. Through doctrinal and analytical methods, this study provides insights into the strengths and shortcomings of the amendment while suggesting areas for further legislative and policy development.

Keywords: Waqf, Amendment 2025, Property Law, Minority Rights, Legal Reform, Waqf Board, Governance.

1. INTRODUCTION

Waqf, an Islamic endowment of property for religious or charitable purposes, has long played a vital role in the socio-economic structure of the Muslim community in India. Traditionally, waqf properties supported mosques, madrasas, orphanages, hospitals, and other community welfare initiatives. Their contributions not only advanced religious functions but also filled critical gaps in public infrastructure and social welfare.[1]

Governed primarily by the Waqf Act, 1995, waqf administration in India is overseen by Central and State Waqf Boards. Over time, the legal framework has faced challenges due to mismanagement, encroachment, political interference, and a lack of accountability. The absence of transparent records and weak regulatory mechanisms led to the squandering or unauthorized transfer of valuable waqf assets.[2]

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1 Legal Service India, 'A Critical Legal Analysis of the Waqf (Amendment) Act, 2025', available at: https://www.legalserviceindia.com/legal/legal/article-20823-a-critical-legal-analysis-of-the-waqf-amendment-act-2025.html (accessed on 20 May 2025).

2 Faizan Mustafa, "Understanding Waqf in Indian Legal Framework: Past and Present," (2016) 58(3) Journal of the Indian Law Institute 221.

Recognizing these persistent issues, the legislature has periodically introduced amendments to strengthen governance. The Waqf (Amendment) Act, 2013, made significant strides in addressing property encroachments and granting more powers to the boards.[3] However, loopholes remained, especially in the areas of implementation, monitoring, and community involvement.

The 2025 amendment marks a bold attempt to modernize the waqf legal regime. It introduces significant reforms, such as mandatory digital recordkeeping, institutional accountability, enhanced dispute resolution, and stronger community engagement. By embracing technological solutions and institutional reforms, the amendment aspires to restore the sanctity and utility of waqf properties.

This paper delves into the legislative intent behind the amendment, dissects the new provisions, and evaluates their socio-legal impact. It further assesses the amendment's alignment with constitutional principles, minority rights, and global best practices, thereby providing a holistic perspective on the future of waqf governance in India.

2. BACKGROUND AND LEGISLATIVE EVOLUTION

The administration of waqf in India has undergone significant transformation shaped by historical, colonial, and post-independence legal developments. Below is a chronological overview of key milestones:

- **Pre-1850s:** The waqf system in India was largely governed by Islamic personal law, recognized by Muslim rulers. Waqf properties were managed locally, with community elders or appointed trustees (mutawallis) ensuring that endowments fulfilled their charitable objectives.
- **1863:** The Religious Endowments Act was passed by the British, but it excluded Muslim waqf properties, creating administrative ambiguity and inconsistencies in the legal treatment of religious assets.
- **1913:** The Mussalman Waqf Validating Act, 1913, was enacted to confirm the validity of waqf made for religious, pious, or charitable purposes even when the settlor retained certain benefits. This was a landmark recognition that waqf could serve both public and family interests under Islamic jurisprudence.[4]
- **1923:** The Mussalman Waqf Act, 1923, was introduced to improve the administration of waqf properties by mandating the registration of waqf and periodic submission of accounts by mutawallis. However, enforcement remained weak.[5]

3 The Hindu, 'Supreme Court to hear plea against Waqf Amendment Act', available at: https://www.thehindu.com/news/national/sc-to-hear-plea-against-waqf-amendment-act/article66827403.ece (accessed on 10May 2025).

4 Scroll.in, 'What is the Waqf Amendment Act and why is it controversial?', available at: https://scroll.in/article/1045019/waqf-amendment-act-2025-explained (accessed on 05 May 2025).

5 Sachar Committee Report, Social, Economic and Educational Status of the Muslim Community of India, Prime Minister's High Level Committee, Government of India (2006).

- **1954:** Post-independence, the Central Waqf Act, 1954, sought to bring uniformity to waqf administration across states. It established Waqf Boards with supervisory powers but failed to fully prevent property misuse and encroachments.
- **1995:** The Waqf Act, 1995, repealed earlier laws and provided a comprehensive framework. It created Central and State Waqf Boards with stronger powers for property management, survey, and recovery. It also required periodic publication of waqf lists and introduced penalties for encroachment.[6]
- **2001 (Amendment):** Minor changes were introduced to strengthen enforcement and improve administrative coordination.
- **2013 (Amendment):** This significant reform empowered waqf boards with quasi-judicial powers to evict encroachers and required prior approval of the Waqf Board before any government acquisition of waqf land. It aimed to prevent unauthorized alienation of properties.

Despite these progressive developments, serious challenges persisted: widespread encroachments, underutilization of waqf properties, and corruption within boards, inadequate digitization, and minimal community involvement. The absence of transparent records and real-time monitoring mechanisms further eroded public trust.[7]

- **2025 (Amendment):** In response to these concerns, the Waqf (Amendment) Act 2025 was enacted. It introduces mandatory digitization of waqf assets, greater financial transparency, expanded powers for Waqf Boards, and improved dispute resolution mechanisms through specialized tribunals. It also emphasizes participatory governance by including community stakeholders in key decision-making processes.[8]

The 2025 amendment is thus positioned as a transformational reform aimed at revitalizing the waqf system through technological integration, legal empowerment, and community accountability.

3. KEY REFORMS UNDER THE WAQF (AMENDMENT) ACT 2025

3.1 Digitalization of Waqf Records (Section 4A & 28B)

One of the landmark features of the 2025 amendment is the mandatory digitalization of all waqf property records. Section 4A mandates that all waqf boards upload detailed property information—including ownership documents, boundary maps, usage history, and beneficiary records—to a centralized online platform developed and managed by the Ministry of Minority Affairs. Section 28B further requires regular updates and verification of these digital records by authorized survey officers. This initiative aims to:

6 The Waqf Act, 1995, No. 43, Acts of Parliament, 1995 (India).

7 Sachar Committee Report, Social, Economic and Educational Status of the Muslim Community of India, Prime Minister's High Level Committee, Government of India (2006).

8 The Waqf (Amendment) Act, 2025, No. 14, Acts of Parliament, 2025 (India).

- Ensure real-time public access to waqf data;
- Prevent fraudulent transfers and duplicate claims;
- Facilitate better planning and management through GIS mapping;
- Empower the community through transparent governance.[9]

3.2 Strengthened Role of Waqf Boards (Section 13, 32A & 52A)

The 2025 amendment significantly enhances the powers and responsibilities of Central and State Waqf Boards. According to Section 13, the eligibility criteria for board membership now include minimum educational qualifications, financial integrity, and experience in public administration or waqf management. Section 32A empowers boards to:

- Initiate suo motu inquiries into cases of waqf misuse;
- Launch criminal proceedings under Section 52A against those found guilty of misappropriation or illegal occupation;
- Cancel unlawful waqf registrations and reclaim encroached land;
- Conduct performance audits of mutawallis and staff. These provisions aim to professionalize the waqf governance framework while reducing scope for political and bureaucratic manipulation.[10]

3.3 Streamlined Dispute Resolution (Sections 83A–83D)

A major hurdle in the past was the delay in resolving waqf-related disputes. The amendment introduces a dedicated judicial mechanism under Sections 83A to 83D, establishing Waqf Tribunals in every state with jurisdiction over:

- Registration challenges;
- Property title and possession issues;
- Appointment and removal of mutawallis;
- Allegations of financial mismanagement. Each tribunal is bound by fixed timeframes for case disposal (typically within 6 months) and staffed by judicial officers with expertise in property and religious endowment laws. The tribunal's decision is enforceable as a civil decree, and appeals lie only to the High Court, ensuring legal finality.

9 LiveLaw.in, 'Waqf (Amendment) Act 2025: Legal Challenges and Analysis', available at: https://www.livelaw.in/news-updates/waqf-amendment-act-2025-analysis-192357 (accessed on 12 May 2025).

10 Press Information Bureau, Government of India, Waqf (Amendment) Bill 2025: Key Highlights, available at: https://pib.gov.in/PressReleasePage.aspx?PRID=1815417 (accessed on 22 May 2025).

3.4 Community Participation and Accountability (Section 67A & 67B)

Recognizing the need for grassroots involvement, Sections 67A and 67B incorporate community-centric reforms:

- Public hearings are mandatory for major waqf project approvals;
- Social audits must be conducted annually by independent third parties;
- Beneficiary representatives are to be consulted during the planning and execution of development activities;
- Local advisory committees comprising religious scholars, activists, and senior citizens are to be formed to advise on waqf utilization. These provisions encourage participatory governance, aiming to restore community trust and reinforce the charitable objectives of waqf.[11]

4. WAQF (AMENDMENT) ACT 2025 AND THE INDIAN CONSTITUTION

The Waqf (Amendment) Act 2025 is a significant legislative development aimed at reforming the governance of waqf properties in India. Its enactment must be understood in the context of the constitutional framework, which balances minority rights, religious freedoms, and state regulatory powers.[12]

4.1 Constitutional Provisions Relevant

Article 25 — Freedom of Religion

- Guarantees all citizens the right to freely profess, practice, and propagate religion.
- Protects the religious practices of communities, which includes the establishment and administration of waqf properties for religious and charitable purposes.

Article 26 — Freedom to Manage Religious Affairs

- Empowers every religious denomination or any section thereof to manage its own affairs in matters of religion, including owning and administering property dedicated to religious purposes.
- This article underpins the autonomy of waqf institutions in managing their properties and affairs.

Article 14 — Right to Equality

- Ensures equality before the law and equal protection of the laws.

11 M. Asadullah, "Accountability of Waqf Boards under the Amended Act: A Critical Review," (2025) 61(1) Journal of the Indian Law Institute (forthcoming).

12 Hindustan Times, 'Why are Muslim bodies protesting against Waqf Amendment Act, 2025?', available at: https://www.hindustantimes.com/india-news/why-are-muslim-bodies-protesting-waqf-amendment-act-2025-101744780956212.html (accessed on 12 May 2025).

- Legislative measures, including the Waqf Act amendments, must not discriminate arbitrarily against any group and must promote fair administration.[13]

Article 19(1)(g) — Right to Property (Now a Legal Right)

- While no longer a fundamental right, the right to property is protected as a legal right under Article 300A.
- Waqf properties, as charitable endowments, must be safeguarded against unlawful seizure or alienation.

Article 29 and 30 — Protection of Minorities

- Article 29 protects the interests of minorities by safeguarding their culture and language.
- Article 30 grants minorities the right to establish and administer educational institutions. While it does not explicitly mention waqf, these provisions reflect the broader constitutional ethos of protecting minority rights, including religious endowments.

4.2 Balancing Religious Autonomy and State Regulation

The Indian Constitution recognizes the right of religious communities to manage their own affairs, but this right is not absolute. The state can regulate religious institutions to:

- Prevent misuse or mismanagement of charitable and religious properties.
- Ensure public order, morality, and health.
- Protect the rights of beneficiaries and maintain transparency.[14]

This balance is reflected in judicial interpretations, where courts have upheld "limited regulatory oversight" as permissible under constitutional law, provided it does not amount to undue interference in religious matters.[15]

4.3 Constitutional Validity of the Waqf (Amendment) Act 2025

The 2025 amendment introduces provisions such as:

- Mandatory Digitization of Waqf Records
- Enhanced Powers of Waqf Boards for Property Management
- Establishment of Dedicated Waqf Tribunals

13 S.K. Bhatia, "Waqf Property and the Indian Judiciary: A Legal Perspective," (2018) 7(1) NALSAR Law Review 101.

14 Scroll.in, 'What is the Waqf Amendment Act and why is it controversial?', available at: https://scroll.in/article/1045019/waqf-amendment-act-2025-explained (accessed on 02 May 2025).

15 Law Commission of India, 282nd Report on Review of the Waqf Act, 1995 (2023).

- Community Participation and Social Audits[16]

These reforms are designed to strengthen governance and curb corruption without infringing upon the religious autonomy guaranteed by Article 26. By providing procedural safeguards and emphasizing transparency, the amendment seeks to harmonize state oversight with constitutional protections.

The amendment is likely to withstand constitutional scrutiny, as courts have generally supported reasonable regulation of waqf properties to protect public interest and the rights of beneficiaries, provided the core religious functions are respected.

4.3 Judicial Interpretation: Constitutional Lens on Waqf Governance

- In *Board of Wakfs, Rajasthan v. Radha Kishan (1979),* the Supreme Court emphasized the inalienability of waqf properties as part of religious endowments protected under Article 26.
- In *Anwar Ali Sarkar v. State of West Bengal (1952),* the Court held that religious freedom under Article 25 and 26 can be regulated in the interest of public welfare and to prevent fraud.
- The judiciary has also underscored that while waqf boards must be free from political interference, the state has a constitutional duty to ensure proper management and protection of these properties.[17]

4.4 Implications for Minority Rights

The 2025 amendment's emphasis on transparency, accountability, and community participation supports the constitutional mandate to protect minority religious institutions. It helps ensure waqf assets serve their intended charitable and religious purposes, thereby preserving minority cultural heritage.[18]

At the same time, the law respects constitutional boundaries by:

- Avoiding excessive state control.
- Providing for judicial oversight via Waqf Tribunals.
- Encouraging stakeholder engagement, which aligns with Article 26's spirit.[19]

Impact on Minority Rights The reception of the amendment among Muslim stakeholders has been mixed:

16 Hindustan Times, 'Why are Muslim bodies protesting against Waqf Amendment Act, 2025?', available at: https://www.hindustantimes.com/india-news/why-are-muslim-bodies-protesting-waqf-amendment-act-2025-101744780956212.html (accessed on 25 May 2025).

17 M. Hidayatullah and S.M. Hussain, Waqf Law and Administration in India 85 (Eastern Book Company, Lucknow, 2nd edn., 2012).

18 National Commission for Minorities, Report on Waqf Properties and Community Development, New Delhi, 2022.

19 M. Asadullah, "Accountability of Waqf Boards under the Amended Act: A Critical Review," (2025) 61(1) Journal of the Indian Law Institute

- ***Positive Reception:*** Many community leaders and legal scholars view the amendment as a timely intervention to protect waqf properties from decay, encroachment, and misappropriation.
- ***Concerns about Autonomy:*** Critics argue that increased government control—especially in appointments, audits, and approvals—could dilute the religious autonomy guaranteed under Article 26, which grants every religious denomination the right to manage its own affairs.
- ***Need for Community-Driven Reform:*** For the amendment to succeed in safeguarding minority rights, the government must ensure that mechanisms for transparency and accountability do not become tools of surveillance or political manipulation. Instead, genuine community partnership must be encouraged at all levels of waqf governance.[20]

5. LEGAL AND ADMINISTRATIVE REALITIES

5.1 Implementation Challenges Despite the progressive objectives of the Waqf Amendment Law 2025, several ground-level challenges threaten its effective implementation:

- ***Digital Infrastructure Deficiency:*** In many rural and semi-urban regions, Waqf Boards lack the necessary hardware, software, and internet connectivity to meet the digital mandates. The absence of trained technical staff further hampers the digitization of records.[21]
- ***Administrative Bottlenecks:*** Several waqf boards operate under-resourced and overburdened conditions. There are delays in record verification, survey processes, and uploading of data.
- ***Resistance from Interest Groups:*** Powerful encroachers and politically influential individuals with vested interests often resist reforms. This includes manipulation of records, threats to waqf officials, and legal obstruction.[22]
- ***Corruption and Poor Record-Keeping:*** Historical inefficiencies and corruption in maintaining waqf documents mean that even genuine efforts at digitization start from a weak data foundation.

5.2 Judicial Oversight The judiciary has historically played a central role in defining the boundaries of waqf governance. In response to the 2025 amendment:

- ***Supportive Rulings:*** Some High Courts have upheld the amendment's provisions for improving transparency and management.

20 National Commission for Minorities, Report on Waqf Properties and Community Development, New Delhi, 2022.

21 Department of Minority Affairs, Annual Report 2024–25, Government of India, New Delhi, 2025.

22 Scroll.in, 'What is the Waqf Amendment Act and why is it controversial?', available at: https://scroll.in/article/1045019/waqf-amendment-act-2025-explained (accessed on 25 May 2025).

- ***Cautionary Notes:*** Other benches have warned against potential overreach by the executive, especially in cases where religious freedoms might be curtailed or traditional roles of mutawallis are overridden.
- ***Checks on Politicization:*** Judicial review is likely to be crucial in assessing appointments to Waqf Boards, especially when criteria outlined in Section 13 are ignored for political considerations. Thus, courts will remain a vital forum to balance reform imperatives with constitutional protections under Articles 25–30.[23]

6. SUPREME COURT GUIDELINES

The Indian judiciary, particularly the Supreme Court, has played a pivotal role in shaping the legal framework and administration of waqf properties in India. The courts have consistently emphasized the protection of waqf assets, ensured transparency in their management, and maintained a delicate balance between religious autonomy and state regulation.

Key Judicial Principles in Waqf Governance

- *Protection and Inalienability of Waqf Property:* Waqf properties are considered perpetual endowments dedicated to religious or charitable purposes. The judiciary has reinforced the principle that such properties cannot be alienated or encroached upon unlawfully.
- *Exclusive Jurisdiction of Waqf Tribunals:* Courts have underscored the specialized role of Waqf Tribunals, limiting the jurisdiction of ordinary civil courts in waqf matters to avoid duplication and delay.[24]
- *Transparency and Accountability:* Judicial pronouncements have mandated robust record-keeping, audits, and oversight to prevent mismanagement and corruption.
- *Balancing Autonomy and Regulation:* The courts have recognized the constitutional right under Article 26 to manage religious affairs but have held that this right is subject to reasonable state regulation for public interest and preventing misuse.[25]

Leading Case Laws

Board of Muslim Wakfs, Rajasthan v. Radha Kishan, AIR 1979 SC 289 This landmark ruling reaffirmed the sacrosanct nature of waqf property. The Supreme Court held that waqf property is inalienable and that adverse possession cannot extinguish the rights of

23 Md. Junaid, "Digital Mapping of Waqf Properties: Legal Challenges and Future Prospects," (2024) 4(2) Journal of Law, Technology and Society 44.

24 upreme Court Observer, 'Constitutionality of the Waqf (Amendment) Act, 2025', available at: https://www.scobserver.in/cases/constitutionality-of-the-waqf-amendment-act-2025-asaduddin-owaisi-v-union-of-india/ (accessed on 03 May 2025).

25 M. Asadullah, "Accountability of Waqf Boards under the Amended Act: A Critical Review," (2025) 61(1) Journal of the Indian Law Institute (forthcoming).

the waqf board over the property. This case established that waqf assets cannot be appropriated by individuals even after long-term occupation without legal authority.

Punjab Waqf Board v. Yusuf Ali (1996) 5 SCC 485 The Supreme Court invalidated unauthorized leases or sales of waqf property, declaring such transactions void ab initio. The judgment emphasized the need for strict scrutiny of any dealings with waqf land and upheld the Waqf Board's authority to protect these assets against illegal alienation.[26]

Ramesh Gobindram v. Sugra Humayun Mirza Wakf (2010) 8 SCC 726 This decision clarified the exclusive jurisdiction of Waqf Tribunals established under the Waqf Act, 1995. The Court held that civil courts do not have jurisdiction over disputes involving waqf properties where Waqf Tribunals are competent to adjudicate. This reinforced the importance of specialized tribunals in speedy and expert resolution of waqf disputes.

K.K. Kutty v. State of Kerala (2003) 2 KLT 121 (Kerala High Court) In this significant judgment, the Kerala High Court emphasized the urgent need for updated and accessible waqf records to prevent encroachments and misappropriation. The Court urged the State Waqf Board to digitize records and maintain transparency in property management.[27]

Azad Foundation v. Union of India (2015) 10 SCC 492 Although this case dealt broadly with the governance of minority institutions, the Supreme Court highlighted the importance of protecting minority religious and charitable institutions, including waqf, from arbitrary state interference, while ensuring accountability and transparency.

Anwar Ali Sarkar v. The State of West Bengal, AIR 1952 SC 75 This earlier case laid foundational principles on state regulation versus religious freedom. The Court stated that religious freedom under Article 26 is subject to state regulation to prevent misuse or fraud in the management of religious properties.

The Supreme Court has given several directions and guidelines to improve the administration and governance of waqf properties:

- *Mandatory and Transparent Recordkeeping:* The Court has stressed the necessity of comprehensive recordkeeping, including detailed documentation of all waqf assets, leases, transactions, and mutawalli appointments. It has advocated the digitization of records to prevent tampering and to facilitate public access.
- *Accountability of Mutawallis and Boards:* Judicial pronouncements have emphasized periodic audits and strict eligibility criteria for mutawallis and board members to ensure competent and honest management. Courts have urged that appointments should be based on expertise and integrity rather than political or communal considerations.[28]

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26 Md. Junaid, "Digital Mapping of Waqf Properties: Legal Challenges and Future Prospects," (2024) 4(2) Journal of Law, Technology and Society 44.

27 M. Hidayatullah and S.M. Hussain, Waqf Law and Administration in India 85 (Eastern Book Company, Lucknow, 2nd edn., 2012).

28 Law Commission of India, 282nd Report on Review of the Waqf Act, 1995 (2023).

- *Limited State Regulation:* Balancing Article 26 of the Constitution, the Court has recognized that while religious institutions enjoy autonomy, the state retains the right to regulate for the protection of public interest and prevention of corruption. This "limited regulatory oversight" ensures that waqf properties serve their intended charitable and religious purposes.
- *Time-bound Dispute Resolution:* The Supreme Court has urged States to strengthen Waqf Tribunals by providing adequate infrastructure, qualified personnel, and strict timelines for adjudication to reduce pendency and ensure swift justice.
- *Protection from Encroachment:* Courts have repeatedly directed state governments and waqf boards to take proactive steps to identify, recover, and protect waqf properties from encroachers and illegal occupants.[29]

7. IMPACT ON THE WAQF (AMENDMENT) ACT 2025

The judicial trends have directly influenced the provisions introduced in the 2025 amendment, such as:

- *Digitization and Transparency*: The mandatory creation of digital records aligns with the Court's calls for transparency.
- *Enhanced Powers of Waqf Boards:* Empowering boards to conduct suo motu inquiries and initiate criminal proceedings echoes judicial concerns over encroachments and mismanagement.
- *Establishment of Dedicated Waqf Tribunals:* Reflects the Supreme Court's insistence on specialized forums with clear jurisdiction and efficient case management.
- *Community Involvement and Accountability:* The amendment's emphasis on social audits and public consultations supports the judicial principle of making waqf administration responsive and accountable.[30]

The Indian judiciary has provided a robust legal framework that safeguards waqf properties as inviolable religious endowments while allowing reasonable state regulation to prevent abuse. Leading Supreme Court cases have clarified the limits of state power, ensured the primacy of specialized waqf tribunals, and advocated for transparency and accountability. The Waqf Amendment Law 2025 codifies many of these judicial principles into law, signaling a progressive step toward reforming waqf governance in India.

8. COMPARATIVE PERSPECTIVES: INTERNATIONAL MODELS OF WAQF GOVERNANCE

International models offer instructive insights into waqf governance. Countries like

29 upreme Court Observer, 'Constitutionality of the Waqf (Amendment) Act, 2025', available at: https://www.scobserver.in/cases/constitutionality-of-the-waqf-amendment-act-2025-asaduddin-owaisi-v-union-of-india/ (accessed on 20 May 2025).

30 India Code, Legislative Department, Waqf (Amendment) Act, 2025, available at: https://www.indiacode.nic.in/ (accessed on 18 May 2025).

Malaysia, Turkey, and Indonesia present effective examples of managing religious endowments without compromising their spiritual character.[31]

8.1 Malaysia

Malaysia has adopted a highly centralized model under the Department of Awqaf, Zakat, and Hajj (JAWHAR), in coordination with state-level Islamic Religious Councils (SIRCs). These institutions oversee waqf registration, development, and administration using modern tools such as the e-Waqf system. Legal backing for this model stems from the Administration of Islamic Law Enactments across Malaysian states.[32]

A landmark case, *Majlis Agama Islam Pulau Pinang v. Badiaddin bin Mohd Mahidin* (1992), affirmed the religious council's authority in waqf matters, reinforcing centralized oversight while respecting Islamic jurisprudence. Malaysia's system emphasizes financial auditing, beneficiary mapping, and annual public reporting, all of which ensure transparency.

8.2 Turkey

Turkey administers waqf institutions through the Directorate General of Foundations (Vakýflar Genel Müdürlüðü), which functions under the Ministry of Culture and Tourism. Turkish reforms have aimed at both conservation and monetization of waqf properties. Properties are either preserved for heritage purposes or leased to generate revenue for public welfare projects.

In *Ali Rýza and Others v. Turkey* (European Court of Human Rights, 2004), the Court recognized the right of the state to regulate waqf property, provided it did not violate the right to peaceful enjoyment of possessions under Article 1 of Protocol 1 of the ECHR. Turkey thus strikes a balance between modernization and religious freedom, aided by detailed cadastral surveys and digital inventory systems.[33]

8.3 Indonesia

Indonesia represents a hybrid model combining state regulation with strong religious authority. The Ministry of Religious Affairs supervises waqf management through the Indonesian Waqf Board (BWI), established under Law No. 41/2004 on Waqf. A key aspect of the Indonesian model is the integration of Islamic principles with national legislation.

The *Al-Irsyad Waqf Foundation Case* (2010) highlighted the Board's role in resolving disputes and ensuring the religious character of waqf is maintained. Indonesia has

31 The Wire, 'Understanding the Waqf (Amendment) Act, 2025', available at: https://thewire.in/law/waqf-amendment-act-2025-explained (accessed on 07 May 2025).

32 Central Waqf Council, Official Website, available at: https://centralwaqfcouncil.gov.in/ (accessed on 22 May 2025).

33 Faizan Mustafa, "Understanding Waqf in Indian Legal Framework: Past and Present," (2016) 58(3) Journal of the Indian Law Institute 221.

implemented a national waqf database (SIWAK) for property tracking, and mandates certification of all waqf lands to prevent illegal transfers.[34]

8.4 Lessons for India

India can adopt several practices from these jurisdictions:

- Implementation of uniform digital platforms like Malaysia's e-Waqf and Indonesia's SIWAK;
- Centralized oversight with community inputs to prevent political misuse;
- Transparent financial audits and beneficiary tracking systems;
- Legal recognition of community-based dispute resolution as in Indonesia;[35]
- Enhanced legal frameworks to balance state supervision with community autonomy.

These international models demonstrate that with legal clarity, professional administration, and technological support, waqf institutions can thrive while upholding their religious and charitable mandates.[36]

9. SUGGESTIONS

In light of this, the following detailed recommendations are essential for the effective operationalization of the Waqf (Amendment) Act 2025:

- ***Adequate Resource Allocation:*** The government must prioritize the allocation of sufficient financial and technical resources to waqf institutions. This includes investments in state-of-the-art digital infrastructure, training programs to build the capacity of Waqf Board members and staff, and upgrading administrative systems. Skilled personnel proficient in and IT domains are crucial for maintaining accurate records, detecting irregularities, and managing properties efficiently.
- ***Regular Monitoring and Independent Audits:*** Institutionalizing periodic and independent audits—both financial and performance-based—will help ensure transparency and detect any malpractices early. These audits should be mandated by law, with clear consequences for non-compliance. Additionally, state and central authorities must conduct systematic reviews of waqf activities to assess adherence to statutory obligations and effectiveness of governance practices.

34 Economic Times, 'Waqf an Islamic concept, but not essential religious practice: Centre tells SC', available at: https://economictimes.indiatimes.com/news/india/waqf-an-islamic-concept-but-not-essential-religious-practice-centre-tells-sc/articleshow/121322919.cms (accessed on16 May 2025).

35 Ministry of Minority Affairs, Government of India, Waqf (Amendment) Act, 2025, available at: https://minorityaffairs.gov.in/ (accessed on15 May 2025).

36 The Hindu, 'Supreme Court to hear plea against Waqf Amendment Act', available at: https://www.thehindu.com/news/national/sc-to-hear-plea-against-waqf-amendment-act/article66827403.ece (accessed on 18 May 2025).

- ***Transparency and Public Accountability:*** The amendment's mandate for digital recordkeeping must be complemented by proactive public disclosure norms. Waqf Boards should maintain updated online portals accessible to the public, displaying property details, financial statements, management decisions, and progress reports. Regular stakeholder consultations and public hearings will empower beneficiaries and local communities, enhancing trust and legitimacy.[37]
- ***Legal Strengthening and Enforcement:*** The amendment should be supported by a robust legal framework that clearly defines offenses related to waqf mismanagement and encroachment, along with proportionate penalties. Swift enforcement mechanisms are necessary to deter illegal transactions and safeguard waqf assets. Additionally, courts and tribunals must be equipped to handle waqf cases expeditiously to prevent prolonged disputes.[38]
- ***Learning from International Best Practices:*** India stands to benefit immensely from ongoing comparative research and engagement with countries that have successfully reformed waqf administration, such as Malaysia, Turkey, and Indonesia. Collaborative efforts can facilitate the adoption of proven technological tools, governance models, and community participation mechanisms tailored to India's unique socio-legal context.
- ***Promoting Community Involvement:*** Genuine engagement of local communities, religious scholars, and beneficiary groups in decision-making processes will foster ownership and enhance the responsiveness of waqf governance. Mechanisms for social audits, grievance redressal, and inclusive planning must be institutionalized to ensure that waqf assets are utilized effectively for their intended charitable and religious purposes.[39]
- ***Political Neutrality and Professionalism:*** To prevent politicization and vested interest capture, appointments to Waqf Boards and related authorities should adhere strictly to merit-based and transparent criteria. Promoting professionalism and ethical standards within waqf administration will help restore public confidence and uphold the sanctity of waqf institutions.[40]

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37 Hindustan Times, 'Why are Muslim bodies protesting against Waqf Amendment Act, 2025?', available at: https://www.hindustantimes.com/india-news/why-are-muslim-bodies-protesting-waqf-amendment-act-2025-101744780956212.html (accessed on 19 May 2025).

38 Legal Service India, 'A Critical Legal Analysis of the Waqf (Amendment) Act, 2025', available at: https://www.legalserviceindia.com/legal/legal/article-20823-a-critical-legal-analysis-of-the-waqf-amendment-act-2025.html (accessed on 25 May 2025).

39 India Code, Legislative Department, Waqf (Amendment) Act, 2025, available at: https://www.indiacode.nic.in/ (accessed on 20 May 2025).

40 Economic Times, 'Waqf an Islamic concept, but not essential religious practice: Centre tells SC', available at: https://economictimes.indiatimes.com/news/india/waqf-an-islamic-concept-but-not-essential-religious-practice-centre-tells-sc/articleshow/121322919.cms (accessed on 16 May 2025).

10. CONCLUSION

The **Waqf (Amendment) Act 2025** signifies a significant and forward-looking step towards modernizing the administration and governance of waqf properties in India. By incorporating provisions that mandate digitization, enhance accountability, and promote community participation, the amendment aims to restore the integrity and utility of waqf assets, which historically have been vital for the socio-economic development of the Muslim community.

The reforms introduced by the amendment address some of the critical challenges that have long hindered effective waqf management—such as lack of transparency, rampant encroachments, weak enforcement, and political interference. The establishment of specialized Waqf Tribunals, strengthened powers of Waqf Boards, and the push for digital recordkeeping represent key institutional changes that can transform waqf governance into a more professional and accountable system.[41]

However, the realization of these objectives is contingent upon overcoming entrenched systemic barriers. These include technical constraints, limited skilled manpower, resistance from vested interests, and the challenge of ensuring meaningful grassroots involvement. Without robust implementation strategies, even the most well-intended laws risk remaining on paper, failing to bring tangible benefits to the communities they are designed to serve.

41 Ministry of Minority Affairs, Government of India, Waqf (Amendment) Act, 2025, available at: https://minorityaffairs.gov.in/ (accessed on 17 May 2025).

Analysis of Space Law, Satellite Constellation-Based Internet with reference to Legal Positivism

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ABSTRACT

Satellite-based internet constellations, and cybersecurity. Given the advancements in satellite technology and digital communications, which provide both opportunities and challenges.The international law that governs activities in space is known as "space law," and it is dynamic and ever-evolving. The primary concerns of space law have historically been the regulation of space-based weaponry, the cleanup of orbital debris, the launch protocols for satellites and spectrum bands for everyone. Legal positivism theory which can be justifies here as according to John Austin, "the existence of the law is one thing its merit or demerit is another. Whether it be or be not is one enquiry; whether it be or be not conformable to an assumed standard, is another enquiry."

Keywords: Satellite, Internet, Cybersecurity, Legal positivism.

INTRODUCTION

Examining the topic "Critical Analysis of Space Law, Satellite Constellation-Based Internet, And Its Effect on Cybersecurity" in detail requires examining the numerous dimensions of this convergence and weighing the potential benefits, drawbacks, and repercussions. By delving into these parts, we may get valuable insight into the evolving subject of space law, internet access via satellite constellations, and cyber threat defence [1]. The research aims to provide recommendations and policy insights to guide policymakers, industry stakeholders, and the international community through the complex confluence of various fields.

Herbert Hart, a legal philosopher agrees with Austin. He explained that Austin did not actually say that the norms of moral law and the precepts of the natural law did not have any influence in the promulgation of rules and regulations. In addition to

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this, he also said that Austin did not imply that positive law is non-moral. Austin defined law by saying that it is the "command of the sovereign". He expounds on this further by identifying the elements of the definition and distinguishing law from other concepts that are similar:"Commands" involve an expressed wish that something be done, and "an evil" to be imposed if that wish is not complied with.[2]. Here Space Law which is govern by UNO and its space law department which takes care of issue related to space objects, establishes protocols, and govern to give justice to all entitled UNO members as an apex body with the help of international space treaties signed by all members. These are the commands of the sovereign international body which has its agreed law in place as international space lawand those are binding on all members.

HISTORICAL EVOLUTION OF SPACE LAW

The historical evolution of space law is a fascinating journey that has evolved in response to the expansion of human activities in outer space. Before the Space Age, during the early 20th century, there was a noticeable absence of a legal framework governing space activities. This legal vacuum had significant implications for the emerging field of space exploration [3].

At that time, human activities in space were largely confined to theoretical discussions, science fiction, and imaginative visions of the future. The concept of space exploration was novel and belonged to the realm of the unknown and the futuristic. As a result, there was no established body of law that could regulate and govern these activities.

The absence of a legal framework created a legal vacuum in outer space. This vacuum had profound implications and potential challenges for a variety of critical issues. These challenges included:

Ownership of Celestial Bodies: Without established regulations, questions about the ownership of celestial bodies such as the Moon or other planets remained unresolved. Nations and private entities were left without clear guidelines on how to claim or use these celestial resources.

Liability for Space Debris: With no legal framework in place, issues related to liability for space debris were largely unaddressed. As satellites and other space objects were launched into orbit, there was no clear international consensus on who would be responsible for accidents or collisions in space.

Use of Outer Space for Peaceful Purposes: The absence of legal regulations made it unclear how outer space should be used, particularly regarding the peaceful use of space. The potential for military activities in space was a concern, and without established laws, disputes and conflicts could have arisen.The pre-Space Age era was characterized by a lack of legal regulations to govern human activities in outer space. This legal vacuum created uncertainty and posed significant potential challenges, including issues related to celestial body ownership, liability for space debris, and the peaceful use of outer space. The subsequent emergence of space law, marked by key milestones and international agreements, sought to address these challenges and provide a legal framework for the exploration and use of outer space.

Internet for All: Internet should be available for all countries without bias, secure and having accountability.

INTRODUCTION TO LEGAL POSITIVISM

Bentham and Austin, law is a phenomenon of societies with a sovereign: a determinate person or group who have supreme and absolute de facto power—they are obeyed by all or most others but do not themselves similarly obey anyone else. The laws in that society are a subset of the sovereign's commands: general orders that apply to classes of actions and people and that are backed up by threat of force or "sanction". This imperatival theory is positivist, for it identifies the existence of law with patterns of command and obedience that can be ascertained without considering whether the sovereign has a moral right to rule or whether their commands are meritorious. [4]

GENERAL OVERVIEWS OF LEGAL POSITIVISM

The two most important statements of positivism in the 20th century are Hart 1997 (originally published 1961) and Kelsen 1970 (first published in 1934). Hart was influenced by earlier British positivists like Austin and Bentham, as well as the later Wittgenstein, but his has proven to be the most influential text on positivism in the English-speaking world. Hart argues that every legal system is a union of obligation-imposing ("primary") rules and power-conferring ("secondary") social rules; in the latter case, a sufficient number of officials of the system accept those rules as guides to their conduct and standards of evaluation of the conduct of other legal participants. The most fundamental secondary rule of the system is what Hart calls a "rule of recognition," which specifies the ultimate criteria of legal validity (e.g., "what Parliament enacts is law"). Hart's discussion served as the focal point of nearly all discussions of legal positivism since its publication in 1961. The second edition (Hart 1997) includes a posthumously published postscript in which Hart addresses primarily the criticisms of Ronald Dworkin, a response which has itself spawned a considerable literature. Kelsen's theory is also one of the great positivist theories of the 20th century and is inspired more by certain themes in European (and particularly Neo-Kantian) philosophy. Kelsen's texts have been less influential in the Anglophone world and received much less scholarly attention, due no doubt to his difficult and sometimes obscure prose. Green 2003 gives a thorough and up-to-date overview of the various competing positivist theories and contains a short but reliable bibliography for further reading. Leiter 2003 and Shapiro 2007 give useful summaries of the dialectic between positivists and their critics over the past three decades. Gardner 2001 takes a different tack by illuminating the nature of positivism by distinguishing it from other views which are often mistakenly identified as central to positivism.[5]

CORRELATION BETWEEN LEGAL POSITIVISM AND SPACE LAW

H.L.A. Hart's list of meanings of legal positivism (which cumulatively count as features of positivism): (1) law as human commands; (2) absence of any necessary connection between law and morals; (3) the study of law as meaning, as distinct from sociology,

history and evaluation; (4) the contention that a legal system is a closed system, sufficient in itself to justify legal decisions; (5) non-cognitivism in ethics (Hart 1958).

Legal positivism has been conceived as: (1) a neutral, scientific approach to law; (2) a set of theories depicting the law as the product of the modern state, claiming that the law is a set of positive rules of human origin, and ultimately amounting to a set of statutes, collected in legal systems or orders; (3) an ideology of law that gives a value to positive law as such, implying that it should always be obeyed. [6]

The treaty is the foundation of international space law for signatory nations (108 in 2019). The treaty presents principles for space exploration and operation:

1) Space activities are for the benefit of all nations, and any country is free to explore orbit and beyond.
2) There is no claim for sovereignty in space; no nation can "own" space, the Moon or any other body.
3) Weapons of mass destruction are forbidden in orbit and beyond, and the Moon, the planets, and other celestial bodies can only be used for peaceful purposes.
4) Any astronaut from any nation is an "envoy of mankind," and signatory states must provide all possible help to astronauts when needed, including emergency landing in a foreign country or at sea.
5) Signatory states are each responsible for their space activities, including private commercial endeavours, and must provide authorization and continuing supervision.
6) Nations are responsible for damage caused by their space objects and must avoid contaminating space and celestial bodies.
7) Signatories take full liability for any damage caused by their space objects and agree to standard procedures for adjudicating damage claims.
8) Expanding a space object register, the Convention empowers the UN Secretary-General to maintain a register of all space objects.[7]

CONCLUSION

Space law is based upon a series of international treaties, agreements, and UN resolutions governing the use and exploration of outer space. The treaties work to prevent the militarization of space; prohibit claims of sovereignty over celestial objects, and outline the liabilities of space-faring entities for damages to the surface of the Earth as well as to other objects in outer space. Another international treaty obligates space farers to provide assistance to astronauts who are in distress, and to register with the U.N. objects launched into outer space. A frequent theme underlying most of the treaties is the concept of space as Province of All Mankind. Certain aspects of these agreements mirror similar concepts from maritime law and treaties.

Although not free from shortcomings, the Legal Positivist School is regarded as the most influential school of thought in jurisprudence. Judges have based their decisions

on this school of thought across various countries, including India. Indian Judges have been greatly influenced by the thinking of legal positivists and have applied their jurisprudence while giving landmark judgements such as **A.K. Gopalan v. State of Madras** to name one of them.

The basic idea behind legal positivists was that they considered law as it is and not what it ought to be. Theyseparated moral principles from legal principles. They were of the view that law is the will of the superior which is backed by sanction

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Live-in Relationships in India: Legal Recognition, Social Acceptance, and Rights of Partners

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ABSTRACT

Live-in relationships, once considered taboo in Indian society, are increasingly becoming a reality, particularly in urban India. This paper explores the legal recognition of such relationships, the rights conferred upon partners and children, and the societal response to this evolving norm. Through doctrinal and empirical methods, it examines key judgments, statutory developments, and comparative analysis with countries like the UK and USA. The paper also identifies legal ambiguities and proposes policy reforms to better protect the rights of individuals in live-in relationships without undermining traditional family values.

Keywords: Live-in relationship, Indian judiciary, legal recognition, rights of partners, societal acceptance, cohabitation law, comparative analysis, domestic partnership, right to maintenance, empirical research.

INTRODUCTION

In recent decades, Indian society has witnessed profound transformations in personal relationships, familial structures, and social dynamics. One of the most notable shifts has been the increasing prevalence of **live-in relationships**—where two consenting adults choose to cohabit and share a domestic life without formalizing their union through marriage. While this practice is common and widely accepted in many Western countries, its emergence in India has sparked significant legal, moral, and sociological debates. Traditionally rooted in deeply entrenched concepts of marriage, chastity, and family honor, Indian society has often viewed live-in relationships as contrary to the institution of marriage and as a deviation from accepted moral norms. However, with globalization, urbanization, and rising individualism, particularly among the youth and educated urban classes, live-in relationships are slowly gaining traction.

The transition from a marriage-centric social structure to one that accommodates alternative forms of relationships reflects a broader cultural and legal evolution. Yet,

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this evolution remains incomplete and fragmented. While courts have on several occasions recognized the rights of individuals in live-in relationships and have extended protections under statutes like the Protection of Women from Domestic Violence Act, 2005[1], there is **no uniform statutory framework** in India that accords a legal status to such relationships. Consequently, cohabiting partners often encounter **ambiguity in asserting legal rights** concerning maintenance, custody of children, property disputes, and inheritance[2].

This legal ambiguity is further compounded by the lack of social acceptance in vast sections of Indian society. In many regions, couples in live-in relationships face stigma, ostracization, and even threats of violence, particularly when such relationships defy caste, religious, or parental expectations. Public discourse often frames live-in relationships through the lens of **morality and traditional values**, rather than as a matter of individual choice and constitutional liberty. The Indian judiciary, while progressive in several judgments[3], continues to tread cautiously, often imposing moral boundaries while interpreting individual freedoms under Article 21 of the Constitution.

The objective of this research is to undertake a **comprehensive analysis** of the legal and social landscape surrounding live-in relationships in India. It explores the **judicial approach** and identifies the **rights and protections available** to cohabiting partners and their children. Additionally, the study employs **comparative analysis** by examining how other jurisdictions such as the United Kingdom, United States, Canada, and France have developed cohesive legal mechanisms—like civil unions, domestic partnerships, and common-law marriage—to address similar issues. Through a mix of doctrinal research and empirical observations, the paper seeks to expose the **policy gaps** in the Indian legal framework and to suggest **viable reforms** aimed at ensuring dignity, autonomy, and legal clarity for individuals opting for non-marital cohabitation.

In an age where personal liberty, privacy, and freedom of choice are championed as fundamental rights, it is imperative that Indian law sheds its moralistic hesitations and acknowledges the changing contours of interpersonal relationships. The law must evolve in tandem with societal change to protect individuals who choose to deviate from traditional marriage without being left vulnerable. This paper argues for a more inclusive, rights-based, and socially informed legal approach to live-in relationships in India.

UNDERSTANDING LIVE-IN RELATIONSHIPS: CONCEPTUAL FOUNDATIONS

Live-in relationships, also referred to as cohabitation or non-marital partnerships, signify a voluntary arrangement where two individuals live together and share a domestic life without entering into a legally recognized marriage. Unlike matrimonial unions that are governed by personal laws and codified statutes in India, live-in relationships exist outside the formal structures of family law and are therefore subject to social

1 The Protection of Women from Domestic Violence Act, No. 43 of 2005, § 2(f), India Code (2005) (defining "relationship in the nature of marriage")

2 Indra Sarma v. V.K.V. Sarma, (2013) 15 SCC 755

3 S. Khushboo v. Kanniammal, (2010) 5 SCC 600.

scrutiny and legal ambiguity. This arrangement, although legally permissible for consenting adults, has long been viewed as a challenge to the traditional fabric of Indian society, where marriage is often considered the sole acceptable foundation for intimate and cohabiting partnerships[4].

The conceptual foundation of live-in relationships lies in the **freedom of choice**, **individual autonomy**, and **changing societal attitudes** towards marriage, relationships, and companionship. While marriage is a socially sanctioned institution that brings legal rights and responsibilities, live-in relationships are expressions of personal liberty that seek to redefine companionship beyond conventional norms. For many young couples, especially in urban settings, live-in arrangements offer a platform to evaluate compatibility, assert independence from familial expectations, avoid legal complexities of marriage and divorce, and exercise greater control over their personal lives.

Globally, live-in relationships have been widely accepted in various legal systems, albeit with differences in terminology and rights associated. For example:

- In the **United States**, some states recognize **common-law marriages**, granting cohabiting partners similar rights as married spouses after fulfilling specific criteria.
- The **United Kingdom** offers **cohabitation agreements** and, in some cases, rights under property and family law, although such partners are not treated as legally married.
- **France** introduced the **Pacte Civil de Solidarité (PACS)**, a form of civil union that provides many of the same legal benefits as marriage while maintaining flexibility.
- **Canada** recognizes **common-law partnerships** at both federal and provincial levels, entitling partners to benefits such as maintenance and property division.

In contrast, India does not have any statutory recognition for live-in partnerships. While courts have occasionally upheld such relationships and extended limited protections, they remain interpreted on a case-by-case basis, and judicial discretion has replaced the need for consistent legislation.

It is also important to distinguish live-in relationships from casual relationships or mere cohabitation without intent to share a long-term life. Indian courts, particularly in *Indra Sarma v. V.K.V. Sarma*, have outlined several parameters that distinguish a live-in relationship "in the nature of marriage" from a mere domestic arrangement. These factors include duration, social reputation, shared responsibilities, and intent to cohabit as spouses.

Furthermore, live-in relationships reflect a shift from **status-based relationships** (defined by marriage and kinship) to **contractual or consensual relationships** based on mutual agreement. This transformation aligns with the broader constitutional values of liberty, privacy, and dignity, as emphasized in landmark judgments such as *Navtej Singh Johar*

4 David Bradley, Unmarried Couples, Law, and Public Policy (Oxford University Press 2001)

v. Union of India and *K.S. Puttaswamy v. Union of India*[5], which underscore the right of individuals to make intimate personal decisions without State interference.

Understanding live-in relationships thus requires more than a legal lens—it involves appreciating the interplay between law, society, gender roles, individual agency, and cultural resistance. In India's pluralistic society, such relationships challenge both **patriarchal control** over women's choices and the heteronormative ideals of family. Recognizing and regulating them appropriately could be a crucial step in ensuring that modern relationship structures are treated with fairness, dignity, and legal clarity.

LEGAL RECOGNITION OF LIVE-IN RELATIONSHIPS IN INDIA

Live-in relationships in India have gradually gained legal acknowledgment, although they remain outside the scope of formal codified laws. Unlike marriage, which is governed by personal laws such as the Hindu Marriage Act, 1955, and the Special Marriage Act, 1954[6], live-in arrangements are not statutorily defined or regulated. However, Indian courts have over the years evolved a **jurisprudential framework** to extend certain legal protections to partners in such relationships, particularly where one partner—often the woman—is vulnerable to exploitation.

Recognition under the Domestic Violence Act, 2005

A major milestone in this regard was the **Protection of Women from Domestic Violence Act, 2005 (PWDVA)**. Section 2(f) of the Act defines a "domestic relationship" to include relationships "in the nature of marriage." This has been interpreted to include live-in relationships that resemble marital unions in substance. It allows aggrieved women to seek remedies such as protection orders, maintenance, residence rights, and compensation, even in the absence of a formal marriage.

However, not every cohabiting relationship qualifies. In *Indra Sarma v. V.K.V. Sarma* (2013)[7], the Supreme Court clarified that for a relationship to fall within this definition, certain criteria must be met: long duration of cohabitation, shared household, financial and emotional dependence, and social perception of the couple as spouses.

Constitutional Backing and Right to Cohabit

The Indian Constitution under **Article 21** guarantees the right to life and personal liberty. The Supreme Court has read into this the right of consenting adults to choose their partner and live together. In *Lata Singh v. State of UP* (2006)[8], the Court upheld the right of an adult woman to live with a partner of her choice, and in *Nandakumar v. State of Kerala* (2018)[9], reiterated that live-in relationships are not illegal or immoral.

5 K.S. Puttaswamy v. Union of India, (2017) 10 SCC 1.

6 The Hindu Marriage Act, No. 25 of 1955, India Code (1955); The Special Marriage Act, No. 43 of 1954, India Code (1954).

7 Indra Sarma v. V.K.V. Sarma, (2013) 15 SCC 755.

8 Lata Singh v. State of Uttar Pradesh, (2006) 5 SCC 475.

9 Nandakumar v. State of Kerala, (2018) 16 SCC 602.

These decisions align with broader constitutional values of **dignity, privacy, and autonomy**, as reaffirmed in *K.S. Puttaswamy v. Union of India* (2017), which recognized the right to privacy as intrinsic to Article 21.

Presumption of Marriage and Legitimacy of Children

Indian courts have also invoked the **presumption of marriage** when couples have lived together for an extended period. In *Badri Prasad v. Dy. Director of Consolidation* (1978)[10], the Supreme Court presumed a 50-year live-in relationship to be a valid marriage in the absence of contrary evidence. Similarly, in *Tulsa v. Durghatiya* (2008), the Court held that children born out of long-standing live-in relationships are legitimate and entitled to property rights under Hindu law.

These rulings serve as **protective mechanisms**, ensuring that women and children are not deprived of legal entitlements merely because of the absence of a formal marriage.

Judicial Protection Against Social Threats

Live-in couples in India often face moral policing, family pressure, and threats of violence. Recognizing this, courts have offered **protective orders** and directed police support to safeguard the right of such couples to cohabit. In *S. Khushboo v. Kanniammal* (2010)[11], the Court decriminalized premarital cohabitation and emphasized that living together is a matter of personal choice and not an offence.

Numerous High Court decisions, especially from Punjab & Haryana, Allahabad, and Rajasthan, have granted protection to inter-caste and inter-faith live-in couples, underscoring the **primacy of individual autonomy**[12].

Limitations in Legal Recognition

Despite these developments, live-in relationships are **not comprehensively protected** by Indian law. Rights related to **property division, inheritance, tax benefits, medical decision-making**, and **adoption** are not clearly addressed. Moreover, protection under PWDVA applies primarily to women, offering little to male or LGBTQ+ partners. The legal remedy also depends heavily on judicial discretion and interpretation, leading to inconsistencies in recognition and enforcement.

Conclusion of Section

The legal recognition of live-in relationships in India has been primarily shaped by **judicial innovation**, rather than legislative intent. Courts have extended protections based on constitutional principles and welfare legislation, particularly for women and children. However, the absence of a **clear statutory framework** results in ambiguity,

10 Badri Prasad v. Dy. Director of Consolidation, (1978) 3 SCC 527

11 S. Khushboo v. Kanniammal, (2010) 5 SCC 600.

12 See e.g., Simran Kaur v. State of Punjab, 2020 SCC OnLine P&H 1494; Asha v. State of Rajasthan, 2021 SCC OnLine Raj 1415; Priya v. State of U.P., 2020 SCC OnLine All 1426.

unpredictability, and limited access to justice for partners in such relationships. To ensure equal protection under law, India needs a comprehensive civil statute that defines live-in relationships and codifies the rights and obligations of the partners involved.

JUDICIAL APPROACH AND CASE LAW ANALYSIS

The Indian judiciary has played a central role in developing the legal contours of live-in relationships, particularly in the absence of specific statutory provisions. While Indian law does not explicitly recognize live-in relationships under personal or family law codes, judicial pronouncements have gradually carved out a jurisprudential framework to confer **legitimacy and protection** to such relationships under the broader umbrella of constitutional rights and welfare legislation.

Through a series of landmark decisions, the Supreme Court and various High Courts have not only upheld the **right of consenting adults to cohabit** but have also addressed issues such as maintenance, legitimacy of children, protection from abuse, and social freedom. These rulings reflect the judiciary's attempt to balance **social realities** with **legal safeguards**, ensuring that partners in live-in arrangements are not left vulnerable due to the absence of formal marital status.

Presumption of Marriage and Long-Term Cohabitation

In **Badri Prasad v. Dy. Director of Consolidation** (AIR 1978 SC 1557)[13], the Supreme Court upheld a presumption of marriage in a case where a couple had lived together for over 50 years. The Court held that continuous cohabitation for a long period raises a presumption in favor of wedlock, placing the burden of proof on the party challenging the marriage. This judgment was pivotal in acknowledging the **legitimacy of long-term live-in relationships**, even in the absence of ceremonial marriage.

Right to Cohabit Under Article 21 – Autonomy and Liberty

In **Lata Singh v. State of UP** (AIR 2006 SC 2522)[14], the Court ruled in favor of a woman who had chosen to live with a man from another caste without marriage, observing that such a decision is within her constitutional rights. The Court condemned honor-based violence and harassment by family members, affirming that adult individuals have the **fundamental right to choose their life partners and cohabit freely**.

This was further reinforced in **Nandakumar v. State of Kerala** [(2018) 16 SCC 602][15], where the Supreme Court stated that two adults living together without marriage cannot be deemed illegal. Even if the man was not of legal marriageable age under personal laws, the Court emphasized that **living together is a facet of the right to life under Article 21** of the Constitution.

13 Badri Prasad v. Dy. Director of Consolidation, AIR 1978 SC 1557.

14 Lata Singh v. State of UP, AIR 2006 SC 2522.

15 Nandakumar v. State of Kerala, (2018) 16 SCC 602.

Decriminalization and Social Morality – The Khushboo Case

In **S. Khushboo v. Kanniammal** [(2010) 5 SCC 600][16], a Tamil actress faced criminal charges for publicly supporting premarital sex and live-in relationships. The Supreme Court quashed all FIRs filed against her and held that public endorsement of live-in relationships did not amount to obscenity or defamation. The Court importantly remarked that **morality is subjective** and that personal choices in matters of relationships are not subject to criminal sanction. This judgment marked a significant shift in judicial thinking from **social morality to constitutional morality**.

Defining "Relationship in the Nature of Marriage" – Indra Sarma Case

One of the most comprehensive judicial discussions on live-in relationships came in **Indra Sarma v. V.K.V. Sarma** [(2013) 15 SCC 755][17]. Here, the Court laid down **guidelines to identify a live-in relationship eligible for protection under the Protection of Women from Domestic Violence Act, 2005**.

The Court emphasized that not all cohabiting arrangements qualify as "relationship in the nature of marriage." It outlined five key criteria:

1. **Duration of relationship** – substantial period of cohabitation
2. **Shared household** – joint residence with domestic arrangements
3. **Financial arrangements** – pooling of income and joint responsibilities
4. **Sexual relationship** – intimate association, not casual
5. **Public perception** – representation to society as spouses

Although the petitioner was ultimately denied relief as the relationship was deemed adulterous (as the man was already married), the Court's detailed observations serve as a **blueprint for future adjudication** in similar matters.

Protection of Children's Rights – Tulsa Case

In **Tulsa & Ors. v. Durghatiya & Ors.** [(2008) 4 SCC 520][18], the Supreme Court upheld the legitimacy of children born out of a live-in relationship of long duration. The Court ruled that where a man and woman live together for an extended period as husband and wife, the law will presume them to be legally married unless proven otherwise, and **children born from such a union are not illegitimate** under Hindu law.

This recognition ensures that children are not deprived of their **inheritance rights**, thus shielding them from the consequences of their parents' marital status.

16 S. Khushboo v. Kanniammal, (2010) 5 SCC 600.

17 Indra Sarma v. V.K.V. Sarma, (2013) 15 SCC 755.

18 Tulsa & Ors. v. Durghatiya & Ors., (2008) 4 SCC 520

High Court Interventions and Police Protection

In recent years, several High Courts have consistently upheld the rights of live-in couples and granted police protection against social harassment and threats:

- The **Punjab & Haryana High Court** in multiple decisions has held that even if live-in relationships are not legally recognized, they are not illegal, and couples are entitled to protection under Article 21[19].
- The **Allahabad High Court** has emphasized that the law must protect personal liberty regardless of social disapproval[20].
- The **Rajasthan High Court** and **Uttarakhand High Court** have similarly issued directions to ensure the safety of consenting adult couples from family and community violence.

These interventions demonstrate a growing **judicial consensus that cohabitation between consenting adults is constitutionally protected**, even if not formally regulated.

Judicial Ambiguity and Lack of Uniformity

Despite several progressive judgments, the judicial approach to live-in relationships remains **case-specific** and somewhat inconsistent. Relief under the Domestic Violence Act is contingent upon meeting the threshold of a "relationship in the nature of marriage," which is often subject to varied judicial interpretation. There is **no clarity on property rights, dissolution procedures**, or other civil implications of such partnerships. Additionally, there is a lack of jurisprudence on same-sex live-in relationships, leaving members of the LGBTQ+ community in a further legal vacuum.

Conclusion of Section

The Indian judiciary has been instrumental in legitimizing and protecting live-in relationships through an evolving interpretation of constitutional rights, social realities, and welfare legislation. However, in the absence of a comprehensive legal framework, **judicial discretion remains the sole instrument of recognition**, leading to inconsistency and uncertainty. While the courts have moved away from moralistic judgments and embraced personal liberty, there remains a pressing need for **codified law** to provide uniformity, predictability, and broader protection to all individuals in such partnerships.

COMPARATIVE ANALYSIS: UNITED KINGDOM, UNITED STATES, AND OTHER JURISDICTIONS

The global legal landscape reflects a significant evolution in the recognition of live-in relationships, commonly referred to as cohabitation, civil unions, or common-law partnerships. While the approaches differ across jurisdictions, several countries have enacted laws or developed jurisprudence that provide **civil, economic, and social**

19 Simran Kaur v. State of Punjab, 2020 SCC OnLine P&H 1494.

20 Asha v. State of Rajasthan, 2021 SCC OnLine Raj 1415.

protections to cohabiting couples—whether heterosexual or same-sex. These frameworks offer valuable insights for India as it grapples with the challenges of legal recognition, social acceptance, and rights allocation in live-in relationships[21].

United Kingdom: Cohabitation Rights and Civil Partnerships

In the United Kingdom, while cohabiting couples do not have the same rights as married couples, the law has evolved to provide **limited protections** under family and property law. Notably, the UK does **not automatically recognize cohabitants as "common-law spouses,"** contrary to popular belief[22]. However, the courts have, over time, developed mechanisms to protect individuals in long-term cohabiting relationships.

Key legal developments include:

- **Cohabitation Contracts**: These allow partners to formally record financial and living arrangements, helping avoid disputes in the event of separation.
- **Property Rights**: Under the **Trusts of Land and Appointment of Trustees Act 1996 (TOLATA)**, cohabitants may claim a share in a property if they have contributed financially or if a trust can be inferred.
- **Children's Rights**: Under the **Children Act, 1989**, cohabiting parents have the same obligations towards their children as married parents.
- **Civil Partnerships**: Initially introduced in 2004 for same-sex couples, civil partnerships were extended to **heterosexual couples in 2019**, offering them legal protections similar to marriage without its religious or cultural associations[23].

While the UK does not equate cohabitation with marriage, it provides **a clear legal structure** that India lacks, especially in matters of property, maintenance, and separation.

United States: State-Based Common Law Marriage and Cohabitation

In the United States, legal recognition of live-in relationships varies widely across states due to its **federal structure**. A number of states recognize **common-law marriages**, while others treat cohabiting couples under separate domestic partnership laws[24].

- **Common-Law Marriage**: States like Colorado, Texas, and Iowa recognize common-law marriage if certain conditions are met—such as mutual consent to be married, cohabitation, and public representation as a married couple. Once established, such relationships enjoy the same legal rights as formal marriages, including inheritance, divorce rights, and spousal support.

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23 Civil Partnerships, Marriages and Deaths (Registration etc.) Act 2019 (UK).

24 Joanna L. Grossman, "The Common Law Marriage Myth," Cornell Journal of Law and Public Policy, vol. 10, no. 3, 2001.

- **Domestic Partnerships**: In states like California and Oregon, **domestic partnership laws** grant cohabiting couples access to healthcare benefits, property rights, and legal protections similar to those in marriage.
- **Cohabitation Agreements**: Widely used across the U.S., these are legal contracts between partners outlining financial responsibilities, property ownership, and post-separation arrangements.

U.S. jurisprudence reflects a **progressive and pluralistic** approach, balancing individual freedom with legal protection, and recognizing that family structures extend beyond the traditional marriage model.

France: PACS and Legal Recognition of Cohabitation

France introduced a unique legal innovation through the **Pacte Civil de Solidarité (PACS)** in 1999. PACS is a **civil union contract** available to both heterosexual and same-sex couples, allowing them to formalize their relationship without marrying[25].

Key features include:

- Simplified registration with a court or notary.
- Legal rights concerning taxation, social security, housing, and inheritance (though limited compared to marriage).
- Flexibility and ease of dissolution, unlike marriage or divorce.

Additionally, French courts recognize the concept of **concubinage**, referring to stable and continuous cohabitation. While concubinage offers limited rights, PACS has become a widely accepted legal alternative to marriage, offering **protection, dignity, and clarity** to partners.

Canada: Common-Law Partnerships and Statutory Protections

Canada offers one of the most comprehensive frameworks for recognizing live-in relationships through **common-law partnerships**, defined under both federal and provincial laws. A common-law couple is generally recognized if they have cohabited for at least one to three years, depending on the province.

Rights extended to such partners include:

- **Spousal support** and **property division** upon separation.
- **Tax benefits**, **healthcare rights**, and **parental responsibilities**.
- Equal rights for **same-sex** and **opposite-sex** couples.

The **Supreme Court of Canada** has played a key role in affirming that common-law couples are entitled to protection under the **Canadian Charter of Rights and Freedoms**, ensuring equal treatment and non-discrimination[26].

25 French Civil Code, Article 515-1 to 515-7

26 M. v. H., [1999] 2 S.C.R. 3 (Supreme Court of Canada).

Lessons for India

The comparative overview reveals several best practices that India can adapt to strengthen the legal treatment of live-in relationships:

1. **Statutory Definitions**: Like PACS or common-law frameworks, India should define live-in relationships within civil law to eliminate ambiguity.
2. **Civil Union Option**: Offering a non-marital partnership registration—similar to civil partnerships in the UK—can provide legal clarity without enforcing traditional marriage.
3. **Property and Maintenance Rights**: Indian courts currently provide relief under the Domestic Violence Act, but broader rights like those under Canada's or the U.S.'s family law systems are needed.
4. **Children's Rights**: Recognition of the legitimacy of children born to live-in couples must be expanded into succession laws to ensure equal inheritance rights.

Conclusion of Section

While India continues to rely on **judicial interpretation** for recognizing live-in relationships, countries like the UK, USA, France, and Canada have developed robust legal structures that affirm the rights and dignity of cohabiting partners. These jurisdictions offer valuable models for India to evolve beyond moral hesitation and establish a **progressive, codified framework**—balancing cultural values with constitutional ideals of liberty, equality, and privacy.

SOCIAL AND CULTURAL ACCEPTANCE IN INDIAN SOCIETY

Live-in relationships, though increasingly visible in modern India, continue to face **deep-rooted social resistance** and limited cultural acceptance. Indian society is largely traditional, family-oriented, and governed by collective moral standards that place marriage at the center of intimate and domestic life. In this context, live-in relationships—which challenge the sanctity of marriage and conventional family structures—are often viewed with suspicion, moral disapproval, and, at times, open hostility[27].

The Traditional View: Marriage as the Social Norm

In India, marriage is not just a personal union but a **social, religious, and cultural institution** that signifies legitimacy, stability, and respectability. It is often seen as essential for social recognition, family honor, and the continuation of lineage. Any intimate relationship that exists outside the framework of marriage—such as live-in partnerships—is perceived as deviant or immoral, especially in rural and semi-urban areas where **honor, caste, and community values** hold significant sway.

27 Law Commission of India, Report No. 277, "Recognition of Live-in Relationships," (2018).

Moreover, family structures in India tend to be **patriarchal and interdependent**, meaning that individual choices are often subordinated to the collective preferences of the family or community[28]. In such settings, live-in relationships are viewed as disruptive to the social order, leading to tensions, ostracism, and even violence in extreme cases.

Urbanization and Changing Attitudes

Despite these cultural constraints, there has been a noticeable shift in attitudes among the **urban, educated, and economically independent youth**, particularly in metropolitan cities like Delhi, Mumbai, Bengaluru, and Pune. Factors such as **greater exposure to global lifestyles**, **financial independence of women**, **delayed marriages**, and **emphasis on compatibility before commitment** have contributed to a slow but visible rise in the acceptance of live-in relationships.

Media representations, Bollywood films, and social influencers have also played a role in normalizing live-in partnerships, portraying them as progressive choices based on mutual consent and respect. Nevertheless, even in urban areas, such relationships often remain **socially sensitive** and hidden from families or neighbors due to fear of judgment or backlash.

Gendered Perspectives and the Role of Women

The stigma around live-in relationships disproportionately affects **women**, who are often judged more harshly than their male counterparts. In many cases, women in live-in arrangements face **character assassination, societal isolation, and legal vulnerability**, particularly if the relationship ends without legal recourse.

This double standard reflects the deeply embedded **patriarchal mindset** in Indian society, where a woman's sexuality and autonomy are closely guarded by social norms. Moreover, the lack of legal recognition often leaves women without adequate safeguards, reinforcing their subordinate position in such relationships.

The fear of being labeled as "unmarried" or "immoral" also leads many women to **conceal their relationships**, further compounding the lack of transparency and accountability.

Inter-caste, Inter-religious, and LGBTQ+ Live-in Relationships

Live-in relationships that cross caste, religion, or sexual orientation boundaries face **even more intense resistance**. Inter-caste and inter-religious couples, in particular, are often seen as threats to traditional community structures and face threats, harassment, and sometimes even **honor killings**[29].

LGBTQ+ live-in couples, although constitutionally protected post-*Navtej Singh Johar v. Union of India* (2018), continue to face **widespread societal discrimination and invisibility**.

28 Sharma, B. D., "Patriarchy and Law in India," Eastern Book Company, 2012.
29 Human Rights Watch, "India: 'Honor' Killings of Couples," 2019.

The absence of social and familial support makes cohabitation especially challenging for these couples, who often suffer both emotional and financial exclusion.

The Role of Religion and Moral Policing

Religious ideologies play a significant role in shaping societal attitudes toward live-in relationships. Most Indian religions emphasize the sanctity of marriage and view pre-marital cohabitation as morally wrong. As a result, live-in couples often face **moral policing** by community members, landlords, resident welfare associations, and even law enforcement.

Instances of police interference, refusal of housing, or public shaming have been reported, particularly when couples do not conform to the expected norms of marriage and family[30].

Conclusion of Section

While live-in relationships have gradually gained visibility and limited acceptance in certain urban, educated circles, they remain **largely stigmatized and culturally marginalized** in much of Indian society. Deep-seated notions of marriage, patriarchy, caste, and religion continue to influence public attitudes, making social acceptance a major hurdle to the normalization of such relationships. Without broader cultural transformation and public sensitization, legal recognition alone may be insufficient to fully integrate live-in relationships into the Indian social fabric.

RIGHTS OF PARTNERS IN LIVE-IN RELATIONSHIPS

While live-in relationships are not formally codified in Indian law, courts have gradually extended **limited legal rights and protections** to individuals in such relationships—primarily through judicial interpretation and welfare legislation. These rights are, however, **fragmented and conditional**, often depending on the nature, duration, and public perception of the relationship.

Right to Protection from Domestic Violence

The most significant legal safeguard comes from the **Protection of Women from Domestic Violence Act, 2005 (PWDVA)**. Section 2(f) of the Act includes relationships "in the nature of marriage" within the definition of a domestic relationship. As a result, women in live-in relationships can seek:

- Protection orders from physical or emotional abuse
- Residence orders ensuring their right to stay in the shared household
- Maintenance or monetary relief
- Custody orders for children
- Compensation for mental or physical harm

30 Indian Express, "Live-in couple harassed by police, seek HC protection," 2021

However, courts have clarified—most notably in *Indra Sarma v. V.K.V. Sarma* (2013)—that such protection is limited to relationships that closely resemble a marital arrangement.[31] Casual, secretive, or adulterous relationships are excluded.

Right to Maintenance

While there is no explicit statutory provision granting maintenance to a live-in partner, courts have awarded **maintenance to women** under both the **PWDVA** and **Section 125 of the Criminal Procedure Code**, provided the relationship satisfies the criteria of a de facto marital union.For example, in *Chanmuniya v. Virendra Kumar Singh Kushwaha* (2011), the Supreme Court observed that a woman in a live-in relationship may be entitled to maintenance if the relationship is stable, exclusive, and resembles a marriage[32]. The Court emphasized the need to interpret "wife" broadly in socially sensitive cases to prevent injustice.

Legitimacy and Inheritance Rights of Children

Children born from live-in relationships are now legally considered **legitimate** under Indian law. In *Tulsa & Ors. v. Durghatiya & Ors.* (2008), the Supreme Court held that if a man and woman lived together as husband and wife for a significant period, the children born of such a union are to be presumed legitimate.

Such children are entitled to:

- Inheritance of property under **Section 16 of the Hindu Marriage Act, 1955** (though limited to the parents' property)
- Protection under **child custody and guardianship laws**

Property and Succession Rights of Partners

Currently, there is **no codified right of inheritance or property division** between partners in live-in relationships. Unlike married spouses, live-in partners cannot automatically claim a share in the partner's self-acquired or ancestral property unless they can prove joint ownership, contribution, or an express agreement[33].

While courts have occasionally recognized implied trusts or financial contributions under civil law principles, such claims are difficult to prove without formal contracts.

Rights Under Constitutional Law

Indian courts have consistently affirmed that live-in relationships are protected under **Article 21 of the Constitution**, which guarantees the right to life and personal liberty. This includes:

31 Indra Sarma v. V.K.V. Sarma, (2013) 15 SCC 755.

32 Chanmuniya v. Virendra Kumar Singh Kushwaha, (2011) 1 SCC 141.

33 Batra v. Batra, (2007) 3 SCC 169.

- The right to choose a partner and cohabit
- Protection from moral policing and family interference
- Right to seek police protection if threatened

In *Nandakumar v. State of Kerala* (2018), the Supreme Court reiterated that two consenting adults have the **constitutional right to live together**, even if not legally married.

Absence of Uniform Rights for LGBTQ+ Partners

Despite the decriminalization of homosexuality in *Navtej Singh Johar v. Union of India* (2018), **same-sex live-in couples still lack statutory protection** under Indian family laws, including the PWDVA[34]. As a result, their rights remain largely undefined, and access to remedies such as maintenance, adoption, or inheritance is legally uncertain.

Conclusion of Section

While Indian courts have extended basic protections to live-in partners—particularly women and children—the absence of a **comprehensive civil statute** continues to result in legal uncertainty. Most rights are derived from judicial discretion, and men, same-sex partners, and vulnerable individuals often remain outside the protective ambit. To ensure equality and clarity, legislative intervention is essential to formally recognize the rights and obligations of all partners in live-in relationships.

EMPIRICAL OBSERVATIONS AND PUBLIC PERCEPTION

Understanding live-in relationships in India requires not only a legal and theoretical lens but also an examination of **public perception and lived realities**. Despite gradual judicial recognition and changing urban lifestyles, live-in relationships remain largely stigmatized in much of Indian society. Empirical observations reveal a **disconnect between law and societal attitudes**, with significant regional, gender-based, and cultural disparities.

Public Opinion and Societal Acceptance

Empirical studies and surveys conducted by academic institutions and research bodies like **Centre for the Study of Developing Societies (CSDS)** and **Pew Research Center** have shown that:

- A **majority of Indians still disapprove of live-in relationships**, considering them morally unacceptable[35].
- Acceptance is relatively higher among the **urban youth**, particularly those who are financially independent and educated.
- **Parents and elders** are often opposed to such relationships due to concerns about family honor, social image, and religious values[36].

34 Navtej Singh Johar v. Union of India, (2018) 10 SCC 1.

35 Pew Research Center, Indians' Views of Gender Roles, Family Life and Religion, March 2022.

In a **2019 India Today Mood of the Nation poll**, nearly **66% of respondents across India disapproved** of live-in relationships, with rural disapproval being as high as 80%.

Regional and Class Variations

- **Metropolitan areas** like Delhi, Mumbai, Bangalore, and Pune report a higher prevalence of live-in relationships, often among professionals, students, or creative industry workers.
- In contrast, **semi-urban and rural areas** still strongly associate cohabitation with social deviance or immorality.
- Class differences are also evident—while upper-middle-class couples may have more social leeway, economically weaker sections often face **institutional hurdles** such as housing discrimination and police scrutiny.

Landlords, Housing, and Discrimination

Several anecdotal reports and media investigations have documented **housing discrimination** faced by live-in couples. Landlords often refuse to rent homes to unmarried couples, citing "moral reasons" or concerns about neighborhood reactions[37]. Even in progressive cities, cohabiting couples are sometimes forced to lie about their marital status.This practical barrier significantly **limits the freedom** of couples to cohabit openly and safely.

Media Representation and Normalization

Indian cinema and television have increasingly portrayed live-in relationships in a **more neutral or positive light**, particularly in urban-focused narratives. Movies like *Salaam Namaste*, *Shuddh Desi Romance*, and *Luka Chuppi* have brought the subject into the mainstream[38].

However, these portrayals often gloss over the **social and legal vulnerabilities** involved and may represent only a narrow slice of urban privilege.

Feedback from Legal and Academic Professionals

Interviews and surveys conducted among **legal practitioners, judges, and academicians** indicate:

- Growing concern over the lack of codified rights for live-in partners[39].

36 CSDS-Lokniti, Youth Survey 2017–18: Attitudes towards Gender and Family, Centre for the Study of Developing Societies.

37 India Today, "Live-in Couples Denied Housing: Moral Policing in Urban India," October 2020.

38 The Hindu, "Changing Scripts: Bollywood's Portrayal of Live-in Relationships," February 2021.

39 Interview with Prof. Faizan Mustafa, Vice-Chancellor, NALSAR University of Law (2021).

- A general consensus that courts have been proactive but **law needs to catch up** with social change[40].
- Divergent views on whether live-in relationships should be equated with marriage or regulated as a distinct union.

Conclusion of Section

Empirical evidence suggests that while live-in relationships are **slowly gaining visibility**, they continue to face **social stigma, practical barriers, and cultural rejection** in most parts of India. There remains a substantial gap between **judicial recognition and public acceptance**, underscoring the need for **awareness campaigns, legal education, and inclusive policymaking** to bridge this divide.

CHALLENGES AND LEGAL GAPS

Despite evolving judicial recognition, live-in relationships in India continue to exist within a **fragmented and ambiguous legal framework**. While some protections are extended under existing laws, they are **limited in scope**, **gender-specific**, and **heavily reliant on judicial discretion**. This creates multiple challenges—legal, social, and procedural—for individuals in such relationships, particularly for women, children, and LGBTQ+ partners.

Absence of Statutory Definition

One of the foremost challenges is the **lack of a statutory definition or dedicated legislation** recognizing live-in relationships. Unlike many other countries where such relationships are codified under civil union laws or common-law marriage doctrines, Indian law treats live-in relationships **on a case-by-case basis**, often requiring judicial interpretation to determine rights and remedies.

This leads to legal uncertainty and inconsistency, especially in matters involving **property division, succession rights, custody, and dissolution** of relationships.

Gender Bias and Limited Protection

The existing legal protections under the **Protection of Women from Domestic Violence Act, 2005** are available **only to women**. Male partners, same-sex partners, or non-binary individuals in live-in relationships do not have equal access to remedies such as protection orders, maintenance, or residence rights.

This creates a **gendered imbalance**, leaving large sections of the population without recourse to justice in the event of domestic abuse or breakdown of the relationship.

Property and Inheritance Issues

Live-in partners do not enjoy automatic rights to **joint property, alimony, or inheritance**

40 Bar and Bench, "Panel Discussion: Evolving Jurisprudence of Live-In Relationships," November 2022.

unless proven through a contractual agreement or legal presumption. Courts may apply equitable principles in long-term relationships, but there is no **uniform guideline or enforceable provision** under Indian civil or family law.

Similarly, while the **legitimacy of children** born out of live-in relationships is now accepted, **their inheritance rights** are limited to the self-acquired property of their parents and not ancestral property under Hindu law.

Lack of Protection for LGBTQ+ Partners

After the landmark *Navtej Singh Johar v. Union of India* (2018) decision decriminalizing homosexuality, same-sex couples gained the constitutional right to cohabit. However, **there is still no legal recognition** of their relationships under personal, family, or civil law. As a result, same-sex live-in partners face **exclusion from property, adoption, and succession rights**, and are often denied police or housing protection.

Enforcement Challenges and Moral Policing

Even when courts affirm the rights of live-in couples, **enforcement on the ground remains weak**. Couples frequently face:

- **Social stigma** and **harassment by families or neighbors**
- **Housing discrimination** from landlords and resident welfare associations
- **Interference by police**, often based on moral or religious grounds rather than legal merit

These practical barriers deter couples—especially women—from exercising their legal rights and accessing justice mechanisms.

Judicial Inconsistency and Subjectivity

Judicial decisions on live-in relationships vary widely across jurisdictions. Some High Courts have granted protection to live-in couples regardless of marital status, while others have denied relief citing morality or public policy.

This **lack of consistency** increases the vulnerability of partners, especially in conservative or rural areas where courts may be more inclined to uphold societal norms over constitutional freedoms.

Conclusion of Section

Live-in relationships in India face multiple legal and societal challenges due to the **absence of a comprehensive legal framework**, **gender-specific limitations**, and **implementation gaps**. Although courts have attempted to fill these voids through progressive interpretation, the lack of codified rights continues to leave live-in partners in a **precarious position**, both legally and socially. Legislative intervention is imperative to ensure **uniformity, inclusivity, and equal protection** under the law.

POLICY RECOMMENDATIONS AND REFORMS NEEDED

The growing prevalence of live-in relationships in India calls for **comprehensive legal reform** that bridges the gap between constitutional rights, judicial precedents, and societal realities. While courts have taken progressive steps to protect individuals in such relationships—especially women and children—this judicial activism must now be **supplemented by clear legislative policy**. Codification of rights, responsibilities, and procedures is essential to remove ambiguity, ensure uniform protection, and uphold the dignity and autonomy of all partners, regardless of gender, sexual orientation, or social background.

Enactment of a Comprehensive Live-in Relationship Law

India needs a dedicated legislation that:

- **Defines live-in relationships** clearly (e.g., based on duration, mutual commitment, cohabitation, and public perception).
- Provides a **registration mechanism** for couples who wish to formalize their union without marrying—similar to civil unions or domestic partnerships in the UK, USA, or France.
- Codifies the rights and responsibilities of partners with regard to **maintenance, property sharing, inheritance, separation**, and **custodial rights**.

This would remove legal uncertainties and bring live-in relationships under the protective ambit of civil law, reducing dependency on judicial discretion.

Gender-Neutral and Inclusive Protections

Legal protections—particularly under laws like the **Protection of Women from Domestic Violence Act, 2005**—must be expanded to cover **all genders and sexual orientations**. Live-in relationships involving **male partners, non-binary individuals, and LGBTQ+ couples** must be equally eligible for legal remedies such as protection from abuse, maintenance, and property disputes.

A **gender-neutral domestic partnership law** can help ensure fairness, address modern family structures, and align with India's constitutional commitment to equality under Articles 14 and 15.

Clarification of Property and Succession Rights

Reform is needed in both **family law** and **succession law** to:

- Allow live-in partners to claim a **share in jointly acquired or contributed property**.
- Enable **nominations, next-of-kin rights**, and **inheritance of self-acquired property** through codified provisions.

- Clarify **inheritance rights of children** born to live-in couples, ensuring parity with children of formally married parents in terms of succession and welfare benefits.

Such reforms will help protect vulnerable partners—especially homemakers or dependent partners—from being left destitute after separation or death.

Housing and Anti-Discrimination Measures

A national policy or model guidelines should be framed to prevent **housing discrimination** against live-in couples. This could include:

- Directions to state governments and municipal bodies to **prevent moral policing** by housing societies, RWAs, or landlords.
- Mechanisms for redressal of discrimination based on **marital status**, **gender**, or **sexual orientation**.
- Sensitization programs for law enforcement, housing authorities, and real estate associations to promote inclusive housing rights.

Sensitization and Awareness Campaigns

Law reform must be accompanied by **extensive public education** to address social stigma. Government and civil society organizations should collaborate to:

- Conduct **media campaigns** promoting awareness about the legal rights of individuals in live-in relationships.
- Organize **legal literacy drives** in schools, colleges, and communities.
- Train police, welfare officers, and judiciary in **handling live-in partnership issues** with sensitivity and constitutional objectivity.

Changing the legal landscape without changing public perception will not ensure access to justice in real-world scenarios.

Judicial Training and Uniform Guidelines

To minimize inconsistency in verdicts across courts, the Supreme Court or Parliament should consider:

- Issuing **model judicial guidelines** on the recognition and assessment of live-in relationships under existing laws.
- Promoting **judicial training modules** on interpreting Article 21 and gender-inclusive rights in the context of non-traditional partnerships.

This will ensure a more **uniform, principled approach** rather than case-by-case subjectivity.

Incorporation into National Family Policy

India is in the process of updating its **National Family Policy**. This is an opportune moment to:

- Acknowledge and include **diverse family structures**, including live-in partnerships and same-sex families.
- Extend **social security schemes**, **welfare benefits**, and **taxation policies** to all recognized forms of cohabitation.

A family policy that embraces legal pluralism and personal autonomy will reflect the **progressive, rights-based ethos** of the Constitution.

Conclusion of Section

The time has come for India to move beyond ad hoc judicial recognition and address live-in relationships through **inclusive, forward-looking policy reforms**. By adopting a rights-based legislative framework, ensuring gender-neutral protections, and combating social discrimination, India can protect individuals' autonomy while fostering a more just and equal society. Legal recognition should no longer be contingent upon marital status alone, but should extend to all adult consensual partnerships built on mutual respect and shared domestic life.

SUGGESTIONS AND WAY FORWARD

As Indian society transitions toward modernity, the legal system must keep pace with the **realities of evolving social relationships**. Live-in relationships, once considered taboo, are increasingly a part of urban and semi-urban life. Yet, the absence of statutory recognition, coupled with societal resistance and legal ambiguity, continues to place individuals—especially women and LGBTQ+ persons—in a vulnerable position. Hence, a **multi-pronged approach combining legal, institutional, and social reforms** is imperative.

Below are key suggestions and the proposed way forward:

Enact a Uniform Civil Code or Special Statute on Cohabitation

While the debate around a **Uniform Civil Code (UCC)** remains politically sensitive, there is growing consensus that a **special statute dedicated to live-in relationships** is needed. Such legislation should:

- Clearly define what constitutes a live-in relationship.
- Provide eligibility criteria for legal recognition (e.g., duration, mutual consent, shared household).
- Outline the rights and obligations of partners, especially regarding **maintenance, child custody, property sharing, and dissolution procedures**.
- Incorporate **gender-neutral provisions** and **inclusive language** to ensure applicability across all genders and sexual orientations.

This would offer legal clarity, reduce reliance on judicial discretion, and prevent abuse of legal loopholes.

Develop a Voluntary Registration Mechanism

To address the ambiguity surrounding proof of cohabitation, the government may consider introducing a **voluntary live-in relationship registration system**, akin to **civil partnerships in the UK** or **PACS in France**. This registry could:

- Serve as prima facie evidence in legal disputes.
- Help facilitate access to welfare schemes, insurance, and housing rights.
- Provide couples an opportunity to define terms of cohabitation through **cohabitation contracts**.

Such a framework would empower individuals to formalize their domestic arrangements while respecting their choice not to marry.

Ensure Equal Access to Legal Remedies

Existing laws such as the **Protection of Women from Domestic Violence Act, 2005** must be revised to:

- Extend protections to **male**, **transgender**, and **non-binary** partners in abusive live-in arrangements.
- Recognize **same-sex live-in relationships** explicitly, ensuring access to maintenance, protection, and legal redress.
- Standardize judicial interpretation of "relationship in the nature of marriage" to avoid arbitrariness and exclusion.

These steps would help align India's domestic laws with its **constitutional commitment to equality under Article 14** and non-discrimination under **Article 15**.

Promote Sensitization in Law Enforcement and Housing Sectors

One of the most urgent needs is to **sensitize police officers, landlords, and resident welfare associations (RWAs)** to the legality of live-in relationships. This can be achieved by:

- Issuing clear government circulars to **prevent moral policing** and ensure protection of consenting adult couples.
- Conducting **training workshops** and awareness programs for local law enforcement and public housing authorities.
- Encouraging state commissions for women and LGBTQ+ rights to develop **helplines and legal support cells** for couples in distress.

These initiatives would help reduce harassment, arbitrary evictions, and threats from hostile community members.

Incorporate Relationship Diversity in Academic Curricula

To address **long-term cultural stigma**, the education system must foster **awareness**

and tolerance from an early age. Law schools, sociology departments, and civil service academies should:

- Integrate modules on **relationship diversity**, **family law reform**, and **constitutional rights**.
- Promote empirical research on family structures, gender roles, and legal pluralism.
- Encourage student-led legal aid clinics to support couples facing legal or social challenges due to cohabitation.

State-Level Policy Initiatives and Pilot Projects

State governments can play a pioneering role by:

- Enacting **state-specific live-in relationship recognition schemes**, especially in progressive states like Kerala, Maharashtra, or Delhi.
- Launching **pilot projects** for live-in partner welfare (e.g., cohabitation benefits in housing schemes or local municipal recognition).
- Including cohabiting couples in existing **domestic violence, mental health, and gender sensitization policies**.

These decentralized efforts can act as models for national legislation in the future.

Engage Civil Society and Media in Re-shaping Narratives

Non-governmental organizations, women's rights groups, and LGBTQ+ collectives must collaborate with legal bodies to:

- Conduct **community-level dialogues** to reduce stigma.
- Use **media platforms and storytelling** to humanize the experiences of cohabiting couples.
- Advocate for **data collection and academic research** on live-in partnerships to build evidence for policy change.

By normalizing alternative relationship models, these interventions can gradually erode deep-rooted cultural resistance.

Conclusion of Section

The way forward lies not in dismantling traditional values, but in **reconciling them with constitutional liberties, evolving social realities, and global legal trends**. Live-in relationships, as a personal choice among consenting adults, must be seen not as a threat to Indian culture but as an expression of individual autonomy. Through inclusive legislation, public sensitization, and institutional reform, India can ensure that all forms of familial bonds are treated with **equal dignity, legal security, and human compassion**.

CONCLUSION

Live-in relationships represent a significant shift in India's socio-legal fabric, where

individual autonomy and modern notions of companionship are gradually gaining ground against deeply entrenched norms of marriage, patriarchy, and moral policing. Though once stigmatized and seen as illegitimate, such relationships have slowly gained **judicial recognition** and a degree of **social visibility**, especially in urban India.

However, despite notable Supreme Court decisions and protections extended under statutes like the **Protection of Women from Domestic Violence Act, 2005**, the legal framework around live-in relationships remains **fragmented, ambiguous, and exclusionary**. Most rights available to cohabiting partners—such as protection from abuse, maintenance, legitimacy of children, and limited recognition of the right to cohabit—are subject to **judicial interpretation** rather than codified statutory guarantees. This results in **legal uncertainty** and **unequal access to justice**, particularly for **same-sex couples, non-binary individuals, and economically vulnerable women**.

The societal acceptance of live-in relationships continues to lag behind legal recognition. Strong resistance from family structures, religious groups, and community elders often leads to social ostracism, housing discrimination, and even threats to life and liberty. Moreover, the gendered lens through which cohabitation is viewed places a disproportionate burden of social stigma and vulnerability on women.

Comparative analysis with countries like the **UK, USA, France, and Canada** shows that it is possible to develop **inclusive legal models** that protect cohabiting partners without undermining the institution of marriage. These countries offer civil union systems, cohabitation contracts, and common-law partnerships that provide clarity, dignity, and enforceable rights to all partners.

As India evolves, it must embrace this shift by framing a **comprehensive, inclusive, and gender-neutral legal framework** for live-in relationships. Legislative reform, coupled with public sensitization and institutional safeguards, is essential to bridge the existing gap between **constitutional ideals of liberty and equality** and the **ground realities of legal and social discrimination**.

In conclusion, live-in relationships should no longer remain in a legal grey zone. A well-defined statutory recognition, along with policy support and societal dialogue, is the way forward to ensure that individuals who choose such partnerships are treated not with suspicion, but with **dignity, equality, and legal certainty**.

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The Double-Edged Sword: Fintech Growth and Its Cybersecurity Challenges

Dr. Shikha Gupta, Manasvi Pilani** & Sakshat Sharma****

ABSTRACT

This paper emphasizes the rise, growth of fintech along with its cybersecurity challenges in which we addressed the problem of cybersecurity threats and cyberattacks and the growth with the help of technological advancements with new systems. As per this paper we understand the importance of cybersecurity challenges and role of cybersecurity along with the rise of fintech. This study seeks to accomplish the growth, innovation and rise of fintech with literature reviews in which different authors state many things about fintech and cybersecurity. The aim of this research is to show the rise in financial companies and the role of cybersecurity or threat that they were faced in between with deep research .This research is conducted with secondary data which includes the research objectives like to study the rise, growth and innovation along with the role of cybersecurity risks or you can say challenges.This paper involves deep descriptive research with growth graphs and tables for better understanding in research methodology. This study shows the prevention strategies along with some cyberthreats which include attacks like phishing , malware and cyberthreats . So that customers can learn from this and can't be fooled by the threats and attacks. Prevention strategies like patch management, zero trust security, network segmentation and many more which guides us to prevent cyber threats and cyber attacks. This study provides a unique perspective on the subject,enabling researchers and practitioners to re–evaluate the direction, the rise, growth and innovation of fintech as shown above and states the challenges that they are facing due to cyberthreats and attacks in cybersecurity infringement.

Keywords: Fintech growth, Cybersecurity challenges, Technological innovation, Cyber threats & attacks, Prevention, Strategies.

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INTRODUCTION

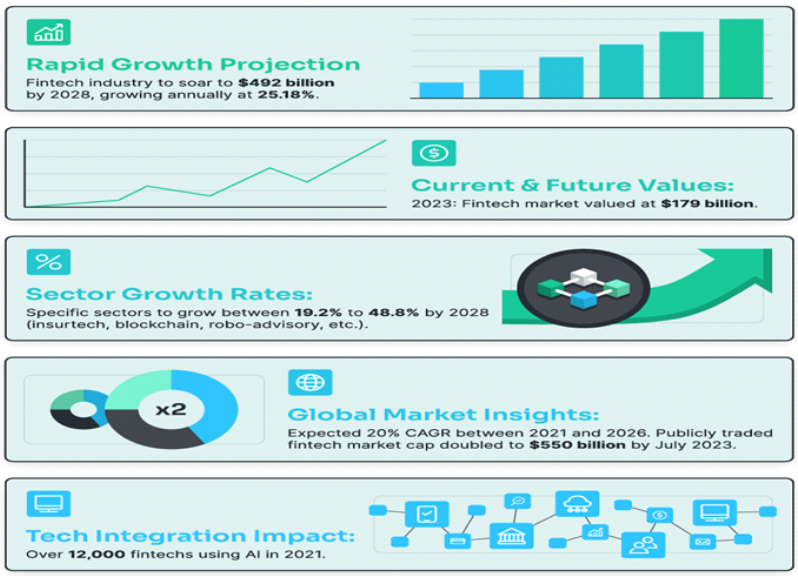
What does fintech actually mean? Fintech, also known as financial technology, is a service that shows price, time and many other dimensions as well. Fintech integrates mathematical, statistical, computational and economic things or you can say concepts with an analytical system (rahma wahyu idayani). As we all know that fintech is a fast becoming global phenomenon which is led and followed by innovators, by academics and now attracts the attention of regulators. On a wider scale, Fintech is a modern term that refers to modern things, tech driven services and it helps in many businesses (Anne laure). The use of fintech itself has been proven to help in the process of transactions for many years. This is of course nicely balanced with the development with the user interface and its experience over the period of time. Currently, there are hundreds of mobile payment services in the world which aim at facilitating the transaction process . In this case or you can say in this case, the use of fintech varies, ranging from payments which are required by users for casual things (Rahma Wahyu Idayani). Fintech has completely transformed how we manage our money—making things like banking, investing, and payments quicker and more convenient. But as the industry grows, so does the risk of cyberattacks. Because fintech companies handle a lot of sensitive financial and personal information, they've become attractive targets for hackers. So, while fintech offers great advantages, it also brings serious security challenges. To keep progressing safely, the industry needs to prioritize cybersecurity just as much as innovation. With the growth of the fintech industry at an unpredicted rate, it is critical to protect the cybersecurity and privacy. We have to be sure about privacy and data breach as nowadays it's growing at a very huge rate. This research also shows the challenges along with the risks and many other things faced by financial technology companies, highlighting the risk which is posed by the malware and other network vulnerabilities. (Rajath karangara). As fintech continues to shake up the traditional financial world, it's important to take a closer look at what this shift means for cybersecurity and data privacy. (Milian E.Z. et al, 2019), (Cocco et al., 2017). With more people relying on digital platforms and online transactions, strong security systems and clear regulations are more important than ever to guard against cyber threats. (Sangwan, V. et al, 2020), (Arner et al., 2016). On top of that, as fintech keeps evolving—with technologies like blockchain and AI entering the scene—new challenges and risks are emerging that need careful attention.(Catalini & Gans, 2016). Fintech is growing rapidly at a very nice rate and in the future as well, we all will see the results in the future in this sector surely.

FINTECH BOOM: CHANGING THE FACE OF FINANCE

Over the past few years, the financial technology (fintech) industry is emerging as one of the most informative and transformative forces in the global economy, by reshaping the way individuals and businesses interact with some financial services. By blending advanced technologies such as applications in mobile, blockchain systems, data analysis and cloud computing. Fintech has redefined traditional banking, lending, investments and insurance processes by making them faster, more accurate, more accessible and more efficient with effective manners. The rise of fintech can be attributed

to a combination of many factors, including increased smartphone usage, evolving consumer expectations, regulatory support for innovation and growing investor interest in finance and digital solutions. All this rapid expansion has led to many fintech startups, strategic partnerships between technology firms and many financial institutions and development of new financial products tailored towards population. Fintech is playing a key role in expanding access to financial services in developing regions, while also intensifying competition in more established markets. This competitive pressure is prompting conventional banks to speed up their adoption of digital technologies. However, alongside these positive advancements, the rapid rise of fintech has introduced several complex challenges—such as unclear regulatory frameworks, issues surrounding the protection of user data, and growing concerns over cyber threats. This research seeks to investigate the primary factors fueling the expansion of the fintech industry, assess its influence on the broader financial services landscape, and highlight both the potential benefits and challenges that accompany its ongoing development. By analyzing relevant literature and current market trends, the research aims to offer a detailed insight into the ways fintech is transforming financial systems on a global scale.

Growth in this sector (fintech) is impressive and is emerging at a nice rate which is useful for all of us and for the GDP of the country as the fintech companies are growing. The GDP of India is also growing at an impressive rate which is beneficial for the country also.



The rate of growth of the fintech sector in the past decade has been exceptional, and successfully reshaped traditional financial services by employing multi-dimensional technologies. By 2022, global estimates projected the fintech market would exceed $492 billion in market valuation, demonstrating tremendous growth. Growth is being propelled by swift consumer expectations for greater access, speed and usability of

financial products and services. There has been significant growth in many areas of fintech, but a revolution of sorts is currently being witnessed within digital payments, blockchain innovation, robo-advisory, Insurtec online lending etc. With this rise in fintech products and services being largely attributable to the proliferation of smartphones in society, we have also seen the widespread acceptance of mobile wallets and touchless payment options for making cashless purchases. Additionally, the growth of funding to the fintech startup ecosystem raised historic levels of investment from traditional financial institutions and venture capital firms into the disruptive fintech space in 2021.

Furthermore, the favorable regulatory environment for fintechs, combined with advances in technologies, including artificial intelligence, machine learning, and big data analytics, increased security, customization of solutions, and expedited delivery of financial services.

Fintech Segments

Fintech, as a dynamic and expansive industry can be segmented into different categories which caters to specific financial needs and transforming different traditional practices. These segments include things like payments, leding, digital banking and wealth operations each have a huge role in the financial landscape.

Payments: This area of payment includes some digital tools such as mobile wallets , contactless payments and many other digital systems. Advancements of technology in fintech have transformed the way both individuals and businesses handle the transactions, prioritizing speed, easy usage and enhanced security level. Through mobile payments platforms, users can conduct instant transfers, make purchases online and pay in stores.

Lending: Fintech-based lending services utilize modern digital tools to make the loan application and approval process more efficient, often functioning without the involvement of traditional banks. Platforms that support peer-to-peer lending directly link individuals seeking loans with private investors, cutting out intermediaries. Online lenders also assess credit eligibility using innovative evaluation methods and alternative sources of information beyond conventional credit scores. This model supports faster loan processing and enables tailored financial solutions for individual borrowers and small businesses.

Digital Banking: This segment focuses on the full digital transformation of banking services, offering customers access to their finances through web portals, smartphone applications, and banks that operate entirely online. These fintech-enabled banks eliminate the need for physical branches, delivering low-cost, user-friendly services such as checking and savings accounts, credit products, and investment tools—all designed to improve accessibility and efficiency.

Wealth Management: Fintech firms in this space provide modern investment solutions and financial advisory services. Automated platforms, commonly known as robo-advisors, use algorithmic models to deliver affordable, data-driven investment strategies, broadening access to wealth management services. Additionally, platforms offering

fractional ownership allow users to invest in smaller portions of high-value assets like stocks or real estate, making investing more inclusive and flexible.

INNOVATION IN FINTECH: RESHAPING FINANCE

Following the rapid expansion in the world, the fintech industry has become a technological innovator in financial services. A wide range of new such tools and platforms have merged beautifully, changing how people access, manage and move money. One of the most eye-catching developments is in the area of digital payments like mobile wallets, qr code and contactless or seemless payment systems which replaced cash and traditional card use for billions of consumers.These are not only convenient to us but also helps in speed up transactions and improve security .

Lending services have also undergone a significant transformation recently. Nowadays online platforms allow individuals and small businesses to apply and receive loans with minimal paperwork and faster processing time. Peer- to peer lending has further expanded access to credit by connecting all borrowers directly with lenders, often using alternative data sources to evaluate risks.

In the banking sector, digital-only banks or non banks — are gaining traction by offering fully online services through mobile apps. These banks reduce operational costs by eliminating physical branches, passing the savings on to customers through lower fees and better interest rates. They also focus heavily on user-friendly interfaces and real-time account management, making banking more accessible and transparent.

Wealth management has also seen innovation through digital platforms that allow users to invest with small amounts of capital. These tools simplify investing by offering educational resources, goal tracking and personalized recommendations. Likewise, the insurance industry has been disrupted by Insurtech firms, which use technology to streamline policy management and claims processing. Customers can now buy coverage, submit claims and track their status entirely online.

Another area witnessing notable innovation is the integration of financial services into non-financial platforms, commonly known as embedded finance. This trend enables users to access lending, payments, insurance, or savings options directly within apps and services they already use, such as e-commerce websites, ride-sharing platforms, or social media. For example, “buy now, pay later” services are now frequently offered at online checkout, giving consumers flexible payment options without interacting with a separate financial provider.

CYBERSECURITY: THE SHADOW SIDE OF FINANCIAL TECHNOLOGY

Cybersecurity involves the methods, tools, and rules put in place to stop digital attacks or lessen the harm they cause. It also involves the strategies, and things designed to stop cyberattacks or reduce their damage. Its main purpose is to keep computer systems, software, digital devices, sensitive information and financial resources safe from threats like ransomware, viruses, phishing, data breaches and other harmful online activity. It also plays a key role in protecting the people and organizations using these technologies.

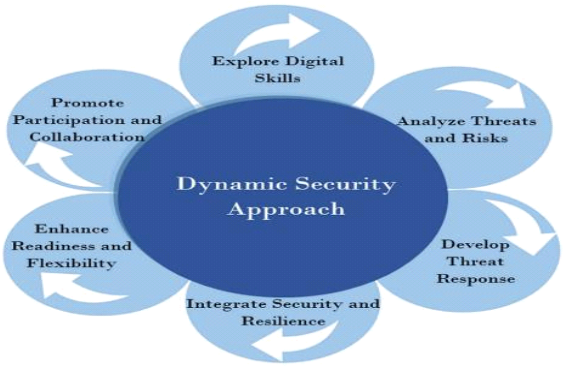


Figure 1: Counterattacking Cyber Threats: A Framework for the Future of Cybersecurity

A framework for the future of cybersecurity shows the dynamic security approach which counter attack cyber threats by the terms mentioned above - Explore digital skills, analyze threats and risks, develop threat response, integrate security and resilience and many other things as well.

The merging of cybersecurity and fintech, brought us new kinds of security issues that demand new and different approaches. With the rise of digital currencies like DeFi which means decentralized finance and systems like blockchain and the structure of modern finance is evolving rapidly. Offers new transparencies, decentralization and secured encryption which isn't completely safe from cyberattacks. Which have been the real world incidents involving flaws in smart contracts, some encrypted keys and many hacked exchanges - each leading towards significant financial damage.

Modern cybersecurity tools have made significant progress in improving how financial threats are identified, fraud is prevented and large amounts of financial data are monitored for unusual activity. At the same time, cybercriminals are developing more advanced methods to bypass traditional defenses, pushing financial institutions to upgrade their security systems to better handle these evolving threats. In response, major regulatory organizations—including the European Central Bank (ECB), the U.S. Securities and Exchange Commission (SEC), and the Financial Action Task Force (FATF)—have established strict cybersecurity requirements aimed at protecting financial systems. Meeting these standards, such as the General Data Protection Regulation (GDPR), the Payment Card Industry Data Security Standard (PCI DSS), and the Cybersecurity Maturity Model Certification (CMMC), is crucial for reducing security risks and maintaining overall financial stability. To stay protected, financial institutions need a well-rounded security strategy that includes multiple layers of defense, strong data encryption, and real-time monitoring to quickly detect and respond to threats.

ROLE OF CYBERSECURITY

So the importance of cybersecurity in fintech cannot be overestimated , as the world nowadays increasingly relies on superior technology to supply the services effectively

and in a most securable way(Jameaba MS). Fintech companies handle a very huge amount of sensitive and crucial financial data which includes personal information, transaction details and payment credentials (Nicoletti B, Nicoletti W, Weis A). To protect the data from cyber threats is not only the essential thing for maintaining consumer trust but also for complying with the straight data protection regulations which are enforced by the authorities like general data protection regulation (GDPR) in Europe and payment card industry data security standard (PCI DSS) globally . Businesses in fintech rely heavily on customer trust, which is based on one guarantee that their data is protected (Aldboush HH, Ferdous M). A company's image is single handedly harmed by the breach of data or any kind of cyberattack which majorly results in loss in business.

These businesses need to make some investments through cybersecurity frameworks that are adapted to unique operating requirements and some kind of dangers (Kaur G, Lashkari ZH, Lashkari AH). Robust encryption mechanisms in place to safeguard data while it's in motion and at rest , making sure that the data is private is in unreadable form so that an unauthorized party can not decrypt it easily by breaching the password (Mäkitalo N).

CYBERSECURITY CHALLENGES IN FINTECH

Fintech companies are increasingly grappling with serious cybersecurity challenges due to the rapid pace of digital transformation and the rising sophistication of cyber threats. Positioned where finance and technology meet, these organizations rely on advanced tools such as robo-advisors, mobile payment platforms, blockchain technology and online banking services to boost operational efficiency and enhance user experience (Khayer A).However, these innovations also heighten exposure to cyber risks, emphasizing the urgent need for robust security frameworks to protect sensitive financial data and maintain customer trust.

One of the most pressing concerns in this space is the threat of data breaches (Najaf K, Mostafiz MI).Because fintech firms handle large volumes of confidential data—including personal information, transaction histories and payment details—they have become prime targets for cybercriminals seeking to exploit gaps in digital infrastructure.The consequences of a successful breach can be severe, leading to major financial losses, reputational harm and regulatory sanctions. This underscores the necessity for strong data protection practices and a forward-looking approach to cybersecurity

Fintech companies must navigate not only technical vulnerabilities but also a complex regulatory landscape that oversees cybersecurity, financial operations, and data privacy (Allen F, Gu X). Compliance with frameworks such as the General Data Protection Regulation (GDPR), the Payment Card Industry Data Security Standard (PCI DSS) and other industry-specific guidelines is essential to protect consumer rights, maintain smooth operations, and avoid legal consequences (Kim S.).

REVIEW OF LITERATURE

The rapid advancements and growth which we see nowadays in financial technology

(fintech) has significantly managed all the landscapes of financial services by providing or we can say integrating tools like cutting edge digital tools into banking, investing, lending and in insurance. As fintech is evolving rapidly nowadays, it introduces a new spectrum of cybersecurity threats or challenges. Many researchers have explored these risks and emphasized how the digitalization of the financial system has created new threats , and vulnerabilities. So, according to arner barberis and (Buckley, 2016), the transformative effects of fintechs on its financial services has broadened attack surfaces due to its reliability on cloud computing systems and different mobile applications . These technologies enable much greater efficiency and user accessibility which simultaneously opens the door for malicious activities like data breach, data leak, identity theft and many different types of cyber attacks. (Kshetri, 2017) further said that by pointing out that fintech companies store and process large volumes of important and sensitive data with them, so they become the high value targets for cyber-criminals. The increasing rate of hacking techniques has forced fintech firms to prioritize not only its sensitive data but their cyber defense mechanisms as well. By exploring some specific areas of concern, (Mhlanga, 2020) argues on the regulatory gaps and inconsistencies in different jurisdictions cybersecurity risks. Fintech companies often operate across many things via different digital platforms, they are subject to a variety of different regulatory things, some of which may be lacking in the cyber security chain. Moreover, the reliance on the third party app or you can say other service providers such a cloud computing system adds another layer of risk. A key issue analyzed in recent studies stems from the inability to identify cyber threats with sufficient speed in the quickly evolving contexts of fintech. Transactions take place in sub-second intervals, thereby making it impossible for security systems to identify malicious activity in real-time. Security monitoring systems, especially with multi-stage sophisticated attacks which are not easy to detect at the onset, have very limited automation. For these reasons, many fintech firms are looking into advanced technologies such as blockchain to improve preemptive security and reaction mechanisms always active in real-time for immediate adjustments. Due to a lack of funding, fintech startups tend to face greater risks in the realm of cybersecurity. (Nicoletti, 2017) notes that these businesses usually prioritize product development and marketing over all else, and security is deprioritized, leading to a myriad of dangers. These companies can find themselves in scenarios wherein new services are deployed without adequate encompassing defenses, which makes it far easier for cybercriminals to exploit. Larger fintech firms and established banks that implement fintech solutions, however, manage cybersecurity with greater effectiveness and efficiency due to more comprehensive budgets and advanced risk management systems. Moreover, customer actions, or the lack thereof, add to the cybersecurity risk within fintech companies. (Suri and Jack, 2016) noted that poorly chosen passwords, credential recycling, and app neglect are common user behaviors, which expose even the most protected systems. This illustrates the urgent need for user training campaigns, improved authentication frameworks and encryption-by-default policies. One of the greatest challenges in protecting fintech platforms is the ability to detect cyberattacks shortly after they occur. (Gai, Qiu, and Sun, 2018) explain that the incredibly rapid rate as which financial transactions are processed in

the fintech environment does not afford a lot of time for detection and prevention of harmful activity in real-time. Traditional security systems typically lag behind, and because of this lag, they often struggle to respond quickly to advanced threats that take advantage of unknown software vulnerabilities. (Johnson and Shadab, 2019) also notes how companies that do not have continuous surveillance systems to monitor their networks may not recognize a breach until they have done significant damage. To solve this issue, more organizations are searching into blockchain technology as a more reliable and secure method to verify financial transactions. New fintech organizations are especially vulnerable to security-related threats due to their limited financial and operational resources. (Nicoletti, 2017), observes how new fintech startups typically spend a considerable amount of time trying to grow their user base and optimising their product, which often results in the postponement of essential cyber-investments that are vital to prove safety for every consumer using their products. Subsequently, rather than being cycled through the proper security processes, products are released that could, and oftentimes do contain grave vulnerabilities. (Puschmann, 2017) provides a similar argument noting how the fintech môi trýÝng is competitive in nature, and that as a result requires companies to act quickly or get left behind, and to that end security generally gets left behind. On the other hand, large and more developed companies, such as traditional banks or well funded fintech companies, likely have the financial resources and the luxury of strategic thinking to account for security at the foundations of their operations. Users contribute to the lack of cybersecurity in fintech as well. In the early stages of adopting electronic transactions and network-based operations, cybersecurity in the financial sector was primarily regarded as a matter of business functionality rather than a strategic priority (Gai et al., 2016). During this period, various studies were conducted to help financial institutions establish reliable information security frameworks (Gai & Steenkamp, 2013, 2014). A common concern among financial organizations was the uncertainty surrounding the effectiveness and return on investment (ROI) of implementing advanced security technologies (Farzan et al., 2013). Additionally, financial service institutions often struggled to categorize and comprehend cyber incidents, which hindered their ability to make informed and timely strategic decisions (Gai et al., 2016). In response to these challenges, research by (Chai et al., 2011) indicated that higher investments in cybersecurity tended to yield proportionate returns, suggesting a positive correlation between investment level and security benefit. Further findings by (Liao et al.,2011) emphasized that addressing user's privacy concerns and developing strong trust frameworks are essential for ensuring the safety and reliability of digital financial transactions. At the same time, several studies have focused on identifying the origins of cyber threats within financial operations. For instance, (Roumani et al. 2016) explored the relationship between cybersecurity weaknesses and the internal records of financial institutions. Their research analyzed how factors such as the organization's operational scope, financial performance, market presence, and sales figures could influence vulnerability levels. In a related context, (Duan and Da, 2012) suggested that adopting financial technology (fintech) tools could serve as a strategic approach to enhance operational efficiency and improve various elements of financial business. As we are talking about the fintech companies it is

said that Over the past decade, fintech companies have played a crucial role in advancing key European Union policy initiatives such as the Capital Markets Union and the Banking Union. According to (Milne 2016), these firms act as engines for value creation across a range of entrepreneurial ventures. Fintech businesses benefit from numerous technological advantages that enable them to meet rising consumer expectations, navigate fewer regulatory obstacles, enhance user experience, streamline operations, and adopt innovative business models that support rapid expansion (Pollari, 2016). These innovations have led to transformative changes across multiple sectors, including big data analytics (Yin & Gai, 2015), mobile communication technologies (Topol, 2019),(Wen et al., 2012), (Zhang et al., 2012) Zhang & Soong, 2004), mobile embedded systems (Gai et al., 2017),(Zhang et al., 2011), trust and security frameworks (Abawajy et al., 2016), (Zhang et al., 2015), cloud computing (Castiglione et al., 2015),(Gai et al., 2018), and image processing technologies (Castiglione et al., 2007). Furthermore, one of the significant developments in the fintech ecosystem has been the increased participation of traditional banks in fintech ventures, which is helping to shape the future landscape of financial services. Technological progress in this space is also driving financial inclusion, expanding the accessibility and credibility of financial services, opening up new market opportunities for smaller enterprises, and giving fintech ventures a competitive advantage (Medeiros & Chau, 2016).

As the literature illustrates, cybersecurity risk in fintech is a complicated litany of factors technological, regulatory, organizational, and social. With the development of fintech and its embracement within the traditional financial ecosystem, firms and regulators should take initiative proactively to collaborate on efforts to enhance cybersecurity. The future research emphasis should be cross-border regulatory alignment AI-based detection systems and security-by-design ethos for innovative financial technologies.

RESEARCH OBJECTIVES

The aim of this study is to do a detailed analysis about the growth of financial technology, current challenges faced by this industry because of cybersecurity , and understanding the importance of cybersecurity for fintech firms. It lists various cybersecurity threats that fintech firms are likely to face and suggest ways to stop them. The objectives of this study are as follows:-

1. To study how the fast rise of FinTech services leads to more cyber risks.
2. To check if more people using FinTech results in more financial cybercrimes.
3. Find possible cyber threats and suggest ways to stop them.

RESEARCH METHODOLOGY

This research is descriptive in nature. In this research secondary data was used. The type of data used in this research was qualitative (words, images etc) in nature.

DATA COLLECTION

1. Data for this research was collected from sources like published research papers from google scholar, online articles, project reports etc.
2. The study uses previous data from various sources , as it perfectly fits the objectives of this research. Firstly, since the data was already collected and approved, it saves time and avoids the lengthy process of data collection. Because the data collected for the past decade offers a historical perspective that would be hard to get and it also serves as a basis for future research. To make sure our findings were reliable, we also checked newer studies on the same topic. This saved this research from any possible biases from using previous data.

HOW THE FAST RISE OF FINTECH IS FUELING CYBERCRIME

Fintech Market Growth (2015–2025): A Global Overview

Over the past few years, the financial technology which is also known as fintech is growing at a rapid speed. It provides many services like mobile banking, payment apps, cryptocurrency platforms and online investment tools. Fintech is changing the way we manage money. But with this brighter side comes a darker side: a sharp rise in cybercrime.

Fintech Growth vs. Cybercrime Costs (2015–2025)

Year	Global Fintech Market Size (USD Billion)	Estimated Annual Cybercrime Costs (USD Trillion)
2015	105.4	3.0
2016	131.9	3.5
2017	165.1	4.0
2018	206.7	4.5
2019	258.8	5.0
2020	324.0	6.0
2021	405.6	7.0
2022	514.9	8.0
2023	644.6	9.0
2024	814.7	10.0
2025	1,000.0 (Projected)	10.5

OBSERVATION

From 2015 to 2025, the fintech industry is expected to grow from about $100 billion to over $1 trillion. But as the fintech industry grows, the risk also grows . The Cybercrime is also expected to cost the world $10.5 trillion each year by 2025.

KEY FACTORS BEHIND INCREASING CYBER THREATS

The rapid growth of financial technology (fintech) can lead to an increased rate of cybercrimes for several key reasons:

1. **Larger Attack Surface:** As fintech services increase by introducing services like mobile apps, online platforms, digital wallets, blockchain technologies and APIs. This increases the digital surface area for the attackers. This means each new service can become a new entry point for them.
2. **High Value Targets:** Fintech platforms deal directly with money, sensitive personal information, and financial transactions, credit card details etc which makes these platforms attractive to hackers to steal money. Unlike general tech platforms, successful break in in the fintech systems can lead to direct financial gain to them.
3. **Rapid Innovation Outpacing Security:** The fast pace of fintech innovation often prefers user experience and market speed over good cybersecurity infrastructure. Startups, in particular, may spend less money in the security infrastructure which may be used by the attackers to disrupt the security system
4. **Increased Use of Third-Party Services:** Fintech companies often depend on third-party companies like payment gateways, cloud providers and analytics services which can create indirect entry points for attackers to break in. A breach in one point of supply chain can fail the entire system
5. **Growing User Base with Varying Digital Literacy:** As fintech platforms are adopted by everyone which means a huge amount of users will use these apps and some of these people would not be aware about safe online behaviour which makes them a easy target for frauds
6. **Data-Rich Environments:** Fintech apps store huge amounts of personal and financial data like banking details, credit scores, and transaction histories. Cybercriminals are motivated to steal or ransom this data, which can be resold or used for identity theft
7. **Global Connectivity"** Fintech services are basically internet based which means global connectivity (it can operate across borders). This global connectivity can sometimes become a big nightmare as it makes us vulnerable to attacks anywhere in the world.

CYBER THREATS

The different types of Cyber threats are here as follows:-

Phishing : Phishing is a type of cyber attack in which scammers send fake messages and trick people to send their personal information like passwords and credit card numbers. It is mostly done through emails and these attacks are getting more advanced and use more advanced tricks to fool people.The 2019 Kaspersky phishing report states that 17% of phishing victims were in the Philippines, 16% were in Malaysia, and 14% were in Indonesia. Scam targets in the Southeast region are most prevalent in these nations.

Ransomware: Ransomware is a type of malware that gets into the system and encrypts certain data and makes it impossible for users to view it. They ask the user to pay

ransom and then they will be able to see that data. Many large corporations worldwide have become a target of this cybercrime.

Botnet: A botnet is a type of network which consists of computers and devices under the control of cybercriminals that can be used to target financial institutions and their customers.

Cryptojacking : Cryptojacking is a type of cyber threat in which a hacker uses someone else's computer to mine bitcoin. This slows down the victim's device. According to Interpol, 18% of the world's cryptojacking cases happen in southeast Asia. It is now becoming a growing issue that affects both businesses and individuals. The main reason behind this attack is the money earned from bitcoin

Malware: Malware is a type of harmful software which shows itself as a safe software but it actually damages the computer after being installed in that computer. It is constantly evolving. For example, Emotet was used to steal banking information but now it distributes other types of malware.

Insider Threats: It occurs when workers, subcontractors or partners from external partners misuse their right to access the important system. These threats can be unintentional and intentional as well. This could happen because of carelessness and inadequate instruction. For example in 2022 , an employee at a fintech startup leaked a private client's information which shows weak internal security controls. These type of incidents shows the need of strong identity and strong access management systems, regular employee training and building a culture of security awareness (Chukwunweike JN, Adeniyi SA, Ekwomadu CC,Oshilalu)

PROACTIVE MEASURES AGAINST CYBER THREATS

The prevention strategies of the Cyber threats are as follows :-

1. **Patch management-** Patch management means regularly updating software, operating systems, and apps to fix problems and improve security.(I. Whitepaper, B. M. Felicia Nicastro, and B. M. Felicia). These updates often fix serious weaknesses that hackers could use to break into the systems and damage the system. By keeping everything up to date with the latest fixes, organizations can lower the risk of cyberattacks and keep their systems safer.(Goni, A., Jahangir, M. U. F., & Chowdhury, R. R) .
2. **Security Awareness Training**: Mistakes made by humans is an important element in cybersecurity breaches. The purpose of this training is to educate employees and users about potential threats and how to identify them and respond to them. It motivates them to be alert, especially for common attacks like phishing and social engineering(D. Ghelani)
3. **Intrusion Detection and Prevention Systems (IDPS):** IDPS (K. A. Scarfone and P. M. Mell,) are important tools that help keep an eye on what's happening in networking in real time. They look at networking traffic and system activities closely to identify and stop anything that looks suspicious. These systems help organizations in identifying and responding to possible threats, which can reduce

damage if something goes wrong. (Goni, A., Jahangir, M. U. F., & Chowdhury, R. R)

4. **Zero Trust Security**: This model challenges the traditional trust within the networks . as it works on the principle of "never trust, always verify". This technique requires daily verification of the identity and trustworthiness of devices and users, irrespective of their location within or outside the network (Goni, A., Jahangir, M. U. F., & Chowdhury, R. R) .
5. **Access Control:** Access control (S. Abraham) Involves managing that who has the permission to access specific resources or areas within a single network . the principle of least benefits is important here , as it ensures that only a minimum number of users will have access to only those resources which are necessary to perform their task which will minimize the chances of cyber attacks (Goni, A., Jahangir, M. U. F., & Chowdhury, R. R).
6. **Network Segmentation:** Branches of networks involve dividing a network into many segments or zones. This practice separates critical assets from a broader network , making it more difficult for attackers to move accordingly within the network if they breach one segment segment (P. Mell, T. Bergeron, and D. Henning), (R. Syed and H. Zhong).
7. **Threat intelligence :** This gives organizations real time information about the all new threats along with the weaknesses . This helps them to quickly update their security to stay protected against these cyber risks.(D. Ghelani), (R. Syed and H. Zhong) .
8. **Regular Security Audits and Testing**: Doing regular checks like vulnerability assessment, penetration tests and security audits is important to find weak spots in an organization's security defense. These regular check help to focus on fixing serious problems and to make sure that security systems are working efficiently (D. Ghelani)
9. **Multi-Factor Authentication (MFA)**: Requires users to confirm their identity using more than one method before they are granted access. This extra layer of protection significantly lowers the chances of unauthorized access, even if someone manages to steal or guess the user's password. (S. Abraham)
10. **Continuous Monitoring:** Continuous monitoring of network and system is required for detecting and responding to the abnormal patterns quickly and efficiently .Which allows organizations to identify and tackle all security threats in real-time (I. Whitepaper, B. M. Felicia Nicastro, and B. M. Felicia) .
11. **User and Entity Behavior Analytics (UEBA)**:UEBA tools help us to monitor how users and systems normally behave, and how they look for unusual activity or changes. This also helps organizations to spot possible security problems or threats from inside the company. (R. Syed and H. Zhong).
12. **Regular Backup and Recovery**: Data is an important asset, and so the regular backups are , It ensures the safety concerns. As , in case of data loss due to

cyberattacks or other incidents, backups help in easy and smooth recovery of data (S. Abraham).

The Future of Fintech

The fintech industry continues to grow and change , the importance of good cybersecurity becomes more important. With more people using financial apps and making digital transactions, protecting sensitive financial information is a top priority. Here's what the future may look like:

Quantum Computing

As quantum computing makes new innovations it will bring both challenges and solutions in cybersecurity. Quantum-resistant encryption will be key to protecting data from quantum computing attacks..

Biometric Security

Biometric authentication methods like facial recognition, fingerprints, and voice recognition. These methods will be used more often to improve security and fraud detection.

Blockchain for Security

Blockchain offers services like decentralization, immutability, and transparency and these features make it useful for safe transactions, identity management, and reducing fraud. Blockchain ensures that the data shared between banks and financial systems is accurate, secure, and can't be easily changed or faked.

Zero Trust Architecture

The zero trust model suggests not to trust anyone inside or outside of the network and it will become a standard. In the future every action will request a verification making systems difficult to hack.

RegTech (Regulatory Technology)

As the rules of government are becoming more strict, the companies will turn themselves into regtech solutions to stay compliant with complex regulations. These tools will automatically obey the rules and reduce the risk of legal trouble..

Smarter Cyber Threats

With advancement in technology the defence mechanism is improving which is accompanied by improved attacks. Future threats like **a**dvanced phishing, ransomware, and APTs (Advanced Persistent Threats will be more complex and not easy to detect. Fintech firms will need stronger and smarter protection.

Mobile & Endpoint Security

All the financial activities are happening on smartphones and tablets so protecting these device is important, Advanced Endpoint Detection and Response (EDR) tools will protect them from cyber attacks

IoT Security

As IoT devices are being mostly used nowadays , they open up new ways for hackers to get in the system. Securing these devices are critical and securing them would be a key part of fintech cybersecurity plan

Global Data Protection & Privacy Laws

The concerns of data privacy are growing worldwide. The fintech firms must follow some tight global regulations to avoid breaches. Obeying these privacy laws is necessary for fintech firms

CONCLUSION

This paper shows us the rise , growth and innovation of fintech by enhancing speed , user experience . However this success comes with the significant cyberthreats and cybersecurity attacks that cannot be ignored . As this sector grows , so do the risks and the major risks and challenges are shown above in the paper which is cybersecurity challenges along with the risks. This challenge is navigated with the help of technological advancements which lead to the growth in the fintech sector .

This paper shows the future of fintech with the help of prevention techniques . The sustainability of fintechs growth will depend not only on its ability to innovate but also depends on its capacity to grow without any inconvenience , which is caused due to cybersecurity infringements nowadays. This paper ensures the balance which is crucial for the long term growth and trust in the fintech ecosystem .

This expansion of fintech has redefined how financial services can operate while bringing greater efficiency and broader access to digital finance . As said earlier , fintech companies nowadays are facing challenges of not only driving innovation along with cybersecurity but also establishing secure infrastructure into financial ecosystems .

This paper ends by showing us the prevention strategies , by which we can understand the cyberthreats and not fall again in any such types of cyberthreats or cyberattacks.

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Legality in Sustainable Urban Planning:Environmental Issues and Challenges

*Dr. Yuvraj Dilip Patil**

ABSTRACT

The rapid growth of population and urbanization is the major problem which is faced by developing countries like India.. nature. The Research paper gives deep insights on topics ranging from urban planning and its issues and challenges to various land use policies which are also discussed.The research paper seeks to provide various insights into the complex dynamics of the legality of sustainable urban planning and offer valuable perspectives for the policymakers, and urban planners.The research paper also gives information on various judgments by the Honorable Court of India.

The objectives of the research paper are

1. To understand & analyze the importance of environment in the urban planning.
2. To study the issues & challenges in urban planning specifically relating to the environment.
3. To analyze the laws relating to urban planning.
4. To make recommendations for the best practice for urban planning which leads towards "smart city planning

Keywords: Urbanization, Legal, Environment, Sustainable Urban Planning.

INTRODUCTION

The rapid growth of population and the urbanization is the one of the major problems which is faced by developing countries like India. The paper gives deep insights on topics ranging from urban planning and its issues to challenges for which various land use policies are discussed. The paper gives analyses of the legal aspect of urban planning in which various acts ranging from the Biodiversity Act and Forest Conservation Act to punishment and rules for violation of the act. The paper also gives information on various judgments given by the honorable Court of India

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The paper is Socio-Legal in Nature. In this research paper researchers have used doctrinal research methodology. It is armchair research that involves analysis of papers and case laws relating to legality and urban planning.

URBAN PLANNING: ENVIRONMENT ISSUES & CHALLENGES

Urban Planning: Environmental Issues & Challenges The topic explores the connection between urban development and the environmental concerns, highlighting the need for sustainable strategies amidst rapid urbanization as well as environmental degradation. The study aims to provide insights into various policies balancing urban development and along with Heritage preservation.

i. **Land Use Policy for Railway (1989)**

To ensure transparency in processes which are related to the development of highways and land acquisition, the National Highway Act was introduced in the year 1956. According to this act the set guidelines for the construction of buildings must be 45-60 meters from the four-lane road and also extra setbacks which are decided by the planning authority. According to the Indian Road Congress building is set at 80m and the control line which helps in the management of urban sprawl is set at 150m. Right of way which ensures the effective and efficient functioning of the highway is 150 m according to the National Highway Authority of India

ii. **Land Use Policy for Airport**

The amended National Highways Act defines property acquisition forhighway development. Minimum distances for building construction vary, typically 45-60 meters for four-lane roads, with additional setbacks determined by planning authorities. Indian Road Congress guidelines specify building lines at 80 meters and control lines at 150 meters for highways, with a right of way of approximately 90 meters.

iii. **Land Use Policy for Highway**

The amended National Highways Act of 1956 guides land acquisition for highway development, ensuring transparency and due process. Minimum distances for building construction along highways range from 45-60 meters for four-lane roads, as per guidelines. Indian Road Congress standards establish building and control lines at 80 meters and 150 meters, respectively, with a right of way approximately 90 meters wide, according to the National Highway Authority of India.

iv. **Issues and Challenges for the Protection of Ancient Monuments Act (2010)**

The prime focus of the act is to ensure conservation, preservation of the historical identities and attracting tourism to generate growth and development. It safeguards old and heritage structure which are over 100 years old from excavation. The act mandates prohibition for any construction within 100 meter of heritage and monument site along with special permission within 200m in buffer zone.

Directive principles

Articles 48: It states that state are directed to modernize animal husbandry and agricultural along with preserving cattle breed.

Article 51-A(f) It is Citizens prime value to safeguard diverse cultural heritage of the nation

Article 51-A(f) Encourage the citizens for humanism and Scientific temper.

Law regarding protection of river

For the developing Country like India river pollution fall as one of the major problems. According to the Central pollution control board data which was published in the year 2018 around 351 river stretches are polluted in India. According to the CPCB board untreated wastewater is one of the biggest problem. According to the report of the 2021 around 72,368 million liters per day (MLD) of sewage is being generated and out of it only 26,889 million liters per day is treated.

v. Laws regarding the Protection of River

River pollution has become one of the major problems in countries like India. According to the Central Pollution Control Board data, in 2018 around 351 river stretches are polluted in India. According to the CPCB (Central Pollution Control Board), untreated wastewater is the biggest problem in India. According to the 2021 report 72,368 million litres per day (MLD) of sewage is generated and only 26,889 MLD capacity is treated.

vi. The laws related to the Water Pollution Act (1974)

The Act prohibits the exceeding prescribed pollutant standards in water bodies and also mandates obtaining consent for industrial operations, hazardous substance handling, or pollutant discharge. It grants authorities the power to set water quality standards, authorize inspections, and monitor and analyze water quality.

vii. Construction and Demolition Waste (2016)

According to this law, waste generators, local authorities, and government bodies must manage the construction and demolition waste. Waste generators must segregate and store waste properly, while the stakeholders must ensure waste is handed to authorized facilities. Rules mandate local authorities to identify and authorize waste processing facilities, promoting the recycling and reuse to reduce landfill burden.

viii. Formation of NITI Aayog

In 2015, NITI Aayog replaced the Planning Commission, adopting a consultative approach with input from multiple governments. Its priorities include accelerating economic growth, enhancing healthcare and also education infrastructure in cities, focusing on infrastructure and urbanization, promoting digital transformation and innovation, addressing environmental sustainability and climate change, and supporting rural development and agriculture modernization.

LEGAL ASPECT OF URBAN PLANNING

Implementation of the Legal laws plays a very important role in developing countries like India. This topic drives into the various acts and laws ranging from Hazardous waste management, the Biodiversity Act for sustainable development, and various punishments for violation of laws. The chapter also highlights EIA regulation green zone and waste management rules.

i. Hazardous Waste Management Rule (2016)

- The act mandates municipalities to levy fees for the disposal of waste management and also makes the individual responsible for the disposal of their garbage.
- It Includes steps to handle hazardous waste ranging from Prevention, Minimization, reuse, recycling, and safe disposal.
- The law was amended in the year 2019 (Management & Transboundary Movement) and the rules are as follows.
- Solid waste import has been prohibited which includes SEZ (Special Economic Zone).
- Electrical and Electronic assemblies and the defective components are required to be directly exported without permission of the Ministry of Forest and Climate Change.
- Industries that do not require consent from the Water Act 1974 and Air Act 1981 are exempted from requiring authorization to provide hazardous waste if it is generated and also given to proper disposal facilities.

ii. Noise Pollution Control Rule (2000)

- The Air (Prevention and Control of Pollution) Act considers noise as a pollutant. The Central Pollution Control Board sets the noise level criteria for different zones, ranging from 50 dB to 75 dB during the day and 40 dB to 70 dB at night.
- Silence zones around hospitals and schools prohibit loud noises, including horns and firecrackers. Public gatherings are limited to 75 dB for loudspeakers.
- Manufacturing noise for two-wheelers should not exceed 75 dB, and busy airports must maintain noise levels below 70 dB during the day.

iii. Offences and Punishments Under the Air Pollution Act (1981)

Operating an industrial plant without permission can lead to the jail time of 1.5 to 7 years and a daily fine of up to Rs. 5,000, while unsafe vehicle use incurs fines of Rs. 1,000 or Rs. 2,000. Violating PUC certificates results in a fine of Rs. 10,000, while environmental pollution can lead to jail time of up to 5 years and fines up to Rs. 1,00,000, with daily non-compliance fines of Rs. 5,000. Releasing harmful pollutants incurs a fine of Rs. 500.

iv. Punishment for Environment, Air, Water Act

Non-compliance with the stream or well pollution bans can lead to 1.5 to 6 years imprisonment. Disobeying Pollution Control Board directives results in up to three months jail time and a Rs. 10,000 fine, with an additional Rs. 5,000 daily penalty for continued non-compliance. Disregarding court orders leads to 1.5 to 6 years imprisonment and a Rs. 5,000 daily fine. Intentional contamination of public water sources results in up to 3 months jail time and a Rs. 500 fine.

v. Biodiversity Act (2002)

The Biodiversity Act is one of the most important acts enacted in India. The act mainly focuses on the prevention of habitat destruction. It acts as a need to conserve sustainable management for the various biological diversity. The act prevents citizens from over-exploitation of resources. The act gives legality to the sustainable urban planning as it provides a systematic legal framework for the sustainable development of projects by taking various biodiversity clauses and considerations.

This act will ensure efficient urban planning of any which will take into account ecological and sustainable development meeting the current needs as well as taking into account future generations. Therefore it acts as a way of interlinkage link of urban development initiatives and biodiversity conservation.

The prime objective of the act was the conservation of various types of biodiversity which also include species that have genetic resources. The act throws light on the sustainable use of resources which also keeps in mind long-term viability. It focuses on the idea of benefit sharing. One of the most important aspects is maintaining Indigenous and community rights which are useful for their traditional knowledge and resources. It also provides various benefit-sharing mechanisms.

FOREST CONSERVATION ACT (1980)

The Forest Conservation Act is one of the important acts in the Constitution. Its main goal is toprotect the integrity of the forests, preventing the industrial encroachment and alsobiodiversity loss.

Section 2 mandates in the act give special permission for the non-forest uses like tea as well as spices cultivation, while Section 3 of the act allows the forming advisory committees to the preserve forests. The act also aims to protect flora and fauna and prevent the conversion of forest land into the industrial buildings. It also ensures efficient utilization of funds for the purpose of afforestation, reforestation, and also wildlife management.

One of the important amendments is the development of compensatory afforestation according to which special funds will be provided and this Act ensures efficient utilization of funds for afforestation, reforestation, and also for wildlife management endeavors.

EIA REGULATION (2006 AMENDED IN 2020)

It is an act that gives priority to various processes of evaluating the environmental effects that happen due to various activities.

EIA helps companies to identify the environmental impact and ways to mitigate it by doing CSR which is corporate social responsibility activities. The act can be understood using a small example if a company is planning to invest their money in renewable project. EIA will help them to identify the impacts the projet carries if project is constructed.

EIA regulations require a certain percentage of the land within real estate projects which are known as green zones, typically 10% to 30%. These zones aim to preserve the natural ecosystems like forests and mitigate environmental impacts and to promote environmental sustainability.

NATIONAL GREEN TRIBUNAL ACT (2010)

NGT, founded in the year 2010, resolves environmental disputes swiftly, aiming for the conservation and protection. It offers relief for damages and operates regional benches for accessibility, ensuring compliance with environmental laws in India.

NGT(NationalGreenTribunal)wasestablishedinOctober2010asaspecializedbodythatcanhandle any environmental dispute. The objective of the NGT includes expeditious and effectivedisposal of the cases that are related to the protection and conservation of the environment,forests, as well as other natural resourcing formed to give relief and compensations for anydamages that are caused to persons and their properties. To handle the environmental disputeswhichinvolvemulti-disciplinaryissues.

DISPOSAL OF WASTE MANAGEMENT RULE (2016)

The Waste Management Rules (2016) in India address the significant waste management challenges brought about by rapid urbanization. Emphasizing scientific disposal methods like segregation and recycling, the rules aim to mitigate environmental impacts. Key initiatives include mandatory waste segregation at the source, in-house waste management for new developments, and allocating space for recycling facilities in industrial areas. With municipal solid waste (MSW) generation projected to reach 165 million tons by 2031 and 436 million tons by 2050, efficient waste management is crucial. The planning commission reports an unused potential of 439 MW of power from waste, highlighting the need for improved waste-to-energy conversion.

Salient features of the rules include mandatory segregation of waste at the source for reduction, reuse, and recycling. Generators are required to segregate waste into categories like wet waste, napkins, and empty containers and hand over the segregated waste to authorized collectors. New townships and group housing societies must develop in-house waste handling and processing systems for biodegradable waste. Additionally, developers of Special Economic Zones, industrial estates, and parks must earmark at least 5% of the total area or a minimum of five plots for recovery and recycling facilities.

SALIENT FEATURES INCLUDE:

Sources of segregation should be channeled for reduction, reuse, and also recycling.

The generator has been introduced which can segregate the waste into Wet, napkins, empty containers of cleaningagents, mosquito repellents, etc.) and hand overs egregated wastes to authorized rag-pickers or waste collectors or the local bodies.

New townships and Group Housing Societies have been made responsible for developing in-house waste handling, and processing arrangements for bio-degradable waste.

Judicial Scenarios

1. M.C. Mehta vs Union of India (2002)

Issues: In the landmark ruling on September 23, 1986, the Court compelled the Delhi Administration to address pollution from vehicles, setting a precedent for environmental protection. Measures included a sulfur reduction in diesel, lead-free petrol, catalytic converters, pre-blend 2T oil, phasing out old cars, and benzene reduction. This directive aimed to fulfill constitutional duties, safeguard public health for current and future generations, and underscore the responsibility of authorities in curbing emissions, ensuring cleaner air, and mitigating environmental degradation

Judgments: The court found that these hazardous industries contribute to the growth and development of people. For instance, they produce chlorine, which helps in the disinfection of water. These industries also contribute to the employment of people. Therefore, the final decision of the judges was to move such factories to a less populated area so that they do not pose a risk to human life. The court suggested that the government should adopt a national policy on the location of these toxic plants. The government should thoroughly check if the plants are posing a risk to the community.

2. M.C. Mehta vs Union of India (1987)

Issues: In the landmark decision environmental issues arising from hazardous industries near Delhi were addressed. Violations of environmental laws led to degradation and health hazards. The case highlighted the State responsibility, strict liability of industries, and also the role of public interest litigation in environmental activism, shaping Indian environmental jurisprudence.

Judgments: The court recognized the importance ofthe polluting industries in the growth of the economy and the creation of jobs. For example, chlorine is used to disinfect the water. The court ruled that such factories should be moved to the less populated areas to reduce the risk of human fatalities. The court also advised the government for establishment of a national policy on the location of such polluting plants and to ensure they do not endanger the community.

3. Indian Council for Enviro-Legal Action vs Union of India (2011)

Issues: The case addressed illegal mining activities in the state of Karnataka and Goa, highlighting environmental law violations and the state's duty to protect the natural resources. It emphasized sustainable development and the PIL's role in holding authorities accountable and influencing environmental governance in India.

Judgments: The court annulled the amendment as it violated Article 21. The Supreme Court found that the authorities responsible for implementing the CRZ Notification have been overworked and have very limited control. The court ordered the establishment of Coastal Zone Management Authorities to oversee the implementation of the CRZ Notification and provide advice to the Ministry of Foreign Affairs and the Government of India on matters related to coastal regulation.

4. Gujarat Water Pollution Control Board vs Kohinoor Dyeing and Printing Works (1993)

Issues: In the case canteredon theuntreated effluent discharge, violating environmental laws like the Water (Prevention and Control of Pollution) Act, 1974, and the Environment (Protection) Act, 1986. It emphasized regulatory responsibility, urging the industries to adopt pollution control measures for environmental sustainability.

Judgments: The judgment and the order of the Learned Session Judge Surat is annulled and annulled. The order of the Learned Magistrate Surat is confirmed. This Court hereby, of its motion for a preliminary ruling, stays the execution, execution, and also enforcement of the judgment for one month from this date.

5. Delhi Pollution Control Committee vs Splendor Landbase Ltd. (2012)

Issues: the focus was on the company's breach of environmental regulations, notably the Water (Prevention and Control of Pollution) Act, of 1974, and the Environment (Protection) Act, of 1986. The judgment stressed the regulatory accountability, urging industries to adopt effective pollution control measures for environmental preservation.

Judgments: The court maintained the position that residential complexes are exempt from the Water Act's application, whereas the retail centres and commercial buildings are. The DPCC's actions about residential complexes were ruled null and illegal, and also writ petitions were granted in this context. Prior authorization is required for retail malls and commercial complexes under the Water Act and the Air Act. The court granted cross objections while rejecting the DPCC's appeals. All interim orders are void, and each party is responsible for the expenditures.

RECOMMENDATION

1. Review and update laws like the Forest Conservation Act and National Environment Policy to improve sustainable urban planning in India. This can be achieved by revisiting the existing laws, such as the Forest Conservation Act (1980) as well as the National Environment Policy (NEP 2006).

2. Strengthen enforcement of urban planning and environmental laws with more resources and authority for implementing agencies. Enforcement of the laws which are related the urban planning and the environment should be followed up in a better manner.
3. Involve citizens in decision-making through forums and awareness campaigns to promote ownership of sustainable urban planning. Educating and training the public about the importance of environmental conservation and their role in promoting sustainable practices is crucial.
4. Use technology and smart solutions for waste management, energy conservation, and infrastructure development. Smart tech aids sustainable, resilient cities.
5. Develop waste management strategies with source segregation and recycling to reduce pollution and promote resource efficiency. Segregating waste, recycling, and proper disposal mitigate pollution, promote resource efficiency, and enhance environmental sustainability in urban areas.
7. Promote green building practices, urban green spaces, and nature-based solutions to mitigate urbanization's impact on the environment.
8. Provide capacity-building programs for urban planners, government officials, and stakeholders.
9. Foster collaboration among government agencies, NGOs, academia, and community organizations for sharing knowledge and best practices. Promote collaboration among government, NGOs, and academia for sustainable urban planning.
10. Offer incentives and recognition for adopting sustainable practices in urban development projects.
11. Establish monitoring and evaluation mechanisms to assess the effectiveness of sustainable urban planning initiatives.
12. Conduct workshops and campaigns to educate communities about sustainable practices and environmental conservation.
13. Develop robust disaster management strategies to protect heritage sites from natural calamities. Regular assessments and feedback loops can help identify gaps, measure progress, and inform future policy decisions for continuous improvement.
14. Use advanced technologies like 3D scanning and digital mapping for preserving and restoring historical monuments. Advanced technology should be used in a precise manner.
15. Promote responsible tourism to minimize negative impacts on heritage sites and ecosystems while promoting cultural appreciation.
16. Enforce environmental laws rigorously and ensure proper river protection and waste management practices.

17. Involve local communities in river conservation efforts and decision-making processes related to environmental policies.
18. Invest in modern waste management facilities to streamline disposal processes and encourage recycling.
19. Implement strict regulations and monitor dumping sites to prevent environmental contamination and health hazards.
20. Collaborate for holistic, sustainable urban solutions among planners, scientists, and policymakers.
21. Support research initiatives aimed at developing innovative technologies and approaches for sustainable urban planning and environmental management.

CONCLUSIONS

In conclusion, the given paper delves into the critical intersection of sustainability, environmental challenges, and urban planning, particularly in the context of rapid urbanization and population growth observed in developing countries like India. It also highlights the pressing need for sustainable urban planning practices to mitigate environmental degradation and also to promote the well-being of the residents amid exponential urban expansion.

Despite existing laws that safeguard the environment, inadequate and legal frameworks, enforcement mechanisms persist which leads to issues such as pollution, unplanned urbanization, and inadequate waste management. Through the comprehensive analysis of legal dimensions, challenges, and recommendations, the given paper emphasizes on the urgency of strengthening legal frameworks and governance to ensure effective sustainable urban planning and various mitigate environmental risks.

Furthermore, the paper also encompasses various policies, acts, and the initiatives such as the, Biodiversity Act which are aimed at promoting sustainable urban development and addressing environmental concerns. The incorporation of the renewable energy, waste reduction strategies and the heritage conservation efforts underscores India's commitment towards achieving more inclusive and more sustainable growth. With the establishment of the NITI Aayog, India's approach to the planning has evolved to embrace consultative processes and diverse stakeholder input, emphasizing on the importance of collaborative efforts the in promoting sustainable development and addressing environmental challenges for a more resilient future.

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Evidential Value of DNA Profiling: An Insight on its Utility and Admissibility in India

*Dr. Sumit Jaiswal**

ABSTRACT

Our judiciary believes in the principle that the innocent person must not be punished and at the same time, the guilty person must not be escaped. To punish the guilty person or to save the innocent person evidence plays an important role. The present era of technology has affected us in all the spheres of our life. Using DNA profiling as evidence is one of the best examples of how modern technology has transformed the justice delivery system. DNA contains general information common to all humans, so it is also known as the blueprint of life. two randomly selected individuals, from anywhere in the world, are supposed to be 99.9 percent genetically similar that is why the number of arms, legs, fingers, and toes remains exactly the same in all individuals but some parts of the stored information of DNA are unique and relate to only a specific person. On the basis of that unique information, offenders can be identified with the help of the DNA sample as well as innocents can easily be exonerated from suspects. In other words, DNA profiling is a very useful tool in the cases where we have to identify the perpetrator(s), the suspect(s), or victim(s) through the biological evidence traced from the body of the suspect(s), the victim(s), crime scene, or weapons used for committing the crime, etc. So, due to its utility, DNA Profiling has been getting increasing acceptance during the past thirty years and at present, it is extensively used by police, investigation agencies, prosecution, and defence advocates in courts across the globe. But in criminal cases, identity is not a major issue than *mens rea* or consent, for which ascertainment, DNA profiling is not helpful at all.

Keywords: DNA Profiling, Evidence, Victim, Crime, Justice.

RESEARCH METHODOLOGY

This research paper is techno-legal in nature which involves an analysis of various national and international legal provisions with regard to statutory requirements of

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using DNA profiling as evidence in judicial proceedings, leading court judgments in this area, policies, etc. The research conducted for this paper is analytical in nature which has been done by using the doctrinal method.

INTRODUCTION

"*Satyamev Jayate*"[1] is the hallmark of our justice system, which has been taken from "*Mundaka Upanishad*" it means "Truth alone triumphs". Our judiciary works on the principle that the innocent person must not be punished and at the same time the guilty person must not be escaped. To punish the guilty person or to save the innocent person depends on the evidence which is used for the purpose of investigating a crime, proceedings of the crime, and adjudicating that crime.

Today, we are living in an era of technology. We are using smart phones, smart home appliances, smart vehicles, etc. everything is becoming smarter. Technology, at present, has sufficiently affected us in all the spheres of our life. So, the present technology-based era has also altered several facets of the judicial proceedings. Using DNA[2] profiling as evidence is one of the best examples of how modern technology has transformed the justice delivery system. It is, perhaps, the most significant advancement which is very useful to identify the criminals as well as to exonerate other persons as suspects at the investigation stage.

The use of DNA tests on skin tissue, saliva, semen, and hair is very helpful in identifying the suspects to be convicted for crimes. That is the reason why DNA technology has been getting increasing acceptance for the last thirty years and at present, it is extensively used by police, investigation agencies, prosecution, and defence advocates in courts across the globe. On the other hand, in criminal cases, identity is not a major issue than *mens rea* or consent, for which DNA profiling is not helpful.[3] Apart from this, it has also raised the questions of the reliability of methods applied for conducting DNA tests, interpretation of results of those tests, and the implications for human rights.[4] So, its acceptance in our justice delivery system keeping in mind these issues with necessary amendments in existing laws is the paramount need of the hour.

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1 Mundaka Upanishad, 3.1.6, "Satyameva Jayate Na-anrtham satyena panthaa vitato devayaanah | Yen-aakramanty-rsayo hyaapta-kaamaa – Yatra tat satyasya paramam nidhaanam ||6|| (Truth alone triumphs, not falsehood. By truth is laid out the divine path, which the seers who are free from desires, reach to the supreme adobe of truth)."

2 DNA is an abbreviation of Deoxyribonucleic acid also known as 'Genetic Material', establishes a unique genetic code for every person determining the unique characteristics of a person. It is much like an individual's own personal barcode or the blueprint of life.

3 Dr. A. K. Srivastva, *DNA Testing and Human Rights Implication in Civil and Criminal Investigation*, 6 Crim. L. J. 81 (2007).

4 Peter Alldridge et al., DNA Profiling and the Use of Expert Scientific Witnesses in Criminal Proceedings, Phil Fennell et al. (eds.), Criminal Justice in Europe: A Comparative Study 269-270 (Oxford: Clarendon Press, 1995).

MEANING OF DNA AND DNA PROFILING

Before analyzing the utility of DNA technology in the judicial system, we have to understand the meaning of DNA and DNA profiling. DNA or Deoxyribonucleic acid is also called the blueprint of life because it contains information about functional abilities and physical characteristics.[5] DNA is regarded as one of science's most significant discoveries, which was first discovered by a Swiss biochemist Johann Fredrich Miescher in 1868.[6] He successfully isolated 'Nuclein' which is a compound of nucleic acid. Adenine, thymine, cytosine, and guanine presence in thymus nucleic acid (presently known as DNA) was demonstrated by Ascoli in 1900 and Levene in 1903.[7] The theory of DNA was further developed and described by various scientists. In the year 1953, two scientists, James D. Watson and Francis H.C. crick discovered the Double-Helix DNA structure that appears like a twisted ladder. They also defined the function of DNA as the substance which forms the genetic code of a living organism.[8] Both the scientists were awarded the Novel prize in 1962 for their discovery. Alternating units of deoxyribose sugar and phosphate form the sides of the Double-helix structure of DNA, while the ladder connectors are made of bases such as Adenine (A), Cytosine (C), Guanine (G), and Thymine (T). Owing to their chemical composition, thymine is always combined with adenine, and guanine is always combined with cytosine.[9] Each rung on the ladder consists of two bases making a T-A, A-T, G-C, or C-G the only possible combinations.

DNA contains general information common to all humans, so it is also known as the blueprint of life. two randomly selected individuals, from anywhere in the world, are supposed to be 99.9 percent identical genetically[10] which is the reason the number of arms, legs, fingers, and toes remains the same from individual to individual. However, some parts of the stored information of DNA are unique and relate to only a specific person, which makes use of DNA profiling as evidence very valuable because there is no chance of someone else may have identical DNA to that person except in identical twins cases.[11] Only identical twins have identical DNA. DNA profiling was discovered

5 National Commission on the Future of DNA Evidence, National Institute of Justice, U.S. Dept. of Justice. *Post Conviction DNA testing: Recommendation for Handing Request* quoted by Allision Puri, *An International DNA Database: Balancing, hope, privacy and scientific error*, 24, Boston College Int'l C. L. R. 349 (2001).

6 Abhijeet Sharma, Guide to DNA Tests in Paternity Determination and Criminal Investigation 5 (Wadhwa & Co., 2007).

7 *Id.*

8 Dr. Nirpat Patel et al., *The role of DNA in criminal investigation- admissibility in Indian legal system and future perspectives*, 7 Int'l J. H. S. S. I. 15 (2013).

9 *Supra* note 6, at 3.

10 Roger Highfield, *DNA survey finds all humans are 99.9pc the same*, The Telegraph (Dec. 27, 2019, 11:15 PM), http://wwwtelegraph.co.uk/news/worldnews/northamerica/usa/1416706/DNA-survey-finds-all-humans-are-99.9pc-the-same.html.

11 R. Usha Rani, *DNA Evidence and the Courts*, 1 K. L. J. 2 (2008).

by Sir Alec John Jeffreys to identify individuals in 1984 at the University of Leicester.[12] The process of extracting a particular DNA sequence, also known as profile, from a person's body tissue sample is termed as DNA profiling. The DNA profile is very useful to determine the source of a DNA sample on a crime scene.[13] A DNA profile is not read in laboratories but made readable or comparable through the procedures performed on a bodily sample.

DNA IDENTIFICATION TECHNIQUES

With the development of science and technology, there are various techniques available in recent time to identify and analyze DNA samples, i.e. RFLP or Restriction Fragment Length Polymorphism,[14] PCR or Polymerase Chain Reaction,[15] Mt. DNA or Mitochondrial DNA analysis,[16] Amp. FLP or Amplified Fragment Length Polymorphism, etc. but among these all techniques, RFLP and PCR are mostly used to conduct DNA tests. The RFLP technique supports only a greater volume of DNA sample and, for proper testing, the sample must be uncontaminated. A small amount of DNA cannot be tested through the RFLP technique, whereas in the PCR technique, a smaller volume of DNA sample can also be tested.[17] However, the procedure of the PCR test is a particularly sensitive procedure and the findings may be compromised by slight contamination at the crime scene.

UTILITY OF DNA PROFILING FOR LEGAL PURPOSES

DNA profiling is a very useful tool in the cases where we have to identify the perpetrator(s), the suspect(s), or the victim(s) through the biological evidence traced from the body of the suspect(s), the victim(s), crime scene, or weapons used for committing the crime, etc. At the same time, DNA profiling is also useful to exonerate innocents from suspects. DNA profiling can be utilized in the following legal purposes:-

In Sexual Crimes

In crimes relating to sex, the history of incidents helps forensic experts to trace and obtain samples of forensic significance. In such cases, hair, saliva, semen, and blood

12 Alec J Jeffreys, *The man behind the DNA fingerprints: an interview with Professor Sir Alec Jeffreys* (Dec. 27, 2019, 11:40 PM), http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3831583/

13 *DNA profiling*, Science Learning Hub (Dec. 28, 2019, 10:16 PM), https://www.sciencelearn.org.nz/resources/1980-dna-profiling.

14 R. C. Lewontin, *The use of DNA profiles in forensic contexts*, 9 Statistical Sci., 18 (1991).

15 Gaurav Solanki, *Polymerase Chain Reaction*, 3 I. J. P. R. 98, 98-102, (2012).

16 Vikash C. Mishra et al, *mtDNA analysis: A valuable tool to establish relationship in live related organ transplant*, 1 I. J. N. 14, 14-20 (2020) (Apr. 29, 2019, 11:33 PM), https://www.indianjnephrol.org/text.asp?2020/30/1/14/266083.

17 Donald E. Riley, *DNA Testing: An Introduction for Non-Scientists*, Sci. Testimony (2005) (Dec. 27, 2019, 01:25 PM), http://www.scientific.org/tutorials/articles/riley/riley.html.

may get exchanged between perpetrators and victims during the sexual assault.[18] Perpetrators can be identified through DNA evidence traced and gathered from a number of sources, such as semen, saliva, hair, or tissue, etc. left on the apparel or the body of the victim or at the crime scene in sexual crimes or rape cases. Similarly, the presence of blood, vaginal smear, or tissue of the victim on the body of suspect is a potential tool to identify the perpetrator.

In Physical Assault or Murder Cases

Perpetrators can be identified by employing DNA tests with the help of his blood, or tissue present on the apparel, or body of the victim, or at the crime scene. Similarly, the presence of blood or tissue of the victim on the culprit's body, crime weapon, or at the crime scene also provides a link to prosecute the perpetrators through DNA technology. DNA profiling can be a game changer even in cold murder cases. If samples are degraded or affected by UV light, heat, or moisture, there are techniques that may be employed for DNA profiling in such situations. The innovative technology of DNA has made it easier for scientists to do more with less.[19]

In Cases of Accidents, Unidentified Bodies / Mass Disaster

In any of accidents, unidentified bodies, or mass disaster cases, disfigured, mutilated or burnt bodies can be identified by comparing DNA profile with close blood relatives, for instance, DNA profiling was used to identify the 2013 Kedarnath deluge victims.[20] Even late Prime Minister Rajiv Gandhi's alleged assassins Dhanu and Sivarasan were also identified through employing DNA profiling.[21]

In Paternity or Maternity Disputes

In any disputes pertaining to paternity or maternity which may arise in case of Adoption, Assisted reproductive technologies (ARTs), false paternity, Child swapping,[22] etc., the

18 Auroshree, *Management of DNA Sampling in Rape Incidents* [SCC Archives] (Dec. 27, 2019, 02:15 PM), http://www.scconline.com/blog/post/2018/11/29/management-of-dna-sampling-in-rape-incidents/amp/.

19 Jill Hilbrenner, *DNA evidence and cold murder cases: when hidden clues catch killers*, The Guardian, Mar. 09, 2016 (Dec. 28, 2019, 09:30 AM), http://www.theguardian.com/how-to-solve-a-murder/2016/mar/09/when-evidence-speaks-how-forensic-scientists-make-cold-case-breakthroughs.

20 *Identities of 18 Uttrakhand tragedy victims established*, The Hindu, July 07, 2014 (Dec. 28, 2019, 11:10 AM), http://www.thehindu.com/news/national/identities-of-18-uttarakhand-tragedy-victims-established/article6186583.ece.

21 L. Sanmiha & M. Yokesh, *A study on role of DNA technology in criminal investigation*, 5 Int'l J. P. A. M. 4435, 4433-4453 (2018).

22 A. K. Sharma, *DNA profiling: Social, legal, or biological parentage*, I. J. Hum. Genetics (Dec. 29, 2019, 10:15 AM), http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3168143/.

DNA profile of the child can be used by comparing it with that of mother and father in order to resolve such disputes. Even the first case of India, in which the DNA test was employed, was also a paternity dispute.[23]

In Organ Transplantation

Under section 2 (i) of the Transplantation of Human Organs Act, 1994 in accordance with Rule 4(c) of THOA[24], DNA test may be used to improve graft survival as well as to curb unethical and illegal commercial dealings in the human organs transplantation.

In Non-Human DNA Cases

Wildlife specimens used in trafficking like rhino horn, tiger skin & bones, bear bile, tortoise skin & shell, biological warfare agents, etc. can be identified with the help of DNA technology.[25]

Miscellaneous Cases

Cases for identifying sources of a threatening letter from licked stamps, fake blood donors, etc. can be solved by using DNA profiling.[26]

LEGAL RECOGNITION OF DNA PROFILING

The first conviction in any criminal justice system with the help of DNA profiling occurred in Britain in October 1987. A disabled woman was raped in her home near Bristol, England, but she was unable to identify her rapist due to her mental unsoundness. A suspect on providing a blood sample and subsequently being notified of a "match" with the sample found from the crime scene changed his plea to guilty.[27]

However, it was *Colin Pitchfork* case that launched the DNA technique in the public arena, teenage girl Lynda Mann was murdered in 1983 after being raped, and in 1986; another girl Dawn Ashworth was killed in a similar manner. Initially, police had a suspect, *Richard Buckland* whose DNA did not match with DNA samples found from both crime scenes when a DNA test was conducted by *Alec John Jeffreys*. Then the police undertook the world's first DNA dragnet in order to find the real culprit. After testing DNA profiling of more than 4000 men, the killer's profile didn't match until a man, *Ian Kelly*, was overheard boasting that he had provided his sample in DNA dragnet while masquerading as one of his friends, *Colin Pitchfork*. When the DNA sample of Colin Pitchfork was analyzed, it matched with the DNA samples

23 Kunhiraman v. Manoj, Ï [1991] D.M.C. 499 (India).

24 The Transplantation of Human Organs (Amendment) Rules, 2008.

25 *DNA profiling in justice delivery system*, Central Forensic Science Laboratory, Directorate of Forensic Science, Ministry of Home Affairs, Government of India, Kolkata, (2007).

26 *Id.*

27 Jane Maria Taupin, *Impact of DNA Profiling on the Criminal Justice System*, 16, (1994) (Unpublished thesis for M.A. of University of Melbourne, Australia).

recovered from the crime scenes. Later he confessed and sentenced to life in prison for both murders in 1988.[28]

In Florida, United States, in the case of *State* v. *Andrews*[29], Tommy Lee Andrews became the first culprit of the US who was convicted with the help of DNA evidence, for the charge of raping a woman. He was sentenced to 22 years imprisonment on November 6, 1987.

The first case in India to employ DNA test was of paternity dispute titled *Kunhiraman* v. *Manoj*[30] the DNA analysis by the Centre for Cellular and Molecular Biology (CCMB), Hyderabad proved that suspect Mr. Kunhiraman was the child's biological father. The chief judicial magistrate, Thalassery (telicherry), Kerala, announce the following verdict on April 24, 1990:

> "*Expert opinion is admissible under section 45 of the Indian Evidence Act, 1872. So also, the grounds on which the opinion is based are also relevant u/s 51 of the Act. The senior scientist attached to the CCMB is a molecular biology expert and the evidence, he has tendered, is quite convincing and there is no reason why it should be rejected. Just like the opinion of a chemical analyst or a fingerprint expert, the opinion of the senior scientist of the CCMB, who is also an expert on cellular and molecular biology, is also acceptable.*"[31]

The decision was challenged in the Kerala High Court which upheld the decision.

ADMISSIBILITY OF DNA PROFILING

United States

In the United States, DNA profiling plays a crucial role in the justice delivery system. Courts in the US use one of the following tests with respect to the admissibility of DNA profiling. The first test is the *Frye test*, pronounced by the US Circuit Court for the District of Columbia in the case of *Frye* v. *United States*.[32] As per the principles established by the Frye test, to be admissible in the court, the new scientific techniques must already have been widely accepted by the scientific community specialized in that subject.

The second test focuses on the basic relevancy standards of the Federal Rules of Evidence. The relevant evidence has been defined by the federal rule 401 as "evidence having any tendency to make the existence of any fact that is of consequence to the determination of the action more probable or less probable than it would be without the evidence." The federal rule 403 makes the evidence more reliable by "the exclusion

28 R v Pitchfork, E.W.C.A. Crim 963 (2009).

29 State v. Andrews, 533 SO 2d 841 (Fla. Dist. Ct. App. 1988).

30 Kunhiraman v. Manoj, Ï (1991) D.M.C. 499; (1991) 3 Crimes 860 (Ker.) (India).

31 *Id.*

32 Frye v. United States, 293 F. 1013, 1014 (D.C. Cir.1923).

of relevant evidence on grounds of prejudice, confusion, or wastage of time." The federal rule 702 provides for "testimony by expert witnesses."

In *Daubert* v. *Merrell Dow Pharmaceuticals,*[33] the Supreme Court of the United States held that the Frye test has been superseded by the federal rules of evidence in the trails of the federal court and thus the court laid down a new standard for assessing the admissibility of the novel scientific evidence.

So in the US, some states follow the Frye test and some follow the Daubert test whereas some states of the US have developed their own tests and legislatures regarding the admissibility of novel scientific evidence in which DNA profiling also comes within.

United Kingdom

In the United Kingdom, the usage of DNA evidence in the legal system is very common. In fact, the UK is known for the application of DNA profiling in criminal justice. English geneticist Dr. Alec Jeffery introduced the DNA technology in criminal identification first ever in the world in the very famous Colin Pitchfork's case.[34] DNA profiling and DNA database have been essential elements of the criminal investigation process in the UK. After establishing the National DNA Database (NDNAD) in the year 1995, England became a global leader in the development of innovative methods to use DNA profiling for identification of the suspects, protection of the innocents and to ensure the conviction of the guilty persons.[35]

India

Indian Constitution under articles 51A(h)[36] and 51A(j)[37] directs its citizens, "to develop the scientific temper, humanism and the spirit of inquiry and reform." and "to strive towards excellence in all spheres of individual and collective activity so that the nation constantly rises to higher levels of endeavour and achievement." So, our constitution promotes a scientific approach among Indians. At present, there is no specific legislation relating to DNA profiling in India. However, sections 53[38],

33 Daubert v. Merrell Dow Pharmaceuticals, 509 U.S. 579.

34 R v Pitchfork, (2009) E.W.C.A. Crim. 963.

35 Subhash Chandra Singh, *DNA profiling and the forensic use of DNA evidence in criminal proceedings*, 53 J. I. L. I. 207 (2011).

36 INDIA CONST. art. 51A, cl.(h).

37 INDIA CONST. art. 51A, cl. (j).

38 "Examination of accused: (1) when a person is arrested on a charge of committing an offence …. and … there are reasonable grounds …. that an examination ….. will afford evidence ..... a registered medical practitioner, acting at the request of a police officer, not below the rank of sub-inspector, ….. to make such an examination ….. which may afford such evidence, and to use such force as is reasonably necessary for that purpose. (2) Whenever the person of a female ……. the examination shall be made only by, or under the supervision of, a female registered medical practitioner."

53A[39], and 54[40] of the Code of Criminal Procedure, 1973[41] are used for the purpose of DNA evidence collection in order to investigate criminal cases. To ensure justice, the court has wider power to issue directions to the police for the collection of accused blood samples to conduct DNA tests for further investigation in criminal cases pursuant to sections 173 (8)[42] and 293 (4) (e) of the Cr. P. C., 1973.

Indian Evidence Act, 1872, under section 9, sets out the necessary facts to explain or establish the facts in issue or the relevant facts,[43] and section 45 of the act provides for the expert opinion[44] in case of scientific matters which also includes DNA profiling. Section 46 of the evidence act deals with the facts which support or oppose the opinion

39 "Examination of accused of rape: (1) When a person is arrested on a charge of committing … rape or an attempt to commit rape and there are reasonable grounds for believing that an examination of his person will afford evidence ……., it shall be lawful for a registered medical practitioner …….. at the request of a police officer not below the rank of sub-inspector, …….. to make such an examination of the arrested person ……. (2) The registered medical practitioner …….. shall, without delay, examine such person and prepare a report of his examination giving the following particulars, namely; (i) the name and address of the accused ……, (ii) age, (iii) marks of injury, if any, (iv) 'the description of material taken from the person of the accused for DNA profiling', and (v) other material particulars in reasonable detail."

40 "Examination of the arrested person at his request: When a person who is arrested, …... the examination of his body will afford evidence which will disprove the commission by him of any offence or which will establish the commission by any other person of any offence against his body, the Magistrate shall, if requested by the arrested person so to do direct the examination of the body of such person by a registered medical practitioner unless the Magistrate considers that the request is made for the purpose of vexation or delay or for defeating the ends of justice."

41 Hereinafter referred to as the Cr. P. C., 1973.

42 "Nothing in this section shall be deemed to preclude further investigation in respect of an offence after a report under sub-section (2) has been forwarded to the Magistrate and, where upon such investigation, the officer in charge of the police station obtains further evidence, oral or documentary, he shall forward to the Magistrate a further report or reports regarding such evidence in the form prescribed; and the provisions of sub-sections (2) to (6) shall, as far as may be, apply in relation to such report or reports as they apply in relation to a report forwarded under sub-section (2)."

43 "Facts necessary to explain or introduce a fact in issue or relevant facts, or which support or rebut an inference suggested by a fact in issues or relevant fact, or which establish the identity of anything or person whose identity is relevant, or fix the time or place at which any fact in issue or relevant fact happened, or which show the relation of parties by whom any such fact was transacted, are relevant in so far as they are necessary for that purpose."

44 "When the court has to form an opinion upon point of foreign law or of science or art, or as to identity of handwriting [or finger impressions], the opinions upon that point of persons specially skilled in such foreign law, science or art, [or in questions as to identity of handwriting] [or finger impressions] are relevant facts. Such persons are called experts."

of expert[45] and section 51 makes the grounds of the expert opinion also relevant.[46] These all provisions of the Indian Evidence Act are used in dealing with the DNA evidence in the court proceedings. Besides these provisions, section 293 of the Cr. P. C., 1973 takes into consideration the reports by certain Government scientific experts.

As per section 293 (2) of the Cr. P. C., the court, by using its power, may summon and examine the expert on the content of the report submitted by him. Under section 164A of the Cr. P. C., rape victims undergo a medical examination so that DNA evidence can be collected.

On the issue of admissibility of DNA evidence, the Andra Pradesh High Court observed in the case of *Patangi Balrama Venkata Ganesh* v. *State of Andhra Pradesh*[47] that if a person's DNA profile matches with a sample, it indicates that the sample belongs to that particular person only. The likelihood that two people, except in the case of identical twins, would have the same DNA profile is around one in 30 billion people in the world whereas the world's existing population is much less than it. Thus, as per the opinion of the court DNA profiling provides the perfect identity.

In the case of *Raghuvir Desai* v. *State,*[48] the High Court of Bombay ruled that the DNA test provides a clinching piece of evidence. If two samples match, it allows a virtually positive identification which helps to exonerate the innocents and to prosecute the guilty persons.

In a very important decision of *Gautam Kundu* v. *State of West Bengal,*[49] the Supreme Court of India decided that request for blood test cannot be approved without mentioning any reason whatever to have recourse to the test. The court further ruled that No person would be coerced to provide blood samples to be tested against his or her will and if he or she refuses for such a test, no adverse inference could be made against him or her. But the Apex Court in *Sharda* v. *Dharampal*[50] changed its stand and ruled that the court can order a person to undergo a test for the medical purpose. If the applicant has a clear prima facie case and also there is ample evidence before the court, in such cases, the court should issue such an order. If despite the court order, the respondent does not cooperate to be a part of that medical test, the court shall make an adverse inference against him or her.

In *Rohit Shekhar* v. *Shri Narayan Dutt Tiwari,*[51] the Apex Court declined to dismiss the decision of the High Court of Delhi ordering the Congress party leader Mr. Narayan

45 "Facts not otherwise relevant are relevant if they support or are inconsistent with the opinions of experts, when such opinions are relevant."

46 "Whenever the opinion of any living person is relevant, the grounds on which such opinion is based are also relevant."

47 Patangi Balrama Venkata Ganesh v. State of Andhra Pradesh, (2003) Cri. L. J. 4508 (India).

48 Raghuvir Desai v. State, (2007) Cri. L. J. 829 (India).

49 Gautam Kundu v. State of West Bengal, (1993) 3 S.C.C. 418 (India).

50 Sharda v. Dharampal, A.I.R. 2003 S.C. 1950(B) (India).

51 Rohit Shekhar v. Shri Narayan Dutt Tiwari, (2011) (121) D.R.J. 562 (Delhi), I.L.R. (2010) Supp. (3) Del. 573 (India).

Dutt Tiwari to give a sample for the DNA test. In this famous case, Mr. Rohit Shekhar claimed to be Mr. N.D. Tiwari's biological son, but the Congress leader was not ready for DNA test arguing that it would violate his right to privacy and would also trigger him to be publicly embarrassed. The Apex Court did not accept his arguments, stating that there was no point in being embarrassed if the report of the DNA test would not be disclosed to anybody and would be handed over only to the court inside a sealed envelope. The court further said that we want to ensure justice; this young man should be not left without any remedy. In this case, Delhi High Court also ordered to use appropriate force to take the blood sample.

The Supreme Court approved the importance of DNA profiling in the case of *Dharam Deo Yadav* v. *State of Uttar Pradesh*,[52] in this case, the court observed:

> *"Deoxyribonucleic acid or DNA is the biological blueprint of all life on this earth. DNA consists of a double-helix structure of phosphate black bone and deoxyribose sugar, cross-linked with two groups of nucleic acids known as Adenine & Thymine, and Cytosine & Guanine. The most significant function of the DNA profile is to classify individuals and their blood ties, such as father, mother, brother, and so on. Effective identification of skeleton remains can also be done through DNA profiling. The DNA profile can generally be extracted from biological materials such as hair, skin, saliva, semen, blood, bones, etc. The issue as to whether DNA tests are practically infallible may be a moot question, but the truth remains that such a test has come to stay and is commonly used for the purpose of the criminal investigation, and the court often takes into consideration the expert opinions, particularly where cases are focused on circumstantial evidence. More than half a century ago, human DNA samples started to be used in the criminal justice system. No doubt, there is an ongoing debate about the safeguards that should be needed during the samples testing process and while presenting the evidence before the court. However, the DNA profile is held to be accurate and reliable; but overall, it depends on the quality management and quality assurance techniques of the laboratory. Close relatives have more genes in common than in individuals and different techniques have been suggested to deal with the likelihood that the real source of forensic DNA is a close relative."*[53]

In *Vishal Yadav* v. *State of Uttar Pradesh*[54] (popularly known as "*Nitish Katara Murder Case"*) in this case, It was very difficult to identify the victim's dead body because the murderers had burnt his dead body and only a small portion of one un-burnt palm with fingers was available. Here too, DNA profile helped to locate the remains of the corpse by comparing the DNA profile with the deceased's parents which enabled the High Court of Delhi to uphold the conviction of the accused.

DNA PROFILING: SOME LEGAL ISSUES

India doesn't have any specific legislation to deal with DNA profiling. Provisions of existing laws are old enough and do not support the modern technology of DNA

52 Dharam Deo Yadav v. State of Uttar Pradesh, (2014) 5 S.C.C. 509 (India).
53 *Id.*

profiling due to which some legal confusions and controversies arise, for example, the Indian Evidence Act, 1872, under section 112, determines a child's parentage by stating that a child born from a legally valid marriage between his/her mother and a man, or within the period of 280 days from the dissolution of such a marriage when the child's mother does not remarry, legally confirms the man as the child's father, if it is not proved otherwise. This presumption of law is of conclusive nature and does not support scientific techniques like DNA profiling to determine the paternity of a child. The only exception to this section is when the husband proves that at the time of conception of the child, he had no access to his wife (child's mother). The foundation of this section is the Latin maxim "*Pater est quem nuptiae demonstrant*" which means the father is the one shown by the nuptials.

In the case of *Nandlal Wasudeo Badwaik* v. *Lata Nandlal Badwaik*[55] the Apex Court held that "Truth must triumph is the hallmark of justice." in this landmark case, a baby girl was born during the course of the legally valid marriage, and thus, pursuant to section 112 of the Indian Evidence Act, the appellant would be regarded the legitimate father of the girl. However, the result of the DNA test excluded him to be the biological father of that baby girl. The DNA test was re-conducted on the wife's request but the fresh report also confirmed the husband's exclusion. At that point, the wife requested the court to decide about the legitimacy as per the provision of section 112. The presumption of paternity under section 112 is conclusive and irrebuttable by DNA evidence, this approach has been recognized by the court in a number of cases, so in such circumstances, the justice is not arrived at in real sense but in this case, science prevailed upon the apex court and not the law. The court concluded:

> "*The plea of the husband that he did not have access to the wife when the baby was begotten stands proved by the result of DNA test, and in the face of it, we cannot force the appellant to accept the fatherhood of a baby if the scientific findings show otherwise. We are aware that an innocent baby may not be bastardized as the marriage between her mother and father was subsisting at the time of her birth, but in view of the result of the DNA test and what we have observed above, we cannot forestall the consequence. It is denying the truth. Truth must triumph is the hallmark of justice*."[56]

This revolutionary decision of the Supreme Court has made the background to change the existing provision of section 112 of the Indian evidence act and to make it supportable to DNA evidence.

Sometimes, the use of DNA profiling as evidence is criticized on the ground that it is a threat to "the right to privacy" recognized by "the right to life and personal liberty" under Article 21, and "the right against self-incrimination" under Article 20(3) of the Constitution of India, but it was decided by India's Supreme Court that the right to life and personal liberty is not an absolute fundamental right. In the case of *Govind*

54 Vishal Yadav v. State of Uttar Pradesh, (2014) S.C.C. online Del. 1373 (India).

55 Nandlal Wasudeo Badwaik v. Lata Nandlal Badwaik, (2014) 2 S.C.C. 576 (India).

56 *Id.*

Singh v. *State of Madhya Pradesh*,[57] the Apex court ruled that fundamental rights must be subject to limitations on the ground of legitimate public interest. Being not contrary to the right to life and personal liberty, the various courts of the country have permitted the use of DNA profiling in the investigation and in developing the evidence. In order to ensure the effective use of the modern technology of DNA profiling in the justice delivery system, there is an immediate need for the enactment of specific legislation to provide the regulating guidelines of DNA testing in India.

CONCLUSION

DNA profiling is more definitive than traditional techniques. In the present technology-oriented era, it is very useful in judicial proceedings to arrive at justice but it also has some issues such as, it is an expensive technique which could be afforded by the prosecution because of the state's financial assistance, on the other hand, for the defence, it is very difficult to afford. With the help of DNA evidence, a person can be identified due to his/her participation in the crime or a person may also become a suspect because of his/her DNA sample found at the crime scene due to his/her presence at the crime scene, but DNA evidence cannot prove *mens rea* which is one of the main elements of the crime. This technique is complex and may be difficult for judges and advocates to understand. It may increase the police power and may be a threat to civil liberties, for example, the provisions of sections 53 & 53A of the Cr. P.C., 1973, enable the taking of bodily samples by a medical practitioner on receiving a request from a police officer, who is not below the rank of sub-inspector, without the consent of the accused person. Apart from this, contamination at any stage of DNA profiling can change the result of the DNA test. Contamination typically occurs while touching the samples without gloves, coughing, sneezing, and a number of other mishaps. These all issues should be sorted out and it is possible only by enacting specific legislation to deal with the matters relating to DNA profiling. Moving on this direction, the government has introduced '*the DNA Technology (Use and Application) Regulation Bill, 2019*' in *Lok Sabha* in July 2019 for the purpose of regulating the usage of the DNA evidence for the identification of certain people.

57 Govind Singh v. State of Madhya Pradesh, A.I.R. 1975 S.C. 1358 (India).

The Role of Independent Director: Examining Legal Frameworks to Ensure Board Independence

*Mr. Vibhor Tewari**

ABSTRACT

This research paper delves into the role of independent directors and their role in modern corporate governance by focusing on the independence of the board. These directors play an important role in making sure the companies are fair and honest in their dealings. The papers try to analyze the national and international legal framework dealing with the appointment, responsibilities and performance of an independent director focusing on their need to safeguard the shareholder's interests. The paper also talks about the fiduciary duties of these directors along with the composition of the board and its effectiveness while addressing the modern challenges faced by the companies in ensuring the independence of the board. The paper will also suggest various recommendations that would be helpful in ensuring the independence of the board and enhancing the corporate governance practices and will try to show if or not independent directors are necessary in ensuring transparency and accountability within the company and towards the shareholders.

Keywords: Independent directors, corporate governance, legal frameworks, board independence, fiduciary duties, board composition, appointment process, director qualifications, board effectiveness, challenges, future directions, recommendations.

1. INTRODUCTION

It is the fundamental concept in corporate governance that an independent board stands as a foundation to maintain transparency, accountability and ethical decision-making within the organization.[1] To maintain transparency within the organizations we have the independent directors, these are the individuals who play an important role to balance the interest of various stakeholders and maintain the integrity in the

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1 Organization for Economic Cooperation and Development. Principles of Corporate Governance. 2022. https://www.oecd.org/daf/ca/corporate-governance-principles-eng.pdf. (Accessed on 23rd August 2023) corporate governance and also the debate on granting of additional rights to the minority.

functioning of the organization. This research work delves into the concept of independent directors, examining the legal framework that have been established to ensure their autonomy and effectiveness and their relevance in the independence of the board. These directors are introduced to serve as a balance to executive management and the shareholders in a corporation, neither are they affiliated with the day to day management of the company nor are they its major shareholders therefore they have the capacity to provide unique unbiased judgment. Their primary function is to act in the best interest of the company ensuring the long term sustainability in mind.

But the question arises is the board really autonomous and independent with an independent director over the head. Or is the independent director really independent and without any undue influence or pressure from the board? These questions must be addressed to find out the independence of board and the legal framework surrounding it to ensure a good corporate governance.

2. LITERATURE REVIEW

2.1. Independent Directors And Controlling Shareholders (Lucian A. Bebchuk and Assaf Hamdani)

This research paper talks about the independent directors and controlling shareholders in corporate governance. The primary area of focus of this research is to talk about the role of independent director in decision making process and the potential conflict of interest that may arise. The research paper focuses on the framework of European Union's corporate governance and also the debate on granting of additional rights to the minority shareholders. The paper provides some insights into the prevalence of concentrated ownership around the world and the benefits and perks of introducing the independent directors in various countries. The paper also deals with the potential conflict of interest that may arise and a clear guideline on such conflicted decisions. The authors have further tried to explore the European Union's corporate governance framework and the debates on granting additional rights to minority shareholders. The research paper argues for the need of introducing independent directors worldwide and the importance of an effective board environment that creates cooperation and trust between board members. Overall, the research paper focuses on to contribute to the understanding of corporate governance dynamics and the potential impact of different governance structures.

2.2. Should Independent Directors Have Term Limits? The Role of Experience in Corporate Governance (Ying Dou, Sidharth Sahgal and Emma Jincheng Zhang)

This research paper talks about the role of independent directors and their tenure on corporate boards. The paper delve on to explore the question of whether implementing the term limits for independent director is beneficial or if the experienced directors should be retained. The paper provides information about the composition of the board, committee membership and the benefits of an independent directors. The authors argues that there should not be a term limit and suggests that the experienced directors bring value to the table and should not be replaced by fresh blood. The paper primarily

argues that the term limit for firectors is not good as the experinced directors bring insights in the company while focusing on the importance of director heterogeneity and the benefits of independent directors with extra tenure.

2.3. Board Independence and Corporate Governance: Which Way Forward? (Jayati Sarkar and Subrata Sarkar)

This research paper focuses on the independence of the board and the corporate governance, the paper talks about the opinions regarding the minimum number of independent directors in a board, people who should be qualified to be an independent director and the role of financial institutions on corporate board. The research paper also examines the current regulations and the recommendations for a proper board composition and a proper board size. The paper talks about the need of identifying the good recommendations and implementing them for the independence of the board. The paper emphasizes on the need of implementing the newly introduced definition of independence and the importance of lowering down the requirement for independent director to give a company more flexibility. The author have taken an international approach and have talked about the importance of board independence and the corporate governance in the wake of corporate scandals. The paper also focuses on the need of independent directors on the board to ensure the best interest of the shareholders. The paper also deals with various committees and initiatives that have recommended measures to ensure the independence of the board. This research paper suggests implementing stricter criteria for independence and excluding nominee directors to ensure the true independence of directors. It also emphasizes on the need and importance of monitoring compliance and the need to balance the demand and supply of independent directors.

2.4. Board Independence & Corporate Governance in India: Recent Trends & Challenges Ahead (Jayati Sarkar)

This research paper focuses on corporate governance and board independence in India it focuses on the recent trends and challenges in the area and provide insights on the board governance by highlighting the importance of board quality rather than just the board independence for effective governance. It also deals with various policy issues regarding board independence and examines the impact of board composition on the performance of a company. This paper also focuses on the relationship between the board independence and governance by highlighting the gap between the policy prescriptions and the actual results. It talks about the absence of the statistical relationship between board independence and the performance of the company and suggests that it might be due to the selection of board and the mix of directors. The author emphasizes on the need of effective monitoring of the board and provides the data on the composition of the board in India, including the numbers of directors and the percentage of independent directors. The research paper also talks about the regulations and the reforms that are necessary to ensure the board independence and improving the quality of board governance in India, the author has raised various policy questions regarding the optimal proportion of independent directors and the criteria for their selection

and their role in corporate governance. To say this paper gives some important insights to the current state of board independence and corporate governance and highlights the future prospects available in this area.

2.5. Beyond "Independent" Directors: A Functional Approach to Board Independence (The Harvard Law Review Association)

This research paper deals with the concept of board independence in corporate governance. It discusses about the limitation of existing standards and suggests for a tripartite board structure to enhance independence. The paper highlights the need of balancing the role of various parties like the monitors, mediators and the managers in the board to achieve effective governance. It highlights various benefits of the tripartite approach as suggested. The paper critiques the present approach and also talks about the limitation of the approach and the potential risks to the investor confidence and suggests that a collaborative nature of board to be a better approach for avoiding conflicts in board decision making and also discusses the potential benefits of the proposed approach like increased accountability and the voice of shareholders in the governance of the company. To say this research paper acknowledges the challenges faced by the board and suggests a design to have a completely independent board.

3. HYPOTHESIS

The boards with a diverse composition of independent directors,including gender and ethinic diversity shows a better decision making and better governance and the enhanced legal protections for these directors reduces their liability risks and at the same time the legal framework that allows shareholders to have a direct say in the appointment or the removal of an independent director ensures a greater board accountability.

4. RESEARCH OBJECTIVE

The main objective of this research paper is to examine the legal frameworks that ensures the independence of the board and the role of the independent director in ensuring such independence and a good corporate governance. The following sub-objectives will help in achieving the primary objective.

- **4.1.** To understand the challenges and benefits that are associated with achieving a diverse board composition of independent directors.
- **4.2.** To analyze the legal regulation and framework on promoting diversity in independent director appointments.
- **4.3.** To examine the relationship between the legal safeguards for the independent directors and their decision making independence.
- **4.4.** To explore the extent of the involvement of the shareholders in the independence and the accountability of the board.

4.5. To understand the need of independent directors in the board and their relevance with regard to the independence of the board.

5. RESEARCH QUESTIONS

This research paper will delve into and try to answer the following research questions:

5.1. What are the main challenges and the benefits that are associated with having a diverse board composition of independent directors and how does such diversity impact the decision-making processes and overall governance performance of a company?

5.2. What are the legal regulations and frameworks available to promote diversity in the appointment of independent directors, and how do they vary across different jurisdictions?

5.3. What is the need for having independent directors in the board of the company, and how do they impact the independence of the board?

6. METHODOLOGY

This research paper is based on the doctrinal model of research and has tried to investigate the relationship between the legal frameworks, independent directors and the independence of the board in corporate governance. The research is primarily qualitative and is based on articles and research papers by different scholars This research seeks to provide a comprehensive understanding of the role of an independent director and various legal frameworks that are there to ensure the independence of the board. The paper seeks to answer all the research questions by being in consonance with the research objective. The scope of the research is limited to the understanding of the independent directors in the Indian context and this paper only deals with the Indian legal framework however the legal framework in the UK has also been analyzed to understand the same in the Indian context. This study, however, is not without limitations. The doctrinal research though provides for a comprehensive analysis, there are various books, commentaries and documents that have not been taken into consideration due to the lack of time and resources.

7. ANALYSIS

7.1. The History of Independent Directors

When we talk about the concept of independent directors, it has evolved over time due to the need for greater transparency and more accountability in corporate decision making i.e. to improve the overall corporate governance. This concept of independent directors could be traced back to the time when joint-stock companies were formed, as in those days the board of directors consisted of members of the company and the large shareholders due to which there were issues regarding the conflict of interest.[2]

[2] Berle, Adolph A., and Gardiner C. Means. The Modern Corporation and Private Property. Pg. no. 25, Macmillan Company, 1932.

However, the concept of independent directors got prominence after the publishing of the Cadbury report, which was published as a response to the ongoing corporate scandals in those days.[3] This report primarily focused on improving the corporate governance practise and recommended the inclusion of non-executive directors (independent directors) on the board to ensure a better corporate governance. Similarly, in the US, the Enron and WorldCom scandals in the early 2000s led to the passing of the Sarbanes-Oxley Act (SOX).[4] This SOX act mandated greater independence and paved way for the independent directors and let to the improvement of financial reporting. During the same time in India, the Kumar Mangalam Birla Committee report recommended the introduction of Independent directors which paved the way for independent directors in India.[5] Also, the committee created by SEBI and led by N.R. Narayana Murthy also suggested to make the appointment of Independent directors mandatory in the listed companies and keeping all these things in mind the Companies Act, 2013 introduced comprehensive provisions regarding the appointment, roles, responsibilities, and liabilities of independent directors and recently the government is trying to make the board more diverse by including provisions like mandatory appointment of one women independent director.

A large number of countries and regions have developed their laws in such a way that mandates the appointment of independent directors and also contains their roles and duties.[6] With the passage of time the independent directors have also been given various new tasks like the risk management, strategy development, and compliance with ethical and legal standards.

7.2. The Role and Impact of Independent Directors

The independent directors play a very important role when it comes to corporate governance like providing oversight and expertise to the board of the directors and at the same time enhancing transparency, accountability and an effective decision making.[7] These directors are appointed to protect the shareholder's rights and are expected to act impartially and without any conflict of interest. They are expected to provide a fresh perspective on company matters and keep an eye on its management. They also play an important role in forming strategies to shape the long term direction of the company by assessing financial and non financial risks and ensuring that the company moves in the right direction.[8] These directors often sit on the audit committees

[3] Committee on the Financial Aspects of Corporate Governance. Report of the Committee on the Financial Aspects of Corporate Governance. London Stock Exchange, 1992.

[4] Wikipedia, "Enron and WorldCom scandals lead to Sarbanes-Oxley Act", accessed 28th August 2023).

[5] National Foundation for Corporate Governance, "Kumar Mangalam Birla Committee report recommends introduction of Independent directors", accessed 28th August 2023

[6] OECD, OECD Principles of Corporate Governance, 2011 Ed. (Paris: OECD, 2011).

[7] G20/OECD Principles of Corporate Governance, G20/OECD Principles of Corporate Governance (Paris: OECD, 2015).

[8] National Association of Corporate Directors, Board Leadership: The Role of Independent Directors (Washington, DC: NACD, 2022).

to ensure the accuracy of financial reporting and also serve on various board committees like the compensation committee, the governance and nomination committee and serve to represent the interest of the shareholders and ensure the company is well aligned with the shareholder value and most importantly these directors play an important role in times of crisis of scandals by investigating and addressing the issues and restoring the trust of the share holders and the general public by implementing important changes.[9]

Having independent director in the board ensures that the members or the directors of the company does not have any conflict of interest and the company does not work in any unethical way and as these directors are from diverse background they bring a broader perspective to the board and help in taking well-informed decisions.[10] There presence increases the investors confidence as they make the management accountable for their actions and plays an important role in aligning the interest of the management with that of the shareholders and ensures transparency in reporting the finances of the company. However, their effectiveness can vary depending on a lot many factors such as their qualifications, independence and the commitment of the company in good governance. However, the biggest problem can be when these directors are not really independent due to factors like undue influence and coercion otherwise they are really very important to protect the shareholders interest and the smooth functioning of the company.[11]

7.3. The Impact of Board Composition on Corporate Governance

The composition of the board of director plays an important role in the governance of the company as the the entire fate of the company lies in the hands of the board.[12] The independence, qualification, diversity, expertise etc of the individuals who make up the board influences the effectiveness of the management of the company, its strategic behaviour and its corporate behaviour.[13] Sometimes, people are blinded by their own judgement and therefore it is very important to have sufficient numbers of the independent directors as these directors, being not affiliated with the management or the shareholding of the company, could provide with an objective perspective and their independence helps in ensuring the decision of the management is impartially scrutinized. Apart from that the diversity on the board and the expertise and skills of the board members can greatly impact the corporate governance as members from different backgrounds can effectively see the various aspects of the operation of the

[9] National Association of Corporate Directors, Board Leadership: The Role of Independent Directors (Washington, DC: NACD, 2022).

[10] OECD, OECD Principles of Corporate Governance, 2011 Ed. (Paris: OECD, 2011).

[11] Organization for Economic Cooperation and Development. Principles of Corporate Governance. 2022. https://www.oecd.org/daf/ca/corporate-governance-principles-eng.pdf.

[12] Cadbury, Adrian. The Cadbury Report: Report of the Committee on the Financial Aspects of Corporate Governance. London Stock Exchange, 1992.

[13] Fama, Eugene F., and Michael C. Jensen. “Separation of Ownership and Control.” The Journal of Law and Economics 26, no. 2 (1983): 301-325.

company and can lead to better decision-making.[14] The board members also need to be an expert in the risk management to mitigate any potential risk as well as be ethical in their values with a good ability to resolve any conflict within the company. The members of the board should be good at communication and should have the ability to engage with the shareholders to build trust and a positive relationship with the company and the investors.[15] Also, a good board will be able to have a good CSR plan that aligns with the values of the company and really brings a positive impact on the society and at the same time will be able to work and oversee all the statutory and legal compliances. To say, the composition of the board of directors has a profound impact on corporate governance. With a diverse board, the company can have an effective oversight and ethical and responsible corporate practices and a company with a good board composition seem to achieve long-term success and better trust with shareholders and stakeholders.[16]

7.4. Legal Regulations and Frameworks for Promoting Board Diversity

As we already talked about the importance of diversity in the board it is important to understand the legal provisions surrounding it. Many countries and regions have implemented various legal regulations and frameworks to promote diversity in the composition of the board in both public as well as private companies and these provisions aim to improve the representation of women, ethnic minorities and other under-represented groups on the board of directors.[17] Several countries have introduced gender quotas, which make it compulsory to have a certain percentage of the board to be represented by women. An example of this is Norway which makes it mandatory to have around 40 percent of board members to be women in public companies. There are certain countries like the UK which follow a "comply or explain" approach i.e. the companies must have a diverse board and if they do not they have to explain the reason for not having a diverse board and the steps they are taking to make their board diverse.[18] Also, some countries are required to disclose information regarding board diversity in their annual reports and this transparency sometimes encourages the company to have diversity as part of their governance practices.

Also, there are many voluntary initiatives by companies and individuals itself which voluntary commit to achieving board diversity like the 30% club, which is a global campaign that seeks to achieve 30 per cent of women on corporate boards and

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[14] Deloitte & Touche. Corporate Governance Handbook: A Guide to Best Practices for Public and Privately Held Companies. 89, 6th ed. Wiley, 2021.

[15] Organization for Economic Cooperation and Development. Principles of Corporate Governance. 2022. https://www.oecd.org/daf/ca/corporate-governance-principles-eng.pdf.

[16] Investor Relations Society of America. The Handbook of Investor Relations. 6th ed. Wiley, 2021.I [17] Margaret M. Blair, Diversity on Corporate Boards: A Critical Assessment 2, Routledge, 2016.

[18] Margaret M. Blair, Diversity on Corporate Boards: A Critical Assessment 130, Routledge, 2016.[19] International Labour Organization. "Women on Boards: A Global Review of Progress and Challenges." International Labour Review 158, no. 3 (2019): 411-432.

following the footsteps, some countries like France, have implemented gender quotas specifically for state-owned companies, which requires the government to have certain percentage of women in their boards.[19] Talking about India the Companies Act, 2013 has introduced several provisions related to board diversity one of which is the mandatory inclusion of at least one women director on the board of certain companies having a certain paid-up capital or turnover. Also, the "SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015" have mandated having one women director on the board of every listed company the failure of which might impose various penalties.[20]

Governments around the world can also run various initiatives to ensure diversity in the composition of the boards like having fixed targets and a proper timetable to ensure that every company includes under-represented members of society like women, ethnic minorities etc. in the board[21] and penalties for failure of not meeting the deadlines, also, the institutional investors could use their voting powers to create diversity in the board. Various educational and training programmes could be run to help people gather relevant skills and gain experience to serve on the board of the companies or there could be other types of regulatory framework that mandate having a diverse board.

7.5. Shareholder Involvement and Accountability

Shareholders play a very important role in the functioning of the company and their involvement and accountability are very essential for good corporate governance.[22]It is therefore very important that the companies maintain complete transparency with their shareholders and uphold ethical and responsible business practices. When we talk about the involvement of the shareholders the shareholders are typically given voting rights on important corporate matters like the appointment of the directors, the approval of mergers and acquisitions or changes in the bylaws of the company along with other important decisions and for that purpose an Annual General Meeting (AGM) is conducted where the shareholders are appraised about the important issues and are allowed to discuss and vote on the issues.[23] This is a platform where the shareholders can communicate with the board directors. Also, if a shareholder is unable to attend this meeting they can use a proxy to cast their votes.[24]

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[20] Kashif, Azhar. "SEBI's Mandate on Women Directors: A Step Towards Gender Diversity on Corporate Boards." National Law Journal 54, no. 4 (2016): 25-27.

[21] Organization for Economic Cooperation and Development. "Principles of Corporate Governance." 2022. https://www.oecd.org/daf/ca/corporate-governance-principles-eng.pdf.

[22] Blair, Margaret M. "The Role of Shareholders in Corporate Governance." The Business Lawyer 61, no. 4 (2006): 1457-1475.

[23] Margaret M. Blair, Corporate Governance: Theory, Practice, and Evidence, 150, Oxford University Press, 2005.

[24] Black, Bernard S. "The Role of Proxies in Corporate Governance." The Business Lawyer 61, no. 4 (2006): 1423-1455.

As the shareholders are the actual owners of the company they can also propose various resolutions on various different matters dealing with corporate governance or social responsibility matters and these resolutions are voted on during the AGMs. Apart from the resolution the institutional shareholders or other shareholders also engage with the management of the company or the board by way of letters, meetings or public statements. The shareholders can also hold the board of directors accountable for the performance of the company and for not working in the interest of the shareholders. The shareholders of the company do not have enough options to judge the functioning of the company and therefore they rely on the financial statements to make decisions and therefore they can hold the board responsible for not providing them with statements that comply with standards and regulations.[25] The directors and the officers owe fiduciary duties to the shareholders and the shareholders can hold them liable for any breach of these duties including for any ethical lapse or misconduct. The shareholders also have a say on the executive compensation packages and excessive or poorly structured compensation can be a source of shareholder concern. To say, the shareholders have an indirect say in the management of the company and they can hold the company accountable for not working as per their demands and independent directors play an important role in ensuring that the companies work as per their memorandum and the demands of the shareholders are not neglected by the management of the companies and therefore the independence of an independent director for long term success and sustainability of the company

8. CONCLUSIONS AND CONTRIBUTIONS

The independent directors play a very important role in the functioning of the company and these directors play the role of the guardians of the corporate governance. Governments across the world have worked a lot to implement various legal provisions to ensure the independence of the board and its accountability, transparency and ethical conduct in the corporate world. While conducting this research I realized that the presence of independent directors within the framework of the board is very important to ensure the proper governance of the company and to protect the rights of the shareholders as these directors bring impartiality that is important to mitigate the conflict of interest and uphold the interest of the shareholders. These directors play an important role in monitoring the functioning of the company and ensuring its adherence to regulations, ethical standards and good practices. These directors often possess diverse backgrounds and expertise and help in effective risk management by serving as ethical leaders within the organization by upholding the highest standards of integrity and ethical behaviour. It is because of them the shareholders have an increased sense of trust and commitment towards the company and a sense of security that the company will very vigilantly and ethically follow all the regulatory compliances and the investment of the shareholders will be safe and not be subjected to the irregularity of the directors of the company. However, there are certain lacunas in

[25] Blair, Margaret M. Corporate Governance: Theory, Practice, and Evidence. 152, Oxford University Press, 2005.

the legal frameworks and the board is not completely independent. Theoretically, it seems that these directors would ensure 100 per cent board independence and the companies and the investor's money are safe and secure, however, there still remain challenges of undue influence, corruption and coercion that might sway the independence of the directors and make the functioning of the company unethical. The government therefore need to ensure the independence of the board by making provisions to have a diverse board and extending the powers of independent directors and regulatory control over their activities as well.

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Depletion and Diminution: The Hurdles of the Eastern Coast

*Mr. Aparna Tripathy**

ABSTRACT

Waste cluttering is a fundamental problem in the eastern coast of India causing soil erosion at the beaches and diminution of wetlands. National-Bureau-Of-Soil-Survey-And-Land-Use-planning (NBSSLUP) and national-Pollutant-Discharge-removal-system (NPBES), pronounced on how the tourism in Puri has reduced the soil quality on the seashore leading to soil erosion and water pollution. WWF in its document has stated how cluttering of waste has resulted in diminishing-of-wetlands. Although waste cluttering is extensively regarded as an issue there has been little to no research performed at the policy component of it.

The authors emphasize and assess the impact of waste cluttering on the environment while focusing on the eastern coast, where it has led to issues such as soil erosion and water pollution, (as reported by NBSSLUP). The authors compare the policies-in-force in other parts of the world, like, the-waste-framework-directive (Europe), so as to examine its relevance and applicability to the eastern-coast.

The methodology used is empirical-research of qualitative and quantitative data, assessing the impact of waste cluttering on the inhabitants, and comparative analysis of laws and policies such as, The soil-conservation-and-domestic-allotment act by the US federal-law, evaluating its applicability in India.

The authors give suggestions as to how the soil depletion in the Puri seashores and the diminishing wetlands in the eastern-coast, can be tackled efficiently and simultaneously by targeting waste cluttering through policy ideas which can be adopted from other sovereigns and treaties.

This authors analyze, the issue of garbage cluttering through comparative study and, its various implications on health and wellbeing of the animals and humans through reports from WWF and WHO.

The authors address the policy issue pertaining to garbage cluttering which has not been analysed to a great extend through various reports from organisations like, IIRS, WWF, NPBES, etc, defining it as a source of many environmental hazards and through a comparative study understand provide policy solutions for the same.

Keywords: Climate Change, Diminishing wetlands, Environmental Policy, Pollution, Soil Depletion, Waste Cluttering.

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INTRODUCTION

Soil depletion is an issue which is on an ever-alarming rise. It is both because of the disturbances caused due to natural phenomenon and the human inflicted processes. It has huge impact on the biodiversity, agricultural productivity, wildlife and food security. According to a report on the climate change and land of the intergovernmental panel on climatic change, they have observed that about a quarter of the Earth's ice free land area is subject to human induced degradation[1].

Due to the chemical and physical degradation of the soil, it has long ranging implications on productivity and agricultural produce as said by a recent report of IFPRI[2]. Huge rampages of deforestation and unethical use of the land also contribute to the change in the soil's structural condition. Some amount of soil depletion has occurred naturally but a large portion is a result of anthropogenic activities.

The status of the World's soil resources[3], produced by, FAO'S intergovernmental technical panel on soils, conglomerates a number of soil scientists on "the world soil day", December 4, stating the importance of the soil and how it is depleting at an alarming rate. The director general Jose Graziano Da Silva implicated his concern by stating that further loss of productive soil would severely damage the food production and food security, increase food price volatility, and potentially plunge millions of people into hunger and poverty. Drenched with chemicals and high amount of waste cluttering, the eradication of soil fertility is not more than 30 years away[4].

The depletion of soil in wetlands comes on in a similar trend due to constant irresponsibility when it comes to accountability; forested wetlands are being subjected to erosion. They are one of the prominent sources of timber, flood water storage, wildlife habitat and recreational opportunities. According to environmental ministry of India, research suggests that one-third of Indian wetlands have already been wiped out or severely degraded. Wetlands are a method of sustainable livelihoods providing 62 million people their daily jobs. They replenish underground water and act as nature's sponges this demands for instant corrective steps before it is too late.

Even after various projects being introduced inorder to spread awareness about garbage disposal and environment protection, the failure of implementation has lead to serious environmental hazards. One such environmental issue affecting the people in the holy city of Puri is the cluttering of garbage on the seashores which has lead to issues such as soil depletion and water pollution. Such garbage cluttering is also seen as a problem not only at the Puri seashores but also in the rest of the country. Another major issue that such cluttering has lead to is the diminishing wetlands. Such pollution of natural resources has also lead to serious climatic consequences

1 UNEP. (1999). report on the climate change and land. intergovernmental panel on climatic change.

2 IFPRI. (2000). Report on Productivity and Agricultural Produce.

3 FAO. (1998, December). The status of the World's soil resources. FAO'S intergovernmental technical panel on soils.

4 The United Nations Framework Convention On Climate Change (UNFCCC), 1992.

and ecological imbalances which have become very difficult to cope up with and therefore pose a huge threat. All these are the reasons because of which it becomes important for a solution to be discovered and implemented inorder to save the society from eventual destruction.

REASONS FOR SOIL DEPLETION IN PURI

The soil depletion is a major problem that is currently being witnessed in the lands of Puri. The change in the soil's physical, biological and chemical the whole environment in general. The future productive capacity and fertility is in an all time low as said by UNEP[5] there are several physical as well as chemical factors affecting soil depletion. Loss of top soil due to waves and wind form the physical factors, while depletion of nutrients due to acidity or alkalinity, water logging, eutrophication as a result of the soil pollution form the chemical factors.

Recently due to the eco-retreat festival in the beaches of Puri, which is an annual festival organised to promote tourism organised by the state government of Odisha, the depletion of pure nutrients was inevitable as published by the national bureau of soil survey and land use planning[6]. The huge amounts of urban run-off, sewage overflow, and recreational events have lead to the depleting quality of soil. Apart from that, the melting glaciers cover more and more soil land, affecting the wildlife underneath the blue ocean to a fear of extinction.

Trash and litter like plastic bags, bottles, cigarette filters, bottle caps, etc; left at the soil of these beaches are non-biodegradable. They form a part of the high levels of cluttering near the seashore and reduce the quality of the soil as said by National Pollutant Discharge elimination system (NPBES) permit program[7]. It poses a frightening threat to the rich biodiversity beneath the ocean.

The tourism centred events conducted out by the government through "eco-retreat" is not effective in saving the beaches. Human and garbage clutter causes the soil to deplete in a much faster rate. Month long festivities with no control over the soil contamination through garbage has proved fatal to the already persisting conditions.

Being one of the four holy places for Hindu pilgrims, the land of Puri witnesses about 5-6 lakh tourists per week[8], and as the Puri sea-beach also poses itself as a great source of tourist attraction, it also experiences a huge footfall. Unfortunately, even after various number of steps been taken by the state government and the local authorities to make sure that there is no garbage cluttering at the seashore, these steps fail in implementation and therefore due to the huge number of people at the seashore, a large amount of garbage is generated which is dumped in the sand at the

5 United Nations Environment Program, 1993.

6 National Bureau Of Soil Survey And Land Use Planning

7 National Pollutant Discharge Elimination System (NPBES) Permit Program.

8 *Odisha Tourism : Visit Odisha | Travel & Tourism | Official Site*. (n.d.). Odisha Tourism. Retrieved December 20, 2021, from https://www.odishatourism.gov.in/content/tourism/en.html

beach. This has eventually lead to the cluttering of a large amount of waste at the seashore. Even though the use of plastic has been significantly reduced[9], the plastic that has trashed the seashores prior to such limitations being imposed finds itself in quantities large enough to make it difficult to eradicate as a whole. Even though a lot of local NGOs along with the government are taking various steps in order to remove all the garbage that has found its way to the cluttering at the seashores, it is this lacuna which is causing immense threat for such schemes to be successfully completed.

In the same way the future of Wetlands are also facing threatening challenges resulting to their rapid decline. Newly published articles show that 64% of the worlds' wetlands have disappeared since 1900. This also means a reduction to the fresh water supply while traditional wetland livelihood suffers. It has declined to a 76% between 1970 and 2010 according to WWF's living planet index.[10] The input of high amounts of pollutants reduces the wetlands' natural ability to absorb and causes degradation. The scenario of the sundarbans of West Bengal and other parts of the eastern coast show high amount of disturbances also affecting the surrounding landscape. The removal of vegetation, construction and filling directly impact these wetlands. The increased accumulation of sediments which alters the chemical and hydrologic characteristics of the ecosystem of wetlands is concerning.

Therefore, it can be said that human activities stand as a dominating factor in, the depletion of soil in the eastern coastal beaches of Puri, and the diminution of wetlands in the eastern coast Out of all the forms of ways in which the human civilization has affected the sustenance of the natural treasures of the East, Waste cluttering can be seen as the predominant factor.

PROBLEMS ARISING DUE TO THE GARBAGE CLUTTERING

Water Pollution

The garbage cluttered on the seashores enters the sea along with its tides thereby polluting it. Such pollution causes immense danger to the marine life and has led to the death of a lot of fishes and other aquatic animals. The death of olive ridley turtles that regularly enter the Odisha coast in order to lay their eggs has also been linked to the constant pollution witnessed in the sea. Olive Ridley turtles form a major portion of the problem that the state needs to look into, as thousands and thousands of turtles are found death on the Puri sea coast every other day. In the landmark case of R. S. Lal Mohan (Dr.) V. The Executive Engineer (WRO) Kanya Kumari[11] it was held that in environmental law the preservation of water bodies is important and therefore this undetected and uncontrolled pollution of the water bodies that is leading to this huge amount of destruction stands in violation of that.

9 Regulation by Odisha government, 2019. *Odisha Tourism : Visit Odisha | Travel & Tourism | Official Site*. (n.d.). Odisha Tourism. Retrieved December 20, 2021, from https://www.odishatourism.gov.in/content/tourism/en.html

10 WWF Living Planet Index

11 2010 (1) C.W.C. 193 (Mad.)

Soil Deplition

Due to the immense amount of garbage cluttering at the seashore the sand is becoming loose, which is leading to easy loss by way of sea tides. The amount of plastic on the sea beach has reduced the tightness and cohesiveness of the soil to hold itself which is leading to the rapid loss of the Odisha coast. Due to the loss in coast the state of Odisha has become more susceptible to natural calamities like tsunamis, cyclones and floods. In the past three years Odisha has faced three major cyclonic storms which have lead to a mass destruction and one of the many reasons behind such frequency of storms stands to be the loss of soil, as the sand that helped in reducing the vigor of such impact has been lost, due to which the intensity with which these cyclones fall on the coasts has subsequently increased to a very high level.

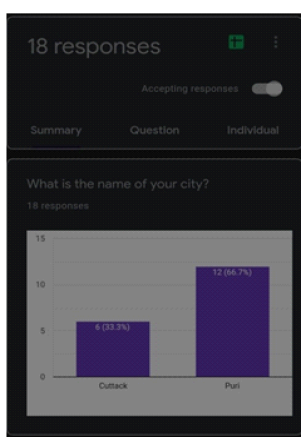
Other Impacts

A part from these two major issues the garbage cluttering also gives rise to unhygienic conditions which forms a major reason behind the spread of a lot of diseases. Such a situation gives rise to spread of major diseases and reduction in the immunity of the people living in and around such areas. This kind of an issue has also been seen in the case the areas in and around Puri where there has been a huge increase in the number of cases of diseases being witnessed.[12] This is something that has formed a major portion of the government's concern as this has lead to the loss of human life.

A part from that such clutters also lead to the loss of tourism which is definitely a hit on the state's economy. Therefore giving rise to the need for a solution.

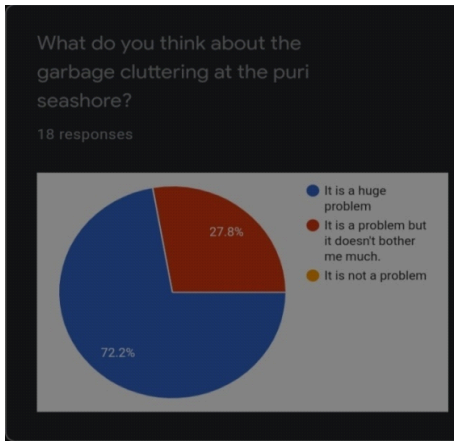
Empirical Research

In order to understand the awareness about this particular situation, a survey was conducted and results were derived. The survey was taken by 18 people out of which 6 are residents of Cuttack and 12 are residents of Puri.



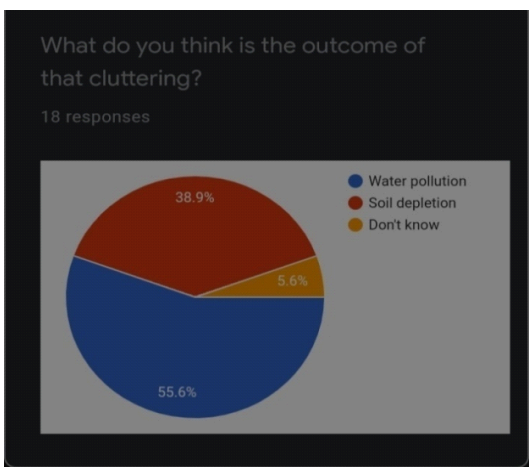
12 WHO report

The first question asked in the survey was about, their views on the garbage cluttering at the Puri sea beach and what they thought about it. In the survey, 72.2% people said that it was a huge problem for them where as the rest 27.8% people said that they consider it to be a problem but are not majorly affected by it.



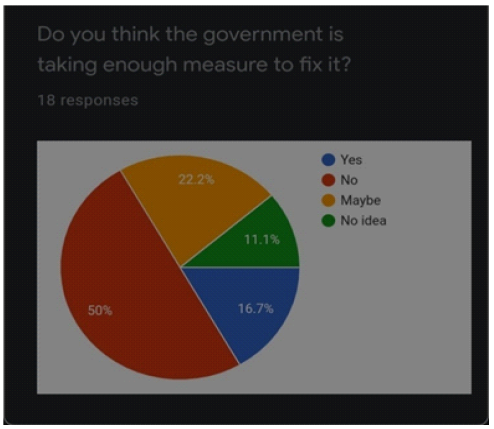
From this it can be deduced that irrespective of whether it bothers them or not, it is pretty clear that each one who took this survey considers it to be an issue.

The second question put forth in the survey was as to how the people thought this cluttering was affecting the environment to which the response was that, 55.6% people thought that it leads to water pollution, 38.9% people were of the view that it leads to soil depletion and the rest indicated ignorance about the subject.



From this it can be deduced that while a major portion of the survey takers are aware of the problems caused due to such cluttering while, even though small, a portion of the people still remain ignorant to the situation. This also draws attention to the fact that there is a need on the part of the government to spread awareness about this situation.

The last question which was presented to the survey takers was that whether they thought that the government was taking appropriate measures to tackle the situation, to which the survey takers had a response of, 50% people stating that no steps have been taken, 22.2% people responding with a maybe where as yes and no idea got 16.7% and 11.1% each.



From this we can deduce that a sizable portion of the survey takers think that the government has not taken enough steps to deal with the situation at hand and therefore a scope for improvement can be seen on the part of the government.

ANALYSIS

From this survey it can be analyzed that the garbage cluttering is actually a problem which needs to be paid attention to. Even though the government under various schemes, such as swachch bharat has taken steps to work towards the de-cluttering of these areas, it can be clearly seen that the people living in and around this region do not consider these efforts to be appropriate enough when it comes to the issue at hand. Therefore it becomes important for the government to take more acute steps towards finding an appropriate the solution in order to tackle the gist of this very pertinent issue.

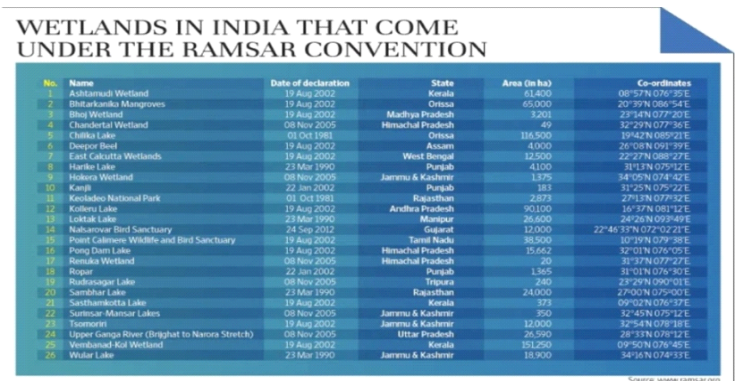
Diminution of Wetlands in the Eastern Coast

This issue that the state of Odisha is facing at present is an issue which has also been seen in various other parts of the country. Therefore in order to tackle this issue, it becomes necessary, to study such situations and thereby derive an appropriate solution to the issue.

Another environmental belle which has faced the consequences of such cluttering are the wetlands. It has been witnessed in various states of the Eastern coast that such as, Andhra Pradesh, west Bengal etc; which are the states that are known to possess the rich heritage of wetlands. They are facing similar issues with garbage cluttering in and around the wetland area, just as is being witnessed on the Puri seashore. One of the prominent sources of such cluttering can also be traced back to the factor of

tourism. This gradual cluttering of waste has lead to the subsequent diminution of this wonder of nature.

In order to save these wetlands, various steps have been taken by the government. Efforts to conserve wetlands in India began in 1987 and the main focus of governmental efforts was on biological methods of conservation rather than adopting engineering options. A national wetland-mapping project has also been initiated for an integrated approach on conservation. In certain wetland sites it is heartening to see the Government, NGOs and local community coming together to save our wetlands and thus realize the objectives of Ramsar Convention[13]. 37 wetlands in India have been categorized for protection under Ramsar Convention. Therefore, it can be said that various steps are being taken by the local, state and Union Authorities so as to tackle this issue in the most effective manner.



WETLANDS IN INDIA THAT COME UNDER THE RAMSAR CONVENTION

No.	Name	Date of declaration	State	Area (in ha)	Co-ordinates
1	Ashtamudi Wetland	19 Aug 2002	Kerala	61,400	08°57'N 076°35'E
2	Bhitarkanika Mangroves	19 Aug 2002	Orissa	65,000	20°39'N 086°54'E
3	Bhoj Wetland	19 Aug 2002	Madhya Pradesh	3,201	23°14'N 077°20'E
4	Chandertal Wetland	08 Nov 2005	Himachal Pradesh	49	32°29'N 077°36'E
5	Chilika Lake	01 Oct 1981	Orissa	116,500	19°42'N 085°21'E
6	Deepor Beel	19 Aug 2002	Assam	4,000	26°08'N 091°39'E
7	East Calcutta Wetlands	19 Aug 2002	West Bengal	12,500	22°27'N 088°27'E
8	Harike Lake	23 Mar 1990	Punjab	4,100	31°13'N 075°12'E
9	Hokera Wetland	08 Nov 2005	Jammu & Kashmir	1,375	34°05'N 074°42'E
10	Kanjli	22 Jan 2002	Punjab	183	31°25'N 075°22'E
11	Keoladeo National Park	01 Oct 1981	Rajasthan	2,873	27°13'N 077°32'E
12	Kolleru Lake	19 Aug 2002	Andhra Pradesh	90,100	16°37'N 081°12'E
13	Loktak Lake	23 Mar 1990	Manipur	26,600	24°26'N 093°49'E
14	Nalsarovar Bird Sanctuary	24 Sep 2012	Gujarat	12,000	22°46'33"N 072°02'21"E
15	Point Calimere Wildlife and Bird Sanctuary	19 Aug 2002	Tamil Nadu	38,500	10°19'N 079°38'E
16	Pong Dam Lake	19 Aug 2002	Himachal Pradesh	15,662	32°01'N 076°05'E
17	Renuka Wetland	08 Nov 2005	Himachal Pradesh	20	31°37'N 077°27'E
18	Ropar	22 Jan 2002	Punjab	1,365	31°01'N 076°30'E
19	Rudrasagar Lake	08 Nov 2005	Tripura	240	23°29'N 091°01'E
20	Sambhar Lake	23 Mar 1990	Rajasthan	24,000	27°00'N 075°00'E
21	Sasthamkotta Lake	19 Aug 2002	Kerala	373	09°02'N 076°37'E
22	Surinsar-Mansar Lakes	08 Nov 2005	Jammu & Kashmir	350	32°45'N 075°12'E
23	Tsomoriri	19 Aug 2002	Jammu & Kashmir	12,000	32°54'N 078°18'E
24	Upper Ganga River (Brighat to Narora Stretch)	08 Nov 2005	Uttar Pradesh	26,590	28°33'N 078°12'E
25	Vembanad-Kol Wetland	19 Aug 2002	Kerala	151,250	09°50'N 076°45'E
26	Wular Lake	23 Mar 1990	Jammu & Kashmir	18,900	34°16'N 074°33'E

Legislations Implemented in Various parts of the World for Soil Conservation:-

The soil conservation and domestic allotment act by the US federal law showcases an important method of paying attention to the pertinent problem. In this the government pays the farmers to reduce production so as to conserver the soil and prevent erosion. In Europe, directive on industrial emission, the waste framework directive and reach regulations in particular contribute to the provisions pertinent to soil protection. The EWU commission had submitted an official proposal for a soil framework directive on 22nd September 2006; it prevents detoriation of soil quality and preserves soil functions. Damage soils must be treated with a view to restore functionality and cost containment. Three main important international treaties which contain relevant provision on soil protection are the UN convention to combat desertification[14], the convention on biological diversity[15] and the climate framework convention. FAO's legislative principles renders the idea of stringent policy making to protect the depleting to soil as seen in the case of Beugel V. City of Grand Folks[16] the court established high compensation as exemplary damages for the misuse of land. In the case of Southeast cash water resource district V. Burlington Morgan Rail Road the court held that police and other governing bodies have a right to pay helping reforms in order to protect the depletion of soil.

13 Ramsar convention on Wetlands, 1971.

The soil and land use survey of India which is under the integrated Nutrient management division is a department under the government of India to look into soil depletion. This department is playing a leading role to the clarity of soil and water conservation requirements of the state and serves as the information hub for scientific and reliable information on soil and land resources and formulates the corrected implementation of various soils. It optimizes the natural resource utilization by adopting scientific land use as per as required. It has helped in the rejuvenation of the ecosystem then propagation of eco friendly and cost effective conservative mechanisms. Soil erosion and preventive premature siltation from various reservoirs is one of the ambitions under this scheme, it also helps to prevent silting up of natural water bodies. The river valley project of Kambini is an initiative by the government of India to help the soil depletion in its shores by various activities in order to mitigate agrarian distress in fragile ecosystems, this project forms to give a good structure to the upcoming conservative plans. According to a 2015 report of the Indian Institute of Remote Sensing (IIRS) the estimated amount of soil erosion that occurred in India was about 147 million hectors. In the year of 1962, an early initiative of soil conservation was seen in the catchments of river valley projects which were started in India then. The scheme promoted control of premature siltation of reservoirs which in turn enhances the productivity of the catchment areas.

Similarly, the Ramsar Convention is a historical convention in many aspects particularly as it is one of the oldest ecosystem specific conventions which speak the conservation as well as the wise use of Wetlands. It also enjoins the parties to the convention to formulate and implement their planning so as to protect the listed wetlands as far as possible. A preliminary draft of wetland policy and corresponding action plan for India within the mandate of central ministry of Environment and forest lays down the rules of wetland, 2017[17]. It prohibits a large range of activities like setting up and expansion of industries, waste dumping and discharge of effluents into these natural sponges, there are 115 identified wetlands which is, more than the 26 wetlands mentioned in the Ramsar convention. The National Green Tribunal also takes solid steps in preventing soil depletion as seen in the case of Mr. Alok Kumar V. Mr. Y. Suryanarayan who were held guilty for chromium dumping; the rule of solid waste management was laid.

CRITICAL ANALYSIS

The soil depletion in the coastal region of Odisha especially Puri is a problem of great concern, the local people and wildlife who have been staying in the area face grave problems. Most of the people consider the problems to be towering along the

14 *United Nations Convention to Combat Desertification*. (n.d.). United Nations Convention to Combat Desertification. https://www.unccd.int/

15 *The Convention on Biological Diversity*. (n.d.). The Convention on Biological Diversity. https://www.cbd.int/convention/

16 Beugel V. City Of Grand Folks; 475 N.W. 2d 133 (Nd 1991)

17 Wetland Rules, 2017.

shores of Puri. Due to rapid urbanization, expansion of slum, garbage cluttering, failed government projects, industrialization and water erosion the rate at which the top soil is depleting is sky-scraping.

The problem is considered to be a pertinent issue by the local people which showcases the huge impact it has on the surrounding environment. Similarly the soil depletion on the wetlands has an enormous effect on the life and environment surrounding it. The wetlands are considered to be a natural habitat to 1 lakh known fresh water species; it bursts with biodiversity and offers breeding and migration ground for many. Along with that it supports the livelihood of millions of people mainly consisting of fishing, timber, medicinal plants, animal fodder etc; Wetlands fight climate change by keeping in store more than twice as much carbon as world's forest, they reduce typhoons and tsunamis and resist erosion.

The steps taken by government to find a solution to this problem has never been enough which has also been voiced by the domestic people around, the governments' have hearted attempts have turned out to be huge failures as seen in the recent eco-retreat tourism stunt wherein the accumulation of garbage was a visible defeat. The cleanliness programs initiated by the government are often taken to be as public stunts rather than serious implications. The dire situation needs to be acknowledged and a concrete solution must be legislated. The afforestation campaigns fail to impugn the seriousness of soil depletion on the local people, the lack of awareness in people portrays the lack of effective legislation.

Similarly, the wetlands are detoriating in a rapid rate, land use changes and waste dumping are posing a major threat to the wetlands despite India having a national wetlands conservation program since 1985-86 that provide financial support for the protection of 115 wetlands in different states, there is nothing to show for this on the ground conversationalist blame state governments for not being proactive and letting the issue slide away with no working plans being drawn upon by the states the funds of the centre remain unused, the outlined threats by experts include habitat destruction, landfill, overexploitation of fish, discharge of waste water, weed infestation and pesticide runoff.

However there are various legislations and Conventions in the world that work towards the protection of the wetlands from any kind of soil depletion due to waste cluttering. The Authors believe that these legislations can be an effective source for the policy development so as to form appropriate legislations to ensure the protection of the Puri coast from soil depletion. In this way actions for soil conservation can be taken up on a rapid rate and subsequently the issue can be eradicated as a whole.

IMPACTS OF SOIL DEPLETION

Due to reducing level of soil along with climatic change presents a huge risk to Global Food security it contributes to climatic change with throngs of bacteria cascading the surfaces. Constant drainage of the top soil by wind and water carries away with it the soil nutrients leaving the land barren and infertile. The waste cluttering at the seashore gives rise the loosening of the soil strata because of which the soil

becomes susceptible to loss by erosion with tides. The seashore is therefore facing acute erosion which in turn get it into the risk zone of flood and other such natural calamities. The Odisha sea coast is therefore facing more and more of such natural disasters which are in turn leading to great loss of life and property. Wildlife destruction becomes an inevitable outcome due to the destruction of habitat and migration grounds for example; the Olive Ridley turtles that form their breeding grounds by the shores of Puri have raged into the line of extinction due to the unavailability of habitat and breeding ground.

The deficiency of moisture due to coagulation of metals and bacteria leaves the soil arid reducing its productivity and efficiency to a large extent, 40% of agricultural land is lost due to the depreciation of soil quality caused by agro-chemical measures and soil erosion. Lack of soil results in increased flooding due to the unavailability of clay to bind on the water molecules. Agriculture suffers the most due to the resultant infertility.

CONCLUSION

The depleting soil quality is not something that cannot be restored with corrective measures, good governance and stringent legislatures. Agenda 21[18] which emphasizes on the land degradation particularly through UN organizations has started to envelope the coastal region of Odisha and spread the awareness and help conserving the soil quality. A database on land degradation is being made available to enable the government make effective policies concerning the use and management of resources.

The National Green Tribunal has shown significant interventions in maintaining the soil quality as seen in the case of Central Pollution Control Board V. State of Andaman and Nicobar & Ors.[19] Wherein the tribunal voiced their concern about waste management and plastic destructing the quality of soil. Same was seen in the case of Himmat Singh Shekhawat V. State of Rajasthan and Ors.[20] Where the practice of illegal sand mining reducing the nutrients of top soil was shunned as it obtained environmental clearance.

The soil quality as well as Wetlands have been the most important assets in the preservation of sustainable resources, the mismanagement of land can lead to catastrophic results which maybe threatening to many parts of the region since environment and agriculture are intrinsically linked the value of the soil must be adhered to. The soil of the Wetlands often considered to be wastelands should not be converted for other purposes, these marshes hold 3% of the world's fresh water reserves, and the paddies there are a rich source of food and employment. Therefore the concern of its sustainability and preservation is something of optimum importance.

18 United Nations Conference on Environment and Development. (1992, June 13). *The Earth Summit* [Summit]. The Earth Summit, Rio De Janerio, Brazil.

19 Central Pollution Control Board V. State of Andaman And Nicobar & Ors. (O.A.247/2017)

20 Himmat Singh Shekhawat V. State of Rajasthan (O.A.No.671/2017)

In conclusion it can be said that the constant cluttering of garbage at the Puri seashore is a huge issue that poses threat to various sectors of the environment and the method which is being followed by the government is not strong enough to deal with the issue at hand. Odisha has already suffered a large amount of loss due to this situation and is moving towards more loss, therefore it becomes more necessary for the government, local NGOs and the people who subsist in that region to come together inorder to tackle the situation and come up with a concrete solution, in order to solve this issue, inspiration can be derived from how the diminishing wetlands are being saved and work be done in the same direction in order to save the coast. The government should come up with schemes to implement the same in a proper manner and thereby do its bit in order to achieve the ultimate goal of sustainable development.

RECOMMENDATIONS

Even though the situation at hand is of grave concern and danger that does not indicate to the fact that it is not possible to find a solution to this situation. Taking the situation about the wetlands for instance it can be said that there are ways to solve even this very pertinent issues. These are some suggestions that the Authors think can be helpful in achieving the same:

- It is important that the state as well as the central government understands the depth of the situation and works in collaboration with other nations of the world, which a view of mutual development and exchange of ideas, in order to tackle the base or gist of this issue.
- It is important that the government works with various NGOs and Local groups who possess more knowledge about the situation in order to target the issue at the very ground level.
- It is important to spread awareness about this problem among the people who live in and around the seashore, in order to ensure that there is no increase in the already present problem of garbage cluttering
- Help should be taken from the people present and living in such areas in order to clean the garbage clutters in a faster and more efficient way.
- Governments should set up policy frameworks with regulations to ensure the smooth functioning of the whole de-cluttering process of the already deposited garbage on the shores.
- Governments should take steps to encourage the scientific community to aid and implement programs, methods and standards monitoring soil depletion and resource identification.

Protecting Array of Indigenous Knowledge - A Comparative Study Between India and China

Ms. Urvi Shrivastava & Ms. Apurva Sharma***

ABSTRACT

Traditional knowledge is crucial to the identity of a culture. It is such skills, knowledge and practices which has been possessed by the indigenous communities since time immemorial and has been passed down from generation to generation within such communities. However, the lack of awareness of their rights amongst these communities often leads to their exploitation.

India is a hub of communities which boasts a rich culture, heritage and knowledge, however the obstruction of social evils such as illiteracy, untouchability etc. haunts its protection and preservation. Similarly, the traditional healthcare system in China is inspired by Traditional knowledge that is more than 3000 years old. A number of practices are included in traditional Chinese medicine, such as acupuncture, qigong, herbal medicine, and food therapy. However, obstacles to its preservation include public mistrust, language barriers, urbanisation, and technological intrusion. The authors through this paper will analyze the existing protection mechanism of traditional knowledge in India and China in the light of international instruments as well as local barriers. Also, the authors will draw a comparison between the existing machineries in both the countries and will attempt to suggest the changes required for safeguarding the traditional knowledge of indigenous communities in India.

INTRODUCTION & HISTORICAL DEVELOPMENT

The richness of cultural diversity in the world is undeniable. Be it about the ethnic minorities or marginalized populations, they are particularly significant. The life they live predominantly in frontier or geographically peripheral areas and rarely known greenwoods pledge them a strategic role as conservationist of culture, skill and know-hows unknown to others. This relationship between the knowledge organic to the existence of indigenous people and their survival is not new. It has no certain history either. It has been with the communities ever since they have been in existence. The social and cultural traditions are unique to communities holding them. As a component

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of kinship, cultural, and social traditions of passing down lived experiences of our habitat, humans have always passed on knowledge about life, living, livelihoods, lifestyles, nutrition, health care, and cleanliness throughout generations. As they live and follow these basics of knowledge, it is necessary to ensure continuity in such traditions.

India is rich in biogenetic resources and traditional knowledge, which are as valuable as its modern scientific advancements. Traditional Knowledge (TK) plays a vital role in achieving sustainable development. However, its accessibility makes it vulnerable to exploitation.[1]

India safeguards the traditional knowledge through its initiative of the Traditional Knowledge Digital Library (TKDL). Launched in 2001, it digitizes ancient texts, including Ayurveda, Unani, Siddha, and Yoga, into multiple languages. TKDL helps prevent biopiracy by providing evidence for patent authorities worldwide, ensuring India's heritage is protected.[2]

However, the TKDL is not publicly accessible which leads to patent filing of data technically protected by Traditional Knowledge, unlike China which has a publicly accessible database of TK on payment of fees which prevent biopiracy.

Because of free access agreement India has to provide the traditional knowledge data free of cost, thus improving the patent system in other countries. While China has a developed mechanism which charges hefty fees for the same, while the Indian Council of Scientific and Industrial Research is investing crores of rupees in data in making the TKDL, there is no financial or monetary benefit in return.[3]

TKDL is primarily acting as a preemptive defense mechanism instead of protecting the rights of indigenous communities in India. While China has prioritised ensuring the integration of its traditional knowledge with contemporary Western scientific understanding, India has centered its policies on preserving traditional knowledge in its original form and perspectives. This paper delves into the in-depth meaning and significance of traditional knowledge, as well as the international instruments that protect it. The authors will examine in detail the mechanisms for the protection of traditional knowledge in India and China, drawing a comparison between the two systems to offer recommendations for improvement.

MEANING AND DEFINITION OF TRADITIONAL KNOWLEDGE

Native, indigenous, and local communities have built a body of knowledge that has been passed down through the years to the point where it has become integral to their identity. Many notions, including time calculations, food items, plant characteristics, spice applications, yoga poses, etc., are rooted in traditional knowledge. Traditional

1 Chouhan and Vishwas Kumar, *Protection of Traditional Knowledge in India by Patent: Legal Aspect,* 3 IOSR Journal of Humanities and Social Science, Issue 1, 3-5 (2012).

2 Traditional Knowledge Digital Library Unit (TKDL), https://www.csir.res.in/documents/tkdl. (December 26th, 2024, 3:35 PM).

3 Damodaran, *Traditional Knowledge, Intellectual Property Rights and Biodiversity Conservation: Critical Issues and Key Challenges*, 13 Journal of Intellectual Property Rights, 17-19 (2008).

knowledge's most important characteristics are its long history and frequent oral transmission.[4] "*Vidya Dadati Vinayam, Vinaya Dadati Paatrataam* I *Paatratva Dhanamaapnoti, Dhanaat Dharmam Tatah Sukham* II" According to this shloka, true or complete knowledge bestows discipline, which in turn bestows worthiness, wealth, and from wealth one practices good deeds to attain joy. The strength and importance of knowledge are echoed in this age-old Sanskrit saying. Furthermore, it reiterates the necessity of safeguarding customary knowledge.[5]

Contrary to popular belief, traditional knowledge does not get its name from its antiquity. Within a community, it is a living body of knowledge that is created, maintained, and transmitted from generation to generation; it frequently contributes to the community's sense of cultural or spiritual identity. Because of this, it is difficult to protect under the current intellectual property laws, which normally only provide temporary protection to inventions and creations of individuals or businesses. Because of its dynamic nature, "traditional" knowledge is also difficult to define.[6] Essentially culturally oriented or based, traditional knowledge (TK) is fundamental to the cultural identity of the social group it operates within and is perpetuated. A broad definition of "traditional knowledge" includes any and all tradition-based innovations and creations arising from intellectual activity, including literary, artistic, or scientific works; performances; inventions; scientific discoveries; designs; marks, names, and symbols; undisclosed information; and all other tradition-based innovations and creations.[7]

There is no such specific definition of Traditional Knowledge which has been accepted widely, but the World Intellectual Property Organizations (WIPO) has defined the said term in two different senses-

- **In General Sense –** *"It embraces the content of knowledge itself as well as traditional cultural expressions, including distinctive signs and symbols associated with TK."*
- **In Narrow Sense - "***It refers to knowledge as such, in particular the knowledge resulting from intellectual activity in a traditional context, and includes know-how, practices, skills, and innovations."*[8]

UNESCO followed the concept of *Ejusdem Generis* and accordingly defined Traditional Knowledge as the "*the cumulative and dynamic body of knowledge, know-how and representations possessed by peoples with long histories of interaction with their natural milieu. It is intimately tied to language, social relations, spirituality and worldview, and is generally*

4 Vatsala Singh, *IPR Vis-à-vis Traditional Knowledge,* Mondaq, https://www.mondaq.com/india/patent/743482/ipr-vis—vis-traditional-knowledge (May 5th, 2024, 5:27 PM)

5 SCC Online, https://www.scconline.com/blog/post/2018/04/23/protecting-traditional-knowledge-the-india-story-till-date/ (May 5th, 2024, 6:35 PM).

6 Ibid.

7 Speech of Hon'ble Mr. Justice Vijender Jain, Chief Justice, Punjab And Haryana High Court, Chandigarh In A Seminar Of Asia Pacific Jurist Association (Apja) On *Safeguarding The Traditional Knowledge In India*, May 8th, 2024.

8 World Intellectual Property Organizations https://www.wipo.int/tk/en/tk/#:~:text=Traditional%20 knowledge%20 (TK)%20is%20 knowledge,its% 20 cultural%20 or%20 spiritual% 20 identity (May 8th, 2024, 4:42 PM).

held collectively."[9] The indigenous groups have been able to employ this precious traditional knowledge for sustainable life and survival, the knowledge pertaining to food crops, biologically significant and life-saving medicinal plants and herbs.[10]

Globally the indigenous and local groups' knowledge, inventions, and customs are collectively referred to as traditional knowledge. Oral transmission of traditional knowledge occurs between generations. It is derived from years of experience and customized to the local environment and culture. Cultural values, beliefs, traditions, proverbs, music, rituals, folklore and community, laws, local language, agricultural methods, emergence of new plant and animal species are examples of how it is typically bestowed.[11]

IMPORTANCE OF PROTECTING TRADITIONAL KNOWLEDGE

Traditional knowledge occupies a distinctive space between intellectual property and the public domain, sharing traits and limitations of both. Lacking elements like innovation or an identifiable owner, it cannot be protected by exclusive intellectual property rights (IPR). Consequently, it becomes part of the public domain, leaving it open to potential exploitation. Therefore, it has proven to be a challenge to protect traditional knowledge. Because of its unique nature, this information needs to be protected because it is integral to the communities' identity and might be exploited by businesses or individuals who could patent it without providing any benefits to the communities.[12]

Traditional knowledge is directly associated with ecology, because of their relationship with the environment and the experiences they have gained from personal formal education and interactions. It is possible to argue that traditions and personal experiences form the foundation of indigenous ecological knowledge. Controversial topics like bioprospecting are also part of traditional knowledge. The term was coined to characterize the tradition of indigenous and local groups to collect and screen plants and other biological material for use in the production of new seeds, cosmetics, medications, and other products. Bioprospecting may be justified as beneficial to biodiversity, but it is also sometimes accused of being biopiracy because it does not fairly compensate indigenous and local communities for giving access to their resources and because products and patents derived from traditional knowledge are so similar to traditional knowledge that they violate intellectual property rights and are therefore considered intellectual piracy. Misappropriation of indigenous communities have been taking place ideally because of the lack of knowledge of rights that these communities themselves hold, and hence, unfortunately have been taken advantage of blatantly at various stages of history.

9 Vrinda Singh & Vishal Singh Thakur, *Biopiracy and the Eclipse of Traditional Knowledge in India*, 6 Supremo Amicus 491 (2018).

10 Ibid.

11 Malgosia Fitzmaurice, *The Dilemma of Traditional Knowledge: Indigenous Peoples and Traditional Knowledge*, 10 INT'l COMM. L. REV. 255 (2008).

12 Abha Nadkarni & Shardha Rajam, *Capitalising the Benefits of Traditional Knowledge Digital Library (TKDL) in Favour of Indigenous Communities*, 9 NUJS L. REV. 183 (2016).

In emerging nations, corporate sectors are making every effort to industrialise their economies. A number of discussions have focused on how the commercialization of traditional knowledge and traditional economic experiences is robbing people of their identities and their cultural heritage. WIPO's Intergovernmental Committee (IGC) on Intellectual Property and Genetic Resources was formed in 2000 to handle concerns related to these sectors, and groups. The IGC was created with the goal of addressing intellectual property rights and the problems that surround them, as well as the benefit sharing framework as a discussion point for the preservation of traditional knowledge and technological innovations.[13] The intellectual property system has expanded to include new stakeholders in the global information society, such as indigenous and local communities. Their knowledge base, particularly their traditional knowledge, forms a body of prior art that is becoming more and more relevant, and its proper identification is becoming crucial to the system's operation. A traditional knowledge documentation data is a non-patent literature with specific characteristics and certain characteristics may require tailored measures to ensure that traditional knowledge data is properly integrated and recognised as relevant non-patent literature.[14]

INTERNATIONAL LEGAL INSTRUMENTS SAFEGUARDING TRADITIONAL KNOWLEDGE

Although traditional knowledge is protected by national and regional regulations, its effects are felt on a worldwide scale. Traditional knowledge has been discovered to be founded on specific moral and ethical precepts worldwide, regardless of its local applicability (often restricted to a clan or perhaps exclusively to a family or a community). The impact that TK's uniform behavior produces transcends national boundaries.[15]

The international law, intellectual property rights, and environment law all contain a number of legal documents, declarations, and rules that offer protections for indigenous knowledge. It is crucial to recognize, nonetheless, that these clauses occasionally diverge and contradict one another due to the existing disagreements regarding the purpose and subject matter. Some legal frameworks address the protection of the environment and the preservation of rights of indigenous peoples, while other legal frameworks deal with intellectual property rights, international trade, and other commercial matters where the primary goal is profit maximization. Time and again, the Corporation and the Indigenous communities have had a "clash of interest" as a result of the discrepancies in these laws.[16]

Not only is it economically unfair to these communities to use their cultural property without their consent, but it also violates their rights as people who have contributed

13 Ratula Datta, *Indigenous Communities in India and the Protection of Traditional Knowledge: An Inadequate Legal Initiative*, 25 Supremo Amicus 392, 2021.

14 Supra note 7.

15 Chakrabarty, S.P., Kaur, R. A Primer to Traditional Knowledge Protection in India: The Road Ahead. Liverpool Law Rev 42, 401–427 (2021). https://doi.org/10.1007/s10991-021-09281-4

16 Vrinda Singh & Vishal Singh Thakur, Biopiracy and the Eclipse of Traditional Knowledge in India, 6 Supremo Amicus 491 (2018).

for generations to the development of certain words, images, and patterns that have traditionally had spiritual and cultural significance for them. Thus, it is essential—and always has been—that actions be done to safeguard their rights to economic and cultural freedom.[17]

The International Frameworks Protecting Traditional Knowledge are Mentioned Below-

1. CONVENTION OF BIOLOGICAL DIVERSITY, 1992

In addition to acknowledging indigenous people's reliance on biodiversity, the Convention on Biological Diversity also highlights their special contribution to the preservation of life on Earth. The first international treaty to recognize the importance of local and indigenous populations in biodiversity protection and sustainable usage is the Convention on Biological Diversity.[18]

The Convention places general requirements on the preservation, sustainable use, information exchange, and fair distribution of biodiversity benefits. As per their specific national circumstances, each party is required to create national legislation as soon as feasible. This is done in ordere to respect, preserve, and uphold the knowledge, innovations, and practices of indigenous and local communities that represent traditional lifestyles relevant for the conservation and sustainable use of biological diversity. This further encourages their wider application with the consent and involvement of those who possess these knowledge, innovations, and practices and also promotes the equitable sharing of the benefits arising from their use.[19] Additionally, the convention acknowledges the notion of state sovereignty, which permits the state to exercise its sovereignty over its resources.[20]

The CBD Convention's Article 8J addresses traditional knowledge in a major way. It is also necessary to discuss Article 15, paragraphs 5 and 7, which establish the requirement for prior informed permission and sharing under conditions that are mutually agreeable. Articles 10(c), 17(2), and 18(4) also make reference to traditional knowledge. In addition to adopting many rulings and guidelines relating to traditional knowledge, CBD also offers a comprehensive institutional structure.[21]

2. THE NAGOYA PROTOCOL, 2010

The guidelines and procedures for implementing the Convention on Biological Diversity are outlined in the 2010-ratified Nagoya Protocol. Shared benefits and access are the main topics of this protocol. Better control over access to genetic or biological resources

17 Ratula Datta, *Indigenous Communities in India and the Protection of Traditional Knowledge: An Inadequate Legal Initiative*, 25 Supremo Amicus 392 (2021).

18 Supra note 15.

19 Supra note 7.

20 Vrinda Singh & Vishal Singh Thakur, *Biopiracy and the Eclipse of Traditional Knowledge in India*, 6 Supremo Amicus 491 (2018).

21 Malgosia Fitzmaurice, *The Dilemma of Traditional Knowledge: Indigenous Peoples and Traditional Knowledge*, 10 INT'l COMM. L. REV. 255 (2008).

is the goal of the Nagoya Protocol, which also urges the government to establish an institution where businesses and researchers can apply for operating licenses. The establishment and maintenance of a fair system for allocating gains resulting from resource utilization should also be guaranteed by states.[22]

In order to access and utilize a genetic resource, parties must first secure permission from the resource's traditional owners and come to an agreement on the parameters of resource extraction and benefit sharing. This was outlined in the Nagoya Protocol. A review of India's Traditional Knowledge Digital Library sheds light on how to preserve traditional knowledge internationally while balancing national and communal interests.[23]

3. DOCTRINE OF COMMON HERITAGE OF HUMANKIND, 1967

The International undertaking on Plant Genetic Resources for Food and Agriculture, 1983, established by the FAO, is outlined in Article 1(1). Its foundation is "the universally accepted principle that plant genetic resources are a common heritage of mankind and consequently should be available without restriction." That is to say, nobody can assert any kind of sovereignty over these resources.[24]

4. DECLARATION ON THE RIGHTS OF INDIGENOUS PEOPLE (UNDRIP), 2007

In terms of internal affairs, it upholds the rights of indigenous peoples to self-recognition and sovereignty. It also acknowledges their "right to maintain, control, protect, and develop their cultural heritage, traditional knowledge, and traditional cultural expressions.[25]

5. THE TRADE-RELATED ASPECT OF INTELLECTUAL PROPERTY RIGHTS (TRIPS) AGREEMENT, 1995

In 1955, the World Trade Organization developed the TRIPs Agreement as a global framework for the protection of intellectual property rights. albeit with limited success, the 1994 Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) of the World Trade Organization (WTO). TRIPS has not really protected the rights of indigenous people over traditional knowledge in fact it has served as a framework for enforcing international intellectual property laws that permit traditional knowledge to be commercialized worldwide rather than serving as a means of safeguarding it for the benefit of its traditional custodians.[26]

6. THE INTERNATIONAL TREATY ON PLANT GENETIC RESOURCES FOR FOOD AND AGRICULTURE, 2001

Concerning the genetics of agricultural plants, it safeguards the customary knowledge

22 Supra note 20.

23 Balancing community rights and national interests in international protection of traditional knowledge: a study of India's Traditional Knowledge Digital Library.

24 Supra note 20.

25 Supra note 23.

26 Ibid.

held by farmers. It additionally ensures that farmers receive an equal share of any profits made from their contributions.[27]

7. WIPO

World Intellectual Property Organization (WIPO) jumped into the world of protection of traditional knowledge back in the seventies through its folklore provisions with the UN. In the nineties, WIPO came up with its own idea of protection traditional knowledge in 28 countries. However, what can be summarized about the attempts of the World Intellectual Property Organization in protecting traditional knowledge is that they believe in understanding the requirements of the locals when it comes to the current manner of protecting traditional knowledge. This has led it into collecting massive amounts of information, a manner of collecting Traditional Knowledge, and the creation of an apparent system. It is also trying to widen its database so as to make it easier to find traditional knowledge to protect. It has also worked to find the rationale behind protecting traditional knowledge.[28]

The Inter-Governmental Committee on Intellectual Property and Genetic Resources assists WIPO in handling Traditional Knowledge as well. The IGC was created with the goal of addressing intellectual property rights and the problems that surround them, as well as the benefit sharing framework as a discussion point for the preservation of traditional knowledge and technological innovations. Its purpose is to resolve disputes over international legal agreements pertaining to the protection of indigenous populations and the knowledge that has been derived from them. It is necessary to make recommendations to Member States of the Paris Convention or those that follow WIPO's guidelines on the protection of these communities.[29]

LEGAL PROTECTION OF TRADITIONAL KNOWLEDGE IN INDIA & CHINA

Traditional knowledge by its very nature of being intrinsically developed through practical understanding has enriched itself into an asset that is widely threatened. Efforts to utilize traditional knowledge for business or industrial purposes directly attack the beneficiaries of the knowledge. TK holders' interests must be taken into consideration while creating strategies to safeguard and cultivate TK in the face of such threats. Especially for emerging nations, it is crucial to preserve, safeguard, and promote the innovative and rich practices rooted in traditional knowledge. Their abundance, biodiverse-attributes and sustainability is vital in all aspects as they consider environment, trade, development, identity, health care, and food security. But in many places across the world, this priceless asset is in danger.[30]

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27 Maitreyi Shishir, *Protection of Traditional Knowledge in India*, 1 LAW Essentials J. 74 (2021).

28 Ibid.

29 Supra note 17

30 WIPO,https://www.wipo.int/wipo_magazine/en/2011/03/article_0002. html#:~:text= India's%20 TKDL% 20 is%20 a% 20 unique, protecting%20 the%20 country's%20 traditional% 20 knowledge. & text= 1%20 Prior%20art% 20 constitutes% 20 all, claim%20 of%20 novelty% 20 and%20 inventiveness (May 20th, 2024, 8:20 AM).

MECHANISM IN INDIA

Concerns have been raised about the fact that third parties are using and patenting knowledge from indigenous communities without the traditional knowledge holders' prior informed agreement, and that very little, if any, of the benefits of this use are being shared back with the communities from whom the knowledge originated. A spirited discussion about how to maintain, safeguard, advance, and use traditional knowledge responsibly has resulted from these worries, which have elevated traditional knowledge to the top of the international agenda. It's working well to preserve traditional knowledge and keep outsiders from stealing it by digitizing and documenting TK-related information into a Traditional Knowledge Digital Library (TKDL). India is leading the way in this area. In an attempt to prevent patent offices worldwide from granting patents for applications based on India's abundant rich heritage, the Department of AYUSH and the Council of Scientific and Industrial Research (CSIR) collaborated on the TKDL initiative. The concept of creating a TKDL emerged from India's attempts to cancel the patents on the antifungal qualities of neem and turmeric issued by the European Patent Office (EPO) and the United States Patent and Trademark Office (USPTO). These efforts proved to be quite expensive and time-consuming, even though they were effective.[31]

The TKDL expert committee calculated that approximately 2,000 patents pertaining to Indian medicinal systems were mistakenly issued by patent offices worldwide each year around the time the TKDL was founded in 2001. National patent law specifies requirements that must be met in order for a patent application to be approved. Specifically, the applicant must demonstrate that the invention being sought is new and has never been used before. So why were there so many Indian medical system-related patents granted? The asserted inventions were not found in the previous art searches that were conducted when patent examiners evaluated these applications for patentability. As a result, they were declared patentable. However, a large portion of India's traditional medical knowledge was only available in Sanskrit, Tamil, Hindi, Urdu and Arabic at that time. The patent examiners in the major patent offices to whom the applications had been submitted were neither conversant in these languages nor able to access them. Much anguish was brought to the country because so many patents had been improperly obtained in the United States and Europe. India's citizens believed that their knowledge was being unfairly taken away from them. Furthermore, these patents that were deemed "incorrect" granted the sole authority to utilize the invention within the nation where patent protection was bestowed. This presented a serious risk to Indian producers' ability to make a living and their ability to enter international markets.[32]

The TKDL has organized and transformed ancient texts into a 34 million standard format of a patent application using information technology techniques and a brand-new Traditional Knowledge Resource Classification System (TKRC). With the help of

31 Ibid.

32 Supra note 30.

its TKDL, India may now protect around 0.226 million pharmaceutical formulations for free. Early identification of applications that blatantly fail to meet the novelty criteria is made easier for patent examiners with access to the database. Removing a patent can be an expensive and time-consuming procedure without a TKDL database. The typical time to dispute a patent granted by a patent office is five to seven years, and the cost can range from 0.2 to 0.6 million US dollars. This multiplied by the 0.226 million pharmaceutical formulations in India makes it evident that the expense of protection in the absence of a TKDL would be unaffordable. TKDL attempts to categorize and then translate the uses, traits, and reference materials of various plants establishing a capable and strict method to prove traditional knowledge's precedence in cases of biopiracy. This translates into the true goal of this digital library.[33]

One of the world's first and most comprehensive databases of its era established in 2001 to facilitate effortless patent search and being made accessible in five foreign languages: English, German, French, Japanese, and Spanish for easy access and prior art review made finding information regarding historical understanding of the Indian System of Medicine impressively systematic. Patent offices worldwide have access to this database including USPTO, EPO, German Patent and Trademark Office (DPMA), Canadian Intellectual Property Office (CIPO) *et al*. Nonetheless, if one complies with Traditional Knowledge Digital Library's requirements, access might be obtained outside the agreement too.[34] It is undoubtedly a significant step toward safeguarding the nation's traditional medical knowledge in particular as it has resulted in the application of traditional knowledge being established in up to 324 instances that have been rejected, withdrawn, cancelled, etc.[35]

The system however is clouded into mists since TKDL was created with the intention of assisting indigenous communities and receives substantial funding for its operation. Despite its promising nature, it now serves just as a protective measure as it lacks the other functions of an intellectual property regime. The primary purpose of an intellectual property rights (IPR) regime is to safeguard intellectual property while also generating financial gains for the creators. Instead of benefiting the information bearers, the current TKDL structure only serves one purpose—that of protecting the knowledge[36].

An analysis of TKDL's finances and economy reveals several areas of criticism. Firstly, there is no financial gain that can result from a contractual arrangement because TKDL does not provide access to third parties. Only the CSIR and Patent Offices, who sign the "Free Access Agreements," are parties to a contract. Secondly, it does not substantially benefit the indigenous population, who are the real beneficiaries and the original bearers of the traditional knowledge. Thirdly, traditional knowledge is

33 Supra note 20.

34 Supra note 27.

35 CSIR, Traditional Knowledge Digital Library Unit.

36 Wu L, Chen W, Wang Z. Traditional Indian medicine in China: The status quo of recognition, development and research. J Ethnopharmacol. 2021 Oct 28;279:114317. doi: 10.1016/j.jep.2021.114317. Epub 2021 Jun 8. PMID: 34111541.

not acknowledged by TKDL as a component of the public domain. Some argue that in order to avoid the frequently invoked defense of ignorance regarding a formulation's status as "prior art," the TKDL should be made publicly available and easily accessible to all. On several occasions, the lack to produce a source of the knowledge (which is many times passed on orally than being scripted), raised the defense's claim of non availability of the knowledge in the public domain in turn strengthened the request for grant of patent. This highlights the issue of non documentation of generational knowledge rising from ignorance of India's ancient knowledge systems. These indigenous knowledge systems need to be widely publicized so that patents cannot be claimed for the glaring lack of novelty, rather than fighting every single one of them.[37]

Another issue arising out of the current legal regime in India is lack of inventive-step. Mostly composed of products that are natural in nature, there is a challenge to prove an inventive step, a fundamental prerequisite for patent.[38]

Traditional Knowledge also has ownership complexities involving collective ownership against the patent regime granting patent only to individual or corporate. Also the entire IP system affects the intergenerational communication of knowledge, limiting the protection to a few years or decades while the knowledge continues to be used, difficulty in determining the first inventor to complex mechanisms for sharing benefits adds to the challenges still required to overcome by the Indian IP regime protecting traditional medical knowledge. For example, databases developed in China are made available to the general public for a cost, which deters biopiracy. In essence, this makes sure that the concept of this kind of usurpation never develops into a patent application in the first place. The biodiversity authority's registry, another significant resource, is not accessible online. According to the 2004 Act's regulations, one of the authority's primary responsibilities is to compile a Register following consultation with the various locals. The primary goal of this record is to gather all the comprehensive information about the biological resources in the area, their usage, and any other information that might be relevant to their protection from the local population. The secret to the register's effectiveness in assisting with the preservation of traditional knowledge is its comprehensiveness.[39]

MECHANISM IN CHINA:

China takes extremely careful steps towards achieving this goal, even if it has been said that the country is "highly concerned about TK protection." This is because the matter is highly complex. The traditional knowledge in China is categorized into

37 Hirwade, Mangala and Anil Hirwade, *Traditional Knowledge Protection: An Indian Prospective*, 32 DESIDOC Journal of Library & Information Technology, 3 (2021).

38 Intellectual Property and traditional medical knowledge, background brief no.6, WIPO, 2016, <https://www.google.com/url?sa=t & source=web & rct=j&opi=89978449 & url=https://www.wipo.int/edocs/pubdocs/en/wipo-pub-rn2023-5-6-en-intellectual-property-and-traditional- medical- knowledge.pdf & ved= 2 ahUK Ewiu7Oa O49GKAxVDy Tg GHeJGOXQQ Fno ECBkQAQ & usg= AOv Vaw0 RB orwLkcCU Nob Ar4 n5IEX> (December 30th, 2024, 11:25 AM).

39 Supra note 27.

traditional medical knowledge, traditional agricultural knowledge and traditional ecological knowledge identifying with its deeply rooted culture and history. It makes up almost 50% of the entire healthcare systems in china. However its background shrouded in myths and superstition has made it archaic, raw and in desperate need of modern commercial values. Highly affected by the allegations and in need of restoring the historical cultural significance and dignity, protection of the traditional medical knowledge was brought under the Patent Law in 1992 and 2000 which started to shape the protective measures in China. Legislation pertaining to genetic resources and associated technology that would allow for the use of Convention on Biological Diversity (CBD) was also created, as well as access and benefit-sharing agreements were accordingly being concretized. Furthermore China has consistently been making efforts to bring its Chinese traditional medicine updated with the contemporary Western scientific understanding. However, even though the call resonates with the international IP requirements they do not aptly fit the box since the nature of western practices and traditional knowledge do not go hand in hand.

All things considered, only recently invented TK is protected by the above laws and the public domain is thought to include all other types of Traditional Chinese Medicine known. To assist patent examiners, the Chinese State Intellectual Property Office created the Traditional Chinese Medicine Patent Database, which includes over 40,000 formulations that have been patented and are, therefore not in the public domain. However the traditional Chinese medicine knowledge is still not satisfactorily protected because it guarantees only the creation of achievements and not the source of resources that gives no scope of protection to development and innovation in TMK. As of right now, not much is done to preserve traditional medical knowledge in china, and it is largely a vicious circle of unfulfilled promises where numerous policies, suggestions and committees and strategic plans were organized but not to much avail.[40]

A COMPARISON OF TRADITIONAL KNOWLEDGE IN INDIA & CHINA

India and China are richly diverse in their traditional Knowledge and ancient wisdom shaping their healthcare systems before the advent of western cures but both face the challenges of a developing country trying to strengthen their ancient knowledge through a modern intellectual property regime.

Below are the highlights of a comparative study on the ip regime protecting TK in India and China.

• BROADER AREA OF LAW:

Chinese regulations on the protection of Chinese traditional medicine varieties and the People's Republic of China's 2000 Patent Law with regulation on protection of varieties of Chinese traditional medicine are examples of what China has as legislation protecting TK, while India has its Biological Diversity Act, 2002, Patent Act, 1970 with rules and Traditional Knowledge Digital Library.

40 Nair, *TRIPS, WTO and IPR: Protection of Bioresources and Traditional Knowledge*, 16 Journal of Intellectual Property Rights, (2009

• **ACCESSIBILITY (PAID V. FREE)**

Indian TKDL is not publicly accessible which causes patent filing of data technically protected by Traditional Knowledge unlike China which has a publicly accessible database of TK on payment of fees which prevent biopiracy. Because of free access agreement India has to provide the traditional knowledge data free of cost, thus improving the patent system in other countries. While China has a developed mechanism which charges hefty fees for the same. 'The free tree will stay free.' TKDL is primarily acting as a pre emptive defense mechanism instead of protecting the rights of indigenous communities. China has prioritized ensuring the integration of its traditional knowledge with contemporary western scientific understanding, but India has concentrated its policies on safeguarding traditional knowledge in its original form and perspectives.

The scriptures of India were composed in numerous languages, most of which are no longer in use. In contrast to the understanding of Traditional Chinese Medicine. Because patent examiners were unable to screen Indian traditional knowledge in their searches for prior art, the information became susceptible to exploitation by corporations. It should be noted that revocation of a patent once granted is difficult and costly. Given that India is a multiethnic nation, all indigenous communities' rights are respected, and the Traditional Knowledge of various ethnic groups is acknowledged. Consequently, a culturally heterogeneous TK network has been developed. However although china being an ethnically diverse country is particularly dominated by one single ethnic group the han chinese which has influenced their TK protection strategy also that has largely neglected the TK of ethnic minorities and has been too focused on PCM.

• **LEGAL AND POLICY FRAMEWORK**

China- Intellectual property regime in China is broad including legislations but no access and benefit sharing frameworks, indigenous rights and repression of unfair competition.

India- India has legislations but none specific to Traditional knowledge but still provides for Access and benefit sharing framework.

• **POLICY TOOLS UTILIZED**

China- Exclusive Rights are granted to right holders though there is no acess regulation or customary laws.

India- India has Access Regulation but no customary laws or exclusive rights.

• **SCOPE OF SUBJECT MATTER**

China- Sectoral in nature only granted to Traditional Medicine

India- India has Biological Resources held by local people only

• **POLICY OBJECTIVE**

China- it is limited to Innovation and Promotion

India- It goes to + biological resources- Conservation of TK and elements and Fair and Equitable benefit Sharing.

India, jointly with Brazil and other Latin American countries has taken a leadership role in this arena by making proposals in several IGOs to include obligatory benefit sharing mechanisms and disclosure of source and origin requirements into the TRIPS agreement. Although China has sometimes joined these groups, its political leaders have not appeared to be very convinced of these proposals. They seem to prefer the status quo to any "immature rule that would surprise interested industries"[41]

CONCLUSION AND SUGGESTIONS

The Researchers has Suggested Some Suggestions which are Mentioned Below-

- Commercial access to traditional knowledge should be allowed because it will eventually benefit the indigenous communities.
- Legislation that oversees these local or indigenous populations' entire environment and their traditional knowledge is still lacking.
- Inculcating more information to indigenous people the information related to the protection of their traditional knowledge using various international or national laws.
- Because TK is so widely used and susceptible to transboundary misuse, it cannot be protected solely by domestic means. For all kinds of TK to be better protected, the International Legal Instrument is consequently necessary.
- Commercial access to traditional knowledge should be allowed because it will eventually benefit the indigenous communities.
- Unlike the expertise of Traditional Chinese Medicine, the texts of TK in India were written in a multitude of languages, of which only a small number are still in use today. Because patent examiners could not check Indian traditional knowledge (TK) in their prior art searches, it became open to corporate exploitation.
- It should be mentioned that it is difficult and expensive to revoke a patent after it has been issued.

India is a multi ethnic country and respects the rights of all indigenous communities and recognition is given to TK of several ethnic groups. Thus an ethnically diverse TK mechanism has been established. However, although China being an ethnically diverse country is particularly dominated by one single ethnic group the Han Chinese which has influenced their TK protection strategy also that has largely neglected the TK of ethnic minorities and has been too focused on PCM. Knowledge has emerged as one of the most vital resources for both social and economic advancement with

41 Comparative Summary of Existing National Sui Generis Measures and Laws for the Protection of Traditional Knowledge, https://www.wipo.int/edocs/mdocs/tk/en/wipo_grtkf_ic_7/wipo_ grtkf_ic_7_6- annex1. pdf (December 30th, 2024, 9:25 AM).

the growth of the knowledge economy. A few nations have put up plans to safeguard their own ancient knowledge. Chinese customs-based knowledge on health and cleanliness is referred to as traditional knowledge of Chinese medicine. It is passed down from one generation to the next, yet it is always changing. All inventions and innovations arising from intellectual work in this subject are included, and it has real or potential commercial worth.

Religious Fundamentalism in India

*Ms. Soma Gupta**

ABSTRACT

Fundamentalism basically means adhering to one own pre conceived notions largely based on religious texts having their own rigid meaning and interpretation . *It* is a term that typically refers to," *a strict adherence to certain foundational or core principles, often in the context of religion, but also in politics and other ideologies.*he growth of religious fundamentalism in India highlights the urgent need for dialogue, greater interfaith understanding, and a reaffirmation of the country's commitment to religious tolerance and national unity. Only through such efforts can India hope to preserve its tradition of coexistence while navigating the complexities of modern identity politics.

INTRODUCTION

It can be broadly explained, "as a tendency which is largely prejudice on pre-conceived philosophies and ideologies amongst certain groups – mostly, but not being exclusively – in religious following a specific ideology, when they stringently and precisely follow convinced unambiguous scriptures, dogmas or ideologies with a strong importance of maintaining ingroup and outgroup distinctions.

Fundamentalism is a term drawn from Protestant Christianity. It is an American coinage that refers to a group of early twentieth-century Protestant activists who organised against Darwinian evolution and who championed the literal reading of the Bible. However, today the western analysts describe religious revivals around the world in terms of the growth of fundamentalism. But not all revivals are fundamentalist. There is an uprising of religion all over the globe, except in Europe, where secularism has taken root.[1]

It is characterized by the belief in the absolute, literal truth of foundational texts, doctrines, or traditions, and a rejection of modern interpretations or reforms that challenge these core beliefs,it is often associated with confrontation to pluralism and tolerance, and sometimes with extremism or conflict with other faiths and believes.

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To have a further understanding it refers to," when individual's comings together in a group who have unyielding firmacceptance and unwavering belief in the soundness of the religious/philosophical scriptures in all matters of faith, religion and philosophy. The belief is at time so strong that they at times disapprove the law of the land if it is inconsistent with theirbeliefs and faiths astheir main purpose is to have the dominance of their religious practices It is generally understood to have religious connotation but it can be non-religious also which can be based on geographical, political or a newpoliticalapproach. They detect the idea of unity of in diversity and want their ideologies to be followed monopolistically.

Fundamentalism can be seen in many different religions, such as Christianity, Islam, Judaism, Hinduism, and others, each with their own specific characteristics. It can also extend to political or ideological movements, where it signifies a rigid, purist stance on issues like nationalism, capitalism, or socialism.Refusal of multiplicity of practise as applied to these established "fundamentals" and their accepted interpretation within the group often results from this tendency.

RELIGIOUS FUNDAMENTALISM: MEANING AND ORIGIN

Religious fundamentalism denotes to a stern, precise, and often unyielding interpretation of religious texts and doctrines, following the traditions beliefs faiths practise and customs.With the belief that these traditions are the absolute, static truth needed for the maintenance of the society even though the beliefs are inconsistent with the sovereignty or integrity. They denounce the principle of liberalism and excessive secularism.[2]

It encompasses a commitment to preserving and returning to what adherents believe are the original, pure practices and beliefs of their faith, often rejecting modern interpretations, reforms, or external influences that challenge traditional understandings. Literal interpretation of sacred texts, rejection of modernity and secularism, moral and social conservatism, exclusivism, intolerance of dissentare some Og the key features of religious fundamentalism.

RELIGIOUS FUNDAMENTALISM: IN INDIA

In the Indian context, fundamentalism fundamentally means that, a particular group of people belongingly from the same group based on region, religion or ethnicity particularly have their own rigid ideologies have given there rigid understanding and explanation of their religious texts, there customs and traditions, and lay emphasizes either monopolistically practising or inveterately following to what is perceived as the "core" or "pure" values of a religion. It is stereotypicallyconnected with the resurrection of religious individualities and the desire to execute those principles in political and social domains.

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Today the initiative in defining communalism in India has been seized by fundamentalists in the majority community, which is projecting communalism as true nationalism; the nation belongs to the majority and is formed by their history, culture and struggles.[3]

Nationalism and communalism are made synonymous, and Indian nationalism is imputed a Hindu religious character.[4] And so fundamentalism re-enters the picture, as the focus is now on the religious consciousness in society and its mobilization for political ends.[5]

HINDU FUNDAMENTALISM:

This term refers, "to a form of religious and political philosophy that supporters, promotes and based on encouraging the reign of Hinduism as both a religious and cultural distinctiveness, regularlyemphasizingon reappearance to what is apparent as the "fundamental" or "traditional" values of Hindu society based on religious texts.

It encompasses a stern interpretation of Hindu religious texts, customs, and practices, and tends to resist modernity, secularism, and pluralism. This movement is closely associated with the rise of Hindutva (Hindu nationalism), ,Hindutva was coined by Vinayak Damodar Savarkar in his 1923 book, *Hindutva: Who is a Hindu?*.

It focuses on the idea that India is primarily a Hindu nation, and that Hindu culture, civilization, and religion should define the nation's identity, it should be practiced and adhered in socio legal practices This dogmaat times in certain geographical areas by certain groups goes beyond religious practice specially in legal and social conditions particularly when someone either from their own ethnicity or other deject and denounce there ideas and philosophy, therby emphasises on promoting a integrated uniform cultural identity rooted in Hindu traditions, and the idea that India's political and cultural heritage.

Hindu fundamentalism often involves a strict adherence to Vedic texts (like the Vedas, Upanishads, Puranas) and Hindu epics (like the Mahabharata and Ramayana), with an emphasis on traditional practices and rituals. This rejection of modern interpretations of Hinduism can lead to conflicts with secularism, modern education, and scientific advancements. It also emphasizes ritual purity and the preservation of traditional ways of life, often resisting social reforms like women's rights, caste-based discrimination, and interfaith marriage.

This often comes in conflict with secularism and realism as it might invariably and vicarious result in *Religious Exclusivism* ,this belief in the superiority of Hinduism can lead to calls for religious conversion back to Hinduism, and efforts to "protect" Hindu practices from what is seen as foreign influence. As indirectky it denounces the idea

3 Religious Fundamentalism and Pluralism in India David C. Scott United Theological College Bangalore, India

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and is the Opposition to Secularism:, Hindu fundamentalism is often critical of India's secular constitution, which guarantees freedom of religion and promotes the idea that the state should not favor any one religion. Say for example the idea of "uniform civil code"—a single set of laws governing personal matters for all Indians—has also been advocated by these groups, as they often argue that the current system allows Muslim personal laws, which they view as incompatible with Hindu laws.

In the recent years Political Involvement in Hindu fundamentalism has increasingly become a prominent part of Indian politics, political figures and leaders have promoted policies that reflect Hindu nationalist values, such as the Citizenship Amendment Act (CAA), which provides a path to citizenship for non-Muslim refugees from neighbouring countries. This law has been criticized by many as discriminatory toward Muslims.

All of this collectively leads to Exclusivismas Hindu fundamentalism stresses the importance of Hinduism as the core identity of the nation and often opposes the influence of other religions, especially Islam and Christianity. It can manifest in intolerance toward minority religious practices and calls for policies that favor Hindu religious practices, like the promotion of cow protection or the construction of temples at disputed sites.

ISLAMIC FUNDAMENTALISM

Islamic fundamentalism in modern India refers to a movement within the Muslim community that seeks to strictly adhere to the core principles of Islam, often advocating for a more conservative lifestyle and interpretation of religious law, sometimes manifesting as social and political activism, and in extreme cases, violence, fuelled by perceived threats to their identity and cultural practices within a predominantly Hindu society; this can include concerns about the dilution of Muslim traditions, the influence of Western culture, and political marginalization.

It refers to a political and religious ideology that advocates for a strict and literal interpretation of Islamic teachings, often in opposition to modernity and secularism. It emphasizes returning to what adherent's view as the original practices of Islam, seeking to implement the religion in all aspects of life, including law, governance, and social norms.

Islamic fundamentalism in India is connected to groups and individuals who advocate for a strict, literal interpretation of the Quran and Hadith. Some groups aim to create a society governed by Islamic law (Sharia) and oppose secularism, modernity, or pluralism.

Vital characteristics of Islamic fundamentalism include: Literal Interpretation of Religious Texts: Desire for Sharia Law, Opposition to Secularism, Anti-Western Sentiment and Revival of Islamic Identity. Fundamentalists often interpret the Quran and Hadith (sayings and actions of the Prophet Muhammad) in a very literal and conservative way, rejecting more flexible or modern interpretations. They believe that the answers to social, political, and personal issues are found directly within these texts.? Islamic fundamentalists generally oppose the separation of religion from politics, which is a

hallmark of secularism. They believe that Islam should guide both the spiritual and temporal aspects of society, rejecting the notion of secular governance.

THE IMPACT OF RELIGIOUS FUNDAMENTALISM ON INDIAN SOCIETY

Religious fundamentalists normally have a political agenda and the media are used to further this agenda.[6]

The religious fundamentalism at times leads to disputes and tension specifically where there are cosmopolitical groups as India is a very diverse country where its basic is Unity in diversity

Few incident of conflicts where people try to over owe the religious practices it often results in *Sectarian Tensions and Violence at several* indene's Religious fundamentalism in India has been a significant source of communal violence and division, with flare-ups of violence between Hindu-Muslim, Hindu-Sikh, or other religious groups. High-profile events like the Babri Masjid demolition in 1992 and the Gujarat riots in 2002 have deepened religious fault lines in the country.

It often leads to,*Political Exploitation a***s** Fundamentalist ideologies are often used for political gain, with parties and leaders exploiting religious sentiments to garner votes and strengthen their position. This can lead to policies that favor one religion over others, further polarizing communities.

This all have led to *Secularism Under Strain* , India's Constitution enshrines secularism, the idea that the state should not favour any religion. However, the rise of fundamentalism, especially in political discourse, challenges this ideal, as there are calls for laws or policies that align with the beliefs of particular religious groups.

Hindu and Islamic fundamentalism in India has significantly impacted the country's social, political, and cultural fabric, contributing to religious polarization, communal tensions, and a shift away from its pluralistic traditions.

Hindu fundamentalism, advocates for a "Hindu Rashtra" (Hindu nation) and the primacy of Hindu cultural and religious values in the public sphere. This movement has fuelled identity-based politics, influencing elections and policy decisions. Hindu nationalist groups often frame their rhetoric around the protection of Hindu interests, which sometimes leads to communal violence and clashes, particularly between Hindus and Muslims. Incidents like the Babri Masjid demolition (1992) and the Gujarat riots (2002) have deepened mistrust between religious communities, contributing to ongoing communal strife. Hindu fundamentalism has also led to the marginalization of Muslims and other religious minorities, with policies such as the Citizenship Amendment Act (CAA) raising concerns about religious discrimination and threatening India's secular fabric. Additionally, the promotion of Hindu symbols, festivals, and cultural practices in public life has further alienated religious minorities and undermined the country's multicultural identity.

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On the other hand, Islamic fundamentalism in India has emerged as a response to perceived political and social marginalization, particularly among the Muslim community. While not as widespread or politically influential as Hindu nationalism, Islamic fundamentalism has found expression in groups like Jamaat-e-Islami and the Students Islamic Movement of India (SIMI), which challenge the secular state and advocate for a stronger role of Islam in public life. Islamic fundamentalist ideologies often stem from feelings of alienation, economic disparity, and a history of communal violence, which have led some Muslims to seek more radical paths. While Islamic fundamentalism in India has not led to widespread terrorist attacks like in some other countries, terrorist incidents linked to groups like the Indian Mujahideen have occasionally stirred tensions, especially in regions like Kashmir. The Kashmir conflict, in particular, has been a flashpoint for Islamic fundamentalism, where calls for autonomy or independence from India have been fueled by both religious and political grievances.

Both Hindu and Islamic fundamentalism have eroded India's secular foundations, creating a more polarized society where religious identity often trumps national unity. Interfaith relations have become strained, and incidents of religious violence have intensified, undermining the spirit of coexistence that historically characterized India. These movements have also pushed for the inclusion of religious laws, whether Sharia for Muslims or Hindu religious laws for Hindus, in public policy, challenging the separation of religion and politics. The growing prominence of both religious ideologies has deepened the sense of division between communities, making it harder to bridge gaps and promote social harmony. Ultimately, the rise of Hindu and Islamic fundamentalism poses a serious challenge to India's pluralistic, secular identity and its vision of unity in diversity.

CONCLUSION

Fundamentalism in India is not confined to one religious group but is a broader phenomenon that affects multiple communities. It is often a response to perceived threats—whether political, cultural, or social—against a community's identity and values. While some individuals and groups use fundamentalist ideologies to promote social cohesion and political power, it frequently leads to social fragmentation, communal violence, and a decline in tolerance for religious and cultural plural.

The rise of religious fundamentalism in India, both Hindu and Islamic, has had profound and far-reaching effects on the nation's social, political, and cultural landscape.This ideology has fueled communal violence, deepened interreligious divisions, and reshaped political discourse, emphasizing identity-based politics over inclusive governance. On the other hand, Islamic fundamentalism, though less politically dominant, has emerged as a response to the perceived marginalization of Muslims in Indian society. It has fostered a sense of alienation and sometimes radicalized segments of the Muslim community, contributing to sporadic acts of violence and reinforcing a sense of division between religious groups.

The intersection of these two forms of religious fundamentalism has further polarized India, complicating efforts to uphold its constitutional values of secularism, pluralism,

and social harmony. As religious identity increasingly dominates political and social discourse, India faces the challenge of reconciling its diverse communities within the framework of democracy and secularism. The growth of religious fundamentalism in India highlights the urgent need for dialogue, greater interfaith understanding, and a reaffirmation of the country's commitment to religious tolerance and national unity. Only through such efforts can India hope to preserve its tradition of coexistence while navigating the complexities of modern identity politics.

A Jurisprudential and Contemporary Analysis of Law and Order with Special Reference to Manipur

Mr. Ujjwal Ray Rajbangshi & Ms. Mona Sehgal***

ABSTRACT

Though the rule of law and order is considered a backbone to regulate society, unfortunately there are other various anti-social elements for which the rule of law and order is not fully utilized. The contravention of the rule of law in the state is not a new concept in India. Crimes like deterioration of public property and ethnic clashes are not new instances of violating the rule of law in the state. Breakdown of law and order, human rights violence, and many other instances can be seen in contemporary India, and it also shows how society itself ignores the mechanisms of the rule of law. Northeastern states of India like Manipur also highlight the political and social turmoil that resulted in disturbance of law and order in the state. The political mayhem are also the reasons that result in social atrocities and tensions. The need of accountability of the state and judiciary are both necessary to regulate rule of law and order in the state. The purpose of the study is twofold: *first*, to highlight the jurisprudential notion of rule of law; *second*, to highlight the critical scenarios of law and order in Manipur.

Keywords: Rule of Law, Equality, Human rights, Violation, Northeast India.

INTRODUCTION

The rule of law and order is a governance approach and principle that ensures accountability to laws enforced, equally and equitably enforced, and independently adjudicated, in line with international human rights norms and prerequisites. It requires measures to uphold principles like supremacy and preeminence of law,equality, obligation and accountability, fairness and transparency, separation of powers, active participation in legitimate decision-making, legal-certainty, procedural & legal transparency and, avoidance of arbitrariness. The rule of law is crucial for national as well as international peace, security, political stability, economic growth and stability, and safeguard the

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people's rights. It is indispensable for access to public services, combating bribery and corruption, constraining exploitation of power, and maintaining social compacts. The 2030 Agenda and SDGs aim for a stronger and equitable rule of law and order-based society, ensuring more just and equitable world.[1]

Inclusive justice systems and rule of law changes enhance government legitimacy, prevent human rights violation, and enable individuals to use judicial processes and mechanisms to preserve paramount human rights. These changes ensure genuine responsibility and quality services for citizens. Solidifying the rule of law and order involves respecting international legal standards and states' duty and responsibility to protect populations from genocide and atrocity, brutal acts against humanity, war related crimes and, ethnic violence & racism. And it is crucial for humanitarian and human rights, addressing displacement and statelessness.[2] Law, order and violence have minimal connection. Individual prioritise the moral meaning over safety and prosperity, leading to a higher value for moral meaning than the law. Some people find violence-suffering more appealing than peace-prosperity in certain places. This is due to the thrust for power and wealth as well as the perceived significance of killing or dying for a moral cause. These preferences are stronger than the rule of law.[3]

The scenario of rule of law in Northeast India is different. Northeast India faces a long history of ethnic group autonomy struggles; however, it is now experiencing stability. Northeastern states strife stems from local rivalries, resource disputes, and inhabitant conflict between tribal areas, hills, and plains.[4] The state of Manipur has been experienced a political instability due to armed insurgency and ethnic violence. The state's history reveals issues related to hills-valleys, social elements, and ethnic identity, with ongoing disputes stemming from long-standing ethnic group rivalries. The prevailing disturbances is the result of a complex interaction of social and political variables affecting equitable distribution.[5] Maintaining the approach of rule of law and order in Manipur is still challenging, unfortunately.

JURISPRUDENTIAL ASPECT OF THE RULE OF LAW AND ITS APPROACHES

Any advancement in society, the insights of jurisprudential philosophy are regarded as quite vital. The rule of law may be successful in the state if it is supported by a philosophy of legal value system. Constructive approaches in states through rule of

1 What is the Rule of Law - United Nations and the Rule of Law, *available at*: https://www.un.org/ruleoflaw/what-is-the-rule-of-law/#:~:text=It % 20 requires % 20 measures % 20 to % 20 ensure, and % 20 procedural % 20 and%20legal % 20 transparency. (Last visited on August 7, 2024).

2 *Ibid.*

3 R. E. Brooks, The New Imperialism: Violence, Norms and the Rule of Law 101(7) *Michigan Law Review* 2305 (2003).

4 B. Lacina, The Problem of Political Stability in Northeast India: Local Ethnic Autocracy and the Rule of Law 49(6) *Asian Survey* 998–1002 (2009).

5 Leishipem Khamrang, "Manipur Mayhem: A Latent Enmity, Generalized Violence and State's Apathy" 15 Journal of Management & Public Policy 5 (2023).

law is not that easy. It is to be understood by various social & jurisprudential factors and constructive interpretation.

Rule of law and democratic values are desirable political features. Democratic revolutions aim to create democracy and rule of law simultaneously, aiming to achieve both under authoritarian control. The rule of law aims for government to enforce its agenda through general laws and regulations, subject to governors' jurisdiction. Democratic values and the rule of law are reflected in separate institutional structures, with electoral institutions, governments, and legislatures, while courts and police enforce rules and regulations. Legal institutions have broad authority to regulate and mould social interaction, but democratic rule appears to be relatively limited.[6] The spirit of democracy is heavily influenced by political insights which may create a havoc towards the rule of law of the state. The courts and police in India have broad authority under the laws to uphold law and order, but in order to do so, rule of law too be and must be backed by a jurisprudential philosophy. Otherwise, it may appear that the rule of law is being imposed via totalitarianism. Hence, the rule of law and democracy are both supplementary and complimentary with each other.

For instances, Hong Kong's constitutional jurisprudence incorporates comparative law, offering benefits and drawbacks. Hong Kong Bill of Rights reflects global standards, offering numerous advantages. Hong Kong's position differs from those of jurisdictions like the USA and Australia, which drafted constitutions before the advent of the concept of human rights and basic freedoms law.[7]Hence, it can be seen how an insight into comparative jurisprudence is so important for making a law. Because in all countries around the world, different notions, aspects, and interpretations of rule of law are applied.

Hans Kelsen advocates for positive law, stating that moral discourse and ideals are comprehensive and final. Pure Legal Theory does not replicate transcendental notions but also not view law same as legacy of justice. Other eminent jurist like Rahardjo's Progressive Law is based on norms and behaviour. Regulations will contribute to the development of positive & enthusiastic legitimate legal system. The behavioural attitude human factors will guide the development of norms & procedures.[8] Hans Kelsen's views law as a set of standards based on what it is reasonable to be. Law, a product of jurisprudential-philosophical thinking & research, relies on ethical morals and philosophical principles to establish written standards in law. The foundation for identifying norms as a legal decision category is inherent in legislation's methodological character. These standards basically are unavoidable in social life but lack coercive strength. To become an efficient law, written legislation must be enforced by official agency authorized to carry out instructions and legitimate coercion. Argument for

6 A. Przeworski and J.M. Maravall (eds.), *Democracy and the Rule of Law* 242-243 (Cambridge University Press, New York, 2003).

7 Anthony Mason, "The Place of Comparative Law in the Developing Jurisprudence on the Rule of Law and Human Rights in Hong Kong" 37 *Hong Kong Law Journal* (2007).

8 Muhammad Harun, "Philosophical Study of Hans Kelsen's Thoughts on Law and Satjipto Rahardjo's Ideas on Progressive Law" 1(2) *Walisongo Law Review (Walrev)* (2019).

the separation of law and moral suggest that the credibility of positive law norms does not depend on compliance with the moral order. So, a positive law norm is valid regardless of adherence with moral order. Law is not just legalised rules but is inherent in human behaviour, which is dynamic in nature. Understanding and communicating accepted standards and values are closely connected to the dynamic instincts of human behaviour.[9] So, this can be seen how the jurisprudence of morality and rule of law can be two sides of the same coin to regulate the society. Morality and rule of law both are supplementary and complimentary with each other to understand the needs and emotions of the society. Jurisprudence philosophy is the key to interpret the morality so that so that it can regulate with law of the state for the better implementation of rule of law policy.

HYPOTHETICAL PERSPECTIVE OF RULE OF LAW

Rule of law is more seems to be a hypothesis than a general law of the state. It is more like a complicated theory when it comes to a practical implementation. Every circumstances of the state is not equal in nature and it may vary from one place to another place. In some places full implementation of the rule of law is possible, but in other places this scenario is not that much seen to be effective. The rule of law sometimes has the political influence which constitute the state monopoly and consequently affect the democratic vibe of the society. Hence, it is to be seen how the authorities and courts of the state implements rule of law policy, and how responsible citizen of the state accept such policy to uphold the rule of law which subsequently leads to justice.

Indeed, we can see that democracies have the greater potentiality than authoritarian regimes to produce independent courts as well as the rule of law. But there are instability of the legitimate institutions particularly in the developing country which focuses that democracy not only sufficient to foster rule of law. In any country, the spirit of constitutionalism is very much vital to enforce rule of law in democratic way. The approach of constitutionalism is also important to maintain the independent of the judiciary, if the judiciary is independent than only it can check whether the compliance & execution of rule of law is authoritative or in a tyrant way. Judicial independence, sometimes, it very hard to achieve in non-democratic countries. In any country, if an unchecked law bill is passed by the legislature than it could be considered as tyranny of the majority. Thus, independence and neutrality of the court is very much important to review such unchecked law bill which may have a bad consequences on rule of law.[10] Hence it is proved that independence of the court is far more important than the strict compliance of rule of law. It is the only court who have the power to interpret any circumstances and to uphold the effective law and the justice.

Politicians, who always for the craving of power, always wants to maintain their autonomy particularly in various decision-making policy. It is the citizen who do not want any abuses or partiality in the form of rule of law. However, the citizen has

9 *Ibid.*

10 Gretchen Helmke and Frances Rosenbluth, "Regimes and the Rule of Law: Judicial Independence in Comparative Perspective" 12 *Annual Review of Political Science* 345-347 (2009).

the instrument to overthrow such any tyranny government in two ways: *first,* by the way of election method; *second,* to enforce the legal limitation i.e., rule of law through the statutory institution to the political discretion. Basically, the citizen do not like or interested in those politicians/ministers who implements rule of law in a partial and abusive manner which is not so democratic in nature.[11] So we can see that how the independence of the court is very important for uphold the true spirit of rule of law, its interpretation. If rule of law becomes a political weaponto abuse the citizen, then the principles of rule of law will be considered as dead.

RULE OF LAW AND HUMANITARIAN CRISIS: THE MANIPUR CHAPTER

Manipur, a state in India, located at eastern part of the country. It is bordered by the Indian states of Nagaland to the north, Assam to the west, Mizoram to the southwest and Myanmar to the south and east. Like other northeastern states, it is largely isolated from the rest of India geographically.[12] Manipur, also known as the land of jewels, surrounded by mountain ranges and is blessed with diverse nature. The sensitive geopolitical status, as well as the presence of numerous ethnic groups with varied historical origins, differentiates these states from the rest of the country. Manipur as the remaining of the six other states of the North-Eastern region is multi lingual, or multi ethnic. Most of the communities and people inhabiting Manipur are tribal and indigenous.[13] That is why the Constitution has granted many provisions and rights relating to the tribals and indigenous for their betterment and upliftment, which is essential as they are also part of our India and our nation must take utmost care to protect them. When the components of multi linguistics, multi ethnic & cultures are there, then the role of rule of law and accountability of the state and judiciary is very crucial. But there has been a lot of tension and conflicts in the northeastern state of Manipur. It is evident these days how state machinery and the rule of law have collapsed, and because of that lots of residents have migrated to other places to protect themselves. Through this paper, we will highlight the incidents of conflicts, and how it can be dealt with because whatever may be the reason the local people including women and children are suffering in terms of their education and daily life.

The violence and disturbances are not new in Manipur and other parts of India as well, historically the Manipur state has witnessed high levels of violence for example when there was a protest against the 'AFSPA' (Armed forces). There has been a continuous engagement on the part of the state to address issues and crises in the northeast but it has remained unresolved to date due to its complexities and cross-cutting issues prevailing in the region, particularly in the northeastern state of Manipur.

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11 José María Maravall, "The Rule of Law as a Political Weapon" *Instituto Juan March De Estudios E Investigaciones* 1 (2001).

12 Lodrick, Deryck O. and Standley, Barbara A. "Manipur". Encyclopedia Britannica, available at https://www.britannica.com/place/Manipur. (Last visited on 16 August 2024).

13 Dr. Lucy Zehol, Ethnicity in Manipur - Experience, Issues and Perspectives 1-2 (Daya Books, New Delhi, 1998).

It is true that given the multifaceted issues, it is extremely difficult on the part of the state to come up with a solution that is acceptable to all ethnic groups.[14]

Scheduled tribes were previously among the most socioeconomically disadvantaged communities in India, denied access to school and employment prospects, forcing the government to legally recognise select groups in an attempt to right years of injustices. Other ethnic groups in Manipur said that they were worry that they would not have an equal chance for jobs and other advantages if the Meitei community is granted scheduled tribal status. Conflicts and a perceived sense of neglect and hardship are inextricably linked, which might lead to a fertile environment for conflict. Its repercussions limit people's growth and well-being, which eventually leads to societal instability.[15] We can also see the same tense of Meitei community that if the government will not fulfil the ST status to Meiteis then may be there will be a tense of not getting equitable opportunity of the Meitei community.

Several studies also demonstrated that economic-social disparities, conflict andcompetition for few resources, lack of equitable opportunityand, exclusion from revenue generation are the major factors of long term contradiction and conflict.[16] That is why there should not be any kind of discrimination against any people as they are also part of our country and if proper means are given to them like education, proper infrastructure and reservations in jobs, etc then they can also contribute to development the state as well as the nation. For example, in northeastern state literacy and women empowerment is very good there if we compare to northern states, the thing is youth and women require access to high-quality education that promotes critical thinking, civic involvement, intercultural communication, and conflict resolution abilities. Youth and women's organisations play an important role at the grassroots level in mobilising, organising, promoting, and implementing peacebuilding efforts. They require money, training, mentorship, coaching, and technical help to improve their abilities, knowledge, and confidence. They also require access to platforms, forums, coalitions, and networks where they may share their experiences, difficulties, best practices, and lessons gained with other youth and women's peacebuilding organisations. So, from this perspective a proper mechanism of rule of law is a must to check and review in all sectors.

Also in 2023, there has been a lot of tension and violence have been created resulting in death displacement, destruction, and trauma in the northeast region of Manipur. Many have lost their homes, properties, and loved ones as a result of the clashes. Over 70,000 people are currently displaced from their homes in this dangerous and dynamic scenario, with 142 documented casualties and over 6,000 wounded. According to Sphere India, a national alliance of humanitarian organisations, these displaced

14 Raile Rocky, "Issues, Responses, and Consequences: An Analysis of Persistent Imbroglio in Manipur" 2 Journal *of North East India Studies* 49-63 (2012).

15 Uttam Kr Pegu, "Media Coverage on Ethnic Conflict in North-East India: An Analysis on the Issues and Challenges in Conflict Communication." 6 *Global Journal of Finance and Management,* 3 (2014).

16 Ashild Kolas, "Framing the Tribal: Ethnic Violence in Northeast India" 18 *Asian Ethnicity* 5 (2017).

people are seeking refuge in 253 relief camps spread across 10 districts of Manipur. The Inter-Agency Coordination Committee meetings and the mapping of responses from over 100 local groups using the United Response Strategy (URS) matrix are the basis for these reports.[17] They are facing acute shortages of food, water, medicine, and other essentials; as well as facing trauma and insecurity. The violence has also disrupted the education, health, and transport services in the state, affecting the normal life of the people. Some have been living in temporary relief camps for months, awaiting the government's provision of prefabricated housing. But the question is, is it enough for these people, will they get justice in the true sense? Why the breakdown of rule of law has been happened?

A better understanding of civics and government is needed, with citizens represented and communities consulted. Current regimes often use the sympathy as a tool for violence and apathy, perpetuating electoral politics. Manipur may struggle to recover from this state of apathy, stereotypes, and violence, highlighting the lack of significance of democracy.[18] Legislation is a crucial tool for social transformation and balancing the state-citizen relationship, promoting well-being and pleasure. It should reflect public desires and be just, fair, and reasonable, safeguarding citizens' rights and freedoms. It plays a vital role in every human civilization. The harmony between rulers and subjects, maintaining a friendly atmosphere between the state and its citizens, and respecting the principles of rule of law and constitutionalism, is crucial for peace, harmony, and development in the northeastern state of Manipur.[19]

The solution to the Manipur violence lies in dialogue,reconciliation and development. The state and central governments must engage with all stakeholders, including civil society groups, ethnic leaders, religious organisations, and insurgent groups, to find a political solution that respects the rights and aspirations of all communities. They must be very ensured so that the justice shall be done to the sufferer of human rights violations. They also have to ensure that sufficient and appropriate relief and rehabilitation measures are provided to those who are suffered from unfortunate violence events and also provide long term adequate development and solution initiatives to ethnic issues and socio-economic problems in Manipur.It asks for a united front from all segments of society to stand up for India's constitutional fundamentals and values. It also calls on all levels of government to reassert their commitment to ensuring that every person in India has equal rights, dignity, and opportunity.

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17 Anand Zachariah and Ramani Atkuri, "Manipur 'S Medical and Humanitarian Crisis," *Deccan Herald*, Aug. 16, 2023, *available at*: https://www.deccanherald.com/opinion/manipur-s-medical-and-humanitarian-crisis-2648857#:~:text=The%20 humanitarian%20and%20public% 20 health, and% 20 long % 2 Dterm % 20 health % 20 consequences. (Last visited on Aug. 16, 2024).

18 Shiv Visvanathan, "Manipur May Not Recover from This Indifference" Deccan Herald (2023).

19 N. Pramod Singh, "Overwhelming Legislative Intervention and its Impact on NE State of Manipur" 6 International Journal of Social Science and Human Research (2023).

CONCLUSION

Rule of law and order can be possible and effective if there is arationalunderstanding between the authority and the citizens. Value and equitable oriented decisions of the state and the society to counter many issues and challenges which disturb the spirit & values of rule of law. It is not the only obligation of the state to uphold the spirit of rule of law but it is also the responsibility of every members of the society to understand the spirit of rule of law and to uphold equitable justice in every sphere.

Globalization, shifting Indian economy and politics have led to governance difficulties, particularly in rule of law. The criminal & civil judicial systems are under strain, making law schools crucial for providing appropriate legal education and training law students as rational & legitimate thinkers and social engineers. This is very essential for future of legal education and the progression of a knowledge economy in India. Law universities must recruit bright attorneys to teach, study, and research, fostering rule of law society in India. This will encourage future generations to strive for this goal.[20]

Further to stop the conflict and violence which deteriorate the law and order in the civilized society, some proposed initiatives are to be followed to improve law and order in such conflict states. The suggestions are based on experiences and own perspectives: -

I. Meaningful discourse and settlement to be done because it is very vital to understand the emotions and legitimate needs of the people in conflicted state.
II. Strict Accountability Policy of the state to be followed.
III. The judiciary approach onSuo motoregarding any such grievous social conflict situation in the state.
IV. Foster development of tourism culture and peace centric culture.

20 C. Raj Kumar, Legal Education, Globalization, and Institutional Excellence: Challenges for the Rule of Law and Access to Justice in India 20(1) *Indiana Journal of Global Legal Studies* 221 (2013).

Imposing State Responsibility for Climate Change with the Help of Duty of Care Principle

*Christopher Thomas**

ABSTRACT

Duty of Care principle is potent weapon at the hands of the judiciary to enforce the climate goals of each member countries who have pledged to combat climate change. The main aim of this work is to establish that there is a liability imposed on the state actors to take necessary measures to combat climate change. In the absence of taking such necessary steps, there are no enforcement mechanisms at present as we only have climate change conventions and certain laws at state levels; even then, it is not enough to attribute an element of liability towards state actors. The principle of duty of care can be employed in imposing liability for states for not taking necessary measures to combat climate change. The liability can be the individual liability of the ministers and the collective liability of the state. This work is focused on the shared responsibility of the countries and the obligation of the state towards future generations and Indigenous communities who are much affected by climate change. The balance between development and mitigating climate change impacts is also an area to be looked into and addressed in this work.

Keywords: Duty of Care, Climate Change, State Liability, Individual Responsibility, Collective Responsibility.

INTRODUCTION

State responsibility for climate change includes various complex issues such as international law, human rights being affected by climate change, damages for climate disasters and adaptation and mitigation for climate change in accordance with international and national obligations. The states have a wider duty to protect the interests of their citizens, as the world we now live in is a welfare state. The concept of welfare states mandates that states take necessary care and protection of the citizens. These involve developing social welfare policies with a view to protecting them from old

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age, unemployment, accident and sickness.[1] The welfare theories and policies of each state differ from one to another depending on the structure of the government and the mode of administration.[2] These models include conservative models and social democratic models.[3] The conservative model focuses on the traditional family to promote well-being; we can see the example from countries such as Germany, Austria, France, and Italy. The social democratic model is based on universalism, and therefore, benefits are equally shared; this model is seen in Scandinavian countries.[4] It should be noted that all the countries follow a multimodal approach to ensuring the welfare of their people. There have been disagreements in the early theories of welfare states since the 1980s; there is a growing recognition of the importance of understanding how different market, government, and social arrangements impact well-being. This broader focus on social protection extends beyond traditional welfare state studies and encompasses a wide range of policies and interventions aimed at promoting social inclusion and reducing poverty and inequality. The welfare principles change with the changing times, and as of today, climate change is a growing concern. Protecting the people from the effects of climate change should also be a part of the larger welfare policy of the state because of the health impacts[5], displacement and migration of people, economic stability[6], poverty and intergenerational justice. Thus, welfare state principles now incorporate the climate change aspects as it can directly affect the global food supply as climate change affects food production and increases health hazards, leading the states to take more measures to prevent these and also provide for those already affected by climate change.

The duty imposed on the State is quite large as it involves protecting the human rights of individuals who can be affected by climate change; these rights include the right to life, the right to livelihood, the right to a safer environment, the right to safe and drinkable water, right to pollution free air, right to secure the future of their children etc.[7]

1 M Weir, 'Welfare State' in Neil J Smelser and Paul B Baltes (eds), International Encyclopedia of the Social & Behavioral Sciences (Pergamon 2001) <https://www.sciencedirect.com/science/article/pii/B0080430767010949> accessed 10 May 2024.

2 Ibid.,

3 Ibid.,

4 Ibid.,

5 'Climate Change: A Threat to Human Wellbeing and Health of the Planet. Taking Action Now Can Secure Our Future — IPCC' <https://www.ipcc.ch/2022/02/28/pr-wgii-ar6/> accessed 10 May 2024; 'Review of IPCC Evidence 2022: Climate Change, Health, and Well-Being' <https://www.who.int/publications/m/item/review-of-ipcc-evidence-2022—climate-change—health—and-well-being> accessed 10 May 2024.

6 Emmanuel Skoufias, The Poverty and Welfare Impacts of Climate Change: Quantifying the Effects, Identifying the Adaptation Strategies (The World Bank 2012) <http://elibrary.worldbank.org/doi/book/10.1596/978-0-8213-9611-7> accessed 10 May 2024; Andries F Hof, 'Welfare Impacts of Climate Change' 5 Nature Climate Change 99(2015).

7 International Covenant on Civil and Political Rights (adopted 16 December 1966, entered into force 23 March 1976) 999 UNTS 171 (ICCPR) Article 6; UNHRC, 'General Comment

1. Shared Responsibility of States towards Climate Change

Climate Change is an area of 'diabolical policy challenge' and a 'super wicked problem' that often creates a legal problem to redress.[8] There are many actors who are involved in climate change, which makes it a nasty business to formulate public policies. The emitters in each state contribute to the accumulation of GHG in the atmosphere, and we cannot pin it down on a state because there is no particular reason to suggest that only because of their GHG emission climate change occur and because of that flood or sea level has risen. Thus, the effects of climate change will be experienced by even those countries which have net zero emissions.[9] These actions of the multi-state actors call for the need for shared responsibility in mitigating climate change.[10] The shared responsibility for climate change finds its foundation in UNFCCC under Article 2.[11] The Kyoto Protocol, which supplements the UNFCCC, focuses on the principle of CBDR, thereby putting the Annex I countries on a higher pedestal when it comes to climate change mitigation, because of the historical responsibility they have, as the industrial development of those countries had resulted in the present accumulation of GHG in the atmosphere of Earth.[12] The Paris Agreement, which was the result of COP 21 held in Paris, France, had the goal of holding the global rise in temperature well below 2 degrees Celcius and preferably below 1.5 degrees Celcius.[13] The regime had made provisions which indicate that there is a shared responsibility.

The customary law obligation also points to the state's obligation to limit the activities within its jurisdiction so as not to cause harm to the environment of other states. The no-harm rule established in *Trail Smelter* arbitration is providing the groundwork for

No. 17' (Thirty-fifth session, 1989) Compilation of General Comments and Recommendations Adopted by Human Rights Treaty Bodies, U.N. Doc. HRI/GEN/1/Rev.1 at 23 (1994); Ibid 'General Comment No.36'.

8 Ross Garnaut, 'The Garnaut Climate Change Review' (Cambridge: Cambridge University Press 2008) Cambridge Books <https://econpapers.repec.org/bookchap/cupcbooks/9780521744447.htm> accessed 10 May 2024; Richard Lazarus, 'Super Wicked Problems and Climate Change: Restraining the Present to Liberate the Future' [2009] Georgetown Law Faculty Publications and OtherWorks<https://scholarship.law.georgetown.edu/facpub/159>.

9 Michelle Mycoo and others, 'Small Islands' in Hans-Otto Pörtner and others (eds), Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change (Cambridge : Cambridge University Press 2022).

10 Jacqueline Peel, 'Climate Change' in André Nollkaemper and Ilias Plakokefalos (eds), The Practice of Shared Responsibility in International Law (Cambridge: Cambridge University Press 2017) at 1010 <https://www.cambridge.org/core/product/277EAF168E248EF1DE8E772552AB35CA>.

11 United Nations Framework Convention on Climate Change (9 May 1992, in force 21 March 1994) 1771 UNTS 107 art.2.

12 Kyoto Protocol to the United Nations Framework Convention on Climate Change (11 December 1997, in force 16 February 2005) 2303 UNTS 162).

13 Paris Agreement (12 December 2015, in force 4 November 2016) (2016) 55 ILM 740.art.2(a).

establishing the state's responsibility claims for climate change.[14] While extending the no-harm rule to climate change, one of the arguments is that the emission of CO2 is not considered a harmful substance because it does not have a direct effect on the planet; the increased concentration can lead to global warming, although it makes it harmful; each state specifically emits CO2.[15] Even though such arguments are raised most of the authors do not contest its applicability in climate change.[16] The application of the no-harm rule can be assessed by the principle of due diligence and prevention principle. The due diligence taken by states in assessing the harm and taking preventive action for the harm to be averted also forms a part of the shared responsibility of the states as they are obliged by customary practices to do so.

1.1 Duty of Care Principle and State Action Plans

The need for positive action by the State was always one aspect of the negotiations under the climate change regime. The Kyoto Protocol was the first instrument directly aimed at mitigating climate change, and the underlying principle of Kyoto was to make states take prompt actions to mitigate the effects of climate change.Even though Kyoto was not effective in its entirety, it was able to harness the spirit of nations in combating climate change. After Kyoto, the coming negotiations also paved the way for action. Such a decision taken at COP held in Bali in 2007 paved the way for the formation of a National Action Plan on Climate Change in States. The Bali Action Plan aimed at increased national and international actions for mitigating the effects of climate change with a view to achieving the objective of the convention. [17]The Bali Action Plan calls for urgent actionswith long-term vision.[18] The adaptation and mitigation strategies were also a point of discussion.[19] The Bali Action Plan focused on the need for enhanced action on technology development and financial resources to support mitigation, adaptation, and technology cooperation.[20] The result of the Bali COP was the formulation of a 'Road Map for Climate Action'; as a result,parties to the convention adopted several National and Sub-national level action plans. Many countries, such as Germany, France[21], India, the United States, and the UK, have formulated their own

14 Trail Smelter Arbitration (United States of America/ Canada) (1938 and 1941), Award 3 RIAA 1905.

15 Roda Verheyen, 'Climate Change Damage and International Law: Prevention Duties and State Responsibility', Climate Change Damage and International Law (Brill Nijhoff 2005) at 166-167 <https://brill.com/display/title/12139> accessed 11 May 2024.

16 Peel, Supra note 10, at 1031.

17 Conference of Parties, Bali Action Plan https://unfccc.int/files/meetings/cop_13/application/pdf/cp_bali_action.pdf accessed on 11th May 2024

18 Ibid.

19 Ibid.

20 Ibid., at para 1(e).

21 Ministry for the Economy, and Finance and the Recovery, 'CLIMATE ACTION PLAN OF THE MINISTRY FOR THE ECONOMY, FINANCE AND THE RECOVERY' <https://www.economie.gouv.fr/files/files/2021/Plan_Action_Climat_EN.pdf?v=1662539696> accessed 10 May 2024. Accessed on 11th May 2024

climate action plans and revised them in accordance with their ambitious goals through NDCs. The European Union has also advised each of its member states to create National and State level action plans for the period 2012- 2030 and has made them binding through the EU's climate and energy legislation.[22]

The duty of care principle can be applied to make the state more responsible in formulating an action plan to effectively mitigate climate change and its effects. The main aim is to make the goals laid down in the action plan to be achieved, and for that, duty of care can play a very significant role. The duty of care should be used in climate litigations to make the states comply with their own action plan. A strong criticism against climate change policies and laws is that there is no efficient compliance mechanism. Employing the principle of duty of care can make states take reasonable steps to achieve their own action plans, as there is a chance of backlash if it reaches court.

1.1.1. National Action Plan

The States have followed the roadmap for action in the Bali Action Plan and come up with their own action plans to combat climate change. National Action Plans are effective ways to communicate the goals and ambitions and the scientific ways to achieve these targets, the approach in each State differs accordingly. In India, after COP 13 in 2007, which was held in Bali, The Prime Minister of India, Dr Manmohan Singh, released the National Action Plan on Climate Change (NAPCC) in the year 2008. The NAPCC portrayed the climate action plan of India over the years and had 8 missions focusing on agriculture, water, solar, energy efficiency, sustainable habitat, sustaining the Himalayan ecosystem, green India, and strategic knowledge for climate change.[23] The NAPCC called for the creation of State Action Plans in India and Sub-State level Action Plans. The goal of NAPCC was to make India adapt to climate change and also, on the other hand, to take measures to mitigate climate change. But the Action Plan has certain short comings mainly because of the absence of any specific target for emission reduction.

The United States of America has adopted 'The Long-Term Strategy of the United States: Pathways to Net-Zero Greenhouse Gas Emissions by 2050', which aims to make the US a zero country in GHG emissions.[24] The Climate strategy has outlined the 2030 Target, which is to reduce net greenhouse gas emissions by 50-52% below 2005

22 'Climate Action in France: Latest State of Play | Think Tank | European Parliament' <https://www.europarl.europa.eu/thinktank/en/document/EPRS_BRI(2021)690686> accessed 11 May 2024.

23 'National Action Plan on Climate Change (NAPCC)' <https://static.pib.gov.in/WriteReadData/specificdocs/documents/2021/dec/doc202112101.pdf> accessed 10 May 2024.

24 'The Long-Term Strategy of the United States: Pathways to Net-Zero Greenhouse Gas Emissions by 2050.' (United States Department of State and the United States Executive Office of the President) <https://www.whitehouse.gov/wp-content/uploads/2021/10/US-Long-Term-Strategy.pdf> accessed 10 May 2024.

levels.[25] It has a 2035 goal to achieve 100% clean electricity[26]. The ultimate goal is to reach net-zero emissions economy-wide, not including international aviation or shipping emissions, by 2050.[27] The Strategy also highlights the importance of federal leadership in achieving the climate goals.[28]

France had also formulated National Climate Change Adaption Plan (PNAPCC), the first one covered the period from 2011 to 2015 and the second one from 2018 to 2022.[29] The adaptation plan aims to improve the knowledge of the impacts of climate change on water resources and the effects of various adaptation scenarios.[30] The plan has focused on 20 core areas which include cross-cutting actions, health, water, biodiversity, natural hazards, agriculture, forests, fisheries and aquaculture, energy and industry, transport infrastructures, urban planning and the built environment, tourism, information, education and training, research, funding and insurance, coastlines, mountains, European and international actions and governance.[31]The plan is based on national consultations and recommendations from the assessment of the previous plan (PNACC 2011-2015), ensuring a comprehensive approach to adaptation.[32]

The National Action Plans are adopted by each state those are party to the Convention and have longer and shorter goals to be achieved by those plans. These plans also show the vulnerability of each sector to climate and the effect the climate change can cause, even after outlining the action plan; if the governments are lethargic in achieving the goals, then the only recourse is to make them liable for non-compliance and duty of care principle can be used in doing so.

1.1.2. Sub-National level Action Plan

National Action Plans alone can not achieve anything, the countries have different states and districts, and action should be reflected at the grass root level to ensure that the National Action Plan is achieved, for Sub-national level entities play a crucial role, and local governments and State governments should adopt State level action plans and local action plans in conformity with the national objectives. The bottom-up approach is rightly applied in such a situation, thereby aligning with the needs of the particular locality. In India, there are various State-level action plans adopted by

25 Ibid., at 13.

26 Ibid., at 4, 11.

27 Ibid.

28 Ibid.

29 'National Climate Change Adaptation Plan 2018-2022 - Climate Change Laws of the World' <https://climate-laws.org/document/national-climate-change-adaptation-plan-2018-2022_248a> accessed 12 May 2024.

30 'French National Climate Change Impact Adaptation Plan 2011 2015 (PNACC) | UNEP Law and Environment Assistance Platform' <https://leap.unep.org/en/countries/fr/national-legislation/french-national-climate-change-impact-adaptation-plan-2011-2015> accessed 12 May 2024.

31 Ibid.

32 Ibid.

individual states such as Kerala[33], Tamil Nadu[34], Andhra Pradesh[35], Uttar Pradesh[36], etc. In India, Delhi became the first state to adopt a climate action plan.[37] There are also climate action plans adopted at municipal and panchayat levels. The Meenamgadi Panchayat in the District of Wayanad in Kerala had made plans to make the Panchayat Carbon-neutral.[38] The Mumbai Action Plan envisions a climate-resilient Mumbai by 2050.[39]

Germany's decentralisation in the policy aspect of climate change is also noteworthy. The federal states of Germany have their own adaptation and mitigation strategies.[40] German states exhibit a range of adaptation strategies, from non-committal recommendations to more institutionalised guidance.[41] The federal government's absence of mandates allows for flexibility but also results in varying degrees of state commitment to adaptation.[42] The strategies are assessed based on indicators like vulnerability assessments, policy goals, and institutional organisation.[43]

Sub-national Action Plans on Climate Change are an effective way of combating climate change if properly implemented. Mainly because of the amount of emphasis these state plans can put on the sectors which are identified. And another because of the bottom-top approach envisaged under the state plans. Even though it was a reality that Sun-National Action Plans on Climate Change were a product of a top-bottom

33 Directorate of Environment and Climate Change, Government of Kerala, 'State Action Plan on Climate Change for 2023-2030, <https://moef.gov.in/en/division/environment-divisions/climate-changecc-2/state-action-plan-on-climate-change/> accessed 12 May 2024.

34 Department of Environment and Climate Change, Government of Tamil Nadu, 'Tamil Nadu State Action Plan on Climate Change', 2019, <https://moef.gov.in/en/division/environment-divisions/climate-changecc-2/state-action-plan-on-climate-change/> accessed 12 May 2024.

35 Government of Andhra Pradesh, 'State Action Plan on Climate Change 2012', <https://moef.gov.in/en/division/environment-divisions/climate-changecc-2/state-action-plan-on-climate-change/> accessed 12 May 2024.

36 Department of Environment and Climate Change, Government of Uttar Pradesh, 'UP State Action Plan on Climate Change', 2014,<https://moef.gov.in/en/division/environment-divisions/climate-changecc-2/state-action-plan-on-climate-change/> accessed 12 May 2024.

37 'State Action Plan on Climate Change' (The Official Website of Ministry of Environment, Forest and Climate Change, Government of India) <https://moef.gov.in/en/division/environment-divisions/climate-changecc-2/state-action-plan-on-climate-change/> accessed 12 May 2024.

38 'Vikaspedia Domains' <https://vikaspedia.in/aspirational-districts/kerala/wayanad/best-practices/meenamgadi-gram-panchayat> accessed 12 May 2024.

39 Priyali Prakash, 'Explained | What Is the Mumbai Climate Action Plan?' The Hindu (18 March 2022) <https://www.thehindu.com/news/cities/mumbai/explained-what-is-the-mumbai-climate-action-plan/article65231102.ece> accessed 12 May 2024.

40 Julie P King, 'Sixteen Ways to Adapt: A Comparison of State-Level Climate Change Adaptation Strategies in the Federal States of Germany' (2022) 22 Regional Environmental Change 40.

41 Ibid.

42 Ibid.

43 Ibid.

approach, in the end, after the formulation of the Sun-National Action Plans on Climate Change, the plate has changed, providing scope for improving and setting targets within the grassroots level, which can contribute to the nation at large when taken in toto. Thus, the targets and goals in the action plan should be brought under the duty of care principle so as to ensure proper compliance.

2. Obligation of State towards future generations

There is a general notion that the present generation has an obligation towards future generations.[44] As Annet Baier has said, we are obliged not to injure or harm the common interests they have, like the rest of us, for the use of good earth and traditions without destroying the hospitability of human life.[45] The basis for these obligations is founded for some on justice while others on rights. Intergenerational equity, if enforced as a right, will have more command and force as it will act as a strong basis for the obligation.[46] The rights of future generations are always complex as we will have to look into the moral and constitutional scheme. Therefore, justice for the future generation seems apt in deciding whether States have obligations for future generations. John Rawl's argument in his influential *Theory of Justice* (1972) about the concept of "justice as fairness" provides the way for intergenerational fairness as, according to Rawl, there should not be only preservation of culture and institution in each generation, rather it should also put a suitable amount of real capital accumulation.[47]

Therefore, there is an obligation owed by the present generation towards the future generation. That does not mean that the present generation should be deprived of their basic rights and other amenities to make way for future generations. The principle of intergenerational justice requires that the present generation should make sure that they pass on the resources which they have used for themselves to future generations.

2.1. Climate Justice

Justice is quite a complex word to decipher. Its true meaning is multifaceted and has evolved over time with various philosophical perspectives and scholarly interpretations. From Aristotle's notions of distributive justice to Rawls' theory of justice as fairness and Sen's capabilities approach, there's a rich tapestry of thought on what constitutes justice in society. From the point of view of climate change, it is the effect the climate change can have on generations and states. The aspects of human rights, sharing the

44 Bayard L Catron, 'Sustainability and Intergenerational Equity: An Expanded Stewardship Role for Public Administration' (1996) 18 Administrative Theory & Praxis 2 p.3.

45 Annette Baier, Responsibilities to Future Generations/ : Environmental Ethics (Buffalo, NY/ : Prometheus Books 1981) <http://archive.org/details/responsibilities0000unse_j3d5> accessed 12 May 2024 p.243.

46 Edith Brown Weiss and Francis Cabell Brown Professor of International Law Edith Brown Weiss, In Fairness to Future Generations: International Law, Common Patrimony, and Intergenerational Equity (Hotei Publishing 1988) p.204.

47 John Rawls, A Theory of Justice: Original Edition (Harvard University Press 2005) <http://www.jstor.org/stable/10.2307/j.ctvjf9z6v> accessed 12 May 2024 p.285.

burden of climate mitigation and international development can also be part of climate justice. In other words, it means ensuring equitable outcomes for different places and persons. The notion of climate justice in the UK is to ensure the individual and collective ability to prepare, respond and recover from the effects of climate change with policies to mitigate them or to adapt to them by considering the existing vulnerabilities, resources and capabilities.[48] The notion of climate justice intersects with broader issues of human rights, as access to clean air, water, food security, and shelter are fundamental rights that are increasingly threatened by climate change. Ensuring equitable outcomes for all, regardless of geographical location or socio-economic status, is central to achieving climate justice.

Injustice with regard to climate is in many aspects. It relates to the highest polluters of GHGs, intergenerational equity, etc. Climate justice underscores the interconnectedness of social, economic, and environmental issues and calls for a holistic approach to addressing the inequities and injustices exacerbated by climate change.[49]

2.2. Preserving for Future Generations

The dangerous impacts of climate change will surely have deteriorating effects in the near future. The climate change effects which we now face today are not the ones caused by our emissions; rather, it is the continued emissions from the industrial age. Therefore, one cannot say that, as J.M Keynes said in his work '*A Tract on Monetary Reform*', 'in the longer run, we all will be dead'[50], as it impacts the survival of humanity. The preservation for future generations is also a part of sustainable development, because 'sustainable development is the development which meets the needs of the present generation without compromising the ability of the future generations to meet their own needs'[51]. The definition consists of intergenerational equity and intragenerational equity. There is a need to satisfy the needs of the present generation based on the principle of equity, i.e. intragenerational equity and making sure that at the same time, future generations are not deprived of their needs, i.e. intergenerational equity.

In the legal sense, there is no right accrued to unborn persons, and creating any kind of such right creates complex legal problems.[52] The preservation aspect for the future

48 'What Is Climate Justice? | Climate Just' <https://www.climatejust.org.uk/what-climate-justice> accessed 12 May 2024.

49 Edward Alexander Page, Climate Change, Justice and Future Generations (Edward Elgar 2006) <https://www.e-elgar.com/shop/gbp/climate-change-justice-and-future-generations-9781843761846.html> accessed 12 May 2024.

50 John Maynard Keynes, A Tract on Monetary Reform (Macmillan 1923) at 209.

51 Justice Mensah, 'Sustainable Development: Meaning, History, Principles, Pillars, and Implications for Human Action: Literature Review' (2019) 5 Cogent Social Sciences <https://doi.org/10.1080/23311886.2019.1653531> accessed 13 May 2024.

52 Wilfred Beckerman and Joanna Pasek, Justice, Posterity, and the Environment (1st edn, Oxford University Press 2001) <https://academic.oup.com/book/10497> accessed 12 May 2024.

generation can only be seen as a moral right and also from the point of view of justice.[53] The zero draft of the pact for a common future provides for the rights of the future generation.[54] The Maastricht principles on the Human Rights of Future Generations provide for the development of the rights of future generations.[55] It recognises future generations as holders of human rights as opposed to the UN instruments, which refer to the interests of future generations. These principles aim to clarify the state of international human rights law concerning future generations and guide decision-makers in incorporating the rights of future generations into concrete laws, charters, and declarations. They emphasise that human rights, including the right to a clean, healthy, and sustainable environment, do not have temporal limitations and apply fully to future generations.[56]

2.2.1. Adverse impact of climate change on children and state liability

Climate Change and its effects are borne by vulnerable members of our community, and these include children. The Child Rights Committee in 2021 made a historic ruling that state parties can be held responsible for the negative impacts of carbon emissions, which can affect the rights of children within and outside the territory of the state. The complaint was made by children who were below 18 years of age and were against countries such as Argentina[57], Brazil[58], France[59], Germany[60], Türkiye[61] and

53 Ibid.

54 United Nations, Pact for the Future: Zero Draft (New York, UN, 26 Jan. 2024)

55 Maastricht Principles on the Human Rights of Future Generations (adopted at Maastricht, 3 February 2023)

56 Ibid. See also 'Maastricht Principles and Guidelines - Research - Maastricht University' <https://www.maastrichtuniversity.nl/research/maastricht-centre-human-rights/maastricht-principles-and-guidelines> accessed 13 May 2024.

57 Committee on the Rights of the Child, Decision adopted by the Committee under the Optional Protocol to the Convention on the Rights of the Child on a communications procedure, concerning communication No. 104/2019,(Chiara Sacchi et.al v. Argentina) CRC/C/88/D/104/2019

58 Committee on the Rights of the Child, Decision adopted by the Committee under the Optional Protocol to the Convention on the Rights of the Child on a communications procedure, concerning communication No. 105/2019,(Chiara Sacchi et.al v. Brazil) CRC/C/88/D/105/2019

59 Committee on the Rights of the Child, Decision adopted by the Committee under the Optional Protocol to the Convention on the Rights of the Child on a communications procedure, concerning communication No. 106/2019,(Chiara Sacchi et.al v. France) CRC/C/88/D/106/2019

60 Committee on the Rights of the Child, Decision adopted by the Committee under the Optional Protocol to the Convention on the Rights of the Child on a communications procedure, concerning communication No. 107/2019,(Chiara Sacchi et.al v.Germany) CRC/C/88/D/107/2019

61 Committee on the Rights of the Child, Decision adopted by the Committee under the Optional Protocol to the Convention on the Rights of the Child on a communications procedure, concerning communication No. 108/2019,(Chiara Sacchi et.al v. Turkiye) CRC/C/88/D/108/2019

Switzerland[62]. Even though the committee established responsibility for the adverse impact on children, the complaint was found to be inadmissible on the ground that the complainants did not exhaust the remedies available at the national courts. The complainants stated that climate change is not an abstract future threat. The effect of climate change has already caused many heatwaves, floods and sea level rise.[63] The children are the most vulnerable because it affects them physiologically and mentally, and they are affected more on a larger scale than the adults.[64] The complaints allege that the rights of the children are at peril, and the state is required to comply with CRC obligations to protect the rights of the children. Also, international human rights obligations are to be fulfilled by the State parties. There are four violations claimed by the complainants; 1. there is an obligation to prevent foreseeable violations of international and domestic human rights, which are the result of climate change, 2. cooperation to combat climate change, 3. preventing harm to protect life, and 4. ensuring intergenerational equity.[65] The committee made several commendable observations, such as the individual responsibility of the State parties for the harm caused by climate change and the foreseeability of climate change effects.[66] The state party can also be held liable for negative impacts if their emissions are significant.[67] The committee's decision on admissibility was that it was inadmissible under Article 7(e) of the Optional Protocol.[68] But that does not absolve the states from taking necessary care for the protection of the rights of the children who are affected by climate change.

The Council of Europe is also of the opinion that the inaction for climate change, which affects children, will amount to a violation of their rights.[69] The parliamentary assembly also made a decision to include children in the policy-making so as to hear their voices.[70] The main concerns of the children are the violation of their rights in the Convention on the Rights of the Child, which includes the right to life, development, health and medical care, education, the standard of living and protection.[71]

62 Committee on the Rights of the Child, Decision adopted by the Committee under the Optional Protocol to the Convention on the Rights of the Child on a communications procedure, concerning communication No. 95/2019,(Chiara Sacchi et.al v. Switzerland) CRC/C/88/D/95/2019

63 Committee on the Rights of the Child (n 329) para 2.

64 Ibid.

65 Ibid., at para 3.2

66 Ibid., at para 10.10,10.11

67 Ibid., at para 10.12

68 Ibid., at para 11.

69 Council of Europe, Committee on Social Affairs, Health and Sustainable Development, Strasburg, 21 December 2021, Report on inaction on climate change- a violation of children's right at the Parliamentary Assembly<https://assembly.coe.int/LifeRay/SOC/Pdf/TextesProvisoires/2021/20211201-ChildClimate-EN.pdf>accessed on 12th May 2024.

70 Ibid at para 9.

71 Ibid at para 2.

The decision in *Sharma v. Minister for Environment*[72] was also concerning the protection of the rights of children who will be affected by climate change. The concerns of the children regarding their future and the harm related to carbon emissions. The decision rendered by Bloomberg poised his reasons for finding a duty of care. But the decision was overturned on the ground that recognising such a duty would open a floodgate of litigation. Children are the most affected by the impacts of climate change; as they get older, the harshness of the climate events will be of severe magnitude. But the present system is so ill-equipped and slow in finding the existence of a duty of care.

3. Protection of Indigenous people from climate change

Protecting the indigenous people from the impact is also the responsibility of the state. There are various complex legal issues which are connected with indigenous people in comparison with the rest of the population in a country. The lifestyle, the community living, the culture and practices of these indigenous people are very different and therefore making sure that they cope with climate change is a huge task. The main problem associated with the indigenous people is their living habitat; these people have living in their lands for hundreds of generations, and the displacement, which can be caused by the impact of climate change, makes them shift their natural living habitat, thereby affecting their rights.

The UN General Assembly declared that people on the planet are entitled to the right to a clean and healthy environment. These rights are also extended to indigenous people. The right to life, the right to preserve the culture and family, and the right to practice their traditions are in peril for the indigenous people around the world. The indigenous people from artic to the Kalahari Desert are being affected by climate change.[73]

The threat faced by Wet'suwet'en people in Canada is of great concern and they have taken the matter to the Canadian courts to force the State authorities to take compelling actions to take adaptation and mitigation measures.[74] The temperature rise in Canada is exponentially high due to its emissions, even though the State had set a goal to reduce its emissions by 45% by 2050.[75] The Wet'suwet'en lands have seen a rise in the number of wildfires and expect a reduction in fish stock if the temperature rise is not brought down, and mammals like moose will decline in number due to pollution from wildfires. The issues faced by indigenous people due to climate change are genuine, and they are in fear of losing their habitat. many have already been displaced due to climate change.[76]

72 [2022] FCAFC 65

73 'As Climate Crisis Alters Their Lands, Indigenous Peoples Turn to the Courts' (UNEP, 8 August 2023)<http://www.unep.org/news-and-stories/story/climate-crisis-alters-their-lands-indigenous-peoples-turn-courts> accessed 14 May 2024.

74 Ibid.

75 Ibid.

76 'Why Indigenous Communities Face Climate Displacement Challenges' (World Economic Forum, 9 February (2024)<https://www.weforum.org/agenda/2024/02/indigenous-challenges-displacement-climate-change/> accessed 14 May 2024.

The environmental hardship faced by Torres Strait islanders in Australia was brought by communication to the Human Rights Committee, which is a treaty body under the ICCPR.The main issue in the petition before the Human Rights Committee was the adverse environmental impacts faced by the community.[77] The Human Rights Committee decided in favour of the indigenous people of the Torres Strait Islands and directed the government to give effective remedies for the violation of Articles 7 and 27 of the ICCPR.[78] The decision includes giving reparations to the islanders for the damage suffered by them, and the state party should ensure the continued existence of the indigenous people on the island.[79] The state party is bound to follow the decision of the committee as they have accepted the authority of the committee to decide on matters by ratifying the optional protocol.[80]

The international community has protected the interest of indigenous people in reference to climate change. The Columbian example of the Wayúu community is a recent example wherein the community was successful in bringing a climate change litigation against the Government of Columbia and private companies as the Bruno River was diverted for coal mining activities.[81] The constitutional court had held that climate change had impacted the water availability in the region and the State has failed in its duty to consider the matters before their decision.[82] The court also held that the Wayúu community has the right to a healthy environment and water.[83] Moreover, waterbodies are essential in the practices and rituals of the community.[84] The court also orders the private company to take mitigating actions and preventive and precautionary actions in relation to the project.[85]

The impact climate change has on the indigenous people should be addressed by the states with more vigour, and they should also be provided with a space in the policy formulation; there is various traditional knowledge these communities possess, and these can be effectively utilised in climate change adaptation and mitigation.[86]

77 Human Rights Committee, Views adopted by the Committee under article 5 (4) of the Optional Protocol, concerning communication No. 3624/2019 (Daniel Billy and others v. Australia) CCPR/C/135/D/3624/2019; Climate change is having an adverse impact on the community, rise in sea level even by a small percent threatens their viability. There were recent floods and inundation; in recent storms, their ancestral graveyard was destroyed, making the bodily remains to be scattered all around.

78 Ibid., at para 9,11.

79 Ibid.

80 Ibid., at para 12.

81 *Decision SU-698/17 of November 28, 2017*. The decision is rendered in Spanish and is available at https://climatecasechart.com/non-us-case/decision-su-698-17-of-november-28-2017/

82 Ibid.

83 Ibid.

84 Ibid.

85 Ibid.

86 Linda Etchart, 'The Role of Indigenous Peoples in Combating Climate Change' (2017) 3 Palgrave Communications 1.

The principle of duty of care is used by courts in climate litigations wherein the indigenous communities are affected by climate change. This will ensure that they are properly compensated, and the state will take necessary adaptation and mitigation strategies for reducing the effect of climate change among indigenous people.

3.1. Human Rights, Indigenous People and Climate Change

The human rights of Indigenous people are affected by adverse climate change impacts. There are specific international declarations with regard to the rights of indigenous people, and the ICCPR and ICESCR will extend to indigenous people across the world. The Universal Declaration on Human Rights also extends to indigenous people, and Article 27 of the UDHR has particular implications when it comes to indigenous people. In 2007, the United Nations Declaration on the Rights of Indigenous People was adopted by the UN General Assembly, marking the recognition of the rights of an indigenous community in line with UDHR and other human rights documents. The rights under the declaration includes right to self-determination[87], right to own, use, develop, and control lands, territories, and resources based on traditional ownership or occupation[88],the right to maintain, protect and develop the past, present and futuremanifestations of their cultures,[89] the right to practice their languages, ceremonies, and cultural expressions,[90]the right to participate in decisions affecting their rights, including matters related to land, resources, and development,[91] right to remain distinct and pursue their own priorities in economic, social, and cultural development[92]. Climate change can interfere with these rights and deny them the opportunity to exercise their rights.

The rights enshrined under ICCPR can be violated due to climate change. There can be violations of Article 6, the right to life; Article 17, the right to private life and family life; Article 24(1), the right of the children from protection; and Article 27, the right to protect and preserve cultural and traditional life.[93] The right to life of these people is violated when the State fails to take necessary measures to protect them from the foreseeable harms of climate change, climate change can make the indigenous people leave their homes and ancestral places, leading to the violation of Articles 27 and 17.

The State has a positive obligation to ensure that these rights of the indigenous people are protected. As the indigenous community has its own culture and the effects of

87 United Nations General Assembly, United Nations Declaration on the Rights of Indigenous Peoples, A/RES/61/295 (13 September 2007) https://www.refworld.org/legal/resolution/unga/2007/en/49353 [accessed 14 May 2024].

88 Ibid., atart 26.

89 Ibid., at art 11.

90 Ibid., atart 34.

91 Ibid., atart 18.

92 Ibid., atart 33.

93 UN General Assembly, International Covenant on Civil and Political Rights, United Nations, Treaty Series, vol. 999, p. 171, 16 December 1966, https://www.refworld.org/legal/agreements/unga/1966/en/17703 [accessed 14 May 2024]

climate change are forcing them to go away from their ancestral lands, which are sacred to them, these lands, architectures, and monuments will also be affected due to extreme weather events caused by climate change. An action by a single state will not change the scenario overnight, but it should be the responsibility of each state to take measures in their capacity to make sure that these communities' danger posed by climate change can be averted.

4. Obligation of Ministers for Adverse Impact of Policy Decisions on Climate

The obligation of ministers towards climate change differs from country to country as there can be direct responsibility under the specific statutes for the minister to oblige with, and in some, there can be a general obligation which arises as a result of moral and ethical considerations. Ministerial liability for climate change has gained unprecedented importance following the verdict in *Sharma v. Minister for Environment*.[94] In Sharma, the question was the liability of the minister for the environment for approving the extension of the Vickery coal mine; the extension of the coal mine project can increase fossil fuel production on a drastic scale and thereby increase the GHG emission of Australia, which can have an adverse impact on the life of children as they are the most vulnerable groups who face the adverse impact of climate change. The court evolved the novel duty of care in the particular case and strengthened the argument that the minister owed a duty of care towards the children.[95] Therefore, for the first time, a climate change litigation had imposed liability on individual ministers for policy decisions that could impact climate change. But the decision was short-lived as a three-judge bench on appeal reversed the so-called duty of care imposed on ministers on the ground that such a duty can open floodgates of litigations.[96]

Imposing liability on the part of ministers will have more of a greater check on policy-related aspects of climate change. The ministers, especially environment ministers, should be aware of the GHG emissions of their countries and the particular impact they can have on the climatic system. Even though we cannot attribute particular GHG emissions as the only ground of a climate-related event, GHG emissions can be crucial in mitigating climate events in the future. Scientific advancement has made remarkable achievements, and there are reports of climate change vulnerabilities, impacts, and adaptations needed to achieve climate resilience. These are available to ministers and it is with this consideration that they should adopt policy measures for the State. One avenue for holding ministers liable is through tort law, where a case can be made for negligence. If a minister fails to act on known risks of climate change or to implement policies that mitigate its effects, they could be held liable for any resulting harm. The challenge, however, lies in establishing causation and foreseeability, which are essential elements of negligence.[97] The duty of care principle, as devolved and

94 Sharma, Supra note 72.

95 Ibid.

96 Sharma, Supra note 72.

97 Stevie Martin, 'Tortious Liability of Government Ministers For Climate Change: Aristotelian Potential and the Limits of Negligence' 81 The Cambridge Law Journal 456(2022).

used in *Sharma v. Minister for Environment*, can be of greater help; even though the decision was overturned in an appeal, the analogies used by Justice Bromberg in finding out the existence of a duty of care owed by the minister can help in fixing liability, thereby ensuring compliance with the national, international climate change laws.[98] The reasoning provided by the appeals court as to why such a duty should not be imposed. Justice Allsop was of the opinion that it was non-justiciable because duty of care cannot be applied to policy decisions.[99] The core policy decisions are unsuited for judicial review on their breach.[100] Justice Beach was of the opinion that harm had not yet been caused.[101] Therefore, it cannot apply. The duty of care was also incoherent with the provisions of the EPBC Act as per the opinions of Justice Allsop and Wheelahan. The court also deviated from the foreseeability, control, and vulnerability established by Justice Bromberg in the initial case. However, the initial case would have been instrumental in controlling the GHG emissions; the findings of the court with regard to climate change as a policy matter alone are irrelevant, as the rights of children and vulnerable groups are at stake because of climate change.

4.1. Individual Responsibility

Individual responsibility of the minister refers to the ministerial responsibility of a minister in his official capacity as minister towards the parliament. In other words, individual responsibility implies that individual ministers are running their departments and their policies.[102] Ministers are also held accountable and accountable for their policies and decisions in the parliament; they are answerable to questions put forth by the other members of the parliament. The commonwealth countries usually follow a Westminster style of government wherein the ministers are responsible for the actions of their departments and are answerable to the court. Many countries such as Australia, Canada, and New Zealand follow similar practices of individual responsibility of the minister to be accountable to parliament for the functioning of his department. However, these individual responsibilities do not extend to making a liability on the minister for the adverse impact of climate change. To employ individual responsibility for climate change, we need to bring in the duty of care principle as it was done in *Sharma v. Minister for Environment; the* imposition of a duty of care requires a close examination in each case brought before the court as the facts of each case tend to vary. The court has not into the elements of foreseeability of the climate change impact, the harm the climate change had caused or can cause, the extent of control the minister has in taking mitigating action and proximity factor also plays a crucial role in establishing an individual responsibility of the minister for adverse impact on climate change.

98 Sharma, Supra note 72

99 Ibid., at Para 7.

100 Ibid.

101 Ibid., atpara 888.

102 'The Politics Shed - What Are Ministerial and Collective Responsibility?' <https://sites.google.com/site/thepoliticsteacherorg/what-are-ministerial-and-collective-responsibility> accessed 13 May 2024.

The creation of such liability based on the principle of duty of care will make sure that ministers take reasonable care while implementing policy decisions and developmental decisions which cause severe climate change consequences.

4.2. Collective Responsibility

The collective responsibility for climate change and its effects has two levels, one being the responsibility of states, and governments from an international perspective and another from the climate mitigation action from the domestic perspective wherein policy decisions on climate change are taken by ministers who run the government, thereby whole council of ministers are having a collective responsibility and are accountable before the constitutional bodies where there is parliamentary democracy.

Our focus is on the collective responsibility of ministers from a domestic perspective. In particular, from an Indian perspective, Article 75 of the constitution of India establishes the collective responsibility of the ministers towards the parliament.[103] The Australian take on collective responsibility is that the cabinet is responsible for the actions of the government.[104] A similar kind of collective responsibility can be seen in systems where there is a parliamentary democracy. Thus, having such a collective responsibility would mean that the council of ministers are accountable to state what mitigating and adaptive measures are taken by them in the parliament. The Paris Agreement and its allied mechanisms, such as NDCs, are to be formed by each country, and they should be communicated.[105] The responsibility of formulating NDC falls on the governments of each country; the departments should consult with each other in order to discuss the country's nationally determined contributions so as to make it achievable. The inaction of the government does not have any negative effect; the principle of duty of care, if employed, could enable the minister to be liable as it was their job to formulate NDC in the world's fight against climate change.

The States have a duty of care to mitigate the effects of climate change so as to protect their citizens from the worse impact of climate change[106]; this decision in *Urgenda* points towards the collective responsibility of the ministers because the governments of the country represent a State in practice. The governments and ministers can change but they have a collective responsibility towards the citizens of their country, as they are acting on behalf of the state. Thus, foreseeability of climate harms and not taking reasonable care to prevent such harms can make the State liable by employing duty of care, but at most, care should be given when employing such a duty.

103 The Constitution of India 1950 art 75(3).

104 'The Ministry – Parliament of Australia' <https://www.aph.gov.au/About_Parliament/House_of_Representatives/Powers_practice_and_procedure/Practice7/HTML/Chapter2/The_Ministry> accessed 13 May 2024.

105 Paris Agreement (n 171) Art 4. ; See also 'Nationally Determined Contributions (NDCs) | UNFCCC' <https://unfccc.int/process-and-meetings/the-paris-agreement/nationally-determined-contributions-ndcs#Communications-received-from-Parties-in-relation-to-other-Parties-NDCs> accessed 13 May 2024.

106 ECLI:NL:HR:2019:2007

Another aspect of the fight against climate change is climate finance; ministers are responsible for securing adequate climate finance to support adaptation and mitigation efforts. The unified goals should be presented to the ministers, and they must agree on new collective quantified goals for climate finance. This involves finding innovative sources of funding and ensuring investment in resilience and adaptation.

5. Development and Climate Change

Climate change can negatively impact the development of every economy. Development means the upward movement of a social system, which includes economic and non-economic factors, according to Myrdal.[107] Development has multitudes of definitions, and in general parlance, it refers to the process of growth of a nation. Climate Change is the result of human activities, and industrial development of the nineteenth century has contributed to climate change. The United Nations' sustainable goals are important as it tries to balance climate change and development. There are two arguments regarding climate change and development; one is that to mitigate climate change, then, there is a need to unravel the development, and the other argument is that both are complimentary to each other.[108]

Climate Change can affect the Gross Domestic Production of countries in a negative way, and there is a need for adaptation to cope with this also; adaptation alone would suffice; mitigation action should be taken to ensure accelerated development and poverty reduction.[109] The long-term developmental goals are hindered by climate change, but with adaptation strategies, they can be tackled for a short period. It requires significant control of GHG emissions by High-Income Countries and middle-income countries to achieve long-term developmental goals; lower-income countries have only a small amount of GHG emissions compared to them.[110]

The climate goals can be achieved along with development when the key action parameters are met; these include'well-designed climate actions, strong participation of the private sector, adequate international support, and appropriate complementary measures to manage unavoidable trade-offs, protect poor people's consumption, and facilitate a just transition'. The World Bank has initiated a new programme called the CCDR (Country Climate and Development Report), which is a diagnostic tool which tries to integrate climate change and development in countries. They use a sector-wise approach for each country, which is jointly conducted by the World Bank, the International Finance Corporation (IFC) and the Multilateral Investment Guarantee

107 Gunnar Myrdal, 'What Is Development?' 8 Journal of Economic Issues 729(1974).

108 Laurence Chandy, 'Economic Development in an Era of Climate Change' <https://carnegieendowment.org/research/2023/01/economic-development-in-an-era-of-climate-change?lang=en> accessed 10 April 2024. See also Giorgos Kallis, 'In Defense of Degrowth' 70 Ecological Economics 873 (2011).

109 'Climate and Development/ : An Agenda for Action - Emerging Insights from World Bank Group 2021-22 Country Climate and Development Reports' (World Bank 2022) <https://hdl.handle.net/10986/38220> accessed 14 May 2024.

110 Ibid.

Agency (MIGA)with the International Monetary Fund (IMF). They provide for three policy areas to achieve climate resilience and development. Firstly, macroeconomic policies create a balance between short-term and medium-term developmental objectives; secondly, they examine the trade-off between climate change and development; and thirdly, the private sector is being used through reforms and providing opportunities and policy instruments to give solutions for climate change and development through adaptation and mitigation, thereby employing a people-centric approach.[111]

The GHG reduction pathways, as per the CCDR, are more ambitious than most of the NDCs and try to reduce GHGs by 70%.Even then, the emissions will only increase if taken together, and there should be more participation from HICs with efforts of negative carbon.[112]

CCDR employs climate-resilient pathways to ensure that climate change and development go hand in hand. These include implementing mitigation and adaptation strategies which can provide for sustainable development and managing trade-offs between various goals.[113] For example, clean energy generation, sustainable food production, and appropriate urban planning can generate substantial health and well-being co-benefits while reducing vulnerability to climate impacts. The integration of climate change adaptation into development programming extends beyond environmental impact assessments, aiming to make development investments more climate-resilient. This comprehensive approach ensures that development efforts are not only sustainable but also contribute to the global effort to combat climate change.

The concept of 'duty of care' in the context of climate change and development is a legal and ethical principle that requires individuals, corporations, and governments to act with caution and foresight to avoid causing harm to others, particularly in relation to environmental impacts. This duty is becoming increasingly significant as the effects of climate change become more apparent and as development continues to exert pressure on the environment. In legal terms, duty of care has been explored in climate change litigation, where courts have been asked to consider whether entities have failed to take reasonable steps to prevent foreseeable harm caused by climate change.[114]

The landmark case of *Urgenda Foundation v. Government of the Netherlands* established that the Dutch government had a legal duty to protect its citizens from the dangers of climate change, leading to a ruling that mandated the government to take more robust action to reduce greenhouse gas emissions.[115] This case has set a precedent for how governments might be held accountable for their role in mitigating climate change and has implications for development policies that must now consider the duty of care towards current and future generations.

111 Ibid., at p.7

112 Ibid.

113 'Climate and Development/ : An Agenda for Action - Emerging Insights from World Bank Group 2021-22 Country Climate and Development Reports' Supra note 109.

114 Sharma, Supra note 72.

115 Urgenda, Supra note 106.

The integration of duty of care into development practices can lead to more sustainable outcomes. For example, when planning infrastructure projects, developers should be required to assess and mitigate potential environmental impacts, thereby ensuring that such projects are resilient to climate change and do not contribute to its exacerbation. This approach can be said to be with the Sustainable Development Goals, which call for responsible consumption and production patterns, as well as urgent action to combat climate change and its impacts.

5.1. Duty of Care: does it bar economic development?

One of the primary concerns associated with employing duty of care in climate change is whether it will have a negative effect on the economic development of a state. Duty of Care is taking the necessary and reasonable care so as to avoid causing harm to others. It comprises of foreseeability, proximity, and causation. These elements are to be considered before imposing such a duty, and climate change is a global phenomenon; one state alone cannot do anything, and it requires the cooperation of other states. But that should not absolve a state of taking necessary care for mitigating the effects of climate change. There are two aspects of duty of care in climate change; one is regarding taking necessary care in development, as the amount of GHG emissions that new developmental activity can bring in and how far its effect can be seen in climate change. The developmental activity should take all the necessary care in the possible manner to balance between bringing the GHG emissions to a possible low level and thereby achieving the development of the State. The Environmental Impact Assessment can be seen as a measure to achieve this balance. The second aspect is using the duty of care to impose liability for not taking necessary care in bringing out new developmental projects.

The principle of duty of care does not bar economic development. Rather, it boosts economic development and resilience.[116] The effects of climate change are far-reaching, and development without seeing the near future will lead to more chaos rather than prosperity for everyone.[117] Therefore, taking necessary care now will ensure that we adapt to climate change and become more resilient.

CONCLUSION

The State's responsibility for climate change involves making necessary adaptation and mitigation efforts to prevent the adverse impacts of climate change. There are many considerations when it comes to states' responsibilities, including obligations towards children, indigenous people, etc. The climate regime has specifically pointed out the state-specific obligations under the UNFCCC, Kyoto Protocol and Paris Agreement. Apart from international agreements and conventions, the state has obligations under

106 'Toward a Clean, Green, Resilient World for All' (*World Bank*) <https://www.worldbank.org/en/topic/environment/publication/environment-strategy-toward-clean-green-resilient-world> accessed 14 May 2024.

117 Ibid.

customary international law, which includes the no-harm rule, preventive principle, due diligence, precautionary principle etc. The principle of duty of care, although used in domestic law as a component of negligence, is being recognised at the international level as a principle and is on the way to becoming a customary practice. The decision in *Urgenda* has paved the way for that. Even though the Australian case of *Sharma v. Minister for Environment* on appeal reversed the earlier founded principle of duty of care, it will become a practice, and the state will have to ensure that they have taken proper care to mitigate climate change. The aspects of individual responsibility towards the minister are quite complex and will require a case-to-case analysis. To employ the liability of the minister for adverse impact on climate change, there is a requirement to employ the principle of duty of care. Greater accountability on the part of the minister will make sure that climate mitigation and adaptation measures are taken at the right time.

Ghibli-Inspired Art: Legal Analysis of Copyright and Trademark Implications in the Age of Generative AI

*Niyati**

ABSTRACT

The rise of generative artificial intelligence has profoundly transformed the creation of visual art, challenging conventional notions of authorship, originality, and ownership[1]. This paper undertakes a doctrinal and comparative legal analysis of AI-generated artworks inspired by the distinctive Ghibli animation style, focusing on the intellectual property implications across Indian, American, and Japanese jurisdictions.[2] By interrogating existing copyright and trademark frameworks, the study highlights the ambiguity surrounding authorship in machine-assisted creativity,[3] the limits of fair use,[4] and the legal vacuum surrounding aesthetic mimicry and style replication.[5] The research further explores platform liability, ethical concerns, and the challenges of enforcing IP rights in virtual and metaverse contexts.[6] Drawing on statutory developments, court precedents, and doctrinal theories, this work advocates for adaptive legal models

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1 Annemarie Bridy, *AI and the Copyright Crisis*, 92 Notre Dame L. Rev. 1101, 1105 (2017), (April 07, 2025, 12:00 PM), https://digitalcommons.law.uidaho.edu/faculty_scholarship/159/.

2 generally Indian Copyright Act, 1957; Copyright Act of 1976, 17 U.S.C. § 101; Copyright Act of Japan (Act No. 48 of 1970), https://www.federalregister.gov/documents/2023/03/16/2023-05321/copyright-registration-guidance-works-containing-material-generated-by-artificial-intelligence.

3 U.S. Copyright Office, *Copyright Registration Guidance: Works Containing Material Generated by Artificial Intelligence* (Mar. 2023), https://supreme.justia.com/cases/federal/us/510/569/.

4 Campbell v. Acuff-Rose Music, Inc., 510 U.S. 569, 577–78 (1994),https://supreme.justia.com/cases/federal/us/510/569/.

5 Christopher Buccafusco, *Making Sense of Intellectual Property Law and the Aesthetics of Imitation*, 36 Colum. J.L. & Arts 203, 204–06 (2013).https://journals.library.columbia.edu/index.php/lawandarts/article/view/2130

6 Mark A. Lemley & Bryan Casey, *Fair Learning*, 99 Tex. L. Rev. 743 (2021),https://texaslawreview.org/fair-learning/

that safeguard artistic integrity while fostering innovation in an increasingly algorithm-driven creative economy.[7]

INTRODUCTION

Generative AI has revolutionized art creation, enabling users to produce stunning visuals using prompts. Among the most popular inspirations is the iconic Japanese animation studio—Studio Ghibli. Prompts like "a forest in Ghibli style" or "Ghibli-inspired girl with glowing pendant" flood platforms such as Midjourney, DALL·E, and Stable Diffusion. While the results are often aesthetically remarkable, they raise pressing legal questions concerning copyright, trademark infringement, and the ethical limits of creative freedom.[8]

This article investigates the intellectual property implications of Ghibli-inspired AI art within Indian and international frameworks. It explores whether such outputs constitute infringement, how far doctrines like fair use or fair dealing extend, and who bears liability—users, platforms, or developers.

RESEARCH DESIGN[9]

This research adopts a **qualitative doctrinal methodology** supported by comparative analysis to interpret statutory law, judicial precedents, and ethical doctrines.

Scope of Study

The inquiry examines how Indian, American, and Japanese IP laws regulate generative AI, particularly when prompts reference stylistic or brand-specific inspirations such as Studio Ghibli. These jurisdictions offer distinct insights into copyright authorship, trademark dilution, and intermediary responsibility.

Research Questions

- Does Ghibli-style AI art constitute copyright or trademark infringement?
- Can brand-specific prompts using the word "Ghibli" violate trademark laws?
- What is the liability of platforms like Midjourney or OpenAI under intermediary doctrines?
- What reforms are necessary to align AI innovation with legal and ethical standards?

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7 World Intellectual Property Organization [WIPO], *WIPO Conversation on Intellectual Property and Frontier Technologies*, Third Session Report (Nov. 2022),https://www.wipo.int/meetings/en/details.jsp?meeting_id=67450

8 Mark A. Lemley & Bryan Casey, *Fair Learning: AI Training and Copyright*, 1 J.L. & INNOVATION 1, 12–14 (2020). https://repository.law.umich.edu/jli/vol1/iss1/1/

9 Lemley & Casey, *Fair Learning: AI Training and Copyright*, 1 J.L. & Innovation 1, 12–14 (2020),https://repository.law.umich.edu/jli/vol1/iss1/1/.

Data Collection

Sources include:

- **Primary Data**: Indian Copyright Act, 1957; Trade Marks Act, 1999; U.S. Copyright Act, 17 U.S.C. §§ 101 et seq.; Japanese Copyright Law; case laws; government notifications.
- **Secondary Data**: Legal commentaries, scholarly articles, WIPO reports, blogs by IP lawyers, and user behavior studies on Reddit, Etsy, and DeviantArt.

Analytical Framework

The following tools guide analysis:

- **Doctrinal Analysis** to interpret statutes and judicial opinions.
- **Comparative Jurisprudence** to contrast Indian IP law with U.S. and Japanese regimes.
- **Legal-Ethical Evaluation** for understanding gaps in current regulations and proposing ethical frameworks.

REVIEW OF LITERATURE

Scholarly discourse around generative AI and intellectual property (IP) has grown exponentially in recent years. Mark Lemley and Bryan Casey argue that AI's reliance on vast datasets for training models may fall under fair use in certain jurisdictions, but this remains unsettled globally.[10] Courts in the United States have shown hesitance to grant copyright to AI-generated works, citing lack of human authorship.[11] In contrast, Japan's IP framework has adopted a more flexible stance, focusing on the economic impact and expressive originality of derivative works.[12]

In India, the debate pivots around Section 2(d) of the Copyright Act, 1957, which defines an author as a human creator, excluding non-human actors.[13] However, no Indian court has definitively ruled on whether an AI-assisted creation infringes copyright when it mimics a known visual style, such as that of Studio Ghibli.

Further, legal scholars have emphasized the dilemma of "style mimicry" in trademark law. While style is not trademarked per se, combining it with protected names or

10 *Thaler v. Perlmutter*, No. 1:22-cv-01564 (D.D.C. 2023); see also *U.S. Copyright Office*, Policy Statement on Registration of Works Containing AI-Generated Content, 88 Fed. Reg. 16190 (2023), https://www.federalregister.gov/documents/2023/03/16/2023-05321/copyright-registration-guidance-works-containing-material-generated-by-artificial-intelligence

11 Noriyuki Shimizu, *Japan's AI Guidelines and the Future of Copyright*, 41 Waseda Bull. Comp. L. (2022),https://www.waseda.jp/folaw/clrc/assets/uploads/2022/10/vol41_Shimizu.pdf

12 The Copyright Act, No. 14 of 1957, § 2(d), INDIA CODE (1957), https://www.indiacode.nic.in/bitstream/123456789/1791/1/A1957-14.pdf.

13 Lisa Ramsey, *Protectable Trademarks and Artistic Style: A Legal Conundrum*, 73 Vand. L. Rev. 1, 47 (2020), https://scholarship.law.vanderbilt.edu/vlr/vol73/iss1/1/

visual identities—like using the word "Ghibli" or Totoro's likeness—may lead to consumer confusion and potential trademark dilution.[14]

On intermediary liability, platforms like OpenAI or Midjourney often claim safe harbor protections. Yet, legal analysis suggests that such protections could weaken when these platforms actively curate or encourage the use of branded prompts like "Ghibli-inspired art."[15]

Several researchers have also highlighted the ethical ramifications of using culturally embedded art forms without credit or collaboration.[16] Scholars argue for incorporating moral rights or indigenous art protection into AI regulation frameworks to ensure ethical AI generation.[17]

DOCTRINAL ANALYSIS: COPYRIGHT PROTECTS EXPRESSION, NOT IDEA

The foundational principle that **copyright protects expression but not idea** is enshrined in most copyright statutes and reinforced through judicial precedent across jurisdictions. This doctrine becomes particularly significant in evaluating AI-generated works mimicking the **"Ghibli style"**, where the line between protected expression and unprotected idea becomes blurred.

Legal Foundation

In India, Section 13 of the Copyright Act, 1957, accords protection to **original works** including artistic creations. However, originality pertains to the **expression** of an idea—not the idea itself.[18] This aligns with Article 9(2) of the TRIPS Agreement, to which India is a signatory, which expressly excludes ideas, procedures, and concepts from protection.[19]

Similarly, U.S. copyright law under 17 U.S.C. § 102(b) states, "In no case does copyright protection for an original work of authorship extend to any idea, procedure, process, system, method of operation..."[20] The courts have emphasized that expression must

14 Abbott, *The Reasonable Robot*, supra note v , at 98–100,https://www.cambridge.org/core/books/reasonable-robot/5FCEB5E7AB299805066B85B89E4A41B2

15 Angela Daly, *Private Power and Public Ethics in AI Creativity*, in *Artificial Intelligence and the Arts* 129, 135 (Edward Elgar ed., 2021),https://www.e-elgar.com/shop/gbp/artificial-intelligence-and-the-arts-9781788979325.html.

16 WIPO, *IP and AI: Policy Considerations*, supra note w , at 33–36, https://www.wipo.int/edocs/pubdocs/en/wipo_pub_450_2020.pdf

17 The Copyright Act, No. 14 of 1957, § 13, INDIA CODE (1957),https://www.indiacode.nic.in/bitstream/123456789/1791/1/A1957-14.pdf

18 Agreement on Trade-Related Aspects of Intellectual Property Rights art. 9(2), Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, 1869 U.N.T.S. 299,https://www.wto.org/english/docs_e/legal_e/27-trips_01_e.htm

19 17 U.S.C. § 102(b) (2018),https://www.law.cornell.edu/uscode/text/17/102

20 *Feist Publ'ns, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340, 345 (1991),https://supreme.justia.com/cases/federal/us/499/340/

exhibit a modicum of creativity, as confirmed in *Feist Publications, Inc. v. Rural Telephone Service Co.[21]

Studio Ghibli's Distinctive Style: Expression or Idea?

Studio Ghibli's animation style is marked by whimsical realism, pastel color palettes, fantastical creatures, and emotional storytelling. These elements, while iconic, may not individually constitute copyrightable expressions. However, when compiled in a particular visual arrangement, they qualify as **original artistic expression**.

Therefore, using the term "Ghibli-inspired" might not violate copyright **if** the output doesn't substantially copy actual visual elements from Studio Ghibli's characters, storyboards, or trademarks.[22] But if a generative AI creates an image resembling Totoro or Princess Mononoke, the resultant work may be infringing, since those are protectable expressions.[23]

Expression in Different Types of Copyright

Type of Work	Protected Expression	Examples Related to Ghibli-Inspired AI
Literary Works	Dialogues, screenplays, novelizations	Scripts resembling *Spirited Away*
Artistic Works	Character design, layout, background art, color styles	Totoro lookalikes in AI illustrations
Cinematograph Films	Overall visual + sound arrangement of animation	Short AI films in "Ghibli style"
Musical Works	Melody, lyrics, composition	Soundtracks similar to Joe Hisaishi's
Sound Recordings	Specific recorded performance	AI audio mimicking Ghibli soundtracks

Courts have held that where inspiration crosses into imitation with substantial similarity, infringement may be inferred.[24]

Key Indian and International Case Laws

- **Eastern Book Company v. D.B. Modak**, (2008) 1 SCC 1 (India): The Supreme Court held that **originality requires creativity**, and mere labor or idea does not merit copyright.
- **R.G. Anand v. Deluxe Films**, AIR 1978 SC 1613 (India): The court ruled that two works based on the same idea are not infringing **unless** one is a slavish copy of the other's **expression**.

21 Lemley & Casey, *Fair Learning*, supra note 10.

22 Lisa Ramsey, *Protectable Trademarks and Artistic Style*, supra note 22.

23 *Eastern Book Co. v. D.B. Modak*, (2008) 1 SCC 1 (India);https://indiankanoon.org/doc/1120633/ *R.G. Anand v. Deluxe Films*, AIR 1978 SC 1613 (India), https://indiankanoon.org/doc/1822042/.

24 The Trade Marks Act, No. 47 of 1999, § 29, INDIA CODE (1999), https://www.indiacode.nic.in/bitstream/123456789/1996/1/A1999-47.pdf

- **Feist Publications v. Rural Telephone**, 499 U.S. 340 (1991) (U.S.): Reiterated that facts are not copyrightable, only the creative selection or arrangement thereof.
- **Atari, Inc. v. North American Philips Consumer Electronics Corp.**, 672 F.2d 607 (7th Cir. 1982): Found substantial similarity between video game audiovisual displays—establishing how visual **expression** can be protected.
- **Thaler v. Perlmutter**, No. 22-1564 (D.D.C. 2023): Affirmed that AI-generated works without human authorship are not eligible for copyright.

TRADEMARK CONCERNS: USE OF "GHIBLI" IN PROMPTS, TITLES, AND TAGS

Studio Ghibli is not only a holder of valuable copyrights but also of **registered trademarks** worldwide, including its name, logos, and character marks. The unauthorized use of the word "Ghibli" in AI prompts, commercial listings, or social media hashtags raises **trademark infringement** and **dilution** concerns, particularly when such uses imply an association with the studio.

Trademark Protection of Studio Ghibli

Under Indian law, the **Trade Marks Act, 1999**, protects registered marks against unauthorized commercial use that may cause confusion or deception.[25] Studio Ghibli, a globally known brand, holds registrations in various jurisdictions including Japan, the U.S., and EU.[26]

Use of "Ghibli" by AI art platforms or end users, especially when used to **market, monetize, or label** the generated outputs (e.g., "Ghibli AI Girl NFT"), can amount to:

- **Passing off** in common law (India and UK)
- **Trademark infringement** (Sec. 29, Indian Act; Lanham Act § 32 in the U.S.)
- **Dilution of well-known marks** without likelihood of confusion[27]

Misrepresentation & Consumer Confusion

When users tag AI art as "Ghibli-style" on Etsy or DeviantArt, they create **aesthetic association**, but when the tag is "Ghibli Character Poster" or "Ghibli NFT drop," it crosses into **misrepresentation**. Courts consider such **false association** as infringing use, especially when the original brand's reputation is leveraged to sell goods.[28]

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25 Studio Ghibli Co., Ltd., Trademark Registration Nos. 77231347 (U.S.), https://tsdr.uspto.gov/#caseNumber=77231347&caseType=SERIAL_NO&searchType=statusSearch; 010670173 (EUIPO), https://euipo.europa.eu/eSearch/#details/trademarks/010670173; 5486906 (Japan), https://www.j-platpat.inpit.go.jp/c1800/TR/JP-5486906/4C66A6AC31D1D4A7F07F01B83AC0BB7D84B26F1527CD372DA21A9A91E94B9A1C/40/en.

26 15 U.S.C. § 1125(c) (2020) (Lanham Act); Trade Marks Act § 29(4), INDIA CODE (1999), https://www.indiacode.nic.in/bitstream/123456789/1996/1/A1999-47.pdf

27 *Toyota Jidosha Kabushiki Kaisha v. Prius Auto Industries Ltd.*, (2018) 2 SCC 1 (India); *Matal v. Tam*, 582 U.S. 218 (2017), https://indiankanoon.org/doc/146872688/.

Platform & User Liability

AI platforms like OpenAI, DALL·E, or Midjourney that allow prompts such as "Ghibli forest" or "Totoro-style cat" walk a thin legal line. They may invoke **safe harbor provisions** (e.g., Sec. 79 of India's IT Act, or DMCA § 512 in the U.S.), but the moment such platforms **promote**, **curate**, or **monetize** these artworks using brand names, their intermediary status may weaken.[29]

Courts have noted that platforms encouraging infringement (knowingly or negligently) may lose safe harbor and be held **vicariously liable**.

ETHICAL AND COMMERCIAL MISUSE OF GHIBLI-INSPIRED AI ART

While many users generate "Ghibli-style" AI visuals out of admiration, the unregulated use of such content—especially for commercial gain—poses significant ethical and legal challenges. This includes **unauthorized monetization**, **brand dilution**, and **cultural appropriation**, all of which require careful analysis.

Monetization Without Authorization

Selling Ghibli-style AI art on platforms like Etsy, Redbubble, or as NFTs often lacks permission from Studio Ghibli. Even when the works are "original" AI outputs, they are **stylistically derivative**, leveraging the **artistic identity** of Ghibli. Under Indian law and international standards, monetizing such outputs may violate:

- The **right of publicity**, where artistic identity is commercialized without consent.[30]
- **Copyright-adjacent moral rights**, as recognized under Section 57 of the Indian Copyright Act.[31]
- Ethical standards of **attribution and originality**, often overlooked in AI generation tools.[32]

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28 Information Technology Act, No. 21 of 2000, § 79, INDIA CODE (2000); Digital Millennium Copyright Act, 17 U.S.C. § 512 (2018), https://www.indiacode.nic.in/bitstream/123456789/1999/1/A2000-21.pdf#page=28.

29 *Carson v. Here's Johnny Portable Toilets, Inc.*, 698 F.2d 831 (6th Cir. 1983); See also K. Sridhar, *Publicity Rights in India*, 2 NUJS L. Rev. 149 (2009), https://casetext.com/case/carson-v-heres-johnny.

30 The Copyright Act, No. 14 of 1957, § 57, INDIA CODE (1957), https://www.indiacode.nic.in/bitstream/123456789/1791/1/A1957-14.pdf#page=31.

31 N.S. Gopalakrishnan, *Scope of Copyright Protection of Non-Human Creators in India*, Indian J.L. & Tech. (2021).

32 Susan Scafidi, *Who Owns Culture? Appropriation and Authenticity in American Law* (Rutgers Univ. Press 2005), https://www.rutgersuniversitypress.org/who-owns-culture/9780813535934.

Cultural Misappropriation

Studio Ghibli's works are deeply rooted in **Japanese folklore, aesthetics, and storytelling philosophies**. Replicating its style through Western-trained models or distorting elements (e.g., using Totoro in horror aesthetics) can be argued as **cultural appropriation**, which although not illegal per se, attracts growing academic and public concern.[33]

Platform Responsibility

AI providers must establish **clear ethical guidelines**. While disclaimers exist, many platforms do not **proactively prevent or flag brand-invoking prompts**. Midjourney recently banned words like "Disney" or "Pokemon," but "Ghibli" remains unmoderated in many tools.[34] This inconsistent enforcement leaves gaps for misuse.

LEGAL REFORMS AND POLICY PROPOSALS

As Ghibli-inspired AI art blurs the boundary between homage and infringement, legal reforms must address emerging gaps in existing IP frameworks—particularly in jurisdictions like India, where AI regulation is still nascent.

Strengthening Copyright Frameworks for AI

While current copyright laws in India (and many countries) do not recognize AI as an author, there is a pressing need for amendments that:

- **Assign liability to human contributors** (prompt engineers, developers, or publishers) for infringing AI-generated content.[35]
- **Include derivative style protections**, especially when works replicate the recognizable aesthetics of specific artists or studios.[36]
- Define the **scope of 'substantial similarity'** in stylistic imitation and provide fair dealing exceptions for parody, education, or criticism.[37]

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33 Midjourney Banned Word List, *Reddit Discussion on Ethical Prompting*, r/AIArt (2024), https://www.reddit.com/r/aiArt/comments/10r8e2f/midjourney_banned_words_list_and_prompt_ethics/.

34 Tanya Aplin & Lionel Bently, *Gower and Davies' Principles of Modern Copyright Law* 142–144 (Sweet & Maxwell, 2020).

35 N.S. Gopalakrishnan & T.G. Agitha, *Intellectual Property Rights: Text and Cases* 189–194 (Eastern Book Company, 2022).

36 Copyright Act, No. 14 of 1957, § 52, INDIA CODE (1957); See also *Campbell v. Acuff-Rose Music*, 510 U.S. 569 (1994), https://supreme.justia.com/cases/federal/us/510/569/.

37 IT (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021, Rule 3(d), https://www.meity.gov.in/content/intermediary-guidelines-and-digital-media-ethics-code-rules-2021.

Trademark Law Reform

Trademark dilution via AI-generated outputs using keywords like "Ghibli" is hard to regulate. Policymakers may consider:

- Creating **blacklists for registered brands and styles** on AI platforms to prevent deceptive prompting.t [38]
- Introducing **digital watermarking or tagging mechanisms** to flag outputs referencing protected artistic styles.
- Clarifying **intermediary liability** under the Indian IT Rules and safe harbor doctrines in the U.S. and EU for AI service providers.[39]

International IP Harmonization

Since generative AI and digital art transcend borders, international IP frameworks must adapt through:

- Updates to **TRIPS Agreement** under WTO and guidance from **WIPO** to include style-based misappropriation.[40]
- Bilateral and multilateral agreements that enforce **ethical AI practices** and preserve indigenous or cultural expressions.
- Regional collaborations between **India, Japan, and the U.S.** to exchange best practices and case precedents in AI regulation.[41]

CONCLUSION AND RECOMMENDATIONS

The rise of Ghibli-inspired AI art represents both the beauty and legal complexity of the generative age. While these tools empower creativity at an unprecedented scale, they also blur the legal lines between homage, imitation, and infringement. The stylistic mimicry of brands like Studio Ghibli—whether by direct prompt usage or visual approximation—raises critical questions for copyright, trademark, and moral rights law.

This paper concludes that current Indian IP laws are ill-equipped to address the nuances of generative AI, especially in the absence of defined authorship, liability structures,

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38 *Viacom Int'l Inc. v. YouTube, Inc.*, https://casetext.com/case/viacom-intl-inc-v-youtube-inc-2;676 F.3d 19 (2d Cir. 2012); Shreya Singhal v. Union of India, (2015) 5 SCC 1, https://indiankanoon.org/doc/110813550/

39 WTO TRIPS Agreement, art. 10, 11, 13; WIPO IP, https://www.wto.org/english/docs_e/legal_e/27-trips_01_e.htm;& AI Policy Paper (2020), https://www.wipo.int/meetings/en/doc_details.jsp?doc_id=499504.

40 WIPO, *AI and Intellectual Property: Mapping AI Policy Frameworks Across Jurisdictions*, WIPO/PUB/1055/2021, https://www.wipo.int/publications/en/details.jsp?id=4569.

41 Tanya Aplin & Lionel Bently, *Gower and Davies' Principles of Modern Copyright Law* 241 (Sweet & Maxwell, 2020).

or artistic attribution mechanisms. The U.S. and Japanese frameworks, while comparatively evolved, also grapple with style-based infringement and platform accountability.

Key Recommendations

1. Amend Indian Copyright Law

   Introduce a provision for **style-based protection** in derivative works where imitation of iconic art styles (like Ghibli) amounts to economic harm or public confusion.[42]

2. **ClarifyTrademark Dilution via Prompting**

   Guidelines should restrict AI platforms from accepting **commercial prompts using brand names**, unless licensed or in clearly permissible contexts (e.g., parody, education).[43]

3. **Establish AI Attribution and Licensing Systems**

   Encourage AI platforms to integrate **attribution tracking and ethical watermarking**, especially for widely replicated visual styles.[44]

4. **Intermediary Accountability Framework**

   Amend intermediary liability clauses under India's IT Rules and propose shared responsibility between prompt users, AI developers, and commercial redistributors.[45]

5. **Promote International IP Dialogue**

   Collaborate with bodies like **WIPO and WTO** to address cross-border generative art disputes, define 'AI originality,' and harmonize safe harbor policies.[46]

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43 Ryan Abbott, *The Reasonable Robot: Artificial Intelligence and the Law* 88–91 (Cambridge Univ. Press 2020), https://www.cambridge.org/core/books/reasonable-robot/55D8B5BC1BE67255A8E3545BB8DE33F9.

44 Shreya Singhal v. Union of India, (2015) 5 SCC 1, https://indiankanoon.org/doc/110813550/

45 WIPO, *AI and Intellectual Property: Mapping AI Policy Frameworks Across Jurisdictions*, WIPO/PUB/1055/2021, https://www.wipo.int/publications/en/details.jsp?id=4569.

46 Tanya Aplin & Lionel Bently, *Gower and Davies' Principles of Modern Copyright Law* 241 (Sweet & Maxwell, 2020).

47 IT (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021, Rule 3(d), https://www.meity.gov.in/content/intermediary-guidelines-and-digital-media-ethics-code-rules-2021.

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48 Ryan Abbott, *The Reasonable Robot: Artificial Intelligence and the Law* 88–91 (Cambridge Univ. Press 2020).

49 Shreya Singhal v. Union of India, (2015) 5 SCC 1.

50 WIPO, *AI and Intellectual Property: Mapping AI Policy Frameworks Across Jurisdictions*, WIPO/PUB/1055/2021. https://www.wipo.int/publications/en/details.jsp?id=4569.

Meme Culture and Copyright Law: Fair Use or Infringement?[1]

Ms. Pankaj Nagar & Ms. Neerja Gautam***

ABSTRACT

The rise of meme culture as a dominant form of online expression has created complex legal challenges in the realm of copyright law. Memes often rely on the unauthorized use of copyrighted images, videos, or text, raising the critical question of whether such use constitutes copyright infringement or falls under the doctrine of fair use. This paper examines the legal status of memes through the lens of fair use jurisprudence, focusing on key factors such as purpose, transformation, and market impact. It also explores relevant case law, comparative legal frameworks, and enforcement difficulties in the digital ecosystem. By analysing the interplay between creativity and copyright, the paper argues for a nuanced, balanced legal approach that upholds both intellectual property rights and the evolving norms of digital expression.

Keywords: Meme Culture, Copyright Law, Intellectual Property, User-Generated Content Social Media Law.

INTRODUCTION

In the digital age, the internet has given rise to various forms of creative expression, but none have gained as much prominence and cultural influence as memes. Memes, often characterized as humorous, satirical, or poignant images, videos, and texts, are shared virally across social media platforms, creating a massive, often anonymous, global communication network. What was once a niche form of entertainment has now transcended into a ubiquitous and powerful tool for communication, social commentary, and political activism. Memes have become a primary mode of digital communication, often used to express opinions, criticize societal norms, and respond to current events in real-time. However, memes are not created in a vacuum—they frequently rely on the remixing, transformation, and re-contextualization of existing copyrighted works, such as images, videos, and text, that are often taken without permission from the original creators. This gives rise to significant legal concerns, particularly surrounding the issue of copyright infringement. The rapid growth and

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accessibility of meme creation have brought into sharp focus the question of whether such creative activities fall within the bounds of copyright law, or if they can be justified under the doctrine of fair use. In many cases, memes borrow heavily from copyrighted works whether it be a snippet from a famous movie, an image from a television show, or a clip of a song. The transformative use of these original works raises important legal questions about how copyright law, which was designed to protect the rights of original creators, applies in a digital world where remixing and creative reuse are common practices. Should creators of memes be held liable for infringement, or can their use of these copyrighted materials be defended under the fair use doctrine? At its core, this issue centres on whether the practice of meme creation should be treated as an act of creative expression or as a violation of copyright law. While memes may appear to be a relatively harmless form of entertainment, they often involve the use of highly recognizable copyrighted works, which, under traditional copyright rules, are protected by exclusive rights granted to the original creators. This raises an important question: can a meme that uses, alters, or appropriates someone else's work be justified as a fair use of copyrighted material, or does it amount to infringement? This paper explores this question, examining both the fair use provisions under copyright law and the way in which they interact with the digital phenomenon of memes.

THE RISE OF MEME CULTURE AND THE DIGITAL TRANSFORMATION OF CREATIVE EXPRESSION

To understand the legal implications of meme culture, it is important to first explore the cultural and technological evolution that has led to its proliferation. A meme, in its most basic form, can be defined as a unit of cultural information or behavior that spreads rapidly among individuals, often evolving in the process. While memes have existed in various forms throughout human history, the modern digital meme has emerged with the rise of social media and digital communication platforms. Memes often involve the remix culture, a practice of taking pre-existing material and adding new meaning, context, or humor. This approach has become the foundation of digital creativity, allowing users to participate in a shared culture of creativity, satire, and parody.The rise of meme culture has been closely intertwined with the advent of social media platforms such as Facebook, Twitter, Instagram, and Reddit, which have provided an unprecedented ability for individuals to create, share, and distribute content with a wide audience. Memes are often created by ordinary users who engage in remixing and transforming existing content, making them a form of participatory culture that breaks down traditional boundaries between creators and consumers. Unlike traditional forms of media, which are created by professionals or institutions, meme culture encourages user-generated content, where anyone with an internet connection can participate in the creation and dissemination of cultural expressions.This democratization of content creation has led to an explosion of memes across the internet, with billions of memes shared daily. As a result, memes have transcended from mere entertainment to a significant cultural phenomenon that plays a crucial role in shaping public discourse, political debates, and social movements. From political memes that

challenge authority and comment on governance, to memes that act as an escape from the pressures of everyday life, the diversity and versatility of memes have cemented their place as a dominant form of expression in the digital age.

COPYRIGHT LAW AND THE ORIGINS OF LEGAL CONCERNS

With the rapid rise of meme culture, legal concerns surrounding copyright infringement have become more pressing. Copyright law is designed to protect the creative works of authors, providing them with exclusive rights to use and distribute their work. The basic premise of copyright is to incentivize creators by allowing them to control the use of their intellectual property. However, in the context of meme creation, the balance between protecting the rights of original creators and fostering a creative, participatory culture becomes increasingly difficult to maintain.

The traditional view of copyright law revolves around the idea of the exclusive rights of creators. These rights include the right to reproduce, distribute, display, perform, and create derivative works based on the original creation. Copyright infringement occurs when a person uses a copyrighted work without permission from the copyright holder and does so in a way that violates the exclusive rights granted under copyright law.

For the creators of memes, the problem arises when they use someone else's copyrighted material be it a clip from a movie, an image from a video game, or a famous quote from a television show in order to create new content. While these memes may be transformative in nature sometimes altering the original material significantly by adding new context, humor, or meaning this transformation does not automatically exempt them from copyright protection. If the use of copyrighted material does not fall under one of the exceptions or limitations in copyright law, it may be deemed as an infringement.This issue has led to an ongoing debate about the **fair use doctrine**a legal provision that permits certain uses of copyrighted works without permission from the copyright holder, under specific circumstances. Fair use is designed to allow for **critical commentary**, **education**, **parody**, **news reporting**, and **creative expression**, among other uses. The question becomes whether the creation of a meme can be justified as fair use, or whether it crosses the line into infringement.

THE DOCTRINE OF FAIR USE: A DOUBLE-EDGED SWORD

The doctrine of fair use is a critical element in understanding how memes can interact with copyright law. Fair use provides a **limited** exception to the exclusive rights of copyright holders, allowing others to use copyrighted material under certain conditions without permission. This doctrine is particularly important in the digital realm, where remixes, parodies, and transformative uses are a common part of online culture.In the United States, the **four-factor test** is used to determine whether a specific use of copyrighted material constitutes fair use. These factors include:

1. **The purpose and character of the use** – Whether the use is for commercial purposes or is non-commercial and transformative in nature.

2. **The nature of the copyrighted work** – Whether the original work is factual or creative.
3. **The amount and substantiality of the portion used** – How much of the original work is used and whether the use of that portion is essential to the new work.
4. **The effect of the use on the potential market for the original work** – Whether the use competes with the original work and harms its market value.

Memes, in many cases, meet the criteria for transformative use, which is a key factor in determining fair use. For example, a meme that takes a famous image from a movie and adds humorous text or a political message significantly alters the original work. This transformation may be considered as falling under fair use, particularly if the use is non-commercial and is intended to create new meaning or commentary. However, in some cases, memes may use large portions of copyrighted works or may not provide sufficient transformation, leading to concerns about potential infringement.The **fair use doctrine** is not a blanket protection and requires careful analysis of the four factors. Memes often fall into a gray area, where their use may seem to be transformative and fall under fair use, but they may also pose a threat to the original market for the copyrighted work, particularly when they are used in commercial contexts or go viral across the internet.

LEGAL PERSPECTIVE UNDER INDIAN COPYRIGHT LAW

In India, the legal status of memes is governed primarily by the **Copyright Act, 1957**, which outlines the rights of creators and the limitations on those rights. Memes often involve the use of copyrighted images, film stills, dialogues, or audio clips—materials typically protected under the Act. The growing popularity of memes raises critical legal questions about **infringement**, **fair dealing**, and **transformative use**, especially as these humorous creations are widely shared on digital platforms without seeking the permission of original rights holders.

• Copyright Protection in India

Under **Section 14 of the Copyright Act, 1957**, the copyright holder is given the exclusive right to reproduce, adapt, distribute, and communicate the work to the public. Any reproduction of a copyrighted work be it in whole or substantial part—without permission constitutes **infringement**, unless it falls within a statutory exception.In the case of memes, using a copyrighted image (like a frame from a Bollywood film or a celebrity photograph) may prima facie amount to infringement, especially when the original work is used **without significant transformation** or **proper attribution**.

• The Fair Dealing Exception

India does not follow the broad **fair use** doctrine like the United States but instead recognizes a narrower concept called **"fair dealing"** under **Section 52 of the Copyright Act**. The provision lists specific situations where the use of copyrighted material does not amount to infringement, such as:

- Private or personal use, including research;
- Criticism or review, whether of that work or any other work;
- Reporting of current events and affairs;
- Judicial proceedings or proceedings before a legislative or statutory authority.

The challenge lies in determining whether memes fall under any of these permissible uses. If a meme is clearly satirical, political, or used to criticize or comment on a social event, it might be protected under the fair dealing provision. However, the law does not explicitly mention **parody** or **satire** as exceptions, which creates ambiguity and makes enforcement highly subjective.

JUDICIAL INTERPRETATION AND CASE LAW

Indian courts have addressed the scope of fair dealing in several decisions, though not specifically in the context of memes. In **Civic Chandran v. AmminiAmma (1996)**, the Kerala High Court held that fair dealing must be assessed based on the purpose of the use and the degree of transformation. The court emphasized that if the new work comments on or critiques the original, it is more likely to be considered fair dealing.

In **Super Cassettes Industries Ltd. v. Hamar Television Network Pvt. Ltd. (2010)**, the Delhi High Court clarified that mere reproduction, even for entertainment, does not automatically qualify for fair dealing. The court held that transformative use is crucial, and if the intent is purely commercial, the defense of fair dealing may not succeed.

These judgments suggest that meme creators in India must ensure that their works are not mere reproductions but are **transformative** and **commentative** in nature. Memes that simply replicate copyrighted material for humor or entertainment—without any critical commentary—are less likely to be protected.

PLATFORM LIABILITY AND SAFE HARBOUR

Under the **Information Technology Act, 2000**, intermediaries like Instagram, Facebook, and Twitter enjoy a degree of immunity under **Section 79**, provided they act as neutral platforms and take down infringing content upon receiving notice. However, this safe harbour is conditional on due diligence, and platforms are increasingly pressured to implement **automated content moderation**.

While copyright holders can send takedown notices to platforms under Section 51 of the Copyright Act or use the IT Act, meme creators often lack the legal awareness or resources to challenge wrongful takedowns. Additionally, the **absence of a mechanism** to assess whether a meme is "fair dealing" before removal often results in **over-censorship**, chilling online creativity.

THE NEED FOR LEGAL REFORM

Given the rise of user-generated content and evolving digital culture, Indian copyright

law is arguably **ill-equipped** to handle the complexities of meme culture. The current statutory framework does not provide a clear exception for **transformative parody**, leading to legal uncertainty. There is a growing call from scholars and digital rights activists for reforms that recognize memes as a distinct form of **digital expression**, deserving protection under a broadened interpretation of fair dealing.

Until such reforms are introduced, meme creators must tread carefully, especially in commercial contexts or when using content owned by well-resourced rights holders. Legal literacy, clearer guidelines, and possibly judicial recognition of memes as **modern-day parody or critique** are essential steps forward.

THE CHALLENGES OF ENFORCEMENT IN THE AGE OF DIGITAL MEDIA

The proliferation of meme culture in the digital age presents unique and formidable challenges to the enforcement of copyright law. As memes are shared, reshaped, and re-posted across global platforms at lightning speed, the ability of copyright holders to monitor and control the use of their protected works becomes increasingly difficult, if not impossible in practical terms. Traditional enforcement mechanisms, designed for slower and more traceable forms of media distribution, struggle to cope with the decentralized, anonymous, and viral nature of digital communication.Memes are inherently viral; their very purpose is to be replicated, modified, and circulated within online communities. Platforms like **Facebook**, **Instagram**, **Twitter**, **Reddit**, and **TikTok** function as high-speed conduits for this flow of content, enabling memes to reach vast audiences within minutes. Often, the creators of these memes are anonymous or use pseudonyms, and once a meme gains traction, it can be copied and re-shared by thousands or even millions of users across different platforms, regions, and jurisdictions. This reality renders the enforcement of copyright law exceedingly complex. A rights holder who identifies one instance of infringement may find it already replicated across countless sites and accounts, making comprehensive enforcement akin to a game of digital "whack-a-mole."

Adding to the difficulty is the role that **social media platforms** play as intermediaries in the sharing of memes. These platforms are governed, in jurisdictions like the United States, by frameworks such as the **Digital Millennium Copyright Act (DMCA)**, which provides a notice-and-takedown system to address claims of copyright infringement. Under the DMCA, copyright holders can submit takedown notices to platforms, requesting that infringing content be removed. In response, platforms are typically obligated to act promptly to remove the content and avoid liability. While this mechanism offers a formal legal avenue for addressing unauthorized uses, it is inherently **reactive**intervention only begins after an infringement is reported. Given the speed with which memes spread, the content may have already gone viral or been reposted by the time a takedown notice is processed.Moreover, the DMCA and similar processes often fail to address the more nuanced issue of **fair use**. Many memes are potentially **transformative**they comment on, parody, or criticize the original work, thus raising a valid legal defense under fair use doctrine. However, automated systems and even human moderators reviewing takedown requests may lack the legal sophistication to

assess the context and intent behind a particular meme. As a result, content that should be protected under fair use may be wrongly taken down, raising concerns about over-enforcement and the chilling effect on free expression.

To manage the overwhelming volume of content, many platforms have turned to automated content identification systems such as YouTube's Content ID, Facebook's Rights Manager, or TikTok's automated filters which scan uploads against databases of known copyrighted works to detect potential matches. While these tools have improved the efficiency of enforcement, they are far from perfect. They may flag and remove content that merely resembles copyrighted material, even if it is legally permissible under fair use, satire, or parody. Conversely, they may fail to detect subtle uses of copyrighted elements that are cleverly integrated or altered. This creates a paradox: while rights holders demand better enforcement, users demand fairer treatment of their expressive works.

Another major challenge lies in the anonymity and ephemerality of online content. Many meme creators use anonymous accounts or temporary usernames that leave little to no trail. Even when a copyright holder wishes to pursue legal action, identifying the actual person behind an infringing meme is often difficult, requiring cooperation from platforms and, in some cases, court orders. Additionally, content on platforms like Instagram Stories or Snapchat may disappear within 24 hours, erasing the evidence of infringement before action can be taken. In such cases, even the most vigilant rights holder may be unable to enforce their rights effectively.

The global nature of digital media also complicates enforcement. A meme may originate in one country, use copyrighted material from another, and be viewed by users in dozens more. Copyright laws vary widely across jurisdictions what qualifies as fair use in the United States may not be considered fair dealing in countries like the UK, Canada, or India. Cross-border enforcement of intellectual property rights is fraught with legal, procedural, and diplomatic hurdles. International treaties like the Berne Convention and TRIPS Agreement attempt to harmonize copyright standards, but enforcement mechanisms remain largely national and difficult to coordinate on a global scale.

Finally, there is an increasing recognition of the cultural value of memes and the need for balance between copyright enforcement and the protection of digital expression. Overzealous enforcement risks stifling legitimate creativity, social critique, and commentary core purposes that copyright law itself was meant to foster. Memes often serve as a form of political speech, satire, or communal storytelling, and their value cannot be reduced solely to whether they infringe on a copyright. Courts and policymakers are increasingly being called upon to consider these broader social contexts when interpreting copyright law in the digital sphere.

The enforcement of copyright law in the age of digital media is facing unprecedented challenges. The speed, anonymity, and global reach of meme culture have outpaced traditional legal frameworks and enforcement tools. While mechanisms like the DMCA provide a foundational structure for responding to infringement, they are ill-equipped

to handle the scale and complexity of online meme dissemination. Automated systems offer some assistance but are prone to errors and legal misjudgements. The future of copyright enforcement in the meme era will likely require a combination of technological innovation, legal reform, and a deeper understanding of the balance between intellectual property rights and digital creativity. It is clear that a rigid enforcement approach may no longer be viable what is needed is a nuanced, adaptive legal framework that respects both the rights of creators and the evolving dynamics of digital expression.

CONCLUSION: NAVIGATING THE TENSION BETWEEN COPYRIGHT PROTECTION AND DIGITAL CREATIVITY

As meme culture cements its role as a defining mode of communication and expression in the digital age, the law must grapple with unprecedented challenges in balancing the rights of creators with the freedoms of users. The rapid evolution of internet culture has blurred the traditional boundaries between authorship, ownership, and audience engagement. In this context, the legal frameworks that were developed in an era of analog media are increasingly being tested by the participatory, decentralized, and remix-based nature of digital content. Copyright law, at its core, is designed to incentivize creation by protecting the rights of original authors. However, in the case of memes where humor, satire, commentary, and cultural critique are often built on pre-existing works rigid enforcement of copyright can unintentionally stifle the very creativity and dialogue it seeks to promote.The doctrine of fair use emerges as a key mediator in this legal tension, offering a mechanism through which transformative and socially valuable uses of copyrighted works can be shielded from claims of infringement. Nevertheless, the application of fair use is far from automatic or universal. It requires a nuanced, fact-specific analysis of several factors, including the purpose and character of the use, the nature of the copyrighted work, the amount and substantiality of the portion used, and the effect on the market for the original. In the context of memes, where content is frequently modified, recontextualized, and used for commentary or humor, the potential for fair use is significant—but not guaranteed. Courts must tread carefully, recognizing both the rights of original creators and the evolving norms of digital creativity that value transformation and communal engagement.Moreover, the legal system must consider the broader social and cultural implications of meme creation and sharing. Memes often serve as vehicles for political expression, social critique, and collective identity. Overzealous copyright enforcement, particularly when deployed through automated content takedown systems, may disproportionately impact marginalized voices who rely on memes as a low-barrier tool for expression. As such, a more flexible and context-sensitive approach is necessary—one that prioritizes balance over rigidity and acknowledges that digital creativity often builds upon the past to comment on the present.Looking ahead, a forward-thinking legal response to meme culture will require not only judicial clarity but also legislative innovation, platform accountability, and public education. Legislators may need to refine existing copyright statutes to better accommodate the realities of digital media. Online platforms, as intermediaries, should adopt transparent policies and improved mechanisms for resolving fair use disputes. Educators and creators alike

should be equipped with a better understanding of copyright rights and exceptions, empowering users to make informed decisions while respecting original works.

In conclusion, the evolution of meme culture underscores the urgent need for copyright law to adapt to the digital era. Rather than viewing copyright protection and digital creativity as inherently conflicting goals, the law must evolve to support both encouraging original creation while also allowing room for remixing, parody, and commentary that enrich the cultural commons. Only by adopting a balanced, adaptive, and inclusive approach can we ensure that copyright law continues to serve its dual purpose: protecting authors and promoting the progress of creativity in a world increasingly shaped by the dynamics of digital expression.

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E-Waste: A Burgeoning Human Rights Solicitude

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ABSTRACT

With the hasty boom in the technological innovations, the demand for novel and improvised electronic goods has increased multifariously resulting in thunderous escalation in the obsolete electrical and electronic goods that have not even reached their end of life. The WHO has also considered E-Waste as a biggest global challenge and has raised concerns about its effects on human health.[1] The paper aims to spotlight the way human rights are violated due to perilious e-waste dumping and disposal techniques. The researchers have highlighted the major concerns and the hazardous implications of e-waste on human rights.

Keywords: E-waste, Human Rights, Electrical and Electronic Equipment, Hazardous, Environment, Informal Sector.

INTRODUCTION

Technological boom has led to the outburst of electrical and electronic gadgets making life of people more comfortable and serene. Novel and innovative electrical equipments are being introduced in the market on quotidian basis resulting in shortened life span of electrical and electronic equipments (EEE) thereby making them obsolete much before they reached end of their life. Electronic gadgets are not always propitious due to the embodiment of highly toxic and hazardous components. These hazardous components in turn affect the environment and health of the living beings on earth in a catastrophic manner.

The enormous generation of e-waste is a matter of real solicitude not only for the developing nations but also for the developed countries. In the contemporary society one cannot think of existence without EEE making it really important to dispose e-waste in an environment friendly manner as more reliance on electronic components

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1 https://www.who.int/news/item/15-06-2021-soaring-e-waste-affects-the-health-of-millions-of-children-who-warns ((last visited on October 10, 2022).

would result in huge pile of e-waste that would pose a serious threat for the environment and human health.The problem would accelerate manifolds in the near future due to the excessive dependence on computers, mobile phones and other electrical gadgets.

E-Waste comprises of hazardous as well as valuable and precious components mandating its treatment and disposal in an environment friendly manner. Due to the inclusion of toxic components, e-waste is not always benevolent for mankind as well as flora and fauna. Some of the hazardous components of e-waste are arsenic, beryllium. Barium, mercury, lead, brominated flame retardants, polyvinyl chloride, Phthalate esters, hexavalent chromium, cadmium, brominated flame retardants and many more.[2] These components have the tendency of causing life threatening impact on the living beings. E-Waste includes electronic equipments that lights out or is discarded by the ultimate user. E-Waste (Management) Rules, 2016 defines E-waste as "Any electrical and electronic equipment, whole or in part discarded as waste by the consumer or bulk consumer as well as rejects from manufacturing, refurbishment and repair processes".[3] This definition seems to be exhaustive as it imbibes all the components of electronic equipment. As per UN, "E-Waste is any discarded product with a battery or plug, and features toxic and hazardous substances such as mercury, that can pose severe risk to human and environmental health".[4] This definition provides a comprehensive overview of the austere nature of e-waste components. It seems to provide that e-waste is a serious source for disquietude in the modern times.

MAGNITUDE OF THE E-WASTE PROBLEM

According to Global E-Waste Monitor 2020, nearly 53.6 million metric tonnes of e-waste was generated worldwide in the year 2019 which has increased up to 21 per cent in just five years which would reach 74 million metric tonnes (MT) by 2030.[5] Out of total worldwide generated e-waste in the year 2019, only 9.3 MT amounting to about 17.4 per cent of the total e-waste generation was collected and recycled.[6] Apart from this 17.4 per cent, remaining is illegally dumped in the developing nations where it is treated by the informal sector in a very unscientific method by making use of primitive techniques.[7] As per Global E-waste Monitor 2020, the world's fastest growing domestic waste stream is the e-waste because of its ephemeral life span. Asia is the tempestuous generator of e-waste in the year 2019 to nearly about 24.9 MT followed

2 Human Rights Impacts of E-Waste, Available at: https://www.ciel.org/wp-content/uploads/2015/10/HR_EWaste.pdf (Last visited on April 10, 2023).

3 Electronic Waste (Management) Rules, 2016, s. 3(1)(r).

4 The Growing Environmental Risks of E-Waste, Available at: https://www.genevaenvironmentnetwork.org/resources/updates/the-growing-environmental-risks-of-e-waste/ (last visited on April 14, 2023).

5 The Global E-waste Monitor 2020 – Quantities, flows, and the circular economy potential, Available at: https://ewastemonitor.info/gem-2020/ (last visited on July 10, 2022).

6 Ibid.

7 Growing Threat of E-waste Affecting Millions of Children Worldwide, WHO Warns, Available at: https://sdg.iisd.org/news/growing-threat-of-e-waste-affecting-millions-of-children-worldwide-who-warns/ (Last visited on November 1, 2022)

by America and Europe generating nearly 13.1 MT and 12 MT respectively.[8]As per the report, the e-waste generated in 2019 weighs more than all the adults in Europe and is equivalent to 350 cruise ships of the size of Queen Mary 2 that is copious to form 125 Km long line.[9]E-Waste is stipulated as one of the major quagmire by the International Telecommunication Union.[10] In one of the report of 2015, by the United Nations Environment Programme, titled as 'Waste Crimes, Waste Risks: Gaps and Challenges in the Waste Sector', it was reckoned that nearly 60 per cent to 90 per cent of e-waste having worth of about USD 19 billion is dumped or traded illegitimately each year.[11] Retired Justice Arun Kumar Mishra, the chairperson of National Human Rights Commission had shown dismay regarding illegal dumping and trading of e-waste by the developed nations in the developing and under developed countries.[12]

Director General of WHO, DrTedrosAdhanomGhebreyesus, has expressed his deep concern over e-waste by asseverating it as "With mounting volumes of production and disposal, the world faces what one recent international forum described as a mounting 'Tsunami of E-Waste', putting lives and health at risk".[13] The WHO has manifested perturbation for protecting the health of the most vulnerable group – the children from the clutches of the ever-growing e-waste menace.

Hazardous Components of E-Waste and their occurrence in Electrical and Electronic equipment with their relative effect on Human Health[14]

Components	Effect on Human Health	Occurrence in Electrical and Electronic Equipment
Lead (Pb)	It affects brain development, damages the central and peripheral nervous system, harmful for human reproductive system, DNS dent, affects metabolism and neuropsychological functions, skin lesions, headache, nausea, gas, malfunction of kidneys, learning disability in kids, affects the circulatory system and the endocrine	Plastic stabilizer, Printed Circuit Boards, Rechargeable Ni-Cd batteries, Printer ink, Toners, Cathode Ray Tube (CRT) screens, Semiconductor chips
Arsenic (As)	It causes nausea, allergic reactions, dermatitis, vomiting, abnormal heart rate, decreases production of red blood cell and white blood cell	LED
Beryllium (Be)	Potential human carcinogen, lung damage and allergic reaction	CRT and Circuit Boards

8 Supra Note 3.

9 Ibid.

10 Supra Note 2.

11 Ibid.

12 NHRC chairperson expresses concern over dumping of e-waste by developed countries, Available at: https://www.thehindu.com/sci-tech/energy-and-environment/nhrc-chairperson-expresses-concern-over-dumping-of-e-waste-by-developed-countries/article65890308.ece (Last visited on April 1, 2023).

13 Soaring e-waste affects the health of millions of children, WHO warns, Available at: https://www.who.int/news/item/15-06-2021-soaring-e-waste-affects-the-health-of-millions-of-children-who-warns (Last visited on April 1, 2023).

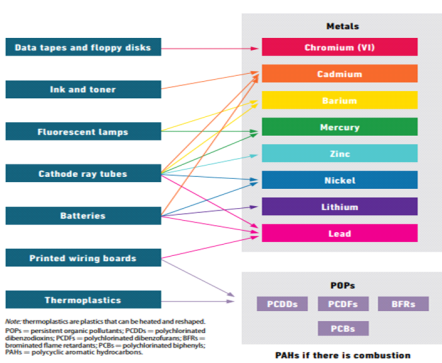
14 Dr.Navtika Singh Nautiyal and Shuchita Agarwal, "Future of E-Waste Management Challenges and Opportunities"109, (Thomas Reuters, Legal 2021).

Copper (Co)	Irritation in Intestine and Stomach, Anaemia, Kidney damage and Liver damage	Electrical Wirings, CRT
Cadmium (Cd)	Bone fragility and damage of Kidney and lungs, DNA damage, Neurological and Respiratory disorders in kids	Light sensitive resistors, Rechargeable Nickel Cadmium Batteries, Phosphor Emitters in CRT Screens, Printed Circuit Boards (PCB) and Semiconductors
Mercury (Hg)	High Blood Pressure, Kidney and Lung Damage, Increased Heart Rate, Chronic Brain Related Disorders, DNA damage, Behavioural Disorder, Impair Foetus Enlargement, Effects Human Food Chain, Damages Central and Peripheral Nervous System, Ataxia,	Alkaline Batteries, LCD backlights, Monitor Thermostats
Zinc (Zn)	It causes Skin Damage, Cytotoxicity, Ischemia and Trauma	Anticorrosion coating in CRT
Chromium (Cr)	Causes Liver and Kidney Damage	Floppy discs, Metal housing and plates in the Computer
Nickel (Ni)	Causes Allergic Reactions, Asthma, skin Allergy, Malfunctioning of Lungs	Electron Gun in CRT Screens Rechargeable Nickel Cadmium Batteries, PCB, CRT Tubes
Rare Earth Elements	It causes Irritation in the Skin and Eyes	Fluorescent Layer
Plastics	It causes Cancer, Immunology of Humans and affects the Reproductive System	Electronic Equipment

Source: Future of E-Waste Management Challenges and Opportunities"109, (Thomas Reuters, Legal 2021).

Apart from these components e-waste also contains other hazardous substances such as polychlorinated biphenyls (PCBs), polybrominated biphenyls (PBBs), polybrominated diphenyl ethers (PBDEs), brominated flame retardants (BFRs), and valuable substances such as iron, steel, copper, aluminium, gold, silver, platinum and palladium.[15]

COMMON TOXICANTS RELEASED IN THE ATMOSPHERE DUE TO PRIMITIVE WASTE MANAGEMENT TECHNIQUES



Source: Children and digital dumpsites: e-waste exposure and child health.

15 G. Gaidajis, K. Angelakoglou and D. Aktsoglou, "*E-waste: Environmental Problems and Current Management*", 3 JESTR 193-199 (2010), available at: http://www.jestr.org/downloads/volume3/fulltext342010.pdf (last visited on June 2, 2022).

RIGHT TO LIFE AND HEALTHY ENVIRONMENT

Article 21 provides "No person shall be deprived of his life or personal liberty except according to procedure established by law".[16] Initially Article 21 provided a restricted view and Right to Personal Liberty was not considered to imbibe 'Right to pure environment'. But in Rural Litigation and Entitlement Kendra, Dehradun Vs. State of U.P.[17], Right to Wholesome Environment was incorporated in Article 21 to give it a wider scope thereby making Right to Pollution Free Environment as a Fundamental Right.[18] Judiciary acts a guardian of fundamental rights of the people. The judiciary through the activist approach has taken commendable steps for ensuring the people with pollution free environment. Through judicial activism, judiciary has kept a very vigilant eye for protecting the environment. The Supreme Court has ensured the Right to Pollution Free Environment as a fundamental right under Article 21 through the approach of Judicial Activism.

Right to life, as per Supreme Court, includes the right to live in a pollution free and healthy environment.[19] The Supreme Court has made the Right to Pollution Free Environment as justiciable and enforceable. The Supreme Court made it clear that the material resources like forests, ponds, lakes, mountains, tanks are the rewards of nature as they help in maintain ecological balances so, they need to be protected for enabling people of the country in enjoying a quality life free from pollution which is the very essence of Article 21 of the Indian Constitution.[20]

But E-Waste has emerged as one of the major pollutant of our environment and has been considered as the pre-eminent violator of the Right to Pollution Free and Healthy Environment. E-Waste contains extremely hazardous substances that require a specific treatment for its disposal and cannot be dumped in landfills. Because of the presence of toxic components present inside the e-waste, the trade related to e-waste is restricted by the United Nations Basel Convention.[21] The objective of Basel action Network is to ensure the proposal for disposal of e-waste rather than dumping it into less developed nations.[22]

Despite Basel Convention regulation regarding e-waste trade, e-waste is exported to developing nations because of the availability of low cost labour and imperfect

16 The Constitution of India, Article 21.

17 Available at: https://indianlawportal.co.in/rural-litigation-and-entitlement-kendra-dehradun-others-v-state-of-uttar-pradesh-others/ (Last visited on April 8, 2023).

18 Dr. H.N. Tiwari, Environmental Law 89 (Allahabad Law Agency, 6thedn., 2019).

19 M.C. Mehta Vs. Union of India, AIR 1987, SC 965, M.C. Mehta Vs. Union of India, AIR 1988, SC 2217, Vellore Citizens Welfare Association Vs. Union of India, AIR 1996, SC 2715, Indian Council of Enviro Legal Action Vs. Union of India, AIR 1996, SC 1446.

20 Hinch Lal Tiwari Vs. Kamala Devi, 2001, Available at: https://indiankanoon.org/doc/147864248/ (Last visited on April 8, 2023).

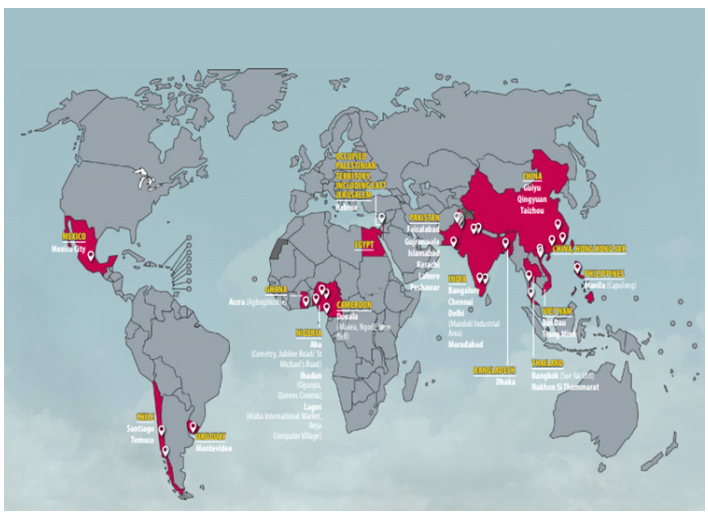
21 Global E-Waste Monitor 2020.

22 Ibid.

environmental regulations.[23] The informal sector dealing with e-waste is not vigilant about the health and environmental hazards associated with the unscientific handling of e-waste.[24]

Recycling in informal sector means burning of circuit boards, soaking of microchips in acid and burning of plastics which in turn proves very harmful for the health of the workers and the environment.[25] The workers are exposed to great risk as soon as they start disassembling of the old electrical equipment.

LOCATIONS OF INFORMAL E-WASTE DISMANTLING AND RECYCLING SITES[26]



Source: Children and digital dumpsites: e-waste exposure and child health.

HUMAN RIGHTS TRANSGRESSION DUE TO E-WASTE

Right to Food:

Right to food has been recognised by several international conventions and Human Rights Treaties as one of the important Human Right. Right to Food, is further connected and interlinked with other Human Rights. Hence, non-realisation of any Human Right would have a direct impact on Right to Food.Right to Food is guaranteed to everyone through Article 25(1) of Universal Declaration of Human Rights divulging that "Everyone

23 Decent work in the management of electrical and electronic waste (e-waste), Available at: https://www.ilo.org/wcmsp5/groups/public/—ed_dialogue/—sector/documents/publication/wcms_673662.pdf (Last visited on: April 8, 2023).

24 Ibid.

25 Ibid.

26 Children and digital dumpsites: e-waste exposure and child health, Available at: https://www.who.int/publications/i/item/9789240023901 (Last visited on June 2, 2022).

has the right to a standard of living adequate for the health and well-being of himself and of his family, including food".[27]

Article 11 of International Covenant on Economic, Social and Cultural Rights stipulates that the "States Parties "recognize the right of everyone to an adequate standard of living for himself and his family, including adequate food, clothing and housing...".[28] Paragraph 2 of Article 11 of the Covenant recognizes that it is the fundamental right of everyone to be free from hunger and it also provided for the measures by the States individually and through international cooperation for bringing an end to the hunger.[29]

Article 27(1) of the United Nations Convention on the Rights of a Child (UNCRC) provides that "children and young people should be able to live in a way that helps them reach their full physical, mental, spiritual, moral and social potential".[30] The Article further stipulates that for giving effect to said provision, the children should have access to adequate food and clothing. The UNCRC stipulates that "all children up to 18 years of age are human beings in their own right, and are entitled to inalienable rights – inherent to human dignity – including the right to healthy food and adequate nutrition, the right to non-discrimination, and the right to consider their best interests in all mattersthat affect them".[31]

Principle 4 of the Declaration of the Rights of the Child provides that, "The Child shall be entitled to grow and develop in health; to this end, special care and protection shall be provided both to child and the mother, including adequate pre-natal and post-natal care and the child shall have the right to adequate nutrition, housing, recreation and medical services".[32]

Article 12(2) of The Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) incorporates that, "The States Parties shall ensure to women appropriate services in connection with pregnancy, confinement and the post-natal period, granting free services where necessary, as well as adequate nutrition during pregnancy and lactation".[33]

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27 The human right to adequate food and freedom from hunger, Available at: https://www.fao.org/3/w9990e/w9990e03.htm (Last visited on: May 5, 2023).

28 Ibid.

29 Ibid.

30 Convention on the Rights of the Child, Available at: https://www.ohchr.org/en/instruments-mechanisms/instruments/convention-rights-child (Last visited on: May 5, 2023).

31 Protecting Children's Right to a Healthy Food Environment, Available at: https://www.unicef.org/media/96101/file/Protecting-Childrens-Right-Healthy-Food-Environment.pdf (Last visited on: April 5, 2023).

32United Nations Declaration of the Rights of the Child (1959), Available at: https://www.humanium.org/en/text-5/#:~:text=Principle%204,natal%20and%20post%2Dnatal%20care. (Last visited on: April 5, 2023).

33 Convention on the Elimination of All Forms of Discrimination against Women, Available at: https://www.ohchr.org/sites/default/files/Documents/ProfessionalInterest/cedaw.pdf (Last visited on: March 5, 2023).

Article 6 of the Declaration on the Protection of Women and Children in Emergency and Armed Conflict stipulated that, "the Women and children belonging to the civilian population and finding themselves in circumstances of emergency and armed conflict in the struggle for peace, self-determination, national liberation and independence, or who live in occupied territories, shall not be deprived of shelter, food, medical aid or other inalienable rights, in accordance with the provisions of the Universal Declaration of Human Rights, the International Covenant on Civil and Political Rights, the International Covenant on Economic, Social and Cultural Rights, the Declaration of the Rights of the Child or other instruments of international law".[34]

Article 1 of the Universal Declaration on the Eradication of Hunger and Malnutrition stipulates that' "Every man, woman and child has the inalienable right to be free from hunger and malnutrition in order to develop fully and maintain their physical and mental faculties".[35]Right to adequate food is also stipulated in 'Voluntary Guidelines to support the progressive realization of the right to adequate food in the context of national food security'.[36]

E-Waste entails extremely deleterious components that perambulate into sources of our food through the soil that possesses toxic qualities due to landfills. The primitive e-waste recycling activities lead to the generation of Polyaromatic Hydrocarbons (PAH) into the soil resulting in detrimental effects on human health and environment.[37] The food articles grown near the dismantling sites contain high value of PAH making it dreadful for the life of living creatures. Such contaminants in the tissues of livestock and are excreted in the form of eggs and milk.[38] E-Waste violates with the provisions of Right to Food ensured by various international conventions.

***Right to Life*:**

Article 3 of UDHR ensures that "Everyone has the right to life, liberty and security of person".[39] Article 6 of ICESCR provides that "Every human being has the inherent

34 Declaration on the Protection of Women and Children in Emergency and Armed Conflict, Available at: https://www.ohchr.org/en/instruments-mechanisms/instruments/declaration-protection-women-and-children-emergency-and-armed (Last visited on: April 5, 2023).

35 Universal Declaration on the Eradication of Hunger and Malnutrition, Available at: https://www.ohchr.org/en/instruments-mechanisms/instruments/universal-declaration-eradication-hunger-and-malnutrition#:~:text=1.,competence%20to%20achieve%20this%20objective. (Last visited on: April 5, 2023).

36 VOLUNTARY GUIDELINES to support the progressive realization of the right to adequate food in the context of national food security, Available at: https://www.fao.org/3/y7937e/y7937e.pdf (Last visited on April 2, 2023).

37 Supra Note 18.

38 Ibid.

39 Universal Declaration of Human Rights, Available at: https://www.un.org/en/about-us/universal-declaration-of-human-rights#:~:text=Article%203,liberty%20and%20security%20of%20person. (Last visited on: April 5, 2023).

right to life. This right shall be protected by law. No one shall be arbitrarily deprived of his life."[40]

Article 6 of the UNCRC entails that, "States Parties recognize that every child has the inherent right to life. States Parties shall ensure to the maximum extent possible the survival and development of the child."[41]

ILO Declaration on Fundamental Principles and Rights at Work has also given recognition to safe and healthy working environment.[42]

Apart from these, almost every Human Right Treaty recognizes Right to Life. E-waste is immensely precarious for the right to life guaranteed by these international covenants due to the potential of releasing extremely toxic substances in the soil and the environment because of the unscientific and uncontrolled methods of treatment disposal and dismantling activities causing headaches, vertigo, skin diseases, neurological disorders, still birth, chronic gastritis, duodenal ulcers, psychological disorders, kidney failures, cancer and many more disorders in the humans.

Right to Highest Attainable Standard of Health:

Article 25(1) of UDHR incorporates that "Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control".[43]

Article 12(1) of the ICESCR recognizes "the right of everyone to the enjoyment of the highest attainable standard of physical and mental health."44 The rights of workers to healthy working conditions are also recognized under this covenant.

Article 24 of the UNCRC recognizes, "the right of the child to the enjoyment of the highest attainable standard of health".[45] Article 24 also takes into consideration the dangers and risks related to environmental pollution affecting the child's health.[46]

Article 12 of CEDAW also recognizes the human right to health. "The treaty obligates all State parties to take all appropriate measures to eliminate discrimination against

40 International Covenant on Civil and Political Rights, Available at: https://www.ohchr.org/en/instruments-mechanisms/instruments/international-covenant-civil-and-political-rights (Last visited on: November 5, 2022).

41 Convention on the Rights of the Child, Available at: https://www.ohchr.org/en/instruments-mechanisms/instruments/convention-rights-child (Last visited on March 5, 2023).

42 ILO Declaration on Fundamental Principles and Rights at Work, Available at: https://www.ilo.org/declaration/lang—en/index.htm (Last visited on: April 5, 2023).

43 Universal Declaration of Human Rights, Available at: https://www.un.org/en/udhrbook/pdf/udhr_booklet_en_web.pdf (Last visited on: April 5, 2023).

44 The Right to Health, Available at: https://www.ohchr.org/sites/default/files/Documents/Publications/Factsheet31.pdf (Last visited on April 5, 2023).

45 Available at: https://www.ohchr.org/sites/default/files/Documents/Publications/Factsheet31.pdf (Last visited on April 5, 2023).

46 Ibid.

women in the field of health care in order to ensure, on a basis of equality of men and women, access to health care services".[47] Article 12(2) ensures "States Parties shall ensure to women appropriate services in connection with pregnancy, confinement and the post-natal period, granting free services where necessary, as well as adequate nutrition during pregnancy and lactation".[48]

"The ILO Constitution sets forth the principle that workers must be protected from sickness, disease and injury arising from their employment."[49]The enjoyment of the highest attainable standard of health as a fundamental human right is also affirmed by the WHO Constitution.[50]

The behavioural and developmental status of children makes them vulnerable to the exposure of e-waste. The e-waste constituents can impact the function and structural development of the lungs and neurological development.[51] The vulnerability of children to infection and injury is quite high. The bodies of children react differently to toxic substances than adults and are not able to break down hazardous substances and thereby eliminate them.[52] The outmoded techniques of e-waste recycling and dismantling have resulted in contaminating the soil and water to an enormously different level. As a result, divergent health problems gets associated with our skin, respiratory tract, brain, lungs, kidney, liver and other organs of the body. Further, even for adults E-waste can cause similar health problems.

Human Rights of the Vulnerable Workers:

Article 23 of UDHR affirms that "Everyone has the right to work, to free choice of employment, to just and favourable conditions of work and to protection against unemployment".[53]Article 7(2)(ii) of ICESCR ensures that "the States Parties must recognize the right of everyone to the enjoyment of just and favourable conditions of work which ensure a decent living for themselves and their families and safe and healthy working conditions".[54]

Article 32(1) of the UNCRC provides that "States Parties recognize the right of the child to be protected from economic exploitation and from performing any work that

47 Ibid.

48 Ibid.

49 Available at: https://www.ilo.org/global/standards/subjects-covered-by-international-labour-standards/occupational-safety-and-health/lang—en/index.htm#:~:text=safety%20and%20health-,International%20Labour%20Standards%20on%20Occupational%20Safety%20and%20Health,injury%20arising%20from%20their%20employment. (Last visited on April 6, 2023).

50 Ibid.

51 Supra Note 21.

52 Ibid.

53 Available at: https://www.humanrights.com/course/lesson/articles-19-25/read-article-23.html (Last visited on: April 6, 2023).

54 Available at: https://www.ohchr.org/en/instruments-mechanisms/instruments/international-covenant-economic-social-and-cultural-rights#:~:text=Article%206-,1.,2. (Last visited on April 6, 2023).

is likely to be hazardous or to interfere with the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral or social development".[55] Article 36 of the said Convention provides that "States Parties shall protect the child against all other forms of exploitation prejudicial to any aspects of the child's welfare".[56]

Article 18 of International Labour Organization states that "Workers shall have the right to remove themselves from danger resulting from the use of chemicals when they have reasonable justification to believe there is an imminent and serious risk to their safety or health".[57]

Recycling in the informal sector includes burning of circuit boards, soaking of microchips in acid and burning of plastics that prove very harmful for the health of the workers and the environment.[58]

The workers are exposed to great risk as soon as they start disassembling the old electrical equipment. The hazardous substances are also released in the environment due to manual dismantling techniques. Due to acid leaching techniques and open burning of the e-waste containing hazardous components, many toxic substances like arsenic, chromium, lead, nickel and beryllium seep into the soil resulting in landfills.[59]

The workers in the informal sector are often unskilled and lack adequate training required for e-waste disposal and handling making them vulnerable to the dreadful health hazards. These workers do not use the protective equipment required at the time of processing of e-waste.[60] Women and children work for about 12 to 14 hours in the informal sector exposing their health at a great peril. As per the documents of International LabourOrganisation, the workers in this sector carries out dismantling processes through bare hands without using any masks in the unventilated and dark rooms with inadequate lighting facilities.[61] These workers do not have the awareness about the perilous aftermath of the techniques they are undergoing for e-waste treatment. The occupational conditions of these workers are not at all workers friendly.[62]

A number of health hazards are associated with the unscientific and primitive method used by the informal section in e-waste dismantling and recycling. Despite the serious environmental and health perils, the informal sector often engage in such activities without paying much heed to the use of personal protective equipment. The informal

55 Available at: https://www.ohchr.org/en/instruments-mechanisms/instruments/convention-rights-child (Last visited on: April 6, 2023).

56 Ibid.

57 C170 - Chemicals Convention, 1990 (No. 170), Available at: https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_INSTRUMENT_ID:312315 (Last visited on April 3, 2023).

58 Ibid.

59 Human Rights Impacts of E-Waste, Available at: https://www.ciel.org/wp-content/uploads/2015/10/HR_EWaste.pdf (Last visited on April 3, 2023)

60 Ibid.

61 Ibid.

62 Ibid.

sector generally consists of women and children who work for about 12-14 hours a day.[63]

The workers in the informal sector carry out the processing of e-waste with bare hands. They often complain about breathing problems, skin allergies, headaches, eye infections and many more.[64] The informal sector lacks awareness about the harmful effects of e-waste and quite often exposes themselves to the certain risk to their health due to improper handling of e-waste and thereby polluting the environment.

Right to Receive and Access Information:

Article 19 of UDHR provides "Everyone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers".[65]

ICESCR stipulates that "everyone has the freedom to seek, receive and impart information and ideas of all kinds".[66]

Article 13 of UNCRC incorporates that "The child shall have the right to freedom of expression; this right shall include freedom to seek, receive and impart information and ideas of all kinds, regardless of frontiers, either orally, in writing or in print, in the form of art, or through any other media of the child's choice".[67]Article 17 of the said Convention incorporates that "States Parties shall ensure that the child has access to information and material from a diversity of national and international sources, especially those aimed at the promotion of his or her social, spiritual and moral well-being and physical and mental health."[68]

The ILO Chemicals Convention incorporates the right of the workers to receive information pertaining to hazards related to chemicals used at the workplace and also make the employers duty-bound to intimate workers about it.[69]

But despite of these international stipulations, the human rights pertaining to access to information is often violated. The workers in informal sector have very little awareness

63 Ibid.

64 Ibid.

65 Available at: https://www.un.org/en/about-us/universal-declaration-of-human-rights#:~:text=Article%2019,media%20and%20regardless%20of%20frontiers. (Last visited on: April 6, 2023).

66 International Covenant on Civil and Political Rights, Article 19.

67 Available at: https://www.ohchr.org/en/instruments-mechanisms/instruments/convention-rights-child (Last visited on April 6, 2023).

68 Convention on the Rights of the Child, Available at: https://www.ohchr.org/en/instruments-mechanisms/instruments/convention-rights-child (Last visited on April 4, 2023).

69 ILO CHEMICALS CONVENTION No. 170 & ITS RECOMMENDATION No. 177, Available at: https://www.ilo.org/wcmsp5/groups/public/—ed_protect/—protrav/—safework/documents/publication/wcms_731982.pdf (Last visited on April 3, 2023).

and comprehension about the perilous activities they are engaged in ultimately exposing them to heightened threat to their lives.

E-Waste management in India is still in its nascent stage mandating a lot of endeavors at all front. It is now well established that the individual chemicals located in the e-waste have deleterious health impact. Exposure to some highly toxic chemicals not only hampers the immediate growth, development and health of a child but also causes certain chronic ailments after attaining adulthood.

E-Waste certainly causes human rights violation. The dismantling of e-waste is done in a crude manner by large number of unskilled workers mandating a proper strategical planning for preventing the health hazards to those involved in the dismantling procedure. These workers should be provided with the relevant information for facilitating cautious e-waste management. Operational research and evaluative studies must be done for ensuring human rights to those whose lives might be affected by the e-waste disposal and handling.

CONCLUSION

India emerged to be one of the major producers of e-waste. E-Waste is posing a real threat for the entire world. This entire world is engulfed with theproblemofe-waste.Effortsarebeingtakenattheinternationalaswellasnationallevelto curb the e-waste peril. India is the only country in South Asia having E-Waste legislation inthe form of E-Waste Rules right from 2011 for the efficient handling of the e-waste probleminthecountry.The Rules have been amended in 2016 and 2018.

But Despite of the E-Waste Rules, thee-waste menaceisbecominguncontrollable day by day due to ineffectiveness of the e-waste legislation. The Rules are not sufficient for dealing with the unorganized informal sector. The government has not streamlined the informal sector where maximum dismantling and recycling of e- waste isdone.[70]

E-Waste management in India is still in its nascent stage mandating a lot of endeavors at all front. It is now well established that the individual chemicals located in the e-waste have deleterious health impact. Exposure to some highly toxic chemicals not only hampers the immediate growth, development and health of a child but also causes certain chronic ailments after attaining adulthood.

E-Waste certainly causes human rights violation. The dismantling of e-waste is done in a crude manner by large number of unskilled workers mandating a proper strategical planning for preventing the health hazards to those involved in the dismantling procedure. These workers should be provided with the relevant information for facilitating cautious e-waste management. Operational research and evaluative studies must be done for ensuring human rights to those whose lives might be affected by the e-waste disposal and handling.

70 Supra Note 13.

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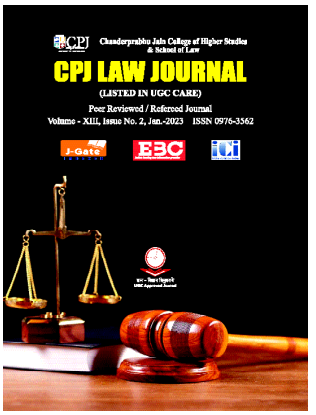
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MESSAGE FROM EDITOR-IN-CHIEF



While welcoming you to the July-2025 Vol. XVIII edition of **CPJ Law Journal**, it is, indeed, our honour to share that CPJ Law Journal has been recognized by the legal fraternity as a leading Law Journal. It is a Peer reviewed Journal that aims to create a new and enhanced forum for exchange of ideas relating to all aspects of Legal Studies and assures to keep you updated with recent developments and reforms in the legal world in the form of Articles, Research Papers, Case Studies etc. Research Studies have always been challenging with positive outcomes witnessed as a result of meticulous and persistent efforts. Researches in the field of Law have benefitted both the Industry and the Academia and it has always been our continuous endeavor to publish such scholarly Research Papers in this Bi-Annual National Journal of **CPJ School of Law**.

CPJ Law Journal is an open access Journal that aims at providing high-quality teaching and research material to Academicians, Research Scholars, Students & Law Professionals. This issue Includes papers from Same-Sex Marriage, Constitutional Right, Income Tax Act, Women Empowerment, Media Freedom, Fingerprint Science, Judicial Interpretation of Reservations, Corporate Governance, Juvenile Justice Act, Waqf (Amendment) Act 2025, Legal Positivism, Religious Fundamentalism, Climate Change, Copyright and Trademark, Copyright Law etc.

We appreciate the tremendous response towards our **"Call for Papers"** and this compelled us to publish our CPJ Law Journal Bi-Annually (in January & July) from the year 2022. We once again welcome contributions in the form of unpublished original Articles, Case Studies or Legal Research Reviews for publication. We are obliged to our widespread readership for their continued support and encouragement in our endeavor to strengthen every issue of **CPJ Law Journal.** The credit to this achievement also goes to all Authors, Law Academicians, Editorial Board & Advisory Committee who have contributed to make CPJ Law Journal a quality journal. We highly solicit to have your continuous support and feedback for further growth of the Journal with quality learning for all the readers.

With this note, welcome once again to **CPJ Law Journal**, **July-2025** edition!!

Dr. Yugank Chaturvedi
Director General
CPJ College of Higher Studies
& School of Law

MESSAGE FROM EDITOR



It is with pride and enthusiasm that I present Volume XVIII (July-2025) of the CPJ Law Journal (CPJLJ). It consists of words and complete analysis of the articles/research papers covered. This issue of the Journal touches upon a number of issues worthy to note in present scenario. A highly evolved and complex justice system makes enormous demands on the people who work in it. Therefore, academicians, law students and legal professionals need upto date information as well as professional analysis on land mark judgments. CPJLJ delivers this vital information to them.

It is pertinent to mention that CPJLJ is a blind two fold Peer Reviewed Annual Journal. Accordingly, it brings to the readers only selected articles/research papers of high standard and relevance. In a country governed by the rule of law, it is important that awareness about the research is created among those who are supposed to be concerned with these researches. Academicians can play a very important role in the development of the higher research, and there is need to encourage young minds to participate in development of research based on the needs of the changing society and technical advances. This Journal provides an excellent platform to all the Academicians and Research Scholars to contribute to the development of sound research for the country.

I would like to express our gratitude to the Editorial Advisory Board and the Panel of Referees for their constant guidance and support. Appreciation is due to our valued contributors for their scholarly contributions to the Journal. Finally, and perhaps most importantly, I wish to thank the entire Editorial team of the CPJ Law Journal for the hard work, positive attitudes and dedication that make this Journal excellent in so many ways.

I, therefore, hope that this issue of CPJLJ will prove to be of interest to all the readers. We have tried to put together all the articles/research papers coherently. We wish to encourage more contributions from academicians as well as research scholars to ensure a continued success of the journal.

Prof. (Dr.) Amit Kr. Jain

Director, Corporate Affairs

MESSAGE FROM CO-EDITOR



It is the supreme art of the teacher to awaken joy in creative expression and knowledge- Albert Einstein

Dear Readers,

We are presenting to you July-2025, Vol. XVIII of CPJ Law Journal. Our aim behind introducing this journal is to create a new forum for exchange of ideas on all aspects of legal studies and we assure to keep you updated with recent developments in the legal world. Future scope of journal is open to your suggestions. You are invited to contribute for the Journal and your submissions should include original research articles, criticism and commentaries on legal aspects.

The CPJ Law Journal is published Bi-annually. The journal publishes scholarly articles and commentaries on various aspects of law contributed by jurists, practitioners, law professors and students. The primary aim of this journal is to provide close insights into the various contemporary and current issues of law to the readers. Contributing to this journal provides an opportunity to authors to take an in-depth study in specific areas of the law and enhances their skills in Legal Research Writings and Analysis.

Talking about this Journal, it is great to be part of such a great initiative which provides all possible services to legal fraternity. Since it is not just confined to being a paper collection activity, rather it aims at providing services for all round development of law students, professionals and all others in this field. Also, being from law background, we feel that it is our prime duty to contribute for development of the society and we have taken many initiatives in this regard also by organizing various events of social relevance as well. Many exciting years for the journal have passed. Some notable developments might have been recognized by most of our readers but others probably have passed unnoticed to the majority. Therefore, this CPJ Law Journal is not only a retrospective on the previous years but also a good opportunity to summarize recent developments.

I hope you find this issue of Journal informative and interesting. The success of this enterprise depends upon your response. We would appreciate your feedback. You are also requested to submit your articles for the next issue Jan-2026 of CPJ Law Journal.

Dr. Shalini Tyagi
Principal
CPJ School of Law

MESSAGE FROM HON'BLE JUSTICE RAJESH TANDON



Any democratic country with rule of Law as its core value principle must guarantee Freedom of Speech and Expression. It is considered the mother of all freedoms. At times, the right to ask is more important than the right of life. Unless we express, we cannot live. It is, therefore, the social responsibility of any Educational Institution to further the understanding of Democratic Governance. It is in this context that a journal like CPJ Law Journal adds importance and relevance.

The CPJLJ is being launched with the aim of remedying the lack of authoritative academic writing devoted to the critical analysis of Law and Legal Institutions. It is intended to serve as a platform where Students, Academicians, Lawyers, Policymakers and Scholars can contribute to the ongoing Legal, Political Disciplinary research in the field. The Faculty of Law at CPJ aims at excelling in interdisciplinary research in the field of Law and other disciplines like Sociology, Political Science, Public Policy and Economics etc. As one of the first academic journals, it will have to look at the inter-disciplinary aspects between Law, Development and Society, which are three value-loaded terms in themselves.

I believe that it is the obligations of the academia to initiate discussion, analyze the various issues that are being faced by India and the world at large and offer solution for the same. The CPJLJ provides a forum for interdisciplinary legal studies and offers intellectual space for ground–breaking critical research. It is not committed to any particular theory, ideology or methodology and invites papers from a variety of standpoints, ideologies, perspectives and methods. The journal aim to explore and expand the boundaries of law and legal studies.

I wish the CPJLJ and the Editorial Board success in all their endeavours and hope that they will keep up their academic work, which may provide some guidelines for the betterment of Socio-legal scenario in India in particular, and across the world in general.

Justice Rajesh Tandon

Former Judge

High Court of Uttarakhand

MESSAGE FROM SH. R.S. GOSWAMI

Dear Readers,



CPJ Law Journal is in its 18th year of continuous publication with a diverse, professional, highly engaged and expert global readership. This Law Journal is a box filled with original research-based papers, articles etc., which is an attempt to cover almost all the subjects relating to legal field.

Getting published is something all Law professionals strive to achieve, and it feels great to me that Chanderprabhu Jain College of Higher Studies & School of Law is providing that platform by bringing out the 16th Volume of the CPJ Law Journal with eagerness and enthusiasm.

The CPJ Law Journal Team deserves very high appreciation for this endeavor. I cherish my association with this journal since its inception and wish it all success and endurance. Such a journal for the practitioners, Law professors and Law students is the need of hour.

Adv. R.S. Goswami
Ex-Chairman
Bar Council of Delhi

MESSAGE FROM SH. MURARI TIWARI



I feel extremely exhilarated to be a part of CPJ Law Journal which aims to create all aspects of Legal Studies and also gives a highly readable and valuable addition to the recent developments and reforms in the legal world. It also helps to provide a different outlook to various legal issues that are prevalent in the contemporary society and also to extract exact solutions for the same. As Nelson Mandela said and I quote, "Education is the most powerful weapon which you can use to change the world."

The journal is a great way to invite one's thoughts for a fruitful experience in Legal Research and Drafting and especially for Academicians, Lawyers and the Law students as it has become a demanding area for the highly complex legal system. The relation between the Bar Council of India and Law Colleges/University of Delhi is exceptional and the Bar Council of India also promotes Legal Research such as conducting Seminars, Workshops, Conferences etc.

In my entire career as an Advocate, I have always affirmed with the idea that Journals and Research Work have quintessential means for advocating Societal Issues and thereby, changing the entire horizon of the Indian Legal system and for the betterment of Legal Fraternity.

I honor CPJ School of Law for giving me an opportunity to be a part of the Law Journal Advisory Board.

Adv. Murari Tiwari
Ex-Chairman
Bar Council of Delhi

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Recognition of Same-Sex Marriage in Australia and Papua New Guinea (PNG): Navigate the Privacy in Digital Age

Dr. Ankur Sharma & Ms. Ritanshi Jain***

ABSTRACT

This paper explores the recognition of same-sex marriage in Australia and Papua New Guinea (PNG) within the context of privacy concerns in the digital age. It examines the legal, social, and technological frameworks that influence the rights and protections afforded to LGBTQ+ individuals in bothOceania countries. The recognition of same-sex marriage and the privacy of LGBTQ+ individuals have become pressing issues in the digital age. While many nations have embraced equal marriage rights, others maintain restrictive laws that limit LGBTQ+ rights. This disparity creates a complex landscape for privacy in an era where personal data is increasingly stored and shared online. This paper investigates these issues in the contrasting contexts of Australia and Papua New Guinea.

INTRODUCTION

The recognition of same-sex marriage in Oceania has been marked by contrasting legal and cultural landscapes, particularly between Australia and Papua New Guinea (PNG). In Australia, the legalization of same-sex marriage was a significant milestone, achieved through the passing of the Marriage Amendment (Definition and Religious Freedoms) Act 2017. This change followed a national postal survey in which a majority of Australians supported the legal recognition of same-sex couples. Australia's approach reflects a broader trend towards LGBTQ+ rights and equality in many Western nations. In stark contrast, Papua New Guinea maintains a strict stance against same-sex marriage, with homosexuality being criminalized under the country's laws. This legal framework reflects deep-rooted cultural and religious opposition to LGBTQ+ rights within PNG, making any recognition of same-sex marriage unlikely in the near future. The divergent legal realities in Australia and Papua New Guinea underscore the broader social, political, and cultural divides within Oceania regarding LGBTQ+ rights and the recognition of same-sex unions.

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Key Sustainable Development Goals Related to LGBT Rights Include:

1. GOAL 5: GENDER EQUALITY

- While primarily focused on gender equality for women and girls, Goal 5 also includes the need for non-discriminatory access to opportunities and services for all, regardless of gender identity or sexual orientation. This is essential for advancing LGBT rights and ensuring their full inclusion in society.
- Target 5.1 specifically calls for the elimination of all forms of discrimination against all women and girls, which can be interpreted to include discrimination based on sexual orientation and gender identity.

2. GOAL 10: REDUCED INEQUALITIES

- Goal 10 focuses on reducing inequalities within and among countries. This includes addressing social, economic, and political inequalities faced by marginalized groups, including LGBT individuals.
- Target 10.3 emphasizes ensuring equal opportunity and reducing inequalities of outcome, which can be crucial in advancing the rights of LGBT people and ensuring their inclusion in society.

3. GOAL 16: PEACE, JUSTICE, AND STRONG INSTITUTIONS

- Goal 16 seeks to promote peace, justice, and strong institutions, with an emphasis on providing access to justice for all and building accountable, inclusive institutions.
- Target 16.b encourages promoting and enforcing non-discriminatory laws and policies, which are essential for protecting LGBT individuals from violence, discrimination, and persecution.

LEGAL RECOGNITION OF SAME-SEX MARRIAGE: AUSTRALIA

Historical Context[1]:

- Prior to 2017, same-sex couples could enter into civil unions or domestic partnerships in some Australian states and territories.
- The Howard Government's 2004 amendment to the Marriage Act explicitly defined marriage as a union between a man and a woman, setting back efforts for marriage equality.

1 The legal recognition of same-sex marriage in Australia was achieved through the *Marriage Amendment (Definition and Religious Freedoms) Act 2017*, which came into effect on January 9, 2018. Prior to this, same-sex couples were denied the right to marry despite ongoing debates and legal battles. In 2004, the federal government amended the *Marriage Act 1961* to explicitly define marriage as between a man and a woman, effectively prohibiting same-sex marriage. After years of activism and public support for equality, the Australian government held a postal survey in 2017, in which 61.6% of respondents voted in favor of legalizing same-sex marriage, leading to the eventual legislative change.

The Role of Public Opinion[2]:

- The postal survey played a pivotal role in demonstrating public support.
- Advocacy by LGBTQ+ groups, allies, and public figures contributed significantly to shifting societal attitudes.

In Australia, same-sex marriage has been legally recognized since December 9, 2017, following a nationwide postal survey and amendments to the Marriage Act 1961. This milestone granted equal legal rights to same-sex couples, encompassing areas such as inheritance, property ownership, and legal recognition of familial relationships. These advancements reflect Australia's commitment to equality and inclusion.

Legal Recognition of Same-Sex Marriage: Papua New Guinea

LEGAL CONTEXT[3]:

- Same-sex sexual acts are illegal under Section 210 of the PNG Criminal Code, carrying penalties of up to 14 years imprisonment.
- No legal protections exist for LGBTQ+ individuals against discrimination or violence.

CULTURAL AND RELIGIOUS INFLUENCES[4]:

- PNG's society is deeply rooted in conservative Christian values and traditional customs, which largely reject homosexuality.
- Religious leaders and cultural norms play a significant role in shaping public opinion and policy

In stark contrast, Papua New Guinea does not recognize same-sex marriage. Homosexual acts are criminalized under Section 210 of the PNG Criminal Code, which penalizes "acts of gross indecency" and "unnatural offences." This legal framework not only denies marriage rights but also perpetuates discrimination and marginalization of LGBTQ+ individuals.

LEGAL FRAME WORK & POLICY

Australia

The legalization of same-sex marriage in Australia was preceded by several key legal developments. Notable milestones include:

2 Australian Bureau of Statistics, *Australian Marriage Law Postal Survey: Final Results*, 2017, https://www.abs.gov.au/statistics/people/people-and-communities/marriage-law-postal-survey-results

3 Human Rights Watch, *"We Live in Fear": Lack of Legal Protection for LGBT People in Papua New Guinea*, 2017, https://www.hrw.org/report/2017/11/01/we-live-fear/lack-legal-protection-lgbt-people-papua-new-guinea

4 Kawar, M. (2015). *Sexuality and Gender Identity in Papua New Guinea: Cultural and Religious Perspectives*. Pacific Studies, 38(2), 45-60

1. **De Facto Recognition**: Same-sex couples in Australia began to gain legal recognition in the early 2000s through de facto relationship laws, which granted them rights similar to those of heterosexual couples in areas such as property and inheritance.
2. **Federal Reforms**: In 2008, the Australian government enacted reforms to remove discrimination against same-sex couples in areas such as taxation, social security, and health care. These changes, however, stopped short of recognizing same-sex marriage.
3. **Marriage Equality Act**: The 2017 Marriage Amendment was the final step in ensuring full legal equality for same-sex couples. It also provided religious protections, allowing clergy and religious organizations to refuse to perform same-sex marriages if it conflicted with their beliefs.

PAPUA NEW GUINEA

The legal framework in PNG remains firmly opposed to same-sex relationships and marriage. Key aspects include:

1. **Criminalization of Homosexuality**: Same-sex sexual activity is illegal under PNG's Criminal Code, reflecting the nation's adherence to conservative social values.
2. **Constitutional Ambiguity**: While PNG's Constitution recognizes the rights of all citizens, it also allows for laws that align with "Christian principles," which are often interpreted to exclude LGBTQ+ rights.
3. **No Legal Protections**: Unlike Australia, PNG provides no legal recognition or protections for same-sex couples. There are no provisions for civil unions, domestic partnerships, or anti-discrimination laws that specifically protect LGBTQ+ individuals.

PRIVACY PROTECTIONS IN THE DIGITAL AGE

Australia[5]

Australia's privacy landscape is governed by the **Privacy Act 1988**, which establishes stringent regulations for handling personal data. Sensitive information, such as sexual orientation, is safeguarded under this framework. Government and private entities must ensure that data is collected, stored, and shared responsibly, protecting individuals from discrimination and privacy breaches.

In the context of same-sex marriage, these privacy protections are crucial. Digital systems, including government databases and social media platforms, must ensure that LGBTQ+ individuals' data is not exposed or misused. Cyberbullying, online

5 Australian Law Reform Commission, *Serious Invasions of Privacy in the Digital Era*, ALRC Report 123, 2014, https://www.alrc.gov.au/publication/serious-invasions-of-privacy-in-the-digital-era-alrc-report-123/

harassment, and data breaches remain risks, but ongoing advancements in cybersecurity and legal frameworks aim to mitigate these challenges.

PAPUA NEW GUINEA[6]

Privacy protections in PNG are less robust, with limited legal frameworks addressing data security. The **Cybercrime Code Act (2016)** focuses on combating cybercrime but offers minimal safeguards for sensitive personal data. LGBTQ+ individuals in PNG face significant risks in the digital realm, where exposure of their sexual orientation can lead to discrimination, ostracism, or violence.

Digital platforms often serve as safe spaces for the LGBTQ+ community in PNG to connect and advocate for their rights. However, the lack of privacy protections and societal stigma creates an environment where individuals are vulnerable to surveillance, harassment, and outing.

CULTURAL AND SOCIAL IMPLICATIONS

Australia has seen increasing societal acceptance of LGBTQ+ rights, supported by legal reforms and advocacy efforts. However, challenges such as online harassment and discrimination persist. In PNG, deeply rooted cultural and religious beliefs oppose LGBTQ+ rights, creating significant barriers for social acceptance and legal recognition. This cultural divide underscores the importance of privacy protections to shield individuals from societal backlash.

CHALLENGES AND OPPORTUNITIES IN THE DIGITAL AGE[7]

Australia

The digital age presents opportunities for LGBTQ+ advocacy, including social media campaigns and online communities. However, it also exposes individuals to risks such as cyberbullying and data breaches. Strengthening cybersecurity measures and promoting digital literacy are essential to safeguarding privacy.

Papua New Guinea

For LGBTQ+ individuals in PNG, the digital space offers limited avenues for advocacy and connection. However, the risks of exposure and discrimination often outweigh these benefits. Advocacy efforts must focus on building legal frameworks and cultural awareness to support LGBTQ+ rights and privacy.

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[6] *Privacy and Data Protection in Papua New Guinea: Challenges and Opportunities*, 2020, https://privacy.org.au/publications/papua-new-guinea-privacy-data-protection

[7] Sultana, M., & Peni, B. (2019). *Challenges of Digital Privacy and Data New GuineaProtection: An Analysis of Legal and Societal Barriers*. Journal of Pacific Studies, 41(3), 223-245.

KEY COMPARISONS

Aspect	Australia	Papua New Guinea
Legal Status	Same-sex marriage is recognized.	Same-sex marriage is not recognized; homosexuality is criminalized.
Privacy Protections	Comprehensive privacy laws protect sensitive data.	Limited privacy protections, with few safeguards for sensitive data.
Digital Risks	Cyberbullying and data breaches are risks but addressed.	Risks include surveillance, outing, and online harassment, with minimal recourse.
Cultural Acceptance	Broad societal acceptance, though challenges persist.	Strong cultural and religious opposition to LGBTQ+ rights.

IMPLICATIONS IN THE DIGITAL AGE[8]

- In Australia, the digital landscape facilitates greater inclusivity but requires constant vigilance to address evolving threats to privacy and security.
- In PNG, the digital age presents both opportunities and risks for LGBTQ+ individuals, with the lack of legal protections amplifying privacy concerns and societal challenges.

Addressing these disparities involves strengthening privacy laws, promoting digital literacy, and fostering a culture of inclusion and respect in both nations.

CONCLUSION

The recognition of same-sex marriage and privacy protections in the digital age highlight stark contrasts between Australia and Papua New Guinea. While Australia has embraced equality and robust privacy laws, PNG's restrictive legal and cultural environment poses significant challenges for LGBTQ+ individuals. Addressing these disparities requires a multifaceted approach, including legal reforms, digital literacy programs, and cultural advocacy to ensure privacy and equality for all individuals.The recognition of same-sex marriage in Australia and Papua New Guinea highlights the stark contrasts between two neighboring countries in their approach to LGBTQ+ rights. Australia's legalization of same-sex marriage represents a significant achievement in the global movement for equality, demonstrating the power of advocacy, public support, and political will. In contrast, Papua New Guinea's resistance to same-sex marriage underscores the challenges faced by LGBTQ+ individuals in societies where tradition and religion dominate public discourse.

While Australia serves as a beacon of progress in the Oceania region, PNG's journey toward equality remains fraught with obstacles. Bridging this divide requires sustained efforts to challenge prejudices, promote understanding, and advocate for the universal recognition of human rights.

8 Smith, J., & Rukavina, M. (2021). Digital Privacy and Legal Implications in the Pacific: A Comparative Study of Australia and Papua New Guinea. International Journal of Digital Law & Ethics, 27(4), 312-335.

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Air Pollution and the Constitutional Right to a Pollution-Free Environment: A Study of Judicial Precedents

Dr. Ashish Kumar Singhal[*] *& Mr. Abdul Samad Suhail*[**]

ABSTRACT

India is faced with a serious threat to public health, the environment, and the quality of life caused by air pollution that requires major legal and judicial responses. Although the Indian Constitution does not expressly affirm a right to a clean environment, Article 21 of the right to life has been judicially interpreted to include the right to pollution-free air. The constitutional framework, the judicial precedents, and statutory schemes that deal with the problem of air pollution are looked into in this study to understand how the judiciary has shaped environmental law jurisprudence. M.C. Mehta case and Subhash Kumar case are landmark cases that show how the courts have been proactive in directing polluters, granting stay orders against illegal mining and deforestation, stating the polluter pays principle and precautionary principle as an inherent part of laws, etc.The analysis further brings out the emerging role of the judiciary in balancing developmental necessities with ecological compulsions by way of the adoption of measures such as the Graded Response Action Plan (GRAP) and interventions to curb stubble burning and vehicular emissions. Yet continued legislative gaps, inefficient enforcement, and poor public participation continue to erode the efficacy of judicial orders. Against air pollution and breaches of constitutional rights, this study argues for a multipronged reform of law, technology, administration, and public engagement. This qualitative discourse reinforces the need to uphold more sustainable practices and bolster enforceability to help achieve environmental justice and safe environments for future generations.

Keywords: Air Pollution, Article 21, Graded Response Action Plan (GRAP), Sustainable Development, Constitution of India, Fundamental Rights, Polluter Pays Principle

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INTRODUCTION

Air pollution is one of the biggest environmental problems facing India and is also causing public health degradation, ecosystem degradation, and an adverse impact on quality of life. The problem is that Gujarat and Indian cities regularly feature in the list of some of the most polluted cities in the world, as per the World Health Organization (WHO) and other agencies that promote environmental issues. Industrial emissions, automotive exhaust, crop residue burning, construction dust, and the rampant use of fossil fuels as sources of energy are the principal contributors to air pollution. The complex entanglement of these factors makes for alarming concentrations of pollutants like particulate matter (PM2.5 and PM10), nitrogen oxides (NOx), sulfur dioxide (SO2), and volatile organic compounds (VOCs) in the atmosphere. These pollutants aggravate respiratory and cardiovascular diseases and hamper India's climate change mitigation and sustainable development commitments alike.[3]

Human survival and societal well-being depend on a clean and healthy environment, and hence air pollution is critical for protecting public health. Several provisions of the Indian Constitution provide for a habitat that promotes the health and well-being of all citizens. Article 21, which grants the basic right to life and personal liberty, has been suitably construed judicially to embody the right to a healthy and clean environment. In this interpretation, air pollution is brought within constitutional bounds of scrutiny to reinforce the ability of individuals and communities to advance claims for effective regulation and enforcement. The constitutional mandates of health, environment, and human life have been translated into a framework of actionable basis for dealing with air pollution by judicial interventions in cases like "*M.C. Mehta v. Union of India*"[4].

This research is designed to find out the constitutional basis of the right to live in a clean environment, and the same is ground via judicial precedents. The Constitution of India does not expressly declare the right to a clean environment, but the judiciary has read into articles 14, 19, 21, and 48A a right to the environment and protection of environment values into the constitutional scheme. This study is important because of how the judiciary has helped consolidate environmental jurisprudence in the country, particularly about the complex issue of air pollution.

The study examines landmark judgments to point out how the judiciary has been proactive in directing regulatory authorities, holding polluters accountable, and enforcing compliance with environmental norms. Examples of cases include "*Subhash Kumar v. State of Bihar*"[5] and "*Vellore Citizens' Welfare Forum v. Union of India*[6]", where constitutional provisions related to the air quality concern were invoked by the courts. The study

3 Astutya Prakhar and Raj Shekhar, *Air Pollution and the Constitution of India: A Critical Analysis of the Right to Clean and Healthy Environment*, available at https://docs.manupatra.in/newsline/articles/Upload/d08a625b-13b6-49a9-936e-ee5520d83366.pdf.

4 [1987] 1 SCC 395.

5 [1991] 1 SCC 598.

6 [1996] 5 SCC 647.

further examines the interface between such statutory enactments as the 'Air (Prevention and Control of Pollution) Act, 1981' with constitutional principles to underline the role of the judiciary to reconcile legislative intent with constitutional mandate.

In addition, the study sheds light on the broader implications of these judicial interventions about environmental justice and sustainable development. In the face of the twin tasks of economic growth and environmental conservation in India, the judiciary becomes even more important in protecting the constitutional right to live in a pollution-free environment. The study provides contributions to India's emerging discourse on environmental governance, providing analyses of the legal strategies employed to combat air pollution and protect constitutional rights.[7]

1.1 Constitutional Framework

Many of the provisions for the protection of the environment are laid down in the constitutional framework of India, and some of these address the current need to control air pollution. This framework synthesizes fundamental rights, directive principles, and fundamental duties for the protection of the environment. Although the Constitution does not explicitly speak of the right to a pollution-free environment, judicial interpretation has widened its content to include the preservation of air quality. An analysis of these provisions demonstrates how the conjuncture of constitutional directives and judicial activism, combined, can be used to tackle problems of air pollution.

1.1.1 Fundamental Rights

The Right to a Clean and Healthy Environment—in Article 21 of the Indian Constitution, read along with Articles 14, 15, 21A, 48, and other provisions of the Constitution—the right to life and personal liberty guaranteed under Article 21 has been expanded. This interpretation highlights the very close coupling between environmental quality and the primary right to life. In *Subhash Kumar v. State of Bihar*[8], the Supreme Court held that the right to life as per Article 21 includes the right to enjoy pollution-free water and air for the enjoyment of life. Like in *"M.C. Mehta v. Union of India"*[9], the Court made the directives to control industrial emissions since it considers pollution as a direct attack on life and health. The two cases discussed above illustrate the role of Article 21 in tackling the problem of air quality because Article 21 has provided a way for citizens to seek judicial redress for environmental degradation.

Additionally, Article 14, which provides for the right to equality, has been relied upon to vindicate the effects of the actions of the authorities that aggravate air pollution. In the case *Bangalore Medical Trust v. B.S. Muddappa*[10], the Supreme Court overturned

7 Diva Rai, *Fundamental Rights for Environment Protection Through the Lens of Judicial Precedents*, iPleaders (Nov. 15, 2021), https://blog.ipleaders.in/fundamental-rights-for-environment-protection-through-the-lens-of-judicial-precedents/.

8 [1991] 1 SCC 598.

9 [1987] 1 SCC 395.

10 [1991] 4 SCC 54.

the action of conversion of a public park into a private property because the public at large needed equal access to green space and clean air. The judiciary has played an important role in safeguarding environmental justice while also ensuring that state actions comply with constitutional precepts, as such rulings show.

1.1.2 Directive Principles of State Policy

Although the Directive Principles of State Policy (DPSP) are nonjusticiable and provide a guiding framework for the state to promote environmental protection, Article 48A directs the state to utilize its best endeavors to protect and improve the environment and to safeguard forests and wildlife. This provision expresses a constitutional commitment to sustainable development and ecological balance. Article 48A has been held of considerable import by the Supreme Court in "*Rural Litigation and Entitlement Kendra v. State of Uttar Pradesh*"[11], in that case, limestone quarries in the Dehradun area, when closed to prevent environmental degradation and protect air quality, have been held to conform with the requirement of Article 48A.[12]

Article 48A is complemented by Article 47, which requires the state to do everything to enhance the general public health. Addressing air pollution is the state's obligation to protect public health, as clean air is important to prevent respiratory and other pollution-related diseases. Together with judicial interpretations, these articles reinforce the constitutional obligation for regulation of air quality and preservation of public health.

1.1.3 Fundamental Duties

Every citizen must protect and improve the natural environment, including forests, lakes, rivers, and wildlife [Article 51A(g) of the Constitution]. The provision emphasizes air pollution being a collective task of all citizens. In *L.K. Koolwal v. State of Rajasthan*[13], the Rajasthan High Court observed that article 51A(g) imposes on citizens a duty… which entitles them to read with article 51A(f) a right to a clean environment as its corollary. In addition, the Court ruled that the citizens could invoke this provision to use it as a means for necessitating the state to take steps to protect the environment.

The fundamental duties mandate facilitates participatory environmental governance and encourages citizens to contribute to improving air quality. Thus, a constitutional framework that aligns state obligations with citizen responsibilities brings a holistic approach to tackling the problem of air pollution and protecting the right to a pollution-free environment.[14]

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11 [1985] 2 SCC 431.

12 Natalie S. Mousa, *A Right to a Pollution-Free Environment Through the Right to Life* (2021), Honors Undergraduate Theses, 940, available at https://stars.library.ucf.edu/honorstheses/940.

13 AIR 1988 Raj 2.

14 L. Sarmiento and A. Nowakowski, *Court Decisions and Air Pollution: Evidence from Ten Million Penal Cases in India*, 86 *Environ. Resource Econ.* 605, 605–644 (2023), https://doi.org/10.1007/s10640-023-00805-2.

1.2 EVOLUTION OF ENVIRONMENTAL JURISPRUDENCE IN INDIA

The development of environmental jurisprudence in India is a dynamic interaction of legislative laws, judicial decisions, and evolving demands of society. Initially concerned with particular cases of environmental degradation, judicial methods later extended to more comprehensive principles of environmental and public health sustainability. This in turn has helped deal with air pollution and bring forth the right to a pollution-free environment.

1.2.1 Judicial Approaches

In the formative years, Indian courts tended to address environmental issues sporadically; the issues were brought before the courts under the headings that applied in a given case rather than as part of an environmental agenda. Cases of this initial phase may be cited that are similar, such as *Ratlam Municipality v. Vardichan*[15]. In a landmark ruling, the Supreme Court's judgment earned wide applause for directing municipal authorities to take positive steps regarding issues of sanitation and pollution so that public health is protected by the state. However, this case was not explicitly concerned with air pollution; rather, it illustrated the judiciary's readiness to be involved in environmental issues.

"Pai v. State of Himachal Pradesh"[16] was another major case out of this period, where the Supreme Court held on the ecological impact of limestone quarry in the Doon Valley *[Rural Litigation and Entitlement Kendra v. State of Uttar Pradesh]*[17]. The issue, while not primarily one of deforestation or soil erosion, brought to the fore the interrelation of many environmental issues, among them air quality. By recognizing the primacy of these early judgments, which have provided a sound base for a more comprehensive approach to environmental jurisprudence by linking the principles essential for the constitution to ecological necessities.

1.2.2 Expansion of Article 21

Article 21 of the Constitution was judicially interpreted to include environmental rights as an important turn in India's environmental jurisprudence. The right to a pollution-free environment was expressly recognized as an integral part of the right to life by the Supreme Court in *"Subhash Kumar v. State of Bihar"*[18] The enhancement of Article 21's ambit provided a constitutional ground for handling pollution through the air, enabling citizens to seek recourse to regulatory action and accountability, both public as well as private.

15 [1980] 4 SCC 162.
16 [1986] 2 SCC 198.
17 [1985] 2 SCC 431.
18 [1991] 1 SCC 598.

This shift is further exemplified by the seminal case of *"M.C. Mehta v. Union of India"*[19]. The Court issued detailed orders on how to bring down industrial pollution in the Ganga basin and bring it in abeyance until due compliance with environmental norms. Though the focus was on water pollution, the principles from this case were used to tackle air quality concerns and serve as further examples of the judiciary's thought process.[20]

1.3 LANDMARK JUDICIAL PRECEDENTS

India's judiciary has been very important in interpreting constitutional rights as they pertain to protecting the environment. The courts over some times have also recognized the very inherent link that a healthy environment has with a right to life under 'Article 21 of the Constitution of India.' The link with environmental preservation as a constitutional obligation has been cinched by landmark cases. In addition, these judicial precedents not only broadened the sweep of fundamental rights but also established important benchmarks for maintaining a balance between environmental sustainability and the need for development.

1.3.1 Rural Litigation and Entitlement Kendra v. State of Uttar Pradesh

In *Rural Litigation and Entitlement Kendra v. State of Uttar Pradesh*[21], the Supreme Court of India took up the deterioration of the Dehradun Valley by limestone quarrying. However, unregulated mining causes deforestation as well as soil erosion and pollution and threatens the ecological balance, the petitioners said. In urging sustainable development, the Court awarded the closure of several quarries, though they offered economic benefits. It declared that being a part of 'Article 21' (Right to Life) meant also the right to a wholesome environment. This case set a milestone for judicial environmental activism that established, in part, the idea that environmental protection is a manifestation of fundamental rights.

1.3.2 M.C. Mehta v. Union of India

Many environmental cases, such as *"M.C. Mehta v. Union of India"*[22], the Ganga pollution case, demonstrated the courts' preparedness to solve large environmental issues. Filed as a Public Interest Litigation (PIL), the case argued that rampant pollution is impacting the water quality of the Ganges River by industrial waste, which is going untreated, and municipal sewage. The Supreme Court directed industries along the river to install effluent treatment plants and made the principle of absolute liability applicable to any enterprise that undertakes a hazardous activity. The judgment also held that

19 [1987] 1 SCC 395.

20 G. N. Gill, *Environmental Standards and the Right to Life in India: Regulatory Frameworks and Judicial Enterprise*, in *Environmental Rights: The Development of Standards* 222, 222–246 (S. J. Turner et al. eds., Cambridge Univ. Press 2019).

21 (1985) 2 SCC 431.

22 [1988] 1 SCC 471.

'Article 21', which speaks about the right to life, comes under attack when the environment gets degraded and causes a hampering in the quality of life. The case is a landmark in India's environmental jurisprudence.

1.3.3 Subhash Kumar v. State of Bihar

In *Subhash Kumar v. State of Bihar*[23], the Supreme Court positively established that "Article 21" has on its anvil the "right to pollution-free air and water." The discharge of sludge into rivers by the Tata Iron and Steel Company caused pollution, the petitioner alleged. A court also made remarks that environmental rights are crucial to human dignity and that the state has a responsibility to prevent ecological harm. This case importantly further developed the realm of fundamental rights; environmental protection is not separable from human rights.

1.3.4 M.C. Mehta v. Union of India (Vehicular Pollution Case)

The case in point is *"M.C. Mehta v. Union of India"*[24], in which the Supreme Court took up the issue of very high levels of air pollution in Delhi caused by vehicular emissions. It ordered the authorities to compulsorily convert public transport vehicles to compressed natural gas (CNG) and to enforce stringent emission norms. According to the judgment, the judiciary is taking a proactive role in fighting air pollution and also emphasizing 'Article 21' as well. The case is a classic example of how judicial intervention may turn policy to protect the public's health and the environment.

1.3.5 Vellore Citizens Welfare Forum v. Union of India

Environmental principles such as the "polluter pays principle" and "precautionary principle" were brought into Indian jurisprudence in *'Vellore Citizens Welfare Forum v. Union of India'*[25]. The case revolved around the pollution by tanneries in Tamil Nadu causing untreated effluent discharge into rivers. The Supreme Court declared sustainable development is a constitutional imperative while at the same time stressing the need to achieve environmental protection through industrial growth. In this case, it makes definitive some principles of a magnitude that would modify future legislation and judicial decisions.

1.3.6 Taj Trapezium Case

In *"M.C. Mehta v. Union of India"*[26], the iconic Taj Mahal was severely damaged by industrial pollution. The Supreme Court said discoloration and degradation of the monument were primarily due to emissions from nearby industries. It also ordered polluting industries to relocate outside the Taj Trapezium Zone and to adopt fewer polluting fuels. The exemplar judgment showed how the judiciary plays a role in

23 [1991] 1 SCC 598.
24 [1998] 6 SCC 63.
25 [1996] 5 SCC 647.
26 [1997] 2 SCC 353.

preserving cultural heritage and environmental conservation at the same time. And the Court invoked 'Article 21' to connect environmental protection to pride in the nation and human dignity.

1.3.7 Recent Case: M.K. Ranjitsinh v. Union of India

Article 21 received a new fillip when, in *'M.K. Ranjitsinh v. Union of India,*[27]' the Supreme Court accorded the right to protection against climate change impact a facet of Article 21. Yet the petitioners argue that climate inaction infringes fundamental rights because citizens are exposed to grave environmental hazards. The Court urged the government to adopt more radical climate mitigation measures, including a swift transition to renewable energy. A landmark judgment in Indian constitutional history in terms of recognition and understanding of the two significant trends regarding the evolving meaning of environmental rights and the judiciary's approach to these issues using the doctrines of our Constitution.

These cases establish that through fundamental rights we must protect the environment. The precedents discussed indicate the need for active judicial protection of the fine balance to be struck between development and ecological sustainability and, therefore, a healthy environment for generations to come.

1.4 ROLE OF GRADED RESPONSE ACTION PLAN (GRAP)

The Graded Response Action Plan (GRAP) is a pivoting landmark in India's incessant war against air pollution, especially in the National Capital Region (NCR). This framework mandated by the Supreme Court offers a phased and structured mechanism to address a downslide in air quality. The introduction of GRAP was aimed as a response to the serious public health problem of air pollution in Delhi-NCR to facilitate faster and more efficient action during pollution peaks.[28]

1.4.1 Introduction of GRAP

The order of the Supreme Court to devise GRAP is in *"M.C. Mehta v. Union of India"*[29]. The framework was developed to address Delhi-NCR, where air pollution regularly tops hazardous levels. Air pollution is classified as moderate, poor, very poor, and severe by GRAP, and remedial actions are taken accordingly. Its chief purpose is to lay down clear guidelines to the authorities for preventing, containing, and dealing with air quality emergencies to protect public health and align with the constitutional mandate under "Article 21."[30]

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27 [2024] 10 SCC 1.

28 Sarita and Arun Klair, *Accessing Environmental Justice Through the Lens of the National Green Tribunal in India*, available at https://www.hpnlu.ac.in/PDF/b6ff7c9c-1fb1-450f-b28f-bcc6709c77ec.pdf.

29 [2016] 14 SCC 744'

30 Lovleen Bhullar, *Environmental Constitutionalism and Duties of Individuals in India*, 34 *J. Envtl. L.* 399, 399–418 (2022), https://doi.org/10.1093/jel/eqac010.

1.4.2 Implementation Mechanism

GRAP works on a phased action plan based on the levels of air quality. For moderate and poor levels, there are actions on preventive measures, for example, regulating construction activities and ensuring compliance with dust mitigation standards. In very poor conditions, further measures such as the prohibition on diesel generator sets and limiting the entry of heavy vehicles are initiated. Pollution is brought under control up to moderate levels, but reaching severe levels means shutting down industries, stopping construction activities, restriction vehicular movement, etc. Such an approach is tiered, guaranteeing a targeted response to minimize the impact of pollution.

1.4.3 Key Features

GRAP's core features are dynamic and action-oriented. It limits construction activities, industrial operations, and vehicular emissions by the real-time air quality data availability. Moreover, GRAP stresses interagency coordination for involving purposes of local government, pollution control boards, and law enforcement agencies. GRAP needs to leverage public awareness campaigns and community participation to ensure compliance and build up a collective effort to tackle air pollution.

1.4.4 Effectiveness and Challenges

During critical periods, GRAP has so far achieved measurable success in reducing pollution levels. For example, the ban on high-emission vehicles and strict regulations of construction activities have led to short-term shifts in air quality. Gaps, however, exist in enforcement, and interagency coordination does not always work seamlessly. It has little overall impact, as there is no long-term planning and because it depends on emergency responses.

1.5 DEVELOPMENTS AND JUDICIAL INTERVENTIONS

Air pollution has also received renewed judicial focus in recent years, most recently with landmark interventions by Indian courts. These connote the judiciary's pledge of safeguarding the constitutional right to a pristine and fit environment, which has been regarded as an indispensable part of the essential right to life as specified under "Article 21 of the Constitution of India." This proactive stance of the judiciary is in the path of a custodian of constitutional values and a protector of public welfare and takes on environment while staking off alternative interests.[31]

1.5.1 Court's 2024 Affirmation

The Supreme Court in its historical 2024 judgment once again maintained that the right to a pollution-free environment was a corollary [sic] to the fundamental right to life and dignity in Article 21. This judgment had however further stretched the environmental jurisprudence of the Supreme Court that was established in earlier cases such as *'Subhash Kumar v. State of Bihar'*[32], wherein the right to life was perceived

31 Sharon S., *Supreme Court and Environmental Justice: A Historical Analysis*, 14(2) *J. Polity & Soc'y* 137, 137–148 (2022).

32 [1991] 1 SCC 598.

to incorporate the right to have pollution-free air and water. A PIL on alarming levels of air pollution in metropolitan cities resulted in the 2024 affirmation. Referring to "Article 51A(g)," which enunciates a duty of citizens to protect and improve the natural environment, including its wildlife and forests, and "Article 48A" of the Constitution, which lays down the state's duty to protect and improve the environment and to safeguard the forests and wildlife of the country, the Court observed that the duty is of considerable importance. It ordered the Central Pollution Control Board (CPCB) and State Pollution Control Boards (SPCBs) to draft stricter norms for emissions and come up with scientific ways to curb pollution monitoring. Further, this ruling underlined the importance of sustainable development and also established regulatory authorities' accountability to enforce effective environmental safeguards.

1.5.2 Measures Against Stubble Burning

Pivotal has been the Supreme Court's intervention in the pollution problem caused by stubble burning by farmers in North India. Noting that the practice was causing severe environmental and health hazards, especially in Punjab and Haryana, the Court has issued directions to check the menace. In the 2023 judgment in "*Aditya Dubey v. Union of India*"[33], the Court directed the state governments to incentivize the farmers to adopt eco-friendly alternatives like the Happy Seeder machine, which makes possible the sowing without burning the crop residues. In addition, the Court had directed the setting up of a proper compensation mechanism to dissuade stubble burning and penalize rolling back of progress. The Court invoked "Article 21" to rule that on stubble burning, the government's inaction infringes on citizens' right to clean air. In addition to accelerating enforcement, the measures have also shed light on what is required, in terms of a coordinated effort among farmers, policymakers, and environmental activists, to mitigate this recurring problem.[34]

1.5.3 Firecracker Bans

Another important step in the fight against air pollution is the judicial order to curb the use of firecrackers. The Supreme Court in "*Arjun Gopal v. Union of India*"[35] banned the sale and use of firecrackers in Delhi NCR to dilute air quality in the already bedeviled region during festive seasons. This precedent was continued in the following cases in 2021 and 2023, as the Court expanded on restrictions on festivals, while also continually reinforcing that festivals must be compatible with public health and the protection of the environment. The Court clarified in 2023 that only green firecrackers can be manufactured and sold, which produce less emissions. It prescribed strict enforcement of strict monitoring methods to control compliance and referred to 'Articles 14,' '21' as it served to regulate individual rights against the collective right of a clean environment. Okonjo Iweala was hailed as a 'pathfinder,'

33 2023 SCC Online SC 912.

34 Rhuks Temitope, *The Judicial Recognition and Enforcement of the Right to Environment: Differing Perspectives from Nigeria and India*, 3 *NUJS L. Rev.* 423, 423–424 (2010).

35 [2017] 16 SCC 280.

hailed by some as the first of many to come. Okonjo Iweala was hailed as a 'pioneer' heading the WTO in gender equality first. Okonjo Iweala celebrates appointment as first female WTO director general.

Judicial innovation involving innovative legal frameworks and constitutional mandates can be seen from recent judicial developments given the courts' engagement in addressing air pollution in recent times. The judiciary notes air quality as a basic aspect of life and indoor air quality (IMQ), and these indicators are upheld to ensure environmental rights and fit in with reasonable practices over a wide range of businesses.[36]

1.6 Challenges in Enforcement

The effective enforcement of environmental laws and judicial orders is held back by systemic weaknesses that also reflect societal apathy. Courts have had a central role in shaping and shielding the fundamental constitutional right to a pollution-free environment, but making legal principles operational remains a daunting task. The fight against air pollution suffers from these challenges stemming from legislative deficiencies, implementation bottlenecks, and limited public engagement.

1.6.1 Legislative and Policy Gaps

Although India has a comprehensive legal structure that includes the 'Air (Prevention and Control of Pollution) Act, of 1981', comprehensive research reveals that there are gaps in the existing legal structure to address the emerging sources of air pollution. For example, pollutants causing the greatest health risks, like particulate matter (PM2.5 and PM10) and ozone, fall out of the current legislative regime's specific regulation. The lack of very concrete norms on industrial emissions and vehicular pollution aggravates the problem. It is noteworthy that in "*M.C. Mehta v. Union of India*"[37], the Supreme Court has pointed out that the existing policies to combat vehicular emissions in Delhi are insufficient and therefore have directed that compressed natural gas (CNG) must be used in public transport. Such piecemeal solutions, though, are a symptom of broader problems, in particular that of fragmented policy-making and enforcement. While progress has been made, this has also largely been confined to the effective implementation of regulatory frameworks, where dynamic legislation that confronts and responds to emerging environmental issues has failed to materialize, resulting in the need for a common sense and forward-looking approach.[38]

36 R. Singh and A. Frank, *The Importance of Public Participation in Framing Air Pollution Policy: Outcome of a Judicial Review in New Delhi, India*, 13(4) *Pub. Health Action* 169, 169–172 (2023), https://doi.org/10.5588/pha.23.0047.

37 [2002] 4 SCC 356.

38 S. Iyengar, N. Dolšak, and A. Prakash, *Selectively Assertive: Interventions of India's Supreme Court to Enforce Environmental Laws*, 11(24) *Sustainability* 7234 (2019), https://doi.org/10.3390/su11247234.

1.6.2 Implementation Issues

While we might have robust laws and judicial directives, the enforcement of these laws is usually marred by administrative inefficiencies and failure to account for anyone. Bureaucratic delay, coupled with under-resourced regulatory agencies such as CPCB and SPCB, has made these agencies unable to effectively control and monitor pollution. For instance, the failure to impart compliance can be exemplified by the Supreme Court order in '*Vellore Citizens Welfare Forum v. Union of India*'[39], wherein the Supreme Court ordered stringent action against the industries polluting the Noyyal River. Likewise, in 'Aditya Dubey v. Union of India,' directions to check the practice of stubble burning have not been followed because the farmers are not allocated sufficient financial resources and because agencies of the state are not in coordination with each other. Further emboldened by the lack of punitive measures for noncompliance, violators require strong enforcement mechanisms and periodic judicial review to enforce compliance.[40]

1.6.3 Public Awareness and Participation

However, citizens' role in combating air pollution is of paramount importance but insufficiently informed and low engaged. Although "Article 51A(g)" of the Constitution provides a duty for every citizen to protect the environment, there exists limited environmental literacy that impedes active participation in protecting the environment. In *Bangalore Medical Trust v. B.S. Muddappa*[41], the Supreme Court stated that citizens ought to be instruments for sustained public vigilance to be exercised over the maintenance of the ecological balance. Yet, efforts to sustain awareness of the environment are still sparse and not up to the mark. This gap can be filled by community-based programs, public consultations, and cooperative platforms that enable people to hold authorities accountable and participate in practicing sustainability. There is an imperative for civil society to play a more assertive role in environmental governance such that environmental interests are considered along with other interests and constituents in this newly mandated body policy.

The enforcement challenges demand a multipronged approach combining legislative reform, administrative efficiency, and citizen participation. These systemic issues need to be addressed to achieve the constitutional vision of a pollution-free environment and secure public health for future generations.[42]

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39 [1996] 5 SCC 647.

40 Yogender Singh and Umesh Kulshrestha, *An Analysis of GRAP Task Force Directions for Improved AQI in Delhi During 2018*, 15(1) *Curr. World Environ.* 67, 67–79 (2020), http://dx.doi.org/10.12944/CWE.15.1.06, available at https://cwejournal.org/vol15no1/an-analysis-of-grap-task-force-directions-for-improved-aqi-in-delhi-during-2018.

41 (1991) 54 SCC 4.

42 Ananthakrishnan G, *Delhi Air Pollution: SC to Decide on Monday if GRAP 4 Measures Need to Continue, Directs Setting Up More Check Posts*, *Indian Express* (Nov. 22, 2024, 16:23 IST), https://indianexpress.com/article/india/delhi-air-pollution-examine-grap-4-measures-sc-9683679.

1.7 CONCLUSION

Article 21 of the Indian Constitution is regarded as the main source of the constitutional right to a pollution-free environment, and it is the primary responsibility of the judiciary to protect the health of people and the environment by using this right. However, the judiciary has given life to the intrinsic nexus between preserving the environment and protecting human dignity by progressively interpreting fundamental rights, directive principles, and fundamental duties. Not only have the landmark cases of M.C. Mehta v. Union of India and Subhash Kumar v. State of Bihar broadened the meaning of the right to life, but they have also set important standards for environmental governance in India.

According to the analysis, judicial interventions have made it possible to control air pollution by exploiting polluters, asking for regulatory action, and directing the making of frameworks, including the Graded Response Action Plan (GRAP). The constitutional mandate for environmental protection has been further strengthened by these interventions in the form of innovative principles like "polluter pays," "precautionary principle," etc., which they have introduced into India's environmental jurisprudence.

Matters, however, remain a challenge, particularly the enforcement of the judicial directives and legislative frameworks. These measures are undermined by systemic inefficiencies, fragmented policy approaches, and low levels of public participation. Despite the judiciary's apparent reliance on circuitous governance involving the public, the deficiency in these policies and consequent enforcement mechanisms are still prominent barriers to progress.

Efforts to curb air pollution demand a multifaceted approach involving judicial oversight, comprehensive legislation, exemplary enforcement, and public awareness. We need to place a priority on sustainable development by fusing economic growth and environmental conservation. Finally, the judiciary's determination to protect people's constitutional right to a clean environment demonstrates the significance of the judiciary dealing with the issue and, thereby, of the judiciary in securing a healthy and equal future for all. To make this constitutional vision a reality and to overcome this endemic challenge of air pollution, it is imperative to strengthen institutional frameworks and increase community participation.

1.8 SUGGESTIONS

To address India's pervasive problem of air pollution, a multipronged approach—which combines judicial oversight, legislative reform, administrative efficiency, and active public engagement—is required. Below are detailed suggestions to combat air pollution effectively:

- Existing environmental laws, like the "Air (Prevention and Control of Pollution) Act, 1981," need to be revised and updated from a PM 2.5, PM 10, ozone, and microplastics point of view. Provide dynamic provisions that precede future environmental challenges.

- Provide CPCB and SPCBs adequate funding plus technical and human support necessary for the proper autonomous functioning for the prevention and monitoring of air pollution. Data acquisition and management need enhancement to make them integrate well with other agencies for effective solutions, especially on sources such as vehicle emissions and industries.
- Support the transition to cleaner technologies throughout industries and transportation subsectors. Promote economic and commercial functioning of electric vehicles, renewable energy, and efficiency in industries. Make use of sophisticated technologies to monitor the air quality to address the problem in nearly real-time.
- Fund for helping farmers financially and technologically to produce near-zero burning as an alternative to Happy Seeder and bio-decomposers, etc. Establish effective waste management practices to use the products of crop residues either as biofuels or manure.
- Pull air quality into the urban development policies. Green areas must be increased, rigorous regulation of construction dust is sedimented, and respect zoning law to avoid proximity to sources of pollution and residential areas.
- Promote the use of non-auto modes of transport through better metro connectivity, improved bus rapid transit services, and hopefully cheaper, green modes of transport. Construct well-connected pathways or systems that encourage walking and provide cycling tracks so that their dependency is decreased.
- Deepen several awareness-raising campaigns to raise the level of understanding the population has towards HIT, with particular regard to air pollution and the measures to take to reduce it. Promote other forms of behavior, for instance, cutting down on the use of firecrackers and SWOT analysis of waste disposal.
- Grant the industries and individuals successful in practicing sustainable policies special incentives like tax credits and subsidies for adopting solar power, biofuels, etc. Encourage and reward those actions that are reducing pollution levels in the environment.
- Make it necessary to perform constant checks and stock-taking of any fresh or new judicially crafted directives regarding air quality. Formulate specialized environmental courts for speedy trial of pollution cases and compliance with the orders made therein.
- Increase public participation in environmental management by decentralization of local organizations, consultation, and partnership. Promote compliance and provide methods through which the public can report violations and get involved in monitoring air quality increments.
- Develop integrated national and regional air quality management strategies that are responsive to internationally acceptable environmental standards. The plan should give specific targets and schedules and ensure that those corresponding with the plan are held responsible for the implemented measures or working plan.

- Slap hefty penalties and work the law against industries, vehicles, and people that are polluting the environment. Promote a clear, open grievance channel through which people may report infringements of air quality standards.

These strategies show how coordinated and thus comprehensive a plan towards tackling air pollution needs to be to align development initiatives with sustainable economic growth as well as population health. The constitutional provisions have been largely progressive in directing the realization of a clean and healthy environment; however, their effective implementation can only happen with cooperation from governments, industries, and the citizenry.

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A Critical Analysis of the Power and Function of the Authorities under the Income Tax Act

*Dr. Bibhabasu Misra**

ABSTRACT

The concept of "Tax" is well known from the ancient time. The ancient sovereign used to collect hefty tax from their subjects. In return the sovereign used to maintain peace and order in their realm. The sovereign protected the subjects from the external invasion. In the modern era, all the civilized countries collect tax directly or indirectly. The revenue generated from the collection of tax is used in developing infrastructure, providing welfare schemes to the citizens, as for example affordable health care, education, justice delivery system, good governance etc. There should be a transparency in collection of tax, justly balancing the rights of the assesse vis-à-vis State. The amount of corruption in paying/collecting taxes must be reasonably reduced. The Authorities under the Income Tax Act possess vast power for collection of tax. This paper will analyse the nature of power and function of the Authorities under the Income Tax Act.

Keywords: Constitution, Law, Tax, Power, Civil Court, Search, Seizure, Authority.

INTRODUCTION

Article 265 of the Indian Constitution provides that, "Taxes not to be imposed save by authority of law-No tax shall be levied or collected except by authority of law". Section 10(1) of the Income Tax Act exempts agricultural income from imposition of tax. Entry 82, of the Union list, Seventh Schedule of the Indian Constitution provides the power to the Parliament to enact law imposing tax on subjects other than "Agricultural income". Article 266 of the Indian Constitution provides for the "Consolidated fund of India" and the "Consolidated fund for the State". The revenues, tax received by the Government of India are collected in the "Consolidated fund of India". And same received by the State government are collected in the "Consolidated fund for State". All public money received by the Government of India and the Government of States are credited to the public account of India and public account of State. No money in the Consolidated fund of India and Consolidated fund of State can be appropriated save by the authority of the Indian Constitution and law.

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Article 267 of the Indian Constitution provides for the "Contingency fund of India" and "Contingency fund of States" to meet any kind of contingency. These above funds draw revenue from various kind of direct/ indirect taxes and duties.

The term "Authority", apart from evoking one's psychological response, has special existence as per the scheme of the Indian Constitution and law. If we examine the inclusive definition of the Article 12 of the Indian Constitution, we find the mention of the local and other authorities as part of the State. The implications of being "State" and "Authority" are many, as for example having the liability under the "Writ jurisdiction" of High Courts and Supreme Court,[1] Special leave petition (jurisdiction) of the Supreme Court[2], the duty to always act in far, just, reasonable manner, for upholding the interest of people. The Writ of "Quo-warranto" may be applied against the person holding on unethically to the office maintained by the tax payer's money. A writ of "Mandamus" can be applied against an "Authority" under the scheme of the Income Tax Act, for failure of fulfilling statutory duty.

CHAPTER-XIII OF THE INCOME TAX ACT PROVIDES PROVISIONS CONCERNING VARIOUS "AUTHORITIES".

Section 116 of the Income Tax Act provides about,

A. The Central Board of Direct Taxes constituted under the Central Boards of Revenue Act, 1963 (54 of 1963).
B. Principal Directors General of Income-tax or Principal Chief Commissioners of Income-tax.
C. Directors-General of Income-tax or Chief Commissioners of Income-tax
D. Principal Directors of Income-tax or Principal Commissioners of Income-tax,
E. Directors of Income-tax or Commissioners of Income-tax or Commissioners of Income-tax (Appeals).
F. Additional Directors of Income-tax or Additional Commissioners of Income-tax or Additional Commissioners of Income-tax (Appeals).
G. Joint Directors of Income-tax or Joint Commissioners of Income-tax.
H. (d) Deputy Directors of Income-tax or Deputy Commissioners of Income-tax or Deputy Commissioners of Income-tax (Appeals).
I. (e) Assistant Directors of Income-tax or Assistant Commissioners of Income-tax.
J. (f) Income-tax Officers.
K. (g) Tax Recovery Officers.
L. (h) Inspectors of Income-tax.

1 See Article 226 and 32 of the Indian Constitution.
2 Article 136 (Special Leave Petition) of the Indian Constitution.

Section 117 of the Income Tax Act provides the power to appoint an "Authority" to the Central Government. The Central Government may authorize the "Board, or a Principal Director General or Director-General, a Principal Chief Commissioner or Chief Commissioner or a Principal Director or Director or a Principal Commissioner or Commissioner to appoint income-tax authorities below the rank of an Assistant Commissioner or Deputy Commissioner." An income-tax authority authorised in this behalf by the Board may appoint such executive or ministerial staff as may be necessary to assist it in the execution of its functions.

Under section 118 of the Income Tax Act (Control of Income Tax Authorities), "the Board may, by notification in the Official Gazette, direct that any income-tax authority or authorities specified in the notification shall be subordinate to such other income-tax authority or authorities as may be specified in such notification".

Section 119 of the Income Tax Act provides that, the Board may issue order, instruct, and direct the subordinate Authorities as per notification in the official Gazette, as it deems fit to administer the Act.[3] The Proviso of the section provides some illustration, where the Board can / cannot issue order, instruction and direction. As for example, no such orders, instructions or directions shall be issued—"(a) so as to require any income-tax authority to make a particular assessment or to dispose of a particular case in a particular manner"

(b) the Board may, if it considers it desirable or expedient so to do for avoiding genuine hardship in any case or class of cases, by general or special order, authorise ,"any income-tax authority, not being a Commissioner (Appeals) to admit an application or claim for any exemption, deduction, refund or any other relief under this Act after the expiry of the period specified by or under this Act for making such application or claim and deal with the same on merits in accordance with law;"

Section 120 of the Act provides about Jurisdiction of income-tax authorities:[4] - The Authority will exercise its jurisdiction in the following criteria.

(a) territorial area;
(b) persons or classes of persons;
(c) incomes or classes of income; and
(d) cases or classes of cases.

3 Section 119 of the Income Tax Act.

4 (1) Income-tax authorities shall exercise all or any of the powers and perform all or any of the functions conferred on, or, as the case may be, assigned to such authorities by or under this Act in accordance with such directions as the Board may issue for the exercise of the powers and performance of the functions by all or any of those authorities. 2 [Explanation.—For the removal of doubts, it is hereby declared that any income-tax authority, being an authority higher in rank, may, if so directed by the Board, exercise the powers and perform the functions of the income-tax authority lower in rank and any such direction issued by the Board shall be deemed to be a direction issued under sub-section (1).] (2) The directions of the Board under sub-section (1) may authorise any other income-tax authority to issue orders in writing for the exercise of the powers and performance of the functions by all or any of the other income-tax authorities who are subordinate to it.

Section 124 of the Act provides, Jurisdiction of Assessing Officers:-—"(1) Where by virtue of any direction or order issued under sub-section (1) or sub-section (2) of section 120, the Assessing Officer has been vested with jurisdiction over any area, within the limits of such area, he shall have jurisdiction—

(a) in respect of any person carrying on a business or profession, if the place at which he carries on his business or profession is situate within the area, or where his business or profession is carried on in more places than one, if the principal place of his business or profession is situate within the area, and

(b) in respect of any other person residing within the area."

Clause (5) of this section provides that, Notwithstanding any provision in this Act (Read as for example, order by a superior authority under section 120 of the Act)or in this section, all the Assessing officer will have all the power vested in the Act, provided he has the jurisdiction.[5]

Under section 127 of the Income Tax Act, the Authority, that is Principal Director General or Director General or Principal Chief Commissioner or Chief Commissioner or Principal Commissioner or Commissioner may, transfer a case from one or more Assessing Officers subordinate to him (whether with or without concurrent jurisdiction) to any other Assessing Officer or Assessing Officers (whether with or without concurrent jurisdiction) also subordinate to him. Assesse must be given a reasonable opportunity of being heard.

If the assessing officer is under the jurisdiction of different Principal Director General or Director General or Principal Chief Commissioner or Chief Commissioner or Principal Commissioner, then these different Principal director general, principal chief commissioner must be in agreement. Here also assesse must be given the reasonable opportunity of being heard.

Analysing the phraseology of the section 127 of the Act, it seems that any transfer order will be always a written, reasoned order.

Under section 131 of the Income Tax Act, the Authority will have the power of a Civil Court, under Civil Procedure Code, 1908, regarding discovery, production of evidence.

The power are (a) discovery and inspection; (b) enforcing the attendance of any person, including any officer of a banking company and examining him on oath; (c) compelling the production of books of account and other documents; and (d) issuing commissions.

Thus, the Income Tax Act mainly being a substantive law, the relevant provisions of the procedural law of Civil Procedure Code will also apply to make the power of the "Authority under section 131 of the Income Tax Act" effective.

5 (5) Notwithstanding anything contained in this section or in any direction or order issued under section 120, every Assessing Officer shall have all the powers conferred by or under this Act on an Assessing Officer in respect of the income accruing or arising or received within the area, if any, over which he has been vested with jurisdiction by virtue of the directions or orders issued under sub-section (1) or sub-section (2) of section 120.

Section 132 of the Income Tax Act provides, the power of search and seizure, where the prescribed Authority for fulfilling some purposes of the Act,

enter and search any building, place, vessel, vehicle or aircraft, where he has reason to suspect that such books of account, other documents, money, bullion, jewellery or other valuable article or thing are kept; (ii) break open the lock of any door, box, locker, safe, almirah or other receptacle for exercising the powers conferred by clause (i) where the keys thereof are not available; [(iia) search any person who has got out of, or is about to get into, or is in, the building, place, vessel, vehicle or aircraft, if the authorised officer has reason to suspect that such person has secreted about his person any such books of account, other documents, money, bullion, jewellery or other valuable article or thing; [(iib) require any person who is found to be in possession or control of any books of account or other documents maintained in the form of electronic record as defined in clause (t) of sub-section (1) of section 2 of the Information Technology Act, 2000 (21 of 2000), to afford the authorised officer the necessary facility to inspect such books of account or other documents;] (iii) seize any such books of account, other documents, money, bullion, jewellery or other valuable article or thing found as a result of such search:

Provided that, if the jewellary, bullion, valuable article are stock in trade, then such things will not be seized but a note/inventory will be made by such authorized officer.

Again following the same logic as applied for the "Civil Procedural law", the relevant provisions of the Bharatiya Nagarik Surakha Sanhita 2023 will apply, as for example giving a chance to withdraw, to a "Pardansin woman", who by custom[6], does not appear in public.[7]

As per the section 132A of the Income Tax Act, "Principal Director General or Director General or Principal Director or Director or the Principal Chief Commissioner or Chief Commissioner or Principal Commissioner or Commissioner", in consequence of information in his possession, has reason to believe that, any person under any legal obligation failed to produce any book of accounts, other documents, , which is in his possession, any assets represent either wholly or partly income or property which has not been, or would not have been, disclosed for the purpose of Income Tax Act 1922, this Act by any person from whose possession or control such assets have been taken into custody by any officer or authority under any other law for the time being in force, the prescribed Authority under this section, may cause to deliver such important documents[8] to the requisitioning officer.

Section 132B of the Income Tax Act, provides the application of seized or requisitioned assets, where the seized property consists of solely money, or partly money or partly other property.

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6 See Article 13 of the Indian Constitution, where it has been mentioned that, custom and usages have the force of law.

7 Section 44 of the Bharatiya Nagarik Surakha Sanhita

8 "Document" includes "Electronic document" as per the I.T. Act, 2000.

Under section 133 of the Income Tax Act, provides "Power to call for information".[9]

Under section 133A of the Income Tax Act, "Power of Survey" has been provided. Notwithstanding any provisions of this Act, an income-tax authority may enter any place within his jurisdiction, may inspect book of accounts, check money, bullion, stock etc. This place also includes any charitable place. The concerned Authority mentioned in the section can also make an inventory or note. Section 134 of the Income Tax Act provides the power to inspect the Companies register.

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9 The Assessing Officer, the Deputy Commissioner (Appeals), the Joint Commissioner or the Commissioner (Appeals) may, for the purposes of this Act,—

(*1*) require any firm to furnish him with a return of the names and addresses of the partners of the firm and their respective shares;

(*2*) require any Hindu undivided family to furnish him with a return of the names and addresses of the manager and the members of the family;

(*3*) require any person whom he has reason to believe to be a trustee, guardian or agent, to furnish him with a return of the names of the persons for or of whom he is trustee, guardian or agent, and of their addresses;

(*4*) require any assessee to furnish a statement of the names and addresses of all persons to whom he has paid in any previous year rent, interest, commission, royalty or brokerage, or any annuity, not being any annuity taxable under the head "Salaries" amounting to more than 5[one thousand rupees, or such higher amount as may be prescribed], together with particulars of all such payments made;

(*5*) require any dealer, broker or agent or any person concerned in the management of a stock or commodity exchange to furnish a statement of the names and addresses of all persons to whom he or the exchange has paid any sum in connection with the transfer, whether by way of sale, exchange or otherwise, of assets, or on whose behalf or from whom he or the exchange has received any such sum, together with particulars of all such payments and receipts;

(*6*) require any person, including a banking company or any officer thereof, to furnish information in relation to such points or matters, or to furnish statements of accounts and affairs verified in the manner specified by the Assessing Officer, the Deputy Commissioner (Appeals) the Joint Commissioner or the Commissioner (Appeals), giving information in relation to such points or matters as, in the opinion of the Assessing Officer, the Deputy Commissioner (Appeals), the Joint Commissioner or the Commissioner (Appeals), will be useful for, or relevant to, any enquiry or proceeding under this Act: Provided that the powers referred to in clause (*6*), may also be exercised by the Principal Director General or Director General the Principal Chief Commissioner or Chief Commissioner, the Principal Director or Director or the Principal Commissioner or Commissioner or the Joint Director or Deputy Director or Assistant Director: Provided further that the power in respect of an inquiry, in a case where no proceeding is pending, shall not be exercised by any income-tax authority below the rank of Principal Director or Director] or Principal Commissioner or Commissioner , other than the Joint Director or Deputy Director or Assistant Director, without the prior approval of the Principal Director or Director or, as the case may be, the Principal Commissioner or Commissioner.

Section 136 of the Income Tax Act provides that, Proceedings before income-tax authorities to be judicial proceedings. Thus, any Authority when acting judicially[10] makes a mistake of fact, and then he is not liable. If he is prevented to discharge his duty as Authority, the concerned persons will be criminally liable.[11]

Conclusion: - Taxing statutes are always interpreted strictly[12]. Thus, the Authorities must act within the bounds of the Constitution and law. Some changes are suggested, to be made in future, like rich and well off farmers may be brought under the net of taxation. To initiate such change, Article 368 of the Indian Constitution may be applied, where using the "Constituent power", the Parliament may amend, Schedule VIII, Entry 82, and the consent of the "Half the states" of the Union of India will be required. Another important observation can be made, where the Authorities does not provide justice to the "assesse", if the remedial scheme of the "Taxing statute" is not properly implemented, then one can approach the principal Civil Court having the jurisdiction.[13]

10 See section 14 of the Nyaya Sanhita.

11 Section 223 of the Nyaya Sanhita 2023.

12 See Commissioner of Income Tax v M/S Calcutta Knitwears (AIR 2014 SC 2970)

14 See section 9 of the Civil Procedure Code. Dhulabhai, etc. v. State of Madhya Pradesh and others reported in A.I.R. 1969 S.C. 78 (Constitutional Bench) "Where the statute gives a finality to the orders of the special tribunals the Civil Court's jurisdiction must be held to be excluded if there is adequate remedy to do what the Civil Courts would normally do in a suit. Such provision, however, does not exclude those cases where the provisions of the particular Act have not been complied with or the statutory tribunal has not acted in conformity with the fundamental principles of judicial procedure".

Women Empowerment: Socio-Legal Aspects

*Dr. J.P. Arya**

ABSTRACT

The empowerment of women is often identified as an important national aim of sustainable development policies. Besides governments several philanthropic organizations now include women's empowerment in their development strategies. There can be progress in women's socio-economic empowerment in our country if the right policies are adopted. Governments need to adopt appropriate provisions of Law and policies in consultation with employers' groups, workers' associations and civil society forums, including those representing women and girls. In the modern industrial societies with digital technology it is usually implicitly assumed that higher levels of women's empowerment represent a change from a pre-existing situation. The pre-existing situation would be in which women have limited power, less influence, limited freedom, or restricted autonomy. Despite all the religious teachings, international treaties, states laws, government schemes and programs for women empowerment, equal rights and the girls education the condition of women in north western region of India is deplorable. The social status of women in the patriarchal society seems to be dependent on their men. There are several instances of violence against women. The access to social justice and equality are denied to them. But through the positive socio-political and legal efforts the situation can change to more power, adequate influence and more autonomy. Nevertheless, such changes have been witnessed on a slow pace. This paper tries to highlight how governments, in coordination with civil society, UN, G7 and the European Union, can exert their influence to ensure building a gender-equal future society in self reliant, new India of the vision of our Prime Minister Narendra Modi. The paper also describes various provisions of statutes as well as case laws favoring women empowerment and suggests how to combat the challenges facing in regard to women equality and empowerment.

Keywords: Women, empowerment, law, policies, modern, technology, patriarchal, new India.

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INTRODUCTION

In recent times there is a great significance of women empowerment not only in India but across all world countries. Everyone is pointing on the empowerment of women. It is right to say that women's empowerment has become the demand of the time. Women should possess liberty, faith, and self-worth to opt for their needs and cosmetic accessories. Discrimination based on gender is useless and is having little worth by looking at the growth of women in the last couple decades. Women are paid less and are treated as a cook and subordinate in families, and their real potential fails to get highlighted. Women empowerment initiatives undertaken by government in India are trying to overcome situations of such types and to provide them with their independent role in Indian society. Empowering women is a necessary right of women. They should have proportional rights to contribute to society, economics, education, and politics. They are approved to gain higher education and receive a similar treatment in finding employment in every domain of workforce as men are receiving.

In ancient Indian culture and society traditionally women were considered to be full-time homemakers. Their responsibilities were to take care of their children and family. Indian Sociologist Yogendra Singh regards culture as unique human reality emanating from humankind's unity with nature and manifesting in the technological, mental, moral, social aesthetic and spiritual achievements of humankind. It gives meaning to our relationships and forms our subjective identity. He said, "Culture, therefore, enters into the process of social change in many forms and at various levels. It defines the quality of social change as its indicator. By selective adaptations to outside cultural forces, it has large measure of resilience. With all its institutional pervasiveness it has a core which acts as filter or a moderator to the outside forces of cultural contact and change."[1]

Since culture is community made, in tradition bound society, its impact is immense. Culture's anchoring in folk psychology, level of group conscience and the extent of creative leadership – either of cultural agents or of political persons – are the factors that substantively decide the phase, extent and direction of change in culture. In all countries, be it democratic or communist, it is recognized that the powers of cultures is deeply rooted in the vitality, creativity and cohesion of a nation; that culture is interactive with economic and political activities; and that its status and functions are becoming more and more outstanding in the competition in overall national strength.[2]

Law is a part of nation's culture, being product of group conscience and group activity. Born in commonly accepted moral principles, partly influenced by enduring metaphysical principles of religion and grown in the warmth of ethical considerations of coexistence and welfare of all, law mirrors culture of the community. Historical school of legal thought argued that Constitution and laws should be the outcome of a gradual and

1 Yogendra Singh, Culture Change in India, Rawat Publications, New Delhi 200 at page 25.

2 Bhikhu Parekh, Rethinking Multiculturalism, 2nd Edition, Palgrave MacmillanNew York, 2006, at pp. 74-75

organic development. Law is not a product of accidental or arbitrary origin. It grows with the growth, and strengthens with the strength of the people and finally dies away as nation loses its identity.[3] Law is to be found in the customs, popular faith and traditions of people or in the internally operating silent forces rather than in the wish of the lawgiver. Law varies with culture. Donald Black says, "Where culture is sparse so is law; where it is rich law flourishes."[4] If law's flourishing is to be understood in a limited sense of people's acceptance of law in their day-to-day behavior because of norm abiding practice of culture, the analysis does not address the larger issue.

In fact, modernization poses tall challenge to changeless continuation of culture and tradition. The human rights values and welfare goals of the modern age try to bring lot of rationality and humanism in individual and social conduct, and dispel the faults of patriarchy and caste discriminations. The impediments in the name of protection of culture to the efforts of introducing gender justice reforms in personal law or to the social reform policies that eradicate social evils need to be surmounted by synthesizing the major thrust of Indian culture and humanist values in modern thoughts. The instances of cultural policing against beauty show and the awareness created by feminist writings call for greater social alertness through widespread and meaningful education.

PATRIARCHY HINDERS WOMEN EMPOWERMENT

The North-Western Region of India consists of Haryana, Himachal Pradesh Punjab, and the Union Territory of Jammu & Kashmir, Ladakh[5] and Chandigarh. In these states and Union Territories women were deprived of their basic rights. They are not able to enjoy the liberty and decision making capacity. The definition of patriarchy, understood as 'the structural and ideological system that perpetuates the privileging of hegemonic masculinities' Thus, it is a hegemonic system of power relations based on gender norms, which establish the expected roles of men and women. In this system, women and girls[6] have historically, and overwhelmingly, been oppressed, exploited or otherwise disadvantaged. So too have groups who do not conform with gender norms, the predominant binary approach to gender and sexuality, and/or hetero-normative expectations. These include lesbian, gay, bisexual, transgender and intersex (LGBTI) populations, as well as certain groups of men and boys.[7]

The North-Western Indian society, like a number of classical societies, is still patriarchal. Patriarchal values regulating sexuality, reproduction, and social productions are expressed through specific cultural metaphors. Overt rules prohibiting women from certain important specific activities and denying certain rights did exist.

3 W.Friedmann, Legal Theory, 5th Edition , Universal, New Delhi, 1960, reprint 2003, at pp.210-11

4 Donald, J.Black, The Behaviour of Law, Academic Press London, 1976, at p.63.

5 The state of Jammu and Kashmir ceased to exist at midnight Wednesday, and was converted into two union territories from Thursday, October 31, 2019 under the Jammu and Kashmir Reorganisation Act, 2019; 86 days after Parliament abrogated its special status under Article 370.

6 Recardo Fal –Dutra Santos: Challenging patriarchy: gender equality and humanitarian principles, ReliefWeb 18 July, 2018, Available at https://reliefweb.int/report/world/challenging-patriarchy-gender-equality-and-humanitarian-principles

7 Ibid

Due to binding effect of the ancient custom, traditions and cultural values patriarchal system and the gender stereotypes in the family and society have always shown a preference for the male child. Sons are regarded as a means of social security and women remained under male domination.

Patriarchy – which is the conceptualization of how men, especially cis men, and masculinity are seen as better than, are more respected than, and hold more privileges than women and nonbinary people or femininity—permeates nearly every aspect of our lives. Although patriarchy is set up in a way to benefit men, it can also hurt men in many ways, as men are under the constant scrutiny of the fabricated norms that patriarchy has put in place. Many men don't like to admit, or perhaps don't even know, that what feminism represents can directly affect the harm caused by patriarchal norms for men.

The exploitation of women within a marriage reflects deeper structural inequalities within a male-dominated society. As an ideology, feminism seeks to highlight the disastrous impact of patriarchy upon women's lives.

Indian society, particularly people living in North-West region of India places high stakes on both honor and reputation. Because of its largely patriarchal standpoint, this honor and reputation often get related to the man of each family. Thus, any news that could potentially ruin a man's public reputation will be hidden. Of course, this creates an unsafe environment for women suffering at the hands of a man. In such circumstances women face heinous crime against them in the form of honor killing. This is because they risk facing shame and further abuse for ruining a man's reputation.

IMPACT OF SOCIO-RELIGIOUS REFORMS ON WOMEN EMPOWERMENT

The Indian Society in the first half of 19th century was caste ridden, decadent and rigid. Some enlightened Indians like Raja Ram Mohan Roy, Ishwar Chandra Vidyasagar, Dayanand Saraswati and many others started to bring in reforms in society so that it could face the challenges of the West. The reform movements could broadly be classified into two categories:

1. Reformist movements like the Brahmo Samaj, the Prarthana Samaj, and the Aligarh Movement.
2. Revivalist movements like Arya Samaj and the Deoband movement.

The Most Distressing was the Position of Women.

- The killing of female infants at birth was prevalent.
- Child marriage was practiced in society.
- The practice of polygamy prevailed in many parts of country.
- The widow remarriage was not allowed and the sati pratha was prevalent on a large scale.

These social reformers fought against social evils particularly they spread awareness in the society to abolish Sati pratha, Child marriage, and they advocated western education, widow re-marriage, struggled for woman equality and to gain property right.

LEGAL PROVISIONS FOR WOMEN EMPOWERMENT

CONSTITUTIONAL PROVISIONS

A.12 : Definition—In Part III of the Constitution dealing with Fundamental Rights, "the State" includes the Government and Parliament of India and the Government and the Legislature of each of the States and all local or other authorities.

A. 14 : Ensures equality before the law and equal protection of the laws by the State.

A. 15 : Prohibits discrimination on grounds of religion, race, caste, sex or place of birth-

(1) State not to discriminate on grounds of religion, race, caste, sex or place of birth or any of them.

(2) No citizen to be subjected to any disability, liability, restriction or condition, on grounds of religion, race, caste, sex or place of birth or any of them with regard to access to public spaces and facilities.

(3) Empowers the State to make special provisions for women and children

(4) Empowers the State to make special provisions for the advancement of socially backward classes of citizens or Scheduled Castes and Scheduled Tribes.

(5): .....

A. 16: Equality of Opportunity in matters of Public Employment-

(1) Ensures equality of opportunity for all citizens in matters relating to employment or appointment to any office under the State.

(2): Prohibits discrimination on the grounds of religion, race, caste, sex, etc. in employment or appointment to any office under the State.

(3) ……

(4) .....

LEGISLATIONS

1. **Protection of Human Rights Act, 1993:** To provide for the constitution of NHRC10 for better protection of human rights.
2. **National Commission for Women Act, 1990:** To provide for the constitution of NCW11 for the protection of women's rights.
3. **Scheduled Caste and Scheduled Tribe (Prevention of Atrocities) Act, 1989:** Legislation to check and deter crimes against SC/ST.
4. **Indecent Representation of Women (Prohibition) Act, 1989:** Prohibits indecent representation of women through advertisement or in publication, etc.
5. **Maternity Benefit Act, 1861:** Regulates the employment of women for certain periods before and after childbirth and to provide maternity benefit. Maternity Benefit Act (MBA), **1961 and Maternity Benefit (Amendment) Act, 2019:**

a. S. 5: Provides all the maternity benefits available to a woman working in an organised sector and the amount of leave available to her
b. S. 9: Provides for paid leave in case of miscarriage.
c. S. 12: States that it is unlawful to discharge/dismiss a woman absent from work due to her pregnancy in accordance with the Act

6. **Industrial Disputes Act, 1947:** Provided for same wages and other facilities to women workers and provision of creches, feeding intervals, etc. at the workplace.
7. **Equal Remuneration Act (ERA), 1976:** S. 4: States that the employer has to pay equal remuneration to men and women workers for same work or work of a similar nature.
8. **The Companies Act, 2013:** As per the second Proviso to Section 149(1) read with Rule 3 of the Companies (Appointment and Qualification of Directors) Rules, 2014, every listed company, every public company having paid-up share capital of Rs. 100 crore or more, and every public company having a minimum turnover of Rs. 300 crore or more, makes provision for at least one woman director.

POLICIES AND REPORTS

1. **The Committee on the Status of Women in India, 1971:** Undertook a comprehensive review of women's status in India in all spheres. 'Towards Equality,' its report made extensive recommendations to address discrimination and marginalization of women. and gave useful guidelines for the formulation of social policies and mechanisms to address gaps in equality for women. Committee looked into Constitutional, legal and administrative provisions and their impact on women, especially rural women and also suggested measures to enable women to play their role in building up the nation.
2. **National Policy for the Empowerment of Women, 2001**: The goals of the policy are- Advancement, development and empowerment of women; Equal access to participation and decision making for women in social, political and economic life of the nation; Mainstreaming gender perspective in the development process. Building and strengthening partnerships with civil society, particularly women's organizations.
3. **Draft National Policy for Women, 2016:** Titled 'Articulating a Vision for Empowerment of Women,' the policy states that, the empowerment of women can only be achieved when advancement in the conditions of women is coupled with their ability to influence the direction of change through equal opportunities in all spheres of life, including political life.
4. **Report of the High-Level Committee on Status of Women, 2015:** The Committee's mandate was to undertake a comprehensive study on the status of women since 1989, and to evolve appropriate policy interventions based on a contemporary assessment of women's economic, legal, political, educational, health and socio-

cultural needs. One of the key recommendations includes ensuring at least 50 per cent reservation of seats for women in the local bodies, State Legislative Assemblies, Parliament, Ministerial levels and all decision-making bodies of the government.13

LANDMARK JUDGEMENTS

1. **Charu Khurana V/s UOI (2015) 1 SCC 192:** A female Petitioner was refused membership as a make-up artist in the Cine Costume Make-up Artists and Hair Dressers Association, the rules of which allowed only men to be make-up artists. The Court held that the Petitioner could not be denied membership, as discrimination on grounds of gender was a clear violation of her right to equality and denial of "her capacity to earn her livelihood which affects her individual dignity
2. **The Secretary, Ministry of Defence v. Babita Puniya & Ors. MANU/SC/0194/ 2020:** Women engaged on Short Service Commissions in the Army seek parity with their male counterparts in obtaining PCs. SC, allowed women a permanent commission in Army.
3. **Kush Kalra vs Union Of India & Anr. on 5 January 2018:** Institutional discrimination by UOI against women by not recruiting them into the Indian Territorial Army. Delhi High Court opened the doors of Territorial Army for women.
4. **State of Jammu and Kashmir and Ors. v. Susheela Sawhney and Ors. AIR 2003 J&K:** The bench, in the landmark judgment on 7 October 2002, held by a majority view that the daughter of a permanent resident of Jammu and Kashmir will not lose her status as a permanent resident upon her marriage to a person from outside the state.
5. **MCD v. Female Workers Special Leave Petition (Civil) 12797 of 1998:** SC held that the maternity benefit is applicable to all casual workers and daily wage workers.

IMPORTANT STATISTICS RELATED TO WOMEN PARTICIPATION IN WORKFORCE

Table-1

State/UT wise estimated female Worker Population Ratio (WPR) (in per cent) according to usual status for age group 15 years and above for year 2019-20.

State	Female Worker Population Ratio (WPR)
Punjab	21.8
Haryana	14.1
Himachal Pradesh	63.1
Jammu & Kashmir	33.1
Chandigarh	52.1

Source: Periodic Labour Force Survey (PLFS), July 2019- June 2020, M/o Statistics & Programme Implementation.

This information was given by Shri Rameswar Teli, Minister of State, Ministry of Labour & Employment in Lok Sabha today.

Worker population ratio is defined as the ratio between the total number of workers in a country and the population in the country, multiplied by 100. Symbolically,

Worker Population Ratio = Total Number of Workers/Total Population×100

Despite all the effort and policy support, the female labour force participation data in respect of Punjab, Haryana, Himachal Pradesh, Jammu & Kashmir and Chanigarh reflected 21.8, 14.1, 63.1, 33.1 and 52.1 respectively. It revealed the fact that more women of the above mentioned states require job in various sectors.

Indian adults nearly universally say it is important for women to have the same rights as men, including eight-in-ten who say this is *very* important. At the same time, however, there are circumstances when Indians feel men should receive preferential treatment: 80% agree with the idea that "when there are few jobs, men should have more rights to a job than women," according to a new Pew Research Center report.[8]

Table 2: Process of Women Empowerment and its Dimensions

Dimensions	Explanation	Parameters
Cognitive	Women having an understanding of the conditions and causes of their subordination at the micro and macro levels. It involves making choices that may go against cultural expectations and norms	Raising self-esteem and self-confidence of women. • Elimination of discrimination and all forms of violence against women and girl child. •Building and strengthening partnership with civil society particularly women's organisations. • Enforcement of constitutional and legal provisions and safeguarding rights of women. • Building a positive image of women in the society and recognising their contributions in social, economic and political sphere. • Developing ability among women to think critically. • Fostering decision-making and collective action. • Enabling women to make informed choices. • Ensuring women's participation in all walks of life. • Providing information, knowledge, skills for self-employment
Psychological	Belief that women can act at personal and societal levels to improve their individual realities and the society in which they live	
Economic	Women have access to, and control over, productive resources, thus ensuring some degree of financial autonomy. However she notes that changes in the economic balance of power do not necessarily alter traditional gender roles or norms	
Political	Women have the capability to analyse, organise and mobilise for social change;	
Physical	Element of gaining control over one's body and sexuality and the ability to protect oneself against sexual violence to the empowerment process	

(Courtesy from Source: Mokta, 2014)

As the governments at centre and states have been doing best endeavors to achieving the SDG Goals, the Government needs to focus on these two segments more to achieve gender parity. There is urgent need of reassessing India's affirmative action's, giving

8 Key findings on Indian attitudes toward gender roles, available at: https://www.pewresearch.org/fact-tank/2022/03/02/key-findings-on-indian-attitudes-toward-gender-roles/ retrieved on 25/4/2022.

fresh impetus on empowering girls and women not only through conventional education but also hand holding for skill acquisition and providing them with equitable economic opportunity with providing them with fitting medical and healthcare. The findings open up several avenues for policy discussion and intervention towards women empowerment.

ROLE OF NGOS IN WOMEN EMPOWERMENT

Reliance Foundation: Congratulations to the owner of Mumbai Indians Mrs. Nita Mukesh Ambani (renowned Director of Reliance Industries Ltd.) is the founder Chairperson of Reliane Foundation. She is an all time positive thinking woman. She is the richest woman in net worth as well as in cultural ethos. She is an excellent social activist, eminent educationist, and world's one of the best philanthropists. She has a passion and vision for the children education, health and women's empowerment and enhancing sports in India. She is committed to social service and believes the human body is made to serve humanity. Mrs. Nita Mukesh Ambani is doing consistent endeavors enhancing national sports and patriotism. Her Reliance foundation is doing great help to weaker sections of society. The tribes, ladies, and rural communities are receiving due assistance to enhance their income. She owns an adorable, reputed image and acquired position of the best philanthropist by her own hard work and virtuous qualities and versatility. This is why she is deserving of praise for her accomplishments of encouraging patriotism and doing social services in the interest of society at large.

This year on 8th March 2022 on the occasion of International Women's Day Her Circle is celebrating its first anniversary and reach of over 42 million by launching a Hindi version of its app.

On the occasion of the launch of the "Her Circle Hindi App", Mrs. Nita Ambani, Founder-Chairperson, Reliance Foundation said, "Her Circle is an evolving platform meant for all women, irrespective of region and language. I want our reach and support to expand un-hindered. And to reach more women in their language of ease, we are first launching Her Circle in Hindi. We go live in March 2022 and I hope it gets as much love as the English platform has received till now."

'Her Circle' is designed as a one-stop destination to provide women-related content that is engaging and upliftment-oriented even as it connects women to each other through a social platform.

Breakthrough NGO: The 360 degree campaigns of this NGO and media work reaches millions across the country to change behaviors and attitudes, and to provide people with a sense of personal accountability in prevention of violence and discrimination against women and girls. This NGO works at three level – School level, community level and University level and making a great stride in achieving its targets in respect of women empowerment.

Besides, these two renowned NGOs there are various other NGOs that are working to contribute their might towards "Women Empowerment".

RECOMMENDATIONS

During the course of reading the varied literature on the topic Women Empowerment it has been observed there is a gap in fulfilling the aims and intent of CEDAW, Constitution of India and provisions of other Statutes relating to Woment empowerment. In this regard following suggestions are recommended:

1. To improve the representation of women in the upper echelons of lawmaking, affirmative actions are required including legislature to reserve 33 per cent seats for women in Lok Sabha, and in all State Legislative Assemblies.
2. Fundamental Rights as enshrined in the Constitution are only enforceable against the State. Thus, only the State has an obligation not to discriminate on the basis of sex. However, there is a vacuum in law with regards to the prohibition of discrimination against women by any private person, organization or enterprise. It is suggested that this legislative vacuum should be filled by enacting appropriate legislation.
3. To eliminate discrimination efforts should be made to discourage prejudices and eliminate customs and practices that discriminate against women by enacting appropriate legislation(s) and other necessary social measures to be taken.
4. Crèches for children of working women should be ensured at/ near the workplace/home to enable and encourage women to work.
5. The vacancies reserved for women in the board should be filled up in a time bound manner.
6. Role of Judiciary is important that a judge while administering the laws, if deprived of requisite sensitivity may frustrate the objectives sought to be achieved by the best of the laws.

Justice Lahoti Suggests the Following Principles to Be Kept in Mind By the Judges to Achieve the Goal of Gender Justice:[9]

1. Be informed of the historical and cultural background in which the women have lived over the ages and understand their feelings and have regard to their needs as a class;
2. Because the women are weaker sections of the society, strike a balance in your approach in dealing with any issue related to gender, or where a woman is victim, in such a way, that the weaker are not only treated as equals but also feel confident that they are equals;
3. Treat women with dignity and honour and inculcate confidence in them by your conduct, behaviour and ideology whenever they come to you as victims or seekers of justice;

9 Quoted by Justice R.C. Lahoti in WOMEN'S EMPOWERMENT" ROLE OF JUDICIARY AND LEGISLATURE, (2005) 2 SCC (Jour) 49, please see: http://www.supremecourtcases.com/index2.php?option=com_content&itemid=1&do_pdf=1&id=885

4. Do not allow them to be harassed and certainly do not do anything yourselves which may amount to harassment of a woman; and make efforts to render a woman victim quick, speedy, cheaper and effective justice—true to its meaning.

CONCLUSION

The issue of gender injustice should not be perceived as a war between the two sexes. Long before, when consciousness in society towards gender injustice was not present then resentment on the part of women was justified; but now the approach should be of complementing each other rather than competing on perceptions, which may not be real or may be non-existent. Societal bonds are based upon integration, mutual dependence and respect. They are not just contractual but based on deep organic unity. It is true that the male sex is most of the time blamed as the inflictor of gender injustice; but it cannot be ignored that the male sex also suffers from and feels pained at gender injustice, as the woman subjected to injustice is sometimes his mother or his daughter or sister or wife. Therefore, perceptional change is needed for greater social awareness and sensitization which breeds equality of the sexes and not rivalry of the sexes.

The Honorable former Chief Minister of Haryana Shri Manoharlal Khattar while emphasizing the "VISION 2030" for Haryana said:

"We envisage Haryana as a vibrant, dynamic and resurgent unit of federal India. A state where farms overflow with produce; the wheels of industry grind uninterrupted; none feels deprived; people have a sense of fulfillment, the youth sense of pride, and women enjoy not only safety, security and equal opportunities but also feel empowered. "Antyodaya", minimum government and maximum governance, and making the state a better place to live in, constitute the bedrock of our vision." May God bless Haryana to fulfill their cherished dream.

Integrating Media Freedom Through the Lens of Indian Knowledge Systems: New Perspectives on Expression, Culture & Identity

Dr. Vivek Kumar & Ms. Aryika Patel***

ABSTRACT

Speech is god's gift to mankind. We convey our thoughts, feelings and sentiments to others through speech. Even the Infants express themselves very effectively through sounds. The freedom of speech and expression is therefore a fundamental right that we possess from birth. Freedom of expression, often viewed as a fundamental human right, embodies the spirit of democracy and individuality. In India, this freedom is not absolute but is shaped by legal frameworks and cultural traditions. The Indian Knowledge System (IKS), encompassing the intellectual heritage of ancient India, offers a valuable perspective on the responsible exercise of this freedom. This article investigates the interplay between freedom of expression, IKS, and media laws, and their relevance in shaping ethical and constructive discourse in contemporary India.

Keywords: Indian Knowledge System (IKS), Speech & Expression, Media, Hate speech

INTRODUCTION TO INDIAN KNOWLEDGESYSTEM (IKS)

India's prosperity has held the world in thrall. Indian Knowledge System (IKS) represents the splendid geographical location of India and the uniqueness of Indian culture which is protected and nurtured by Himalayas, the Sindhu-Ganga plain and the great coastal plains, the great rivers, Abundant rains, sunshine and warmth, vegetation, animals, mineral, wealth, &the timeless wisdom and intellectual traditions of India, offering insights into every aspect of human life and the natural world which is rooted in ancient texts like the Vedas, Upanishads, Puranas, and epics, as well as in oral traditions and regional practices.[1] The comprehensive knowledge system of our heritage demonstrates the 'Indian way' of doing things to the world.

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1 Centre for IKS, IIT Kanpur at https://iitk.ac.in/iks/about.html

IKS reflects a unique blend of science, spirituality, and ethics. It views knowledge as a holistic pursuit, integrating disciplines such as mathematics, astronomy, medicine, arts, governance, and philosophy, emphasizing their interconnectedness.[2] Principles like Dharma (righteous duty), Satya (truth), and Ahimsa(non-violence) serve as ethical foundations, ensuring that knowledge is not just a tool for progress but also a force for harmony and well-being. From the development of the zero and advanced metallurgy to the creation of Ayurveda and classical arts, IKS has contributed profoundly to global culture and science. Its emphasis on sustainability, interconnectedness, and the unity of all existence offers a valuable framework for addressing modern challenges while celebrating the diversity and depth of India's cultural heritage.[3]

The NEP, 2020 recognizes this rich heritage of ancient and eternal Indian knowledge and thought as a guiding principle. that have evolved out of experience, observation, experimentation, and rigorous analysis. This tradition of validating and putting into practice has impacted our education, arts, administration, law, justice, health, manufacturing, and commerce. "Knowledge of India" in this sense includes knowledge from ancient India and, its successes and challenges, and a sense of India's future aspirations specific to education, health, environment and indeed all aspects of life. This would also include tribal knowledge and indigenous and traditional ways of learning.

The main objective of drawing from our past and integrating the Indian Knowledge Systems is to ensure that our ancient systems of knowledge represented by unbroken tradition of knowledge transmission and providing a unique perspective (Bhartiya Drishti) is used to solve the current and emerging challenges of India and the world.

PHILOSOPHICAL FOUNDATIONOFSPEECH AND EXPRESSION IN IKS

In IKS, speech is regarded as divine, sacred power symbolizing wisdom and creativity. The Rigveda exalts speech as a medium to convey truth (Satya) and uphold societal harmony. Truth is a cornerstone of Indian philosophy. The pursuit of Satya demands factual reporting and media accountability, resonating with mechanisms like the Press Council of India, which ensures ethical journalism. Speech is not merely a tool for communication but a means to foster ethical discourse. (Dharma) i.e. righteous duty emphasizes ethical responsibilities over absolute rights. In the context of expression, it mandates that speech must contribute to societal welfare, avoiding harm or discord. This philosophy aligns with media laws that restrict hate speech and misinformation. underscores the coexistence of rights and duties. Media laws mirror this balance by safeguarding freedom while imposing restrictions to prevent harm. For instance, defamation Laws which uphold individual dignity, reflecting the IKS emphasis on respecting societal harmony. And hate speech regulations which emphasis on curbing the speech that incites violence or discrimination, resonating with the Dharmic principle of promoting peace.

2 https://www.education.gov.in/nep/indian-knowledge-systems

3 Knowledge-Systems-Kapil-Kapoor.pdfhttps://orientviews.wordpress.com/2013/08/21/how-colonial-india-destroyed-traditional knowledge-systems/

OBJECTIVES OF IKS

1. Support Research: IKSaims to support and facilitate further research to address contemporary societal issues in various fields, including health, Psychology, Environment, and Sustainable development.
2. Integration of Ancient Knowledge: The primary objective is to draw from the past and integrate Indian knowledge systems to solve contemporary and emerging problems, utilizing the uninterrupted tradition of knowledge transfer and the unique perspective of 'BharatiyaDrishti' (Indian viewpoint)[4]

HISTORICAL CONTOURS OF SPEECH AND IKS PRACTICE

In the Indian Knowledge System (IKS) speech is regarded as a sacred and divine force, embodying the power of expression, communication, and creation. It is deeply revered, both as a medium for conveying truth and as a tool for connecting individuals with the divine, society, and themselves. The philosophical and spiritual significance of speech in IKS is that speech is seen as Divine Power personified with goddess Saraswati in the Vedas, particularly in the Rigveda, where she is associated with knowledge, wisdom, and creation. The goddess, the deity of learning and eloquence, is closely linked to speech. It is a belief that goddess Saraswati comes in our speech once in a day and whatever we say gets true, which resembles a motion that one should be fair and kind in his/her speaking. Speech is seen as the means through which the universe was brought into being, reflecting its creative and transformative power.

The Vedas, particularly the Rigveda and Upanishads, describe speech as existing on four levels, each representing a deeper understanding of its essence: The ultimate, transcendental level of speech, connected with universal consciousness. Secondly, Pasyanti: The intuitive, inner speech that exists as thought before articulation. Thirdly, Madhyama: The mental and intellectual level of speech, where thoughts are organized for expression, fourthly Vaikhari: The external, spoken word that manifests as audible sound. This hierarchy underscores that speech is not merely verbal but begins as a profound internal processes.

Speech is also considered a means of conveying Satya (truth), which is central to the ethical and spiritual framework of IKS. Words are seen as tools for expressing reality and fostering understanding, making the truthful use of speech a moral imperative. Misuse of speech, such as lying or harmful words, is regarded as a violation of Dharma (righteousness) and disrupts societal harmony. Speech is deeply tied to Dharma, serving as a tool for upholding moral and social order. It is expected to be constructive, kind, and beneficial, contributing to the well-being of the individual and society. The Manusmriti and other texts emphasize the responsibility to use speech wisely, avoiding harsh, deceitful, or harmful words.

In ancient India, oral traditions were the primary means of preserving and transmitting

[4] https://www.sanskritimagazine.com/india/traditionalknowledge-systems-of-India/

knowledge. Vedic chanting, shlokas, and mantras relied on precise articulation and pronunciation, highlighting the sacredness and discipline associated with speech. The act of reciting and hearing sacred texts was seen as a spiritual practice, linking speech to personal and collective enlightenment.[5]

Speech and Silence- In IKS, silence (Mauna) is regarded as a form of elevated speech, emphasizing the wisdom of speaking only when necessary and meaningful. Silence is seen as a way to connect with higher truths and reflect on one's inner thoughts.

THE FREEDOM OF SPEECH AND EXPRESSION

"The right to swing your fist ends where the other man's nose begins.

Similarly, the right to free speech ends where hate speech begins."

Right means a recognised entitlement, and these rights are crucial for both individual well-being and the collective welfare of society. The rights granted in India's Constitution are fundamental because they are part of the highest law of the land and can be upheld in court. However, it is essential to recognize that these rights are not unlimited and may be modified through constitutional amendments. Fundamental Rights protect civil liberties, ensuring that all Indians can live in peace and unity as members of the nation. If these rights are infringed upon, penalties are applied as specified in the Bhartiya Nyaya Sanhita, with the judiciary having the authority to enforce them. These Fundamental Rights are recognized as vital human freedoms that every Indian citizen is entitled to for their complete and balanced development. They are applicable to all citizens without discrimination based on race, place of origin, religion, caste, creed, colour, or gender, and can be enforced by the courts within certain bounds.

The Freedom of speech and expression is acknowledged as one of the most important rights in a democratic system, serving as a cornerstone of individual liberty. Free speech and expression are essential principles that underpin the functioning of a democratic society.[6]Because democracy is essentially based on free debate and open discussion[7].Our constitution protects every citizen's fundamental right[8] of free speech and expression under **article 19(1)(a)[9].**"In the case of RomeshThappar V. The State of Madras[10] The Supreme Court ruled that the freedom of speech and expression encompasses the right to share and circulate ideas. It emphasized that these freedoms are fundamental to all democratic institutions and crucial for the effective operation of democratic processes. Article 19 is only for citizens of the country. A foreigner is not a citizen of India and therefore he can't claim his right under Article 19.[11] Freedom

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5 https://iksindia.org/about.php

6 F. A. Picture international V. Central board of film certification and Anr. AIR 2005 Bom 145

7 S.Rangarajan V. P. Jagjevan Ram and Ors. 1989

8 Fundamental Right is a charter of rights contained in the Constitution of India.

9 Ambikesh Mahapatra and Ors. Vs. The state of West Bengal and Ors. W.P. No. 33241(W) of 2013

10 1950 SCR 495

of expression holds immense value in a democratic society grounded in the rule of law. Although various competing values, such as the right to reputation, national integrity, sovereignty, and standards of decency and morality, are also significant, they must be balanced with this freedom but as Charles Bradlaugh[12], famously observed:better a thousand-fold abuse of free speech than denial of free speech. The abuse dies in a day, but the denial slays the life of the people and entombs[13] the hopes of the race."

REASONABLE RESTRICTIONS

Human nature being what it is, there is general consensus that freedom cannot be unlimited, because if it were so, it would result in a state wherein there would be no check upon the way one behaves towards others. Such freedom would lead to social chaos. Human rights conventions acknowledge that freedom of expression is not an unconditional right. It can be limited by laws that are necessary to protect the reputations of others in a democratic society, as individual rights can intersect and conflict with one another."In S. Rangarajan V. P. Jagjivan Ram and Ors.[14] The court outlines the correct method for analyzing the extent of 'reasonable restrictions' permitted under Article 19(2) of the Constitution regarding the freedom of speech and expression:

Freedom of expression is legitimate and constitutionally protected right and cannot be held to be ransom by an intolerant group of people. The fundamental freedom under article 19(1)(a) can be reasonably restricted only for the purposes mentioned in Article 19(2) and the restrictions must be justified on the anvil of necessity and not the quicksand of convenience or expediency. Open criticism of government policies and operations is not a groundfor restricting expression. We must practice tolerance of the views of others. Intolerance is as much dangerous to democracy as to the person himself."

Protection of reputation is a matter of importance not only to an individual and his family but to society as a whole for public good. And for that, certain reasonable restrictions are imposed. The legislature's definition of what constitutes a 'reasonable restriction' is not definitive; it is subject to judicial review.[15] The expression 'reasonable restriction' seeks to strike a balance between the freedom guaranteed under article 19(1) and the social control permitted by clause (2)[16]. This means that any restrictions placed on an individual's right must not be arbitrary or excessively burdensome beyond what is necessary for the public good.[17] A law cannot be deemed unreasonable simply because it has a harsh impact in specific situations, even if it affects very few people only.

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11 Louis De Raedt V. union of India,1991

12 Political activist & founder of National secular society in 1866.

13 To place in or as if in a tomb or grave.

14 1989 2 SCC 574

15 Chintamanrao V. State of M.P. 1950 SCR 759

16 Supra, 23

17 P. Enterprises V. Shantilal Mangaldas, AIR 1969 SC 634

THE OUTREACH OF IKS

The outreach of Indian Knowledge System is beyond Indian boundaries from the ancient times. It extends to East, Southeast, Central and Southeast Asia of Indian phonetic script, decimal value place system-based arithmetic, algebra, astronomy and calendar, medical pharmacopeia, architecture, methods of making iron and steel, cotton textiles, etc. The transmission of Indian linguistics, knowledge of plants, iron and steel metallurgy, textiles and dyeing, shipbuilding etc., to Europe in 17-19th centuries. The current global outreach is of Ayurveda, Yoga and Indian Fine Arts and Culture.

INTERPLAY BETWEEN IKS AND MODERN MEDIA LAW

IKS advocates for contextual morality and decency in adapting ethical standards to societal needs. Media laws like the Cinematograph Act, 1952, consider cultural sensitivities when certifying content, echoing this adaptable approach.It also emphasis uponprotecting cultural heritage. Media plays a pivotal role in preserving and promoting IKS. Other legal frameworks such as the Copyright Act, 1957, protect indigenous knowledge while enabling its dissemination through films, documentaries, and digital platforms. Media also plays a role of balancing Privacy and Expression; Surveillance and data breaches pose threats to privacy. IKS emphasizes individual dignity, aligning with modern debates on balancing personal freedoms and accountability. Though there exist certain challenges and Opportunities in the Digital Age like spread of misinformation, challenging the principles of Satya and ethical expression. Laws like the Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021 aim to curb this menace. Online platforms have become breeding grounds for hate speech, undermining societal harmony. Strengthening hate speech regulations and promoting and incorporating education rooted in IKS ethics, principles of truth and responsibility can mitigate this issue and can enhance these efforts.

HATE SPEECH

One man's lyric may be another man's vulgarity. The freedom of speech and expression is a fundamental right that holds great value and importance in all the democratic societies. This essential liberty entails not only the ability to share thoughts and opinions that individuals Favor, but also the important right to articulate views that they may vehemently oppose or dislike. Embracing this wide-ranging perspective on freedom of expression is crucial for promoting open dialogue and facilitating a rich exchange of diverse ideas in a healthy democratic environment.

According to Law commission report[18] "hate speech is an incitement to hatred primarily against a group of persons in terms of race, ethnicity, gender, sexual orientation, religious belief and the like." The Black's Law Dictionary identifies hate speech as the "speech that carries no meaning other than expression of hatred for some group, such as a particular race, especially in circumstances in which the communication is

[18] 267th law commission report.

likely to provoke violence".[19] In some free societies, discussion of ideas is crucial. It is not permissible to prohibit genuine attempts to influence societal beliefs through the expression of opinions, advocacy for alternative viewpoints, or by challenging the current state of affairs.

I. Recent Events of Hate Speech

Nearly few years ago, an event called 'DharamSansad' was held (in the city of Haridwar)[20] where there a string of hate speeches by Hindutva supremacists against minorities were delivered and propagated. This kind of speech, everyone would widely agree is hate speech. [Unfortunately, these examples were lamely prosecuted by complicit state authorities and the matter is subject of litigation in the Supreme Court of India, presently.]

A similar example was the recent case before the Supreme Court against a TV Channel called Sudarshan TV which broadcasted a program named 'BindassBol' (Free Talk) in which hateful remarks were made against Muslim candidates who cleared the UPSC examination, hinting at some larger conspiracy and bias. Even this has been frowned upon by the Supreme Court.

'Deshkeghaddaronko, golimaaron s****n ko': Anurag Thakur, Member of Parliament, Minister of State for Finance in 2020

'Defeat of Mughals couldn't be attained during preparation of NRC': HimantaBiswa Sharma in 2021

'Theatres will burn if KomaramBheem shown in Muslim outfit': Sanjay Kumar, MP, Telangana BJP chief in 2020

'If you are concerned about your community, do not say a word about maharaj': FIR registered against BJP MLA over hate speech in 2024

There are many examples of public figures and politicians making hateful statements, along with the dissemination of harmful and malicious information intended to reinforce prejudiced attitudes and stereotypes. A key question that arises in both legal and academic circles is how to rigorously differentiate between the free speech and hate speech.

II. Effective Response to Hate Speech

In India, the legal framework uses various methods to address hate speech. Primarily, the law criminalizes the expression of certain types of hate speech, with penalties that include imprisonment for varying durations, with or without fines. Many of these provisions are cognizable, non-bailable, and non-compoundable, making the legal consequences severe. Additionally, depending on the medium of propagation—whether print, television, or the internet—hateful content can be banned, censored, or result in the shutdown of the

[19] Black's Law Dictionary, 9 th edition, 2009.

[20] 'Dharam Sansad in Haridwar': Supreme Court says its spoiling the atmosphere of the country.

hosting site. In the case of print media, authorities are empowered under the criminal procedure code to seize the offending material.[21]

Despite this comprehensive legal structure, cases of hate speech continue to rise. This increase is not due to leniency in the law, but rather due to issues in the implementation of the law. The challenge of effectively enforcing these laws remains a significant hurdle. The harm caused by hate speech is not only harmful but also poses dangerous consequences. As outlined, the legal framework works within a limited scope, offering no solution for repairing the broader societal damage or providing avenues for victim rehabilitation or redress. Therefore, it is crucial to explore options beyond criminal law in order to find a more effective response to hate speech.

THE LEGAL PROVISIONS GOVERNING EXPRESSION

Indian media operates under specific laws that regulate freedom of expression. Key legislations include several sections of 'Bhartiya Nyaya Sanhita (BNS) and BhartiyaNagarik Suraksha Sanhita (BNSS)'and by other laws which puts limitations on the freedom of expression. "They are as follows:

1) Bhartiya Nyaya Sanhita, 2023
   a) Section 192 BNS – Giving provocation to cause riots.
   b) Section 196 BNS - It imposes penalties for inciting hostility among various groups based on religion, race, birthplace, residence, language, and for actions that harm the preservation of social harmony.
   c) Section 197 BNS – Assertions prejudicial to national integration
   d) Section 299 BNS - It outlines and stipulates a penalty for intentional and harmful actions aimed at provoking religious sentiments by insulting a particular faith or its beliefs.
   e) Section 302 BNS – Uttering words, with intent to wound religious feelings of any person.
   f) Section 353 BNS - It penalizes statements that contribute to public mischief.
2) The Representation of the People Act, 1951
   a) Section 8 - disqualifies individuals from contesting elections if they are convicted of offenses involving the unlawful use of freedom of speech and expression.
   b) Sections 123(3A) and 125 - forbid the promotion of enmity based on religion, race, caste, community, or language in relation to elections, classifying such actions as corrupt electoral practices and prohibiting them.
3) The Protection of Civil Rights Act, 1955

[21] National Law University Delhi, Report on Hate Speech Laws in India (April, 2018) available at: https://www.latestlaws.com/wpcontent/uploads/2018/05/NLUD-Report-on-HateSpeech-Lawsin-India.pdf.

a) Section 7 - imposes penalties for inciting or promoting untouchability, whether through spoken or written words, signs, visible representations, or other means.

4) The Religious Institutions (Prevention of Misuse) Act, 1988

a) Section 3(g) - prohibits religious institutions or their managers from allowing their premises to be used for promoting or attempting to promote disharmony, enmity, hatred, or ill-will among different religious, racial, linguistic, regional groups, castes, or communities.

5) The Cable Television Networks Regulation Act, 1995

a) Sections 5 and 6 - forbid the transmission or re-transmission of programs viacable networks that violate the prescribed programme or advertisement codes. These codes are outlined in Rules 6 and 7 of the Cable Television Network Rules, 1994.

6) The Cinematograph Act, 1952

a) Sections 4, 5B, and 7 grant the Board of Film Certification the authority to regulate or prohibit the screening of films.

7) The BhartiyaNagarik Suraksha Sanhita, 2023

a) Section 98 –Power to declare certain publications forfeited and to issue searchwarrants for same.

b) Section 126 – Empowers the Executive Magistrate to ensure security for keeping the peace in other cases.

c) Section 163 –Empowers the District Magistrate, etc. to issue order in urgent cases of nuisance or apprehended danger."

8) The Information Technology Act, 2000. Addresses digital expression, focusing on curbing harmful and false information.

The state cannot stop open dialogue and expression, even if it contradicts its policies.[22] And there is absence of a criteria on which the validity of a 'speech can be classified into hate speech or general speech.' This absence of scale is the loophole in the system because not everyone is measured in the same parameter. India requires a definition of hate speech that reflects recent legal developments and moves beyond the colonial framework of its penal laws. To quote Mr Sen, he says: 'In a diverse society characterized by various cultures, ethnicities, languages, religions, castes, and identities, it's essential to clearly differentiate between free speech and hate speech.'

CONCLUSION

Media serves as a tool for preserving Indian Knowledge System, by disseminating Indigenous Knowledge & showcasing its richness through educational programs, digital

[22] The central board of film certification V. yadavalaya films AIR 2007.

archives, and traditional storytelling and drama. Documentaries on Ayurveda, Yoga, and classical arts promote global awareness of India's intellectual heritage. For example, during COVID19 media telecasted the epics like Ramayana and Mahabharata, and their important regional versions, on different platforms which contribute in the enhancement and development of Indian knowledge and values into the minds of younger generation who are involved mostly in digital world. Media emerged as an educating platform for the new generation. such epics and Puranashelps in understanding the Vedas. These are the foundational texts of Indian Philosophies, including the Jaina and Buddha from the Vedic period to the Bhakti traditions of different regions which contribute to Indian literatureLaws like the Geographical Indications of Goods Act, 1999, protect traditional knowledge and cultural practices from exploitation, ensuring their integrity and authenticity.By integrating IKS principles into journalism curricula, media professionals can be trained to prioritize ethical reporting, balancing freedom with responsibility. It will encourage ethical media practice.

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Participation of Women in Local Governance: A Study of Dumraon Block in Buxar District, Bihar, India

Dr. Pradeep Kulshreshta & Mr. Animesh Kumar***

ABSTRACT

After establishing the Constitution of India, local administrations were placed under the States, granting them sole legislative authority. Village panchayats were included in the Directive Principles of State Policy, and after 42 years, the 73rd Constitutional Amendment in 1992 recognised them. Many states have made legislative changes that support democratic concepts and practices. The Bihar Panchayati Raj Act, 2006 provides women with up to 50% reservation in Panchayati Raj Institutions. This law strengthens and improves local self-governance bodies. Even thirty years after local governments were constitutionalised, implementing changes had remained a significant concern. Rural decentralisation laws are challenging to implement. This study relies on survey data from Buxar District's Dumraon block. This study will address how elected women representatives in the Dumraon block of Buxar District, Bihar, may be marginalised and rely on their husbands or other male family members for support.

Keywords: *Grassroots Democracy, PRIs, Local Governance,Bihar Panchayati Raj Act, 73rd Constitutional Amendment.*

1. INTRODUCTION

The foundational tenets of democracy and decentralisation have been profoundly embedded in India's administrative framework and cultural legacy since ancient times. The emergence of foreign invasions, followed by the British colonisation of India, initiated the establishment of a centralised administrative framework.These developments have significantly impeded the progress of decentralisation efforts to transfer governance authority to local entities. In light of the progressive centralisation of governance, it can be observed that local entities have been effectively reduced to a nominal role, serving primarily as symbolic endorsements.In 1950, upon the adoption, enactment, and self-bestowal of a constitution by the Indian populace, a framework was established for the nascent democracy. Within this framework, the authority to legislate over

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local governments was vested exclusively in the States, as delineated in the Seventh Schedule. The inclusion of rural local governments in the Directive Principles of State Policy is duly noted; however, it is observed that urban local governments are conspicuously absent from the constitutional text.Following the pronouncement of Mahatma Gandhi, who proclaimed, *"Panchayatiraj embodies the actualisation of genuine democracy,"* it is pertinent to note that the acknowledgement of local entities was confined exclusively to the Constitution (Malik, 2005).

Article 40 contemplated that due attention shall be accorded to advancing and providing essential resources to village panchayats, enabling them to operate as self-sufficient entities effectively. India has been a jurisdiction with a long-standing history of adhering to patriarchal norms and practices. The demographic composition of the country reveals that rural women constitute a substantial portion, approximately fifty percent, of the overall population. However, it is important to note that these women have yet to attain comprehensive and significant engagement in political affairs (Ghose, 2002). Strengthening local government is one of India's most critical governance challenges (Raghunandan, 2018).The Government of India, through the implementation of the 73rdconstitution amendment, has taken measures to extend the concept of a level playing field to facilitate the active involvement of women in local self-governmentand extended constitutional recognition to the rural local bodies in India after a wait of 42 years. The amendment is a significant step toward ensuring that women can effectively participate in local decision-making (Kumar, 2022).The States passed conformity legislation following the constitutional amendments. Nevertheless, given that local government operates within the purview of state legislative authority, which affords states considerable discretion, the execution of these amendments has exhibited significant variation among the states.While certain states have demonstrated success in the decentralisation of governance and the devolution of funds and functions, others have struggled to maintain comparable progress.The framers of the Panchayat Raj Institutionenvisioned equitable involvement of women in the village panchayats alongside their male counterparts (Ansari, 2014).The Apex Court has also recognised the importance of panchayats. While emphasising the constitutional status enjoyed by panchayats, it was determined that panchayats possess the authority to devise their programs aimed at economic development and social justice, as they are endowed with constitutional status (Supreme Court, 2012).

The decentralisation initiatives in India represent a significant transformation aimed at restructuring governance frameworks, enhancing the empowerment of local communities, and fostering participatory democratic processes (Fowmina, 2024).Under the provisions outlined in the 73rdConstitution Amendment Act, a panchayat election was convened in Bihar in 2001 after a substantial period of inactivity. The Bihar Panchayats Raj Act of 2006 introduced provisions about the devolution of power concerning 29 specific subjects. The allocation of seats for women at all three levels, reaching a maximum of up to fifty percent, emerged as a ground-breaking precedent within the nation. Consequently, numerous states were inspired to adopt similar measures. Based on available data, it has been observed that approximately 50% of the women are elected at the panchayat level in the state of Bihar. However, the

presence of many women does not suffice the case (Singla, 2007). The underrepresentation of women in the governance process is a notable disparity compared to men. The matter at hand pertains to the necessity of comprehending the gender-based disadvantages encountered by elected women at the panchayat level, taking into consideration the conservative patriarchal and caste-hierarchical backdrop prevalent in Indian society.The pertinent question that persists is whether, in light of the prevailing conservative context, the elected representatives will indeed have the capacity to engage in the Panchayati Raj Institutions. There exists a prevailing suspicion regarding the involvement of females within a society predominantly governed by male influence, wherein social status has historically been overlooked(Gochhayat, 2013).

Bihar Panchayati Raj Act 2006, a provision was introduced mandating a reservation up to 50% for women across the three tiers of the PRIs. Following prevailing norms, it is typically observed that a mere 33% of seats are designated for women. However, the State of Bihar has demonstrated a commendable initiative by reserving a more substantial proportion of 50% for women. As per the present state of affairs, it is duly noted that the proportion of female individuals holding elected positions in Bihar's Panchayat stands at an impressive 54% (Nagaraju, 2022). The aforementioned reform exhibits a distinctive nature, which is unparalleled not only within the confines of the nation but also in the global context. Notwithstanding, it is frequently posited that many inhibitory elements encumber the efficacious influence wielded by women within the PRIs of India.

Many empirical investigations have been conducted about the involvement of women in the Panchayati Raj system.Researching the relationship between decentralisation and gender equality represents a critical undertaking with profound implications for societal transformation, extending beyond mere academic research (Singh & Sharma, 2024). The present discourse endeavours to expound upon the findings derived from a comprehensive analysis of extant research about the pivotal role played by women's participation in PRI.

The global community has been compelled to pursue the establishment of gender equality due to the recognition that women possess substantial influence across all domains of human endeavour. The influence exerted by these factors on a nation's development trajectory is of considerable magnitude. It is increasingly recognised by a growing number of individuals that the presence of a greater number of women in political institutions, both in terms of quantity and quality, has the potential to significantly alter the landscape in which women pursue progress and development (Chaurasia, 2022).

In a writing piece, a comprehensive examination is conducted on the exceptional characteristics of the local governance system in Bihar. The present article serves the purpose of generating awareness regarding a distinctive attribute of the PRIs, thereby enhancing the level of democratic participation in rural areas within the state (Pal, 2019).

In a research paper, it contextualised the experience of women representatives of Bihar and their struggle. The author observes how, historically, the male-centred approach

and arguments have always taken centre stage and have excluded women from politics(Pandey, 2018).

In a study, it is also found low participationof disadvantaged groups in PRI bodies in their study. In the study conducted by Sen, it was determined that addressing the matter of empowerment of female members necessitates action in both the political and administrative spheres. The issue ought to be discussed, inter alia concomitantly, in conjunction with other pertinent concerns, such as attaining economic self-sufficiency (Ghatakand Ghatak, 2002) (Sen, 2003).

In a study it is observed that rural communities in India exhibit a pronounced dichotomy between genders. This division effectively delineates and governs the respective roles, obligations, entitlements, advantages, prospects, entry, authority over resources, and the decision-making mechanism. It was found that husbands and male individuals exert a certain level of influence or pressure upon elected female representatives to secure their endorsement of proposed plans and policies. The aforementioned individuals disregard the recommendations put forth by the latter party and fail to accord them the appropriate level of deference (Mandal, *et. al*, 2014).

In her scholarly publication, Asha Rani elucidates the factors contributing to the diminished societal standing of women in the region of Bihar. She underscores the deleterious amalgamation of feudalistic structures, pervasive caste dynamics, and entrenched patriarchal systems as the primary sources of oppression (Rani, 2014).

2. STUDY AREA

Buxar district is one of the 38 district of Bihar, India. Located in the southwestern part of the state, it is a primarily agricultural-baseddistrict. The district headquarters is in the town of Buxar.The districtconsists of 2 subdivisions have 11 blocks in total. As per the last census in 2011, Buxar district has a population of 1,706,352 or 1.6% of the total population of Bihar. The district has a population density of 1,003 inhabitants per square kilometre (2,600/sq mi). Its population growth rate over the decade 2001-2011 was 21.67%. Buxar has a sex ratio of 922 females for every 1,000 males and a literacy rate of 70.14%. 9.64% of the population lives in urban areas. Buxar has 11 administrative blocks.

Dumraon is one of the blocks that consists of 14 Gram Panchayats, of which five are reserved for women. 14 Gram Panchayatsconsist of 192 Panchayat Members, of which 83 are reserved for women candidates.

3. OBJECTIVES

The overarching aim of this study is to evaluate the level of engagement and obstacles encountered by the elected female representatives of Gram Panchayats of Dumraon Block in the Buxar District of Bihar.

- To ascertain the extent of their engagement,
- To elucidate the obstacles encountered by women representatives in the realm of Gram Panchayat,
- To ascertain and accentuate the determinants influencing their engagement.

4. METHODOLOGY

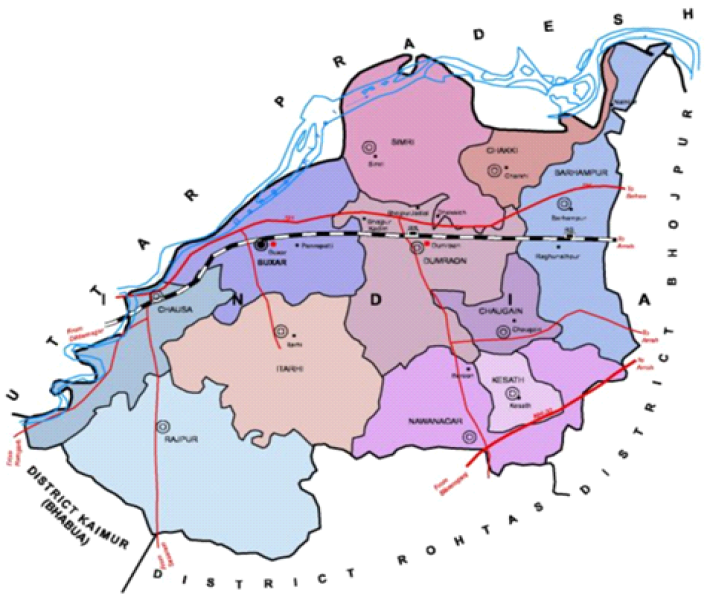


Fig. 1: Political Map of Buxar

Source: https://buxar.nic.in/map-of-district/

The present study is based on empirical data collected from the Dumraon block of Buxar district of Bihar. For this study, structured questionnaires were canvassed to collect data from the elected women mukhiya (*Ataon, Chilahari, Koransarai, Nuaon, &Sowan*) and women panchayat memberof 14 Gram Panchayats (*Ataon, Arioan, Chhatanvar, Chilahari, Kanjharua, Kashiyan, Koransarai, Kushal, Mugaon, Mathila, Lakhandihra, Nandan, Nuaon, and Sowan*), of Dumraonblock Buxar district. Also, while collecting data,the authors had a vigilant eye on the role of proxy members and assistance to the elected female members of14 Gram Panchayats, consisting of 192 Panchayat Members, of which 83 were reserved for women candidates. In total, the elected women members of gram panchayat in Dumraon reach 05 + 83 =88.

The sample size for this research is limited to 50.In the current study, 50 women panchayat representatives were interviewed from different Gram Panchayats of Dumraon block. These 50 respondents were Mukhiya and Panchayat members from various Gram Panchayats Secondary,and data like data cited in the literature, panchayat records, etc.,were also used in the study. The data were collected in the month of September-October 2023.

5. FINDINGS OF THE SURVEY

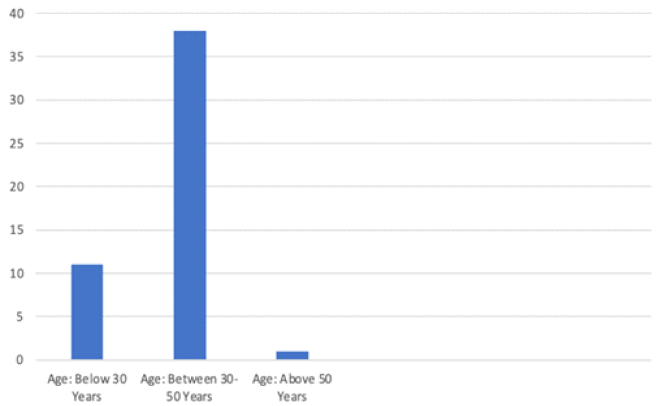


Figure 2: Age Group of elected women panchayat members

Source: Primary Survey, All value in absolute number (N = 50)

Figure 2 shows the age group of elected women panchayat members of the Dumraon block from whom data were collected. There are 38 highest members in the 30-50 age group;11 were below the age of 30, and only 1 was above 50 years of age.

Figure3 reflectsthat 33elected women panchayat members are literate, 04 were 10th passed, 06 were 12th passed, 06 were graduates, and no member was found to be post-graduate. A panchayat member from Kanjharuawas found to be illiterate. Among all Seema Devi of Gram Panchayat,Koransarai was the youngest of 22 years of age while contesting election in 2023.

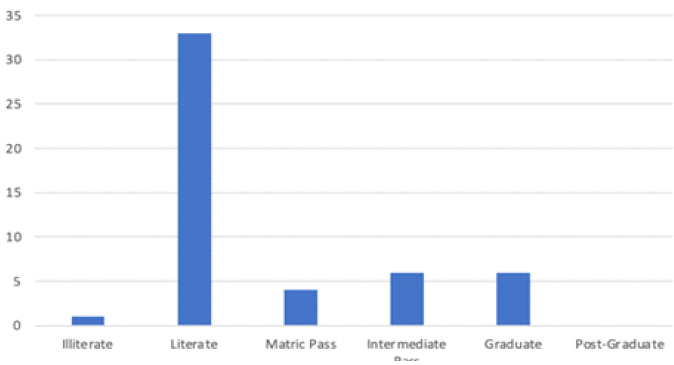


Figure 3: Educational Qualification of Elected Women Representatives

Source: Primary Survey, All value in absolute number (N = 50)

Out of the 50 elected panchayat representatives,all showed interest in social work for the development of panchayat. However, none of them were aware of the development initiatives going on in the panchayat.

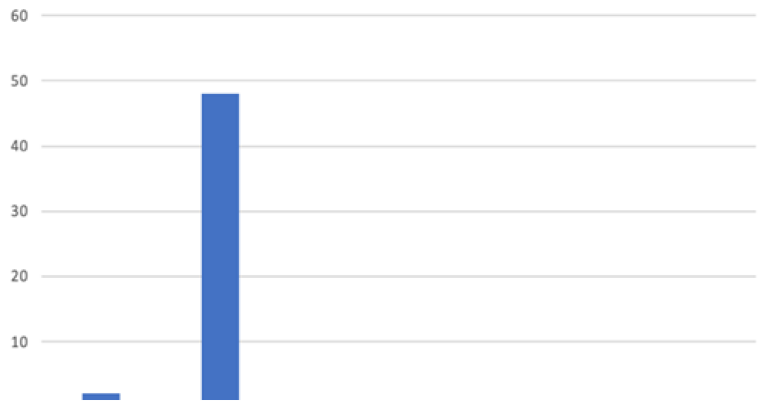


Figure 4: Attendance of Elected Women Representatives

Source: Primary Survey, All value in absolute number (N = 50)

A significant proportion (48) of the participants displayed irregular attendance at the meetings, while the remaining two individuals reported consistent attendance. The gathering was graced by the male constituents of the familial unit. The individuals attended meetings and training sessions solely in accordance with the directives of the governing body, demonstrating their commitment to maintaining their attendance record.

The study revealed a notable trend wherein female participation in panchayat and gramsabha meetings was infrequent, with women displaying limited engagement in active discussion. This pattern can be attributed to their low attendance rate at these meetings. The study revealed that all participants exhibit a passive role during meetings, primarily engaging in attentive listening. While some individuals actively participate in discussions initiated by others, none of the respondents take the initiative to initiate discussions themselves. Nevertheless, it is customary for male individuals to advocate for women in such situations. In the majority of instances, meetings are documented on paper to preserve comprehensive records.

When inquired about the means by which they attend meetings and engage in official duties at panchayats, as well as occasionally at the block level for official work and training, it was discovered that none of the representatives undertake these tasks independently. On every occasion, they are accompanied solely by male counterparts. 45 participants indicated that their spouse or offspring accompany them, while 5 participants reported that, rather than their spouse or offspring, other male relatives from their family accompany them to such gatherings and workshops.

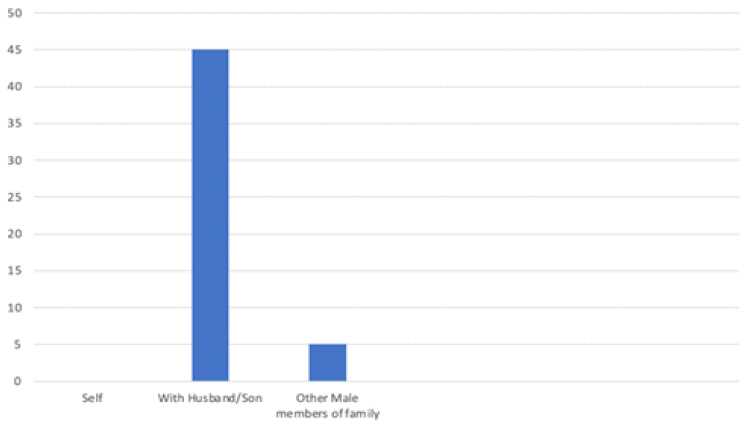


Figure 5: Means of Participation of Women Representatives

Source: Primary Survey, All value in absolute number (N = 50)

Various domains of engagement in panchayat decision-making endeavours were discerned, whereby panchayat members were requested to specify their modes of involvement in said activities. The study unveiled the engagement in various endeavours such as strategic planning, financial allocation, beneficiary selection, project site determination, scheme inspection and supervision, dissemination of scheme-related information, and advocacy for constituency-related concerns.

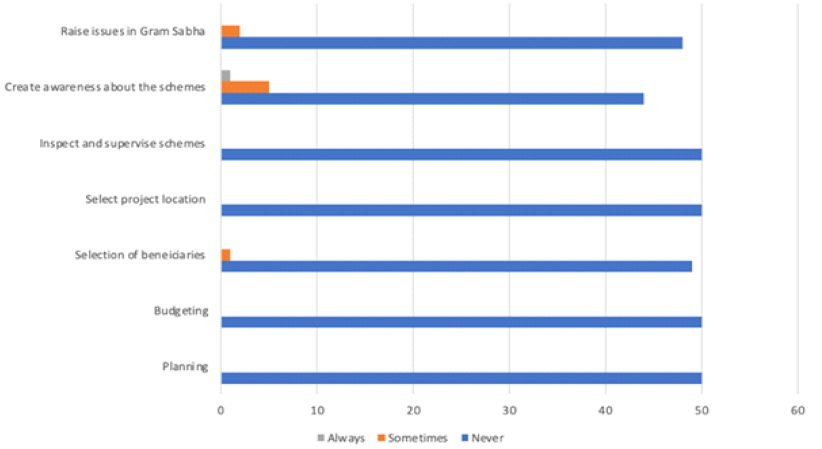


Figure 6: Participation of Women in Decision Making

Source: Primary Survey, All value in absolute number (N = 50)

Figure6 illustrates the significantly low participation of female representatives in all the aforementioned activities. It was observed that their level of participation in various aspects of the project was notably low. This includes areas such as planning (50), budgeting (50), beneficiary selection (49), project location selection (50), scheme

inspectionand supervision (50), scheme awareness creation (44), and raising concerns in Gram Sabha meetings (45). One member of the group consistently expressed her commitment to fostering awareness regarding the scheme. Only one individual asserted that she personally chooses the recipients and determines the project's location. The analysis reveals that the true authority is exercised by their husbands or sons, as well as other male relatives or the esteemed local elite, on whose behalf they have participated in elections as their representatives.

The female panchayat members encounter a multitude of challenges. Authors have investigated the factors that impede their complete engagement in the panchayat and governance process, encompassing lack of awareness or low literacy levels, transportation challenges, domestic responsibilities, and adherence to the purdah system or cultural norms.

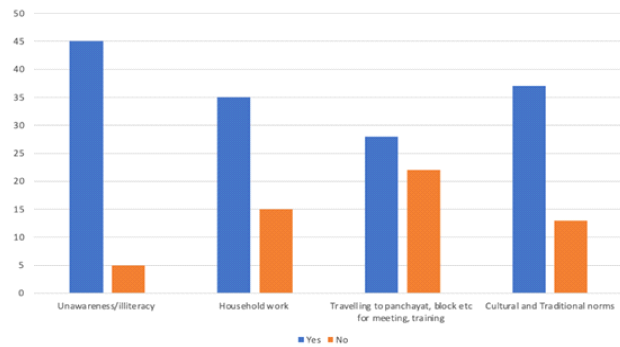


Figure 7: Factors for Low Attendance

Source: Primary Survey, All value in absolute number (N = 50)

The study identified several factors contributing to the low attendance at panchayat and gram sabha meetings and decision-making processes. The lower participation of elected women in the panchayat and governance process can be attributed to several significant factors. These include social restrictions, limited literacy or lack of awareness (45), challenges in accessing transportation to attend block and panchayat meetings (28), responsibilities related to household work (35), and the influence of the purdah system (37). These factors collectively hinder the active involvement of elected women in the panchayat and governance The prevalence of the Purdah system was higher in rural Bihar. In his comprehensive study, It was also discovered that the presence of social restrictions poses a significant barrier to women's meaningful engagement in panchayat affairs(Inbanathan 2001).

6. DISCUSSION

One notable observation pertaining to the panchayats in Dumraon, Buxar, is the conspicuous predominance of male participation during gram panchayat elections despite the implementation of policies aimed at fostering gender empowerment through the reservation of up to fifty percent of seats for women. After interactions with the

villagers, the participation of the female representatives was observed to be significantly deficient. It has been determined that on numerous occasions, the panchayat and gramsabha meetings were discovered to be lacking in substance, serving merely as perfunctory procedures that were duly documented despite their non-occurrence in actuality. Upon careful examination, it has been determined that a substantial number of the convened meetings were conducted without any prior notification being provided to the gram sabha member. Pursuant to the convening of proxy meetings, it is duly noted that the proceedings were meticulously documented. The attendance register, in accordance with established protocol, contains the signatures and thumb impressions of all members, including those who were absent from the aforementioned meetings, with particular emphasis on the elected women. In his comprehensive investigation conducted in the state of Orissa, Patnaik discovered several noteworthy findings. Among these findings were the prevalence of male dominance, the concern about low attendance by female representatives, and the occurrence of proxy gramsabha meetings, among other pertinent factors (Patnaik, 2005).

The substantial occurrence of illiteracy among women residing in rural regions constitutes a highly relevant factor contributing to the phenomenon of proxy politics in said areas. Due to the aforementioned obstacle, women find themselves in the position of passive observers rather than active participants in the processes of policy formulation and the responsibilities associated with the gram panchayat (Singh *et al.*, 2022).

Throughout the process of data collection from Dumraon, it was observed that male members of the family exhibited a prevailing reluctance to grant permission for interviews with elected women. Additionally, these individuals frequently intervened during the interviews, thereby exerting influence over the proceedings and interactions with the author. Panchayat representatives duly recognised the involvement of male members who accompany them to panchayat offices, meetings, and training venues, all of which are typically located at a distance from their residences and cannot be traversed unaccompanied. According to the prevailing consensus, the attendance of the aforementioned individuals is contingent upon the accessibility and participation of said male constituents. It has come to light that on numerous occasions, the male escorts accompanying these women have been observed providing them with guidance regarding their statements during the meeting and, in certain instances, even speaking on their behalf.In his comprehensive study, Patnaik observed a discernible pattern wherein women in Orissa exhibited a notable reliance on their husbands or male family members as circumstances dictated (Patnaik, 2005). The presence of social restrictions has a hindering effect on the active involvement of women in village politics (Inbanathan, 2005).

The majority of womendid not engage in the electoral process independently. The husband or male relative's interests drove political activity. Some local elite members, who were unable to participate in the electoral process due to seat reservations, have sought to influence the outcome by enlisting their spouses and scheduled castes/ tribes to act as their authorised representatives during the election. Husbands or male relatives who wanted to challenge the election but couldn't due to seat

reservations for marginalised groups, including women, appointed proxies or name lenders to vote in the panchayat election. These men act as *de facto* representatives. In a shocking 46 cases, husbands, male constituents, or important local individuals persuaded women to run for office. It was found that husbands (30%) and other family members (12%) were major influencers in encouraging women representatives to run for office (Tiwari, 2012).

Based on the available data, it is evident that there exists a prevailing opposition among husbands, who are male members, towards the active involvement of their wives, who are female members, in panchayat activities. It is noteworthy that these same husbands played a significant role in facilitating the inclusion of their wives, who are female family members, in the governance process. The situation at hand presents a paradoxical scenario wherein husbands, who previously enlisted the support of their wives and female family members during elections, are now expressing opposition towards their wives or female family members' active involvement in panchayat affairs. It is evident from the statement that the husbands, who are male relatives of elected women, have been unable to secure formal positions of authority due to the reservation policy. Consequently, they appear to be endeavouring to exert influence indirectly by utilising their wives as proxies or engaging in the practice of lending their names for representation purposes.According to a study conducted, it has been found that a significant number of women in leadership positions have acknowledged that their spouses have discouraged their attendance at meetings or impeded their engagement in post-related endeavours (Kumatakar& Trembley, 1998).In a separate study, it was ascertained that the exercise of decision-making authority about the panchayat responsibilities allocated to women was predominantly undertaken by their male relatives, preferably husbands, with the women themselves merely affixing their signatures or thumb impressions on the requisite official paperwork(Kaul & Sahni, 2009).

One of the respondents, hereinafter referred to as "the declarant," attested that she was inclined towards political matters, albeit refraining from active involvement in the said domain due to adherence to traditional norms. The declarant further asserted that her participation was hindered by discouragement from her male counterparts. Based on observation, education and awareness have established a negative correlation. It has been determined that individuals lacking literacy skills and possessing limited education levels tended to refrain from making decisions pertinent to their designated responsibilities or engaging in any activities associated with their official positions without the explicit instructions or guidance of their husbands or male counterparts. This reliance on external direction extended to tasks such as providing a thumbprint or signature on a document.It has been determined that individuals possessing literacy and education also did not independently exercise decision-making authority or undertake tasks associated with their respective positions without their husbands' or male counterparts' explicit instructions or guidance.

Despite the bulk of respondents' claims of irregular panchayat attendance, the registers show significant attendance by lawfully elected delegates. In addition, attending panchayat meetings has become a formality of signing registers, with a focus on women's

participation. Registers are usually taken to the homes of electors without a residence to obtain their signatures, thumb impressions, or, in some cases, male representatives' counterfeit signatures and thumb impressions. It has been determined that a greater percentage of female representatives exhibited irregular attendance at gram panchayat meetings, primarily attributable to cultural or rural norms.In the study conducted by Patnaik, it was further ascertained that panchayat meetings have undergone a transformation wherein their purpose has been diminished to a mere formality of signing registers. Notwithstanding the relatively low presence of members, particularly female representatives, the attendance registers evince commendable robustness in the proceedings. In instances where it is deemed indispensable for individuals to be in attendance, such as during the organisation of training sessions held at remote locations, women would accompany their husbands or other male relatives (Patnaik, 2005).

The low female participation in panchayats and related meetings, combined with their limited ability to articulate concerns within their wards, often hinder comprehensive deliberations on their challenges. Thus, this obstacle hinders decision-making. The individual's attendance at the meeting and affirmative head motions indicate low engagement. The research shows that female participation is low. The majority of women in all panchayats did not participate in regular speech during meetings, except for a few women interviewed.

The author examined women's panchayat participation and behaviour in this study. The folks participate in gram panchayat sessions through various activities. These activities include attending meetings and actively contributing to the agenda, which involves identifying and discussing ward issues. They also help decide on project location, planning, finance, and beneficiary selection. Gender and caste differences contribute to gram panchayat meeting problems. Women rarely raise local issues during meetings. Careful examination revealed that women were involved little in the above tasks. Their husbands or male relatives took over these responsibilities with little input from them. Even though higher-educated women were more assertive and articulate, they did not make independent decisions. As needed, they asked their spouse or male relative for help.

While certain women claimed occasional involvement in said domains of decision-making, it is essential to note that their actual awareness of said activities was severely lacking. The individuals in question, upon the directive of their husbands or male relatives, proceeded to affix their signatures or thumb impressions subsequent to the determination made by the de facto male members. Notwithstanding the apparent familiarity exhibited by certain women with concepts such as "planning,""budgeting," and "developmental work," it is imperative to acknowledge that their comprehension of the inherent importance of these terms within the operational framework of the panchayats was indeed lacking.

Participants were asked how they raised issues during panchayat meetings to assess their ability. The research shows that elected women representatives, particularly Muslim ones, struggle to address issues during panchayat meetings. Many times, women did not independently raise concerns in their domains or address local issues. Instead,

they asked others, mostly men, for help. The male escort sometimes represented them and conveyed their ideas.In a panchayat meeting, elected women representatives were using third parties to express their opinions. The women or their male kin or spouse have frequently informed the assembly president or other participating members of their constituencies' concerns and challenges. This strategy assigns meeting voice to the aforementioned individuals rather than the women. However, some female representatives, mainly Hindus, met with the president before or after the meetings. Due to shyness and uneasiness when speaking in public, the individual chose not to speak during a meeting or training session.

Lack of awareness and illiteracy were the biggest hurdles to active participation and responsibility. Research shows that the Purdah system is the second biggest barrier to their full engagement. According to empirical data, homework is the third most important element. The purdah system is similar across social classes, but higher-caste women are less likely to practise it. Female constituent engagement may be reduced by the gram panchayat office's proximity. Except for a few socially active women delegates, women representatives rarely have time for panchayat activities after cooking and raising children. Attending panchayat meetings and trainings is difficult due to the time investment, especially in remote regions like blocks. According to research, many women from poor households must live on limited means and cannot participate in government. Also, due to increasing inflation, contesting elections has been a risky factor, especially for those who belong to the labour class. In rural elections also, a new pattern has emerged wherein the elite class of the society participate. Male relatives of many women testify that their political participation is impractical due to a lack of pay.

Empirical evidence shows that many people, including distinguished Gram Sabha members, are unaware of their properly elected women representatives as a woman representative does not participate qualitatively because of both internal and external obstacles (Kumar, 2022). It is considered that the spouse or a male relative is the de facto representative, exerting authority and executing all panchayat tasks. However, there are various news reports that break thesecustomary practices, too, but very few in numbers.

7. CONCLUSION

There exists a discernible disparity between the policies aimed at enhancing the agency of women through the reservation of up to fifty percent of seats and the accompanying policies and measures implemented by the government to guarantee equitable conditions for women's engagement in the governance sphere. The lack of active involvement of women in the developmental activities subsequent to their election as panchayat office bearers can be attributed to a multitude of factors. These factors encompass the prevailing patriarchal societal structure, inadequate levels of literacy and education, adherence to sociocultural norms and traditions, economic constraints, limited employment opportunities, insufficient infrastructure impeding mobility, and inadequate allocation of resources by the respective states to enable them to discharge their responsibilities associated with their positions effectively. The aforementioned circumstance is

compounded by the government's lack of initiative in delegating the responsibilities and personnel associated with the allocation of funds. In the event that individuals are summoned to attend the meeting, it is solely for the purpose of fulfilling the quorum requirement. Accordingly, it can be observed that female constituents are currently devoid of any active involvement in the decision-making procedures, consequently assuming the role of mere representatives. The proposition of reserving seats for women may not effectively achieve the objective of integrating women into the political process and rectifying the historical injustices they have faced. In the event that the state demonstrates genuine commitment towards the devolution of power to the panchayats and the effective implementation of reservation policies for marginalised groups, particularly women, it is imperative to acknowledge that a lacklustre and fragmented approach will prove inadequate. In light of the state's intention to transfer all 29 subjects to the panchayats, it is imperative that the elected women representatives, who currently possess inadequate skills, be provided with the requisite knowledge, resources, personnel, and other necessary means. This preparation is essential prior to the complete devolution of power and subjects to the panchayats. The aforementioned provisions necessitate the allocation of requisite resources, funds, functions, and functionaries to panchayats. Furthermore, it is imperative to enhance the capabilities of women representatives, specifically, through the implementation of customised training programmes that are sensitive to cultural nuances. Additionally, the establishment of infrastructure in rural regions to enhance mobility, alleviate poverty, and challenge the prevailing patriarchal mindset within society are essential objectives. The inquiry must additionally encompass an examination of potential avenues for furnishing compensation to the ward members, with particular emphasis on addressing the needs of the underprivileged demographic. Lastly, it is imperative to allocate resources towards the enhancement of quality education in order to facilitate the cultivation and development of prospective female leaders.

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A Quantitative Approach to Analyse the Public Knowledge in Understanding of Fingerprint Science

Dr. J R Gaur, Ms. Prachi Kathane** & Ms. Pallavi A Rao****

ABSTRACT

Fingerprint analysis has been one of the pillars of forensic science, which has been instrumental in criminal investigations for over a century, and yet the public familiarity and understanding regarding this key tool remain grossly underexplored. In this present study a quantitative analysis investigates public awareness, perception, and ease of understanding of fingerprint sciences across the general populace. Research of 15 carefully crafted questions was given to 342 randomly selected respondents from Gujarat, India. This research assesses the level of familiarization with fingerprint science, the perception regarding its advances in terms of a person's life journey, as well as the judiciary's role in it. The study findings hold insights into how the general public conceives the accuracy and limitations of fingerprint analysis while at the same time indicating misconceptions that might dampen the trust in forensic evidence. This research is in itself a stepping toward enhancing public awareness and perceptions of fingerprint science, which is important for informed discourse and trust in its application in criminal investigations. The study shows that there is a great need for concerted communication strategies that reduce the gap between public understanding and clear knowledge of forensic practices. This will provide future horizons for research and policy initiatives to bolster fingerprint science integration into the criminal justice system in a way mindful of public concern and instilling much-needed confidence in forensic approaches.

Keywords: Public Awareness, Perception, Fingerprint Sciences, Quantitative Analysis.

INTRODUCTION

Around the world, varied investigative departments have employed fingerprint identification techniques to identify both suspected offenders and crime victims. The classic fingerprinting method has a straightforward foundation [1]. Papillary ridges are formed by the skin on the palmar surface of the hands and feet. These ridges are

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specific to each person and do not alter over time. The fingerprints of identical twins, who share the same DNA, are not identical [2]. Being a challenging evidence, fingerprint is delt with utmost care and protection at the scene of crime. To create a high degree of visual contrast between the ridge patterns and the surface where a fingerprint has been deposited, a 'developer' often a powder or chemical reagent is typically required. From controlling physical access to safeguarding our devices, biometric technologies are becoming more and more integrated into our daily lives [3].The forensic expert'sfundamental task is to gather, document, and analyze material to generate proof of the incident. It is not a practice that can be done alone. Several specialists from various disciplines are needed for forensic inquiry. A forensic team is a collection of skilled experts who investigate crimes, gather evidence, record that evidence, and present that evidence in court. Their main responsibility is to conduct investigations and testify to support the administration of justice [4]. To uncover the truth about complicated situations, forensic teams are essential. Fingerprint-based criminal identification is one of the most effective ways to apprehend fugitives who could otherwise evade capture and carry on with their illegal activities indefinitely. This kind of identification also enables a precise assessment of the number of prior arrests and convictions, which naturally leads to the judiciary imposing more equitable sentences because the person who consistently breaks the law cannot successfully pretend to be a first-time or juvenile offender. The prosecution makes his case based on the offender's prior record with the help of this identifying mechanism. It gives the governor, parole board, and probation officials solid information to work with when dealing with criminals in their regions.

The problems regarding fingerprint identification have less to do with analysis and more to do with how easily fingerprints are compromised and stolen. A person's fingerprint is readily tampered if they come into contact with a surface. This is among the factors that have made it simple to place fingerprints at crime scenes. Individuals who harbour resentment against others choose to remove their fingerprints and place them at murder sites. It has been known for years that fingerprint identification is very effective in individual identification as well as a difficult evidence to handle at the scene [5].

The study specifically created a matrix of 15 Likert scale questions constructed to extract participants' thoughts, feelings, and perspectives on this subject [6]. Respondents are given the option to select how much they agree or disagree with each item, ranging from 'strongly disagree' to 'strongly agree' [7]. Its application would allow for quantification and standardization in the measuring of subjective opinions. The population for this study is around 342 research participants from Gujarat, India, and the data response was collected by giving questionnaire to the individuals in person. This research includes randomly selected participants to ensure representativeness so that different respondents can provide their opinions. This is a good prerogative with which real and comprehensive data can be collected to fuel the accomplishment of research objectives.

OBJECTIVE OF THIS RESEARCH

This study aims to present how most people understand the science behind the fingerprint, with attention, and resolve their attitudes, degree of knowledge, and misunderstanding. Also to find out the elements that shape public opinion, such as media portrayals, education, cultural influences, and individual experiences. This is an attempt to see the impact of misinformation and misconceptions, such as beliefs in fingerprint infallibility, on trust in the criminal justice system.

LITERATURE REVIEW

In 2024 Zhang *et al*. [8] proposed a contentious information technology framework to examine the contradictory nature of biometric traits, which at the same time provide advantages and cause issues that show up as conflicting impacts on users' switching behaviour. They started by doing semi-structured research using a sequential mixed methods technique. Interviews revealed three important biometric traits two advantages and two drawbacks related to them. To investigate the interactions between each discovered component, a follow-up survey was carried out.In 2023 Gibb & Riemen [9] addressed the problem by outlining AFIS standard practices and procedures for forensic settings. The conversation is broken up into three sections. First, they list three variables that affect how well AFIS functions in forensic settings. Second, they go over the search procedure and emphasize the methods used by the Netherlands National Police (NPN) to reduce bias and inaccuracy in their AFIS workflow. They wrap off by quickly going over other factors to take into account while creating best practices. In 2021 Arikpo&Egeonu [10] developed the formation of a biometric mortuary system based on fingerprints for the identification and claim of deceased people. The object-oriented analysis and design technique using the UML served as the foundation for the system design methodology. Java was used for the system's front end and processing logic, while MySQL Server was used for transaction management at the back end. In 20027Furnell *et al.* [11] examined public awareness and perceptions of biometrics among UK population which showed their understanding as well as fear for biometric. In 2024Martins *et al.* [12] proposed an effective technique that will be used immediately to cut down on the amount of time and human resources spent on physical labour in crime scene investigations. They designed four steps for speedy investigation provided on the basis of survey based studied on opinion of the officials.

METHODOLOGY

This methodology of research design included questionnaires formulated on a Likert-type scale with quantitative analysis [13]. A Likert scale has been used to measure respondents' attitudes, perceptions, and opinions on a graded continuum. The sample of the study drawn from the 350 randomly selected individuals, guarantees a varied representation regarding the demographic parameters such as age, gender, education level, and socioeconomic background.This randomization minimizes the selection bias while enhancing the reliability of the findings. Data collection is held in Gujarat, India. It is quite easy for convenience for the engagement of the participants and

ensures that all data directly represent those familiar with or confined to the state. Figure 1 shows the flowchart in this result.

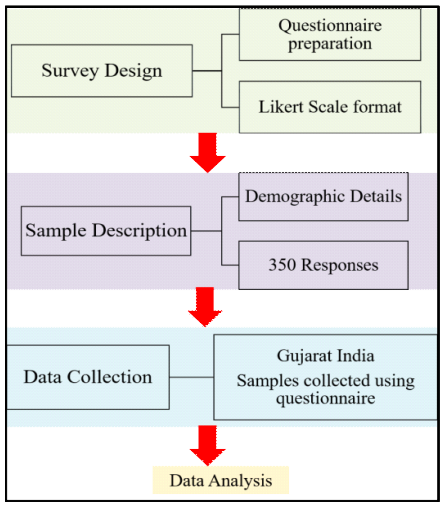


Fig. 1: Flowchart of this Research

RESEARCH DESIGN

The research exclusively designed a matrix of 15 questions on the Likert scale that are well-crafted to elicit the opinions, attitudes, and perceptions of participants on this topic. Each question provides the opportunity for respondents to indicate the extent of agreement or otherwise against a spectrum that runs from 'strongly disagree' to 'strongly agree'. Its use enabled standardization in the measurement of subjective viewpoints while allowing for quantification. There is much more than mere capturing of responses through a Likert scale; it also captures varying degrees of responses, attitudes, and opinions yielding valuable results.

SAMPLE DESCRIPTION

The sample of the study involved 350 respondents, out of 350, 8 samples were rejected due to incomplete submission of whom 100 were female and 242 males selected randomly for the research. This brings in an age diversification of people, which assures balance across the population. Education-wise, the respondents were varied, comprising people who hold primary, secondary, and tertiary levels of education hence making them a mixed educational qualification. Such demographic diversity included differences in experiences, opinions, and behaviours pertinent to the aims and objectives of the study, making it more reliable and generalizable. Bias minimization was the intention of selection for inclusiveness in the representation of populations about which investigation was being made.

DATA COLLECTION

The population for this study is around 342 research participants from Gujarat, India, and the data response was collected using a printed questionnaire in person. This research includes randomly selected participants to ensure representativeness so that different respondents can provide their opinions. This is a good prerogative with which real and comprehensive data can be collected to fuel the accomplishment of research objectives.

ETHICAL CONSIDERATION

The participants have submitted the consent before answering the questionnaire. The researchers haveagreed and presented all relevant facts in an intelligible and transparent wayAll information gathered is kept private and anonymous [14-17].

RESULT AND DISCUSSION

In this quantitative research, survey data have been collected from a general educated people who are familiar with investigative sciences. The research consists of 15 carefully formulated questions to represent the major objectives of the study. Survey responses were obtained from 342 of the respondents, thus ensuring a substantial sample size for data analysis. That continued to provide a dataset for meaningful interpretation and exploration of trends, opinions, and levels of knowledge within the science of fingerprints.

The Questionnaire Covered Following Major and Generalised Aspect:

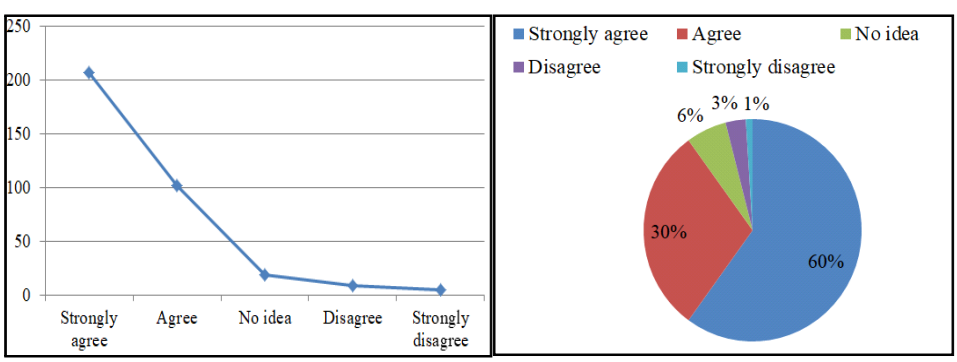
- Innate Presence of Fingerprints at Birth
- Uniqueness of Fingerprints to Humans
- Age Variability in Fingerprints
- Fingerprint Transfer During Surface Contact
- Role of Fingerprints in Personal Identification
- DNA Extraction from Fingerprints
- Individual Uniqueness of Fingerprints Across the Population
- Permanence and Removal of Fingerprints
- Application of Fingerprints in Crime Resolution
- Distinctiveness of an Individual's Ten Fingerprints
- Sex Determination Through Fingerprint Analysis
- Admissibility of Fingerprints in Legal Proceedings
- Vulnerability of Fingerprint Evidence to Contamination
- Lifting of Fingerprints from Surfaces
- Impact of Environmental Factors on Fingerprint Integrity

The responses received for each of these aspects are discussed and summarized below.

INNATE PRESENCE OF FINGERPRINTS AT BIRTH

Fingerprints of a person remain unique and indelible, as they are formed long before birth. Thus, they serve as sufficient proofs of identity throughout life [18]. This is kept to the extent that even a newborn or very young child can undergo biometric identification. Using fingerprints to identify extremely young people would need taking into account the skin's physiological and mental development traits and how those factors would affect fingerprint recognition [19]. It is also crucial to remember that while infants' and young children's fingerprints can be scanned, reading them would be more difficult than it is for adults. This is because their patterns are smaller and less distinct, which causes issues when they are used in fingerprint scanners and typically results in lower image quality or accuracy [20].As age increases, fingerprints tend to grow in size proportional to age, yet the unique patterns remain, thus making the fingerprints much more reliable by comparison across ages.

Graph 1 represents the response collected for the opinion on presence of finger ridges are from birth or not.The results indicated a tendency toward idea adoption and comprehension. Out of the respondents, 207 people (60.5%) strongly agreed with understanding the scientific basis behind fingerprint formation. 102 individuals (29.8%) were found to agree, indicating a total agreement rate of 90.3%. 19 respondents (5.6%) indicated that they had no idea about the subject, which indicates a gap in awareness or understanding. There was little scepticism because only 9 respondents (2.6%) disagreed with the idea, while an even smaller group of 5 individuals (1.5%) strongly disagreed with it. Most of the public seems to have favourable perceptions or to understand fingerprint science, a small fraction is either lacking knowledge or doubts about it. This great level of agreement could mean that scientific education or exposure to forensic practices is quite strong in public opinion. However, there are respondents with no idea about the formation of fingerprints, leading to the basis for a call toward more outreach in education to fill the gaps and make it a more knowledgeable populace. Small disagreement indicates that misconceptions or alternative beliefs regarding fingerprint science can exist only at a marginal level. These findings imply the need to continue promoting awareness and understanding of scientific concepts such as fingerprint formation to draw greater public confidence in this area of forensic science.

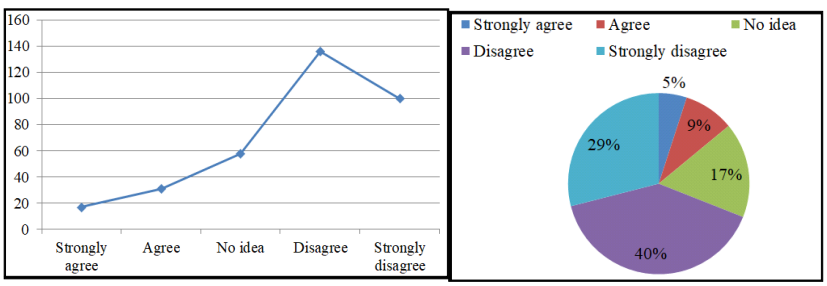


Graph 1: Innate Presence of Fingerprints at Birth

UNIQUENESS OF FINGERPRINTS TO HUMANS

Finger ridges serve the purpose of gripping using palms and thus are likely to be present in other species. Like human fingerprints, animal soles form distinctive patterns [21].Most animal species, not only mammals, can be included in the concept of a 'fingerprint' if traits other than actual fingerprints are permitted [22].Since fingerprints are unique to each individual, they have been used for identification for a very long time [23]. Koalas are one of those animal species which shows similarities in ridge structure. It is important to consider the surroundings while interpreting the finger ridges present on the surface [24].

Graphs 2 shows the answers gathered for the presence of fingerprint other than humans. The results tend to suggest an inclination toward idea adoption and comprehension. The question of 'who has fingerprints' was answered somewhat variously, indicating the degree of agreement or sometimes the understanding regarding the question by respondents. Only a minority either strongly agreed (17) or agreed (31) to the statement that they believe it is true or otherwise relevant for everyone. The most common response (58), indicates a lack of understanding or clarity on the topic. A large majority disagreed (136) or strongly disagreed (100) with the same, suggesting that the issue was interpreted differently or with suspicion.



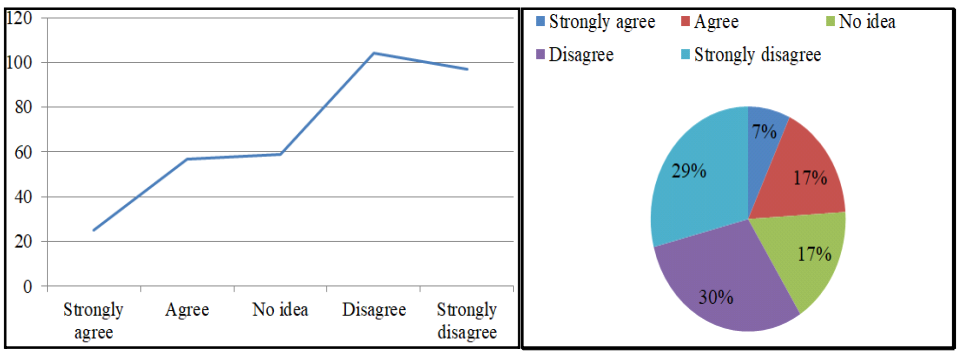
Graph 2: Uniqueness of Fingerprints to Humans

AGE VARIABILITY IN FINGERPRINTS

There is no change in fingerprints. Nevertheless, as we become older, it may become more challenging to get our fingerprints. This is because as people age, their skin becomes less elastic, and the deepening of ridges and furrows makes the patterns less noticeable. Our fingertips' surface is impacted when our skin's pores become less moisturized [25].The fingerprint ridges of elderly people are less firm than those of young people, although they are not significantly different [26]. Biometric scanners may find it difficult to correctly read fingerprints in these circumstances and determine whether or not they belong to the same individual [27].

The responses obtained for changes of fingerprint during the life of a person are displayed in Graph 3. The findings generally point to a propensity for concept understanding.A research study on the effect of age on fingerprints gathered varied opinions. 25 strongly agreed and 57 agreed from the respondents. Some believed

that age influenced fingerprint changes. Respondent number 59 representing expressing uncertainty says the complexity of the issue. The majority numbers say 104 of the respondents disagreed while 97 strongly disagreed with the view that age does not affect fingerprints. Therefore, the mixed responses underscore the call for more research and raising awareness on the issue.

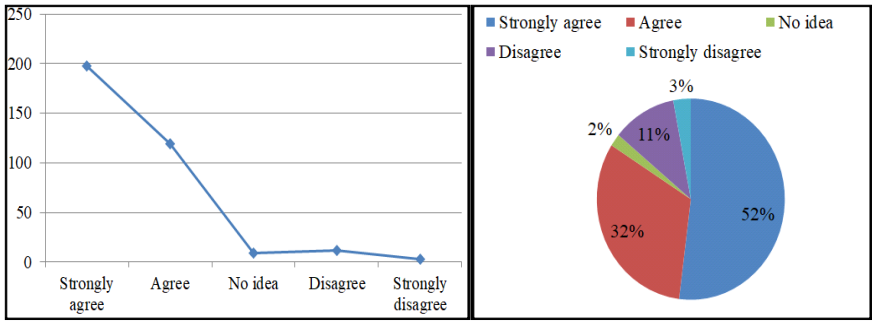


Graph 3: Age Variability in Fingerprints

FINGERPRINT TRANSFER DURING SURFACE CONTACT

In criminal investigations, the greatest benefit of these invisible fingerprints known as latent fingerprints is that offenders unintentionally leave them at the crime scene [28]. But it also takes a lot of work for the police to locate them. Certain surfaces retain fingerprints better than others because they are formed from the natural oils and residue that are left on our fingertips [29]. Because nonporous materials like plastic, glass, and metal don't have pores that may collect perspiration and grease from our fingertips, fingerprints are simpler to locate on these surfaces [30].Fingerprint analysis is still a very useful technique for police enforcement, having been used for over a century to identify criminals and solve crimes [31]. Investigators may use fingerprints to connect one crime scene to another involving the same individual, which is one of its most significant applications [32]. A criminal's record, past arrests, convictions, and sentencing, probation, parole, and pardoning choices may all be tracked by detectives with the use of fingerprint identification [33].

Graphs 4 present the answers gathered for transfer of fingerprints on the surface when both comes in contact with each other. In general, the results indicate a tendency toward idea understanding.The data indicates a very strong agreement regarding fingerprint transfer methods. Strongly agree with the number 198, agree with a count of 119, it would mean that there is a general acknowledgement or belief on whatever techniques or methods in transferring fingerprints. An insignificant part of Participant 9 commented as not sure, which means these people do not know or understand the method. Disagreed is very few at only 12, and then strong disagree counts to just 3, showing an extremely small extent of skepticism regarding the information. This simply indicates a very strong collective agreement about fingerprint transfer on the surface.

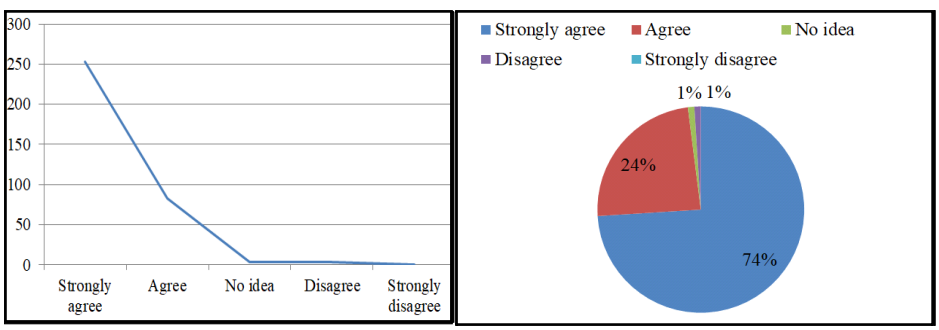


Graph 4: Fingerprint Transfer During Surface Contact

ROLE OF FINGERPRINTS IN PERSONAL IDENTIFICATION

Persistence (permanence) and uniqueness are the two fundamental tenets of fingerprint identification. Identical twins are also not the two persons who have ever been found to share fingerprints [34]. The identical fingerprint has never been discovered on more than one finger in a single person [35]. In forensic science and biometric identification, fingerprint identification has been an essential technique for more than a century. This approach precisely develops personal identification by utilizing the distinctive patterns that each person has at their fingertips [36].

The responses collected for use of fingerprints in individual identification are displayed in the Graph 5. The findings point to a propensity for concept comprehension.The data reveals that there is predominant support for the fingerprints, with 253 individuals responding strongly agree, with 83 agreeing. This seems to show that there is a consensus on the appreciation of this utility. Very few individuals showed any uncertainty (3) or disagreement (3), and (0) strongly opposed it. This indicates the common perception that fingerprints are trustful and efficient tools likely owing to their individuality and their extra dimension in security as well as identification and authentication activities. The absence of almost any opposition leads to a conclusion of high confidence in the accuracy and relevancy of this method for several applications, from law enforcement to technology, thus making it a trusted practice.

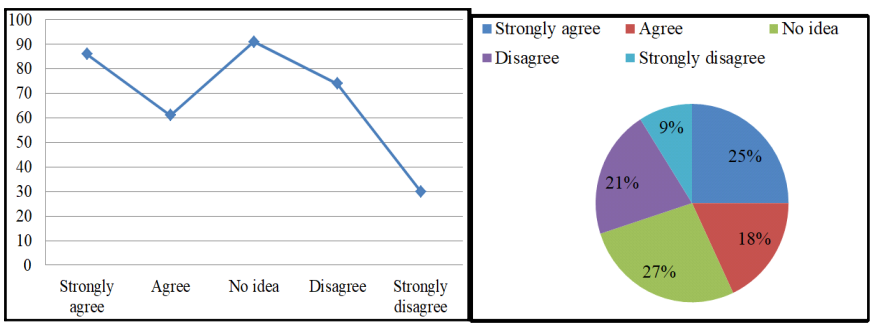


Graph 5: Role of Fingerprints in Personal Identification

DNA EXTRACTION FROM FINGERPRINTS

This is one of the advancements in the impression evidence that the DNA can be extracted from the ridges as they are left behind due to body secretions. This technology is also referred as touch DNA. In accordance with Pang & Cheung's (2007) [37] technique, employed the double swab (wet and dry) approach to extract the DNA from the fingerprint. [38]. The overlapped fingerprints may give ideation on number of persons involved in the crime scene in case of DNA extraction from the sweat residue.

The data obtained for extraction of DNA and personal identification through sweat residues is displayed in the Graph 6. The findings point to a propensity for concept comprehension. According to the statistics, there is a high degree of agreement on fingerprint transfer techniques. The opinion in public is whether DNA can be derived from fingerprints or not. About 86 people belong to the category of strong agreement and 61 people come under the general agreement as far as believing that such technology can be feasible or expected. 91 show indecisiveness, perhaps due to ignorance or not a proper understanding. 74 disagree but 30 strongly disagree, therefore indicating scepticism about the new option possibly not believing it would work, perhaps for scientific or ethical issues. The distribution above shows a little polarized and, nevertheless, a more inquisitive attitude toward an emerging possibility.

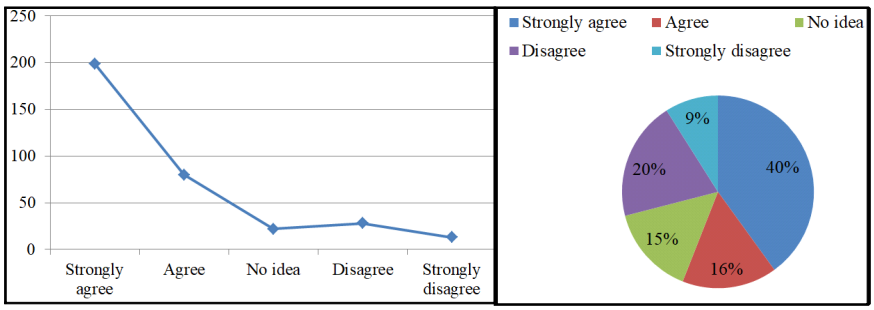


Graph 6: DNA Extraction from Fingerprints

Individual Uniqueness of Fingerprints Across the Population

No two person's fingerprints are the same, and that is the one thing we are certain of. There wouldn't be two prints that we could say were exactly comparable in every way, even if we took hundreds of thousands from as many people. Perhaps if there were two or perhaps many more of them with the same overall design, a close study would reveal that they were quite different so different that we could readily distinguish the two prints when comparing them [39]. Friction arises as a result of one force slowing down ridge growth and another attempting to speed up ridge formation, which results in the production of distinctive ridges [40]. This force creates what are called whorls, or strips, on the fingers. The force imparted to the ridges varies from person to person, thus each fingerprint is distinct [41]. No two people have the same fingerprint patterns, and even identical twins cannot have the same prints [42].

Research measuring public opinion and understanding of fingerprint science that is, the evolution of fingerprints is highlighted in Graphs 7. The results typically suggest a tendency toward idea comprehension. There were differing views on the impact of aging on fingerprints.Among the respondents, 199 strongly agreed to it because of its highly unlikely propositions along with the uniqueness that could largely be supported by scientific studies. An additional 80 agree but perhaps a little hesitantly, acknowledging that fingerprints were distinct. 22 had no idea. 28 disagree, perhaps under skin-deep misconceptions and, as such, 13 strongly disagree, probably having doubts about the evidence or scientific consensus. This spectrum showed the dynamics of awareness and education in recognition of the uniqueness of fingerprints.

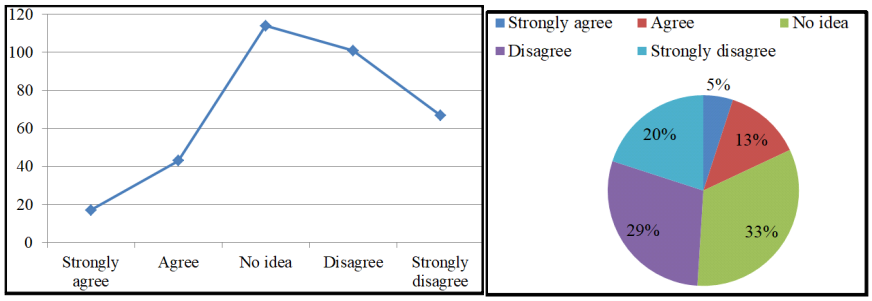


Graph 7: Individual Uniqueness of Fingerprints Across the Population

PERMANENCE AND REMOVAL OF FINGERPRINTS

Persistence, sometimes called permanence, is the idea that a person's fingerprints don't really change throughout the course of their life. They stay embedded in the current friction ridge and furrow pattern when new skin cells develop. Indeed, several studies have been carried out to verify this persistence by documenting the same fingerprints over many years and noting that the characteristics don't change. When the new skin forms, even attempts to destroy or remove one's fingerprints will be prevented, unless the damage is really severe, in which case the new arrangement created by the damage will remain and be unique [43].

Graphs 8 display the responses gathered for permanence and removal of finger ridges. The findings usually point to a propensity for understanding concepts. Divergent opinions exist on how aging affects fingerprints.A considerable number, 17 subjects, strongly agree most likely for purposes of privacy or security. 43 agree, suggesting support for the same reasons. But the largest group of 114 people has no idea, signifying some form of unawareness about it. A popular figure of 101 disagrees; probably because people think fingerprints as significant in identity recognition or forensic uses, and 67 are strongly against it which could indicate staunch opposition. That is such a variety of views concerning the very complex balancing act between the technological possibility, ethical consideration, and eventually public awareness or acceptance of such practices.

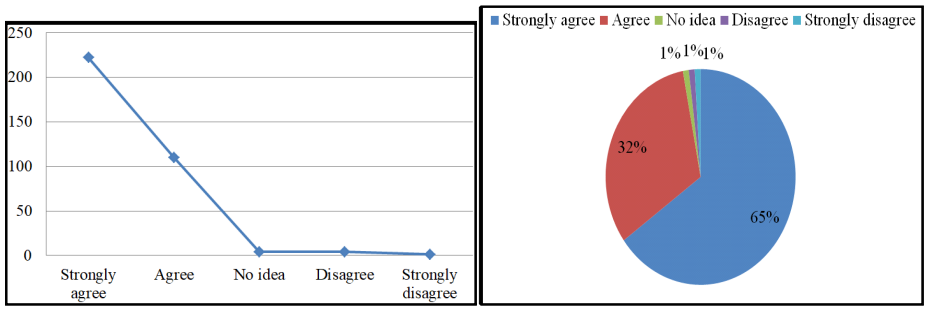


Graphs 8: Permanence and Removal of Fingerprints

APPLICATION OF FINGERPRINTS IN CRIME RESOLUTION

Fingerprints are difficult to remove and unintentionally leave traces of a person's whereabouts; as a result, they are crucial in investigative investigations. Human fingerprints are distinctive, hard to copy or change, and long-lasting, making them appropriate as permanent indicators of a person's identity. As a result, they leave prints on everything that is touched and cannot be erased. Police can easily use fingerprints to identify someone, either to connect them to a crime or to identify death or incapacity [44]. If detectives have grounds to compare fingerprints or if prints from an unsolved crime appear as a match in a database search, they can connect a culprit to additional unsolved crimes [45]. These unidentified prints that connect several crimes might occasionally provide police enough information to identify the offender [46]. When DNA is not available, the criminal justice system uses fingerprints to confirm the identities of convicted criminals and to trace their past arrests, convictions, criminal inclinations, known associates, and other pertinent information [47]. Court officers may also utilize these documents to inform their choices on a criminal's sentencing, probation, parole, or pardon [48].

Graphs 9 show the answers collected for its use in crime investigation. Generally speaking, the results indicate a tendency toward conceptual comprehension.Fingerprints are the most important aspect of solving crimes as shown by the public debates regarding their utilization. To respond 222 of the respondents strongly agreed and 110 agreed quite spreading on fingerprint study in a criminal case. Of the rest of the population, 4 showed neutral opinion and 5 disagreed given the small number of voices doubting its reliability. Fingerprints are unique to every individual and provide irrefutable evidence when matched properly keeping them as the backbone of forensic science. Their ability to link them with crime scenes and identify suspects well makes them one of the important modern law enforcement tools.

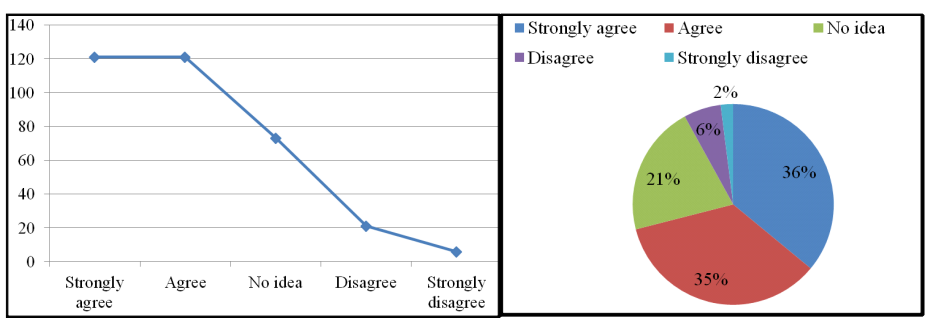


Graphs 9: Application of Fingerprints in Crime Resolution

DISTINCTIVENESS OF AN INDIVIDUAL'S TEN FINGERPRINTS

Every one of the 10 fingers has a distinct fingerprint. Despite their similarities, the patterns are not the same. For this reason, investigative agencies collect fingerprints from each finger. They take pictures and compare them to the databases [49]. To understand why fingerprints differ, one must understand the science behind their creation. The formation of fingerprints is significantly influenced by environmental factors such as pressure and nutrition availability in the foetus of a women. Two fingerprints that experienced greater pressure during pregnancy will thus develop in distinct ways [50].

Graphs 10 that show the opinion on having different or same finger ridges on all ten fingers. The results indicate a tendency toward conceptual comprehension.The study reveals varying opinions on how distinctive a person's 10 fingerprints are. According to the agreement (121) and strong agreement (121) assertions, each person's fingerprints are unique. The failure of 73 participants to select any one group may indicate a lack of awareness or comprehension that each person's fingerprints are distinct. The majority are those who disagreed at 21 or strongly disagreed (6), whoare skeptical about this idea or perhaps have different levels of knowledge about it. In general, therefore, results indicate strong consensus regarding the uniqueness of fingerprints but a significant minority undecided or unconvinced, thus showing the need for more public awareness concerning this scientific fact.

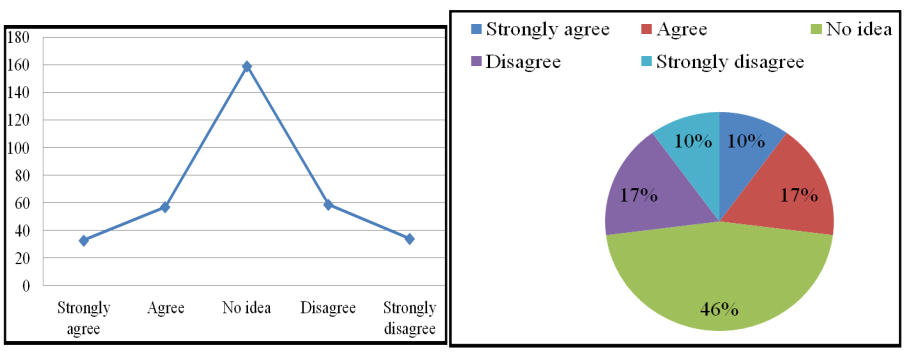


Graphs 10: Distinctiveness of an Individual's Ten Fingerprints

SEX DETERMINATION THROUGH FINGERPRINT ANALYSIS

A person's fingerprint can be used to determine their sex based on the number of finger ridges. Similarly, the composition of sweat residues can also be used for estimating the age of an individual from fingerprint. According to the study, a fingerprint with a ridge density of fewer than 13 ridges/25 mm^2 is probably male, whereas one with a ridge count of more than 14 ridges/25 mm^2 is probably female [51].

Graphs 11 illustrating the responses gathered for identification of sex of a person from fingerprints. The findings point to a propensity for conceptual understanding.The idea of using fingerprints to identify the sex of an individual is one of those issues that have caused plenty of mixed feelings, as the research indicated. A small portion of the population strongly agrees (33) and agrees (57) with such an application, showing some belief in the possibility of this application; there are still many who showed no idea or lack of knowledge through most of the population (159). It shows that there is a great gap in general awareness or understanding of the concept. On the other hand, another equal number of people disagree (59) or strongly disagree (34), likely because of some doubts regarding such techniques' reliability and feasibility because a question on whether an individual could gather some preference appears. These responses therefore call for more research, public education, and clarification of the accuracy or scientific basis for using fingerprints for sex determination.

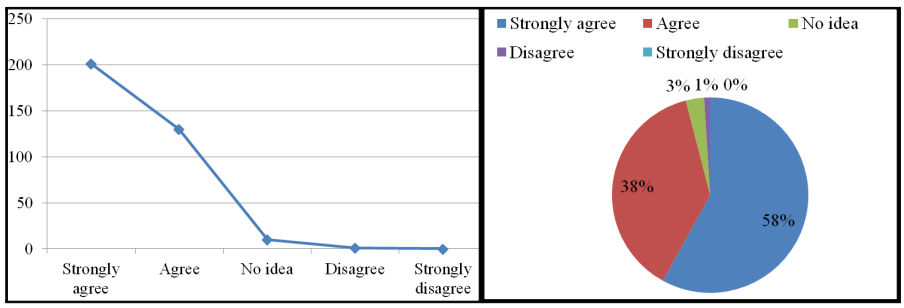


Graphs 11: Sex Determination Through Fingerprint Analysis

ADMISSIBILITY OF FINGERPRINTS IN LEGAL PROCEEDINGS

Relevance and admissibility are the two main tenets that courts use when deciding whether to accept forensic evidence. This also holds true for forensic fingerprints. Forensic fingerprints are evaluated and their evidential value quantified based on these two tenets [52]. The Indian Evidence Act almost ever uses the phrase 'admissibility,' and the two are essentially synonymous under Act. The scientific reports places on record following the standards of the courts amount to admissibility of this importance piece of evidence in court of law. It is evident from the various court judgements where fingerprint evidence is used, that this piece of evidence is considered by the court of law is placed on record correctly and beyond reasonable doubt. [53].

Graph 12 displaying the answers collected for the understanding of admissibility of fingerprint evidence in court of law. The results suggest a tendency toward conceptual comprehension.Fingerprints that would be found at a crime scene are so unique and reliable for identifying an individual when one attempts to prove the identity of such a person in a court of law. This is highly reflected in the research results: 201 participants strongly agree and 130 agree on the great importance of this. Only 10 had no idea, with very little oppositionrepresented by only 1 disagreement and no one is strongly disagreeing. They were also very important to the investigation, linking his suspect's crime scene more closely, proving the relevance to any undertaking investigation. When accepted in the court, they become credible, making them a very important instrument in the deliverance of justice and in ensuring accurate verdicts in criminal cases.

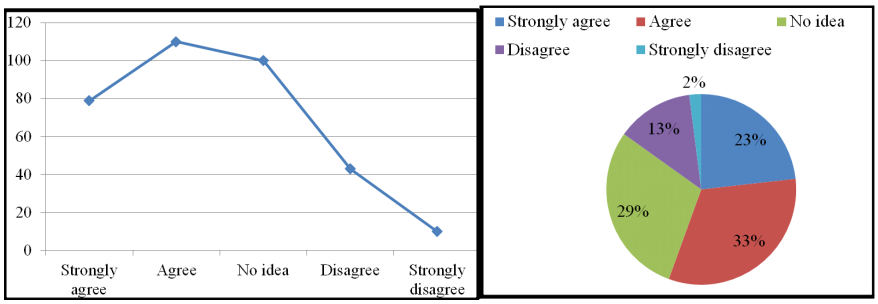


Graph 12: Admissibility of Crime Scene Fingerprints in Legal Proceedings

VULNERABILITY OF FINGERPRINT EVIDENCE TO CONTAMINATION

Fingerprint evidence is extremely easily susceptible to contamination or tampering, especially in crime locations where it is not properly secured or handled. Even stamping or handling one's tiny little finger can cause contamination through improper collection, storage, or accidental transfer of prints, which can lead to unwanted extraneous fingerprints or alteration of the original ones. Harmful environmental elements such as intense heat, moist, and dirt make the fingerprint analysis quite difficult. Such prints may be claimed by the defence to be someone else's obtained at the crime scene, thereby incriminating the innocent or creating at least some doubts as to the reliability of evidence [53].

Graph 13 show the answers to the information obtained for vulnerability of fingerprint evidence.The fingerprints are tampered with sounded like everybody in the survey had a different opinion about it. Out of 79 people, they believed to have a strong agreement factor that fingerprint evidence can be tampered with. 110 others agreed, showing apprehension about the overall fact that this evidence could not be reliable for everyone. 100 shared neutral opinions, which could mean ignorance or apathy about the matter, while the number of those who disagreed was 43. Just a mere 10 countered that that suggests a lesser population who would trust that kind of evidence. These findings call for more proper transparency, education, and robust measures to establish the credibility of fingerprint evidence in forensic investigations.

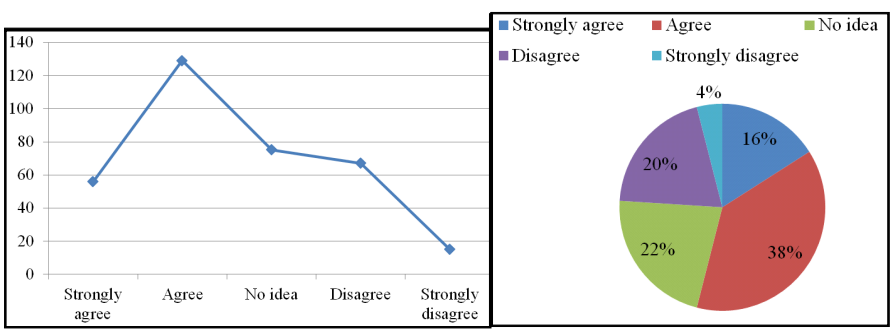


Graph 13: Vulnerability of Fingerprint Evidence to Contamination

LIFTING OF FINGERPRINTS FROM SURFACES

At the crime scene, latent, patent and plastic prints can be located. The investigator has to identify the possible locations of the incident for the presence of impression of fingertips such as entry and exit point. The investigators can develop the latent or invisible fingerprint from the crime scene by developing them. The patent and plastic impression can be lifted by photography or any other lifting methods. Silicone, sticky tape, quick lifter, and fingerprint gelatine are used to lift powdered finger impressions. [54]

Graphs 14 shows the opinion on the presence of fingerprint on incident and its collection by lifting it from the scene.The premises regarding the fact that fingerprints can be lifted from any surface differed: 56 had a "strongly agreed" rating while 129 agreed. It also states that 67 respondents and 15 of them had not applied any fingerprints; thus, there is not a clear consensus regarding the universal applicability of the method, and less than 75 were uncertain due to a lack of forensic science or understanding. This study reinforces the importance of educating people about the limitations and advancements in forensic technologies so that misconceptions are cleared up and an informed perspective on the procedures used to gather evidence can be fostered.



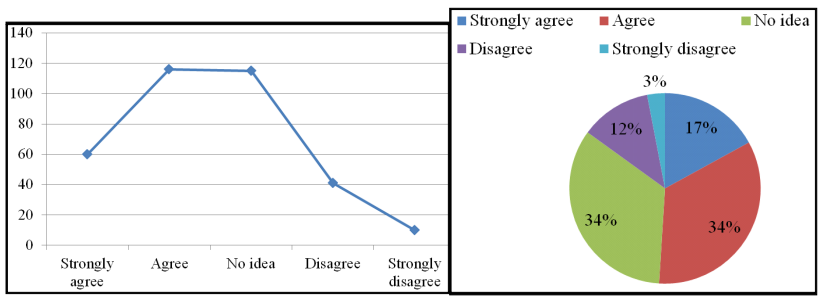
Graphs 14: Techniques for Lifting Fingerprints from Surfaces

IMPACT OF ENVIRONMENTAL FACTORS ON FINGERPRINT INTEGRITY

The fingerprint is affected by multiple environmental factors including, time, temperature, humidity, fresh-salt water, and pressure effects [55]. Some studies have identified

that the fingerprint's oil coating, which forms up to 300°C, demonstrates resilience. In comparison to plastic, nylon, paper, and wooden surfaces, fingerprints left on metal and glass surfaces at all temperatures have been found to be more acceptable for identification.[56]

Graph 15 highlights the opinion on the knowledge about the factors affecting the fingerprint. Environmental factors affect fingerprints as proved by the survey results which indicated 60 strongly agree, 116 agree, 115 with no idea, 41 disagree, and 10 strongly disagree. This implies that most people regard factors such as humidity, temperature, and surface conditions as influential factors in the clarity and preservation of fingerprints. A high 'no idea' response requires creating awareness among the masses on the topic, given its importance in both scientific research and in practical applications like law enforcement.



Graphs 15: Impact of Environmental Factors on Fingerprint Integrity

CONCLUSION

In conclusion, this study highlights the critical gaps in public awareness and perception of fingerprint science, emphasizing the need for targeted educational and communication strategies to bridge these gaps. By uncovering both the misconceptions and the levels of trust in forensic evidence, the findings underscore the importance of fostering an informed understanding of fingerprint analysis and its judicial implications. Enhancing public knowledge and addressing concerns can pave the way for a more robust integration of forensic science into the criminal justice system, ensuring its credibility and effectiveness. This research serves as a foundation for future studies and policy initiatives aimed at building public confidence in forensic practices and advancing the role of fingerprint science in upholding justice.

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The Scope and Limits of Article 16(4): A Critical Analysis of Judicial Interpretation of Reservations in Public Employment

Priya Aggarwal & Dr. Ashish Kumar Singhal***

ABSTRACT

The study critically examines the constitutional framework and judicial interpretation of Article 16(4) of the Indian Constitution which permits the state to make provisions for reservations in public employment for "backward classes" that are inadequately represented. The paper focuses on the transition from traditional to contemporary concepts of reservations in public employment by analysing quantitative data from certain government report. Through a comprehensive analysis of key cases, and recent Supreme Court pronouncements, this paper seeks to clarify how these shifts reflect changing societal needs and judicial perspectives on equality, social justice, and meritocracy.

Keywords: Reservation, Backward Classes, Public Employment, Social Justice, Equality

INTRODUCTION

The issue of reservations has become a complex socio-political challenge in contemporary times. Due to intense competition for the limited opportunities available in the country, governments face pressure to extend various types of reservations to numerous groups, beyond those already allocated for Scheduled Castes, Scheduled Tribes, and Backward Classes. Reservations in public employment and education are anexceptional component of India's efforts to achieve social justice and equality. It embedded within the framework of the Indian Constitution; reservations seek to address historical inequalities and systemic discrimination faced by socially and economically marginalized communities. Article 16(4)[1] of the Constitution explicitly permits the state to provide for reservations in public employment for "any backward class of citizens" that is not adequately

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1 Nothing in this article shall prevent the State from making any provision for the reservation of appointments or posts in favour of any backward class of citizens which, in the opinion of the State, is not adequately represented in the services under the State.

represented. This provision emerged as a remedy to bridge social divides, empower disadvantaged groups and promote inclusivity in government roles andbe instrumental in to the broader constitutional goal of establishing equality among all citizens.

The evolution of reservations, however, has been neither straightforward nor static. Since the Constitution's inception, the implementation of Article 16(4) has ignited substantial judicial debate particularly regarding the scope and limitations of reservation policies. The judiciary has been tasked with interpretating "backwardness" and determining how far affirmative action measures can be extended without infringing on other fundamental rights.

This area of constitutional law raises complex questions about balancing individual rights with collective social equity. Examining the judicial interpretation of Article 16(4) is influential to understanding the evolution of Indian jurisprudence on reservations. Although the role of reservations in public employment has been extensively discussed nevertheless a comprehensive analysis focused solely on Article 16(4) and its contemporary judicial developments remains largely unexplored in academic research. This gap underlines the need to examine how judicial interpretations continue to adapt Article 16(4) to the socio-political realities of modern India.

An analysis of Article 16(4) naturally brings Article 15(4) into focus, as both provisions are deeply intertwined in their commitment to contributing social equity through targeted reservations. Article 16(4) restrictively addresses representation within public employment validating greater inclusion of socially and educationally disregarded communities in government positions. In parallel, Article 15(4) authorises the state to enact special provisions for these groups' advancement in educational institutions. Thus, any exploration of Article 16(4) necessarily engages with Article 15(4), as a pair operate in tandem to balancing the ideal of universal equality with deliberate interventions for those burdened by historical exclusion.

RESEARCH OBJECTIVES

1. To examine the constitutional framework of Article 16(4).
2. To explore the evolution of judicial interpretations of Article 16(4).
3. To assess the balance between Equality, Social Justice, and Meritocracy.
4. To examine the adaptation from traditional to contemporary reservation policies.
5. To suggest measures for equitable implementation of reservation policies.

ARTICLE 16(4) AND THE RIGHT TO EQUALITY

The Indian Constitution enshrines the principle of equality in Articles 14 to 18, with Article 14 indicating that the state shall not deny any person "equality before the law" or "equal protection of the laws." Article 16(1) and (2) specifically raise equality in public employment preserving that no citizen is discriminated against based on religion, race, caste, sex, descent, place of birth, residence, or any of these grounds. However, Article 16(4) introduces an exception such entitles the state to make special provisions for "backward classes" to promote social justice. It must be further noted

that before 2019 the reservations were only granted on the basis of social and educational backwardness. Nevertheless, 103rd Constitutional Amendment Act of 2019 introduced the reservation on the basis of economic backwardness also.

Article 16(4) is grounded in the recognition that formal equality, by itself, falls short of remedying the deep-seated social and economic disadvantages endured by historically marginalized groups. It incorporates a principle of substantive equality, one that seeks to balance opportunities by addressing enduring disparities rooted in systemic discrimination and restricted access to resources. This mechanism of affirmative action aspires to secure meaningful representation for socially and educationally disadvantaged communities within the realm of public employment.

Table 1: Representation of Reserved Categories (SCs, STs, OBCs) in Central Government Services as of 01.01.2017

As reported by the Press Information Bureau report dated 17th July 2019, the Government of India, through the Ministry of Personnel, Public Grievances & Pensions, provided an update on the representation of reserved categories (SCs, STs, and OBCs) in Central Government services.

Category	Prescribed Reservation (%)	Representation as of 01.01.2016 (%)	Backlog Reserved Vacancies Identified (2012-2016)	Backlog Filled (2012-2016)	Remaining Backlog as of 01.01.2017
Scheduled Castes (SCs)	15	17.49	29,198	20,975	8,223
Scheduled Tribes (STs)	7.5	8.47	22,829	15,874	6,955
Other Backward Classes (OBCs)	27	21.57	40,562	27,027	13,535
Total	49.5	47.53	92,589	63,876	28,713

Table 2: Status of Backlog Reserved Vacancies and Their Filling Progress as of 01.01.2018

Category	Total Backlog Reserved Vacancies	Filled Vacancies (as of 31.12.2017)	Unfilled Vacancies (as of 01.01.2018)
Scheduled Castes (SCs)	7,532	4,514	3,018
Scheduled Tribes (STs)	6,887	3,595	3,292
Other Backward Classes (OBCs)	7,080	4,225	2,855
Total	21,499	12,334	9,165

The report reveals that the representation of SCs and STs in Central Government services is in excess of the prescribed 15% and 7.5%, respectively. This suggests that the strivings to ensure the inclusion of these groups in government services are largely successful. However, the OBC category still remains underrepresented with a representation of 21.57%, which fails to satisfy of the 27% reservation threshold. Despite this, the increase in representation of OBCs from 16.55% in 2012 to 21.57% in 2016 is

an indication of progress although it remains insufficient. It is important to understand the key role of judiciary as it often plays an intermediary role in interpreting the constitution and ensuring that reservation policies align with the principles of equality, justice, and merit as enshrined in the Indian Constitution.

EVOLUTION OF JUDICIAL INTERPRETATION OF ARTICLE 16(4)

The first notable case in India dealing with reservations was *State of Madras v. Champakam Dorairajan*[2] where the seats in state educational institutions were allotted community wise solely based on 'caste' and 'religion'. A seven-judge bench of the Supreme Court set aside the classification as being based on caste, race, and religion and further held that reservation is violated the fundamental rights to equality and non-discrimination guaranteed by the Constitution.

The case of *Venkataramana v. State of Madras*[3] is a leading judgment addressing the constitutionality of reservation policies and communal quotas in public employment in the early years of independent India. The petitioner challenged the government's use of "Communal G.O." orders that allocated specific proportions of government posts to candidates from different castes and communities, such as Harijans (Scheduled Castes), Muslims, Christians, Backward Hindus, Non-Brahmin Hindus, and Brahmins. The petitioner argued that these communal quotas unfairly restricted his access to government positions solely based on his Brahmin identity. The Supreme court pointed out following measures in its judgment:

1. It was perceived that the communal quota system set by the Madras government violated the principle of equality of opportunity enshrined in Article 16(1) and (2) of the Indian Constitution. Article 16(1)[4] stipulates equality of opportunity in public employment, and Article 16(2)[5] prohibits discrimination based on religion, race, caste, sex, descent, place of birth, or residence. The Court found that the petitioner's ineligibility for certain posts despite having better qualifications than candidates from other reserved communities was exclusively due to his caste. It was an infringement of his fundamental right to equality.
2. Article 16(4) allows for reservations in public employment for "backward classes of citizens" lacking sufficient representation in government services. However, the Court noted that the communal quotas instituted by the Madras government extended to groups beyond "backward classes" as it admitted communities like Muslims, Christians, and Non-Brahmin Hindus who were not inherently disadvantaged in a socio-economic context. Consequently, The Court ruled that these categories did not meet the criteria for reservation under Article 16(4)

2 [1951] SCR 525 (India).

3 [1951] SCR 658 (India).

4 There shall be equality of opportunity for all citizens in matters relating to employment or appointment to any office under the State.

5 No citizen shall, on grounds only of religion, race, caste, sex, descent, place of birth, residence or any of them, be ineligible for, or discriminated against in respect of, any employment or office under the State.

and therefore, rendering the communal quota policy unjustifiable as a lawful form of reservation under this provision.

3. The Court declared the Madras Communal G.O. order unconstitutional and void for being incompatible with Article 16. It observed that communal reservations as implemented by the Madras government were relied on a broad categorization of communities rather than targeting truly backward groups. It could not be sanctioned under the Constitution, as it disregarded the principle of merit in public employment.
4. It was observed that this arrangement was not a true reservation for backward classes but rather an allocation of positions based on community that is restricted by Article 16(2). The expression used in Article 16(4) is not synonymous to "backward class" or "backward community." To ascertain whether a group constitutes a "class" under Article 16(4), one cannot rely entirely on criteria such as religion, race, caste, sex, descent, place of birth, or residence.

In *The General Manager, Southern Railway vs Rangachari*[6] the dispute emerged on the validity of the circulars issued by the Railway authorities providing for reservation in favour of the Scheduled Castes/Scheduled Tribes in promotion. The appellant, a non-SC/ST employee, contested these circulars. He argued that the reservations applied only to initial appointments and not to promotions. According to him, promoting employees from the backward classes (SC/ST) under such quotas violated the constitutional provisions related to equality under Article 16 of the Constitution. While upholding the validity of the Railway authorities' circulars with the majority of 3:2, the court had liberally interpreted Article 16(4) in resulting ways:

1. The Court clarified that reservations in public services can be made not only at the appointment stage of recruitment but even in the matter of promotions in accordance with Article 16(4) since there is evidence of under-representation in higher positions.
2. Article 16(4) applies in promotion only when there is legitimate need to ensure adequate representation of the backward classes in higher services.
3. The adequacy of representation of backward classes in any service must be assessed through both quantitative and qualitative measures. The underrepresentation of backward classes can be cured by implementing reservations at higher levels within the service.

The *M. R. Balaji v. State of Mysore*[7] case is a landmark pronouncement that significantly impacted India's reservation policy. In this case, the government of Mysore issued an order for reservation of seats for admission to the State medical and engineering colleges for Backward classes and 'more' backward classes. The total reservation was 68% on the basis of 'castes' and 'communities.' The Supreme court declared the order as unconstitutional on several grounds which are as follows:

6 [1962] 2 SCR 289 (India).

7 [1963] 3 S.C.R. 439 (India).

1. The Supreme Court held that while caste could be a factor in identifying backward classes but it could not be the sole and dominant criterion. The Court stressed the need to consider factors like social and economic conditions beyond caste alone as using caste as anunconstrained basis would be contrary to the constitutional mandate of equality.
2. The court further observed that the interest of the weaker section of the society should be adjusted with the interest of the community as whole. Therefore, 68% reservation held to be violative of fundamental principle of equality guaranteed by Article 14 with the justification "fraud on the Constitution".
3. The Court highlighted the importance of equality of opportunity in public services and educational institutions which is a constitutional mandate under Article 16(1) of the Indian Constitution. It was noted that the purpose of reservations was to level the playing field for disadvantaged communities but should not lead to the exclusion of deserving candidates from general categories.
4. It was ruled that reservations should be reasonable and should not defeat or nullify the major principle of equality. It cannot be predicated the exact permissible percentage of reservation nevertheless ought to be less than 50%, how much less than 50% depends on the prevailing circumstances of each case.

In *T. Devadasan v. Union of India*[8] the Supreme Court addressed the Carry Forward Rule concerning reservations in public employment. This rule allowed unfilled reserved vacancies from previous years to be carried forward and added to the reserved quotas for subsequent years, this practice resulted to an increase in reserved positions for Scheduled Castes and Scheduled Tribes. In this particular case, the petitioner, T. Devadasan, challenged this rule, claiming that it led to excessive reservations that infringed on his right to equality in public employment under Article 16 of the Indian Constitution. By the third year, 64.4% of vacancies were reserved far exceeding the recommended limit that amplified constitutional concerns. In the instant case, while declaring the carry forward rule unconstitutional, the findings of Supreme Court are as follows:

1. The Court observed that, following its previous decision in *Balaji case*, reservations in any single year should not exceed 50% as it would contravene the principle of equality under Article 16(1). Although *Balaji* primarily explored reservations in educational institutions the Court applied its reasoning to public employment endorsing that a cap was necessary to hinder arbitrary reservation levels.
2. The Court clarified that while Article 16(4) permits reservations conversely it does not cover all aspects of employment. Specifically, it cannot extend to issues such as salaries, promotions, pensions, or superannuation. Article 16(4) only enables for reservations at the point of initial appointments to ensure underrepresented classes have access to job opportunities.

8 [1964] 4 S.C.R. 680 (India).

3. The court continued that reservations ought not erode the fundamental right to equal opportunity. It was considered that reservations are exception to Article 16(1) and (2) for appointments thus they must remain within reasonable limits. The Court proposed that any reservation framework expected to evade creating monopolies in favour of one group sine this would unfairly block others from fair access to employment.
4. The Court noted that the 50% reservation limit applied uncompromisingly to backward class reservations under Article 16(4). However, it justified that this limit did not extend to other forms of support or concessions provided to backward classes which might not affect the overall employment numbers as directly as reservations.
5. The Court highlighted the importance of balancing Article 16(4) that presents specific provisions for socially disadvantaged groups, with Article 16(1) whereas assures equal opportunity for all citizens. Both provisions must operate in harmonywithout one diminishing the other. Accordingly, the Court determined that the reservation limit of 50% ought be measured at the level of individual services or units rather than across the entire framework. The carry-forward rule was considered consistent with the intention of Article 16, as disregarding it could hinder social progress and lead to exclusion.
6. Reservations exceeding 50% would render the carry-forward rule invalid. The State cannot implement excessive reservations that undermine the principles of Article 16(1). Each instance requires careful consideration to ensure a fair restriction, as there is no universal formula or fixed standard for every case.

After Devadasan case, the landmark judgment came into light in *State of Kerala v. N.M. Thomas*[9] The State of Kerala had revised service rules to confer two years' relaxation in the period of probation for Scheduled Castes (SCs) and Scheduled Tribes (STs) in government services. N.M. Thomas challenged this rule while contending that it infringed Article 16(1).[10]

As majority took the view in Devadasan case that Article 16(4) was an exception to Article 16(1) and 16(2), however, there was dissenting opinion of SUBBA RAO, J., had expressed that"*Article 16(4) is not an exception to Article 16(1) but was a legislative device by which the framers of the Constitution had sought to preserve a powerful untrammelled by the other provisions of the Article.*"[11]

In present case, the majority had acknowledged the perspective of SUBBA RAO, J, accordingly overruled its previous judgment and the court observed that Article 16(4) cannot be considered as an exception of Article 16(1). It is a dimension of Article 16(1) which encourages the idea of equality of opportunity with particular consideration

9 [1976] 2 SCC 310 (India).

10 There shall be equality of opportunity for all citizens in matters relating to employment or appointment to any office under the State.

11 M P Jain, *Indian Constitutional Law* (7th edn, 2014) 990.

to disadvantaged and oppressed class of citizens. Article 16(1) as such allows rational classification to achieving equal opportunities confirmed by it.

Nevertheless, two judges proclaimed a dissented opinion, Article 16(1) merely represents the scheme of formal or legal equality, and as such, it does not permit for any interpretation that suggests preferential treatment, as the language of the article does not support such a concept.

In *A.B.S.K. Sangh v. Union of India*[12] the Apex Court restated the proposition that under Article 16(1) itself authorises the State to classify groups or classes founded upon substantial differentia and the same does not constitute violation of Articles 14 and 16.

One of most vital pronouncements of the Supreme Court on reservations was discussed in *Mandal Commission Case.*[13] The Mandal Commission was formed in 1979 by the Government of India under the chairmanship of B.P. Mandal to investigate the socially and educationally backward classes and recommend actions for their upliftment. The issue arose when the Commission's report supported 27% reservations in government jobs and educational institutions for Other Backward Classes (OBCs) that was implemented by V.P. Singh's government in 1990.

The Constitutional Bench's Ruling Includes the Below Mentioned Observations:

1. The Court validated the constitutionality of reservations for OBCs in government jobs and educational institutions. It was declared that reservations are affirmative action for backward classes is sustained and covered under the principles of Article 16(4) and Article 15(4).
2. It was noticed that Article 16(4) is not an exception to Article 16(1) but no more than an instance of subdivision inherent and approved by the general rule.
3. Irrespective of provisions of Article 16(1) still reservations are not allowed merely on the basis of financial factor, there must be reasonable nexus between social and economic backwardness to take the benefit of reservations.
4. The ruling introduced the concept of 'Creamy Layer' that affirmed that socially advanced and well-off individuals should be excluded from the purview of reservations. The members of the society who are financial stabled are termed 'creamy layer'. Such exclusion would be necessary to provide advantage of reservations to those who are truly backward people, and, thereby, in a better manner the purpose of Article 16(4) can be served.
5. The aggregate reservation cannot be exceeded 50% in a year since Article 16(4) enables for "adequate representation" and not "proportional representation".

In the case of *E.V. Chinnaiah v. State of Andhra Pradesh*[14] a five-judge bench abolished the policy of sub-classification within the reserved class by stating that it is inappropriate

12 Akhil Bhartiya Soshit Karmachari Sangh (Railway) v. Union of India (1981) SC 298 (India).
13 Indra Sawhney v. Union of India, [1993] 1 SCC 647 (India).
14 [2005] 1 SCC 394 (India).

to sub-classify the Scheduled caste since the Constitution specifically protects the SCs and STs. The Court articulated that the reservation system is intended to raise the standing of deprived communities as a whole and dividing them further based on sub-castes would damage the constitutional ethosof equality and fairness.

In *M. Nagaraj v. Union of India*[15]the court marked that despite the fact that the State has discretion in exercising reservation grant, such discretion must not unconstrained and subjected to certain limitation, to be specific, *firstly*, there must be present convincing justification of backwardness, *secondly*, insufficiency of representation in a job classification.

In *Dr. Jaishri Laxmanrao Patil v. The Chief Minister,*[16] the case dealt with the constitutional authenticity of a reservation policy based on economic backwardness and the intricacies of caste-based reservations. The petitioner challenged the reservation policy for the Maratha community in Maharashtra since the Maharashtra government had grant reservations exceeded the 50% cap to the Maratha community in education and public employment under the Socially and Educationally Backward Classes category. The 5-judge constitutional bench observed the following points in judgment:

1. *Firstly*, the Supreme Court held that the reservation policy for the Maratha community in Maharashtra exceeded the 50% limit prescribed in the Mandal Commission case. The Court stressed that while reservations are a tool to uplift backward classes, the total reservation should not surpass 50% unless exceptional circumstances exist.
2. *Secondly*, The Court noted that the Maratha community was considered socially and educationally backward and the findings of the same is drawn from outdated data. It was noted that the government's action unable to justify sufficient empirical data and a credible social and economic survey to support the reservation.
3. *Finally,* the Supreme Court quashed the Maratha reservation while ruling that it was unconstitutional as it violated the 50% cap on total reservations and lacked proper data supporting its necessity.

The *State of Punjab v. Davinder Singh*[17] is one of the most recent decisions of the Constitutional bench of 7-Judges comprised then Chief Justice of India DY Chandrachud, Justice BR Gavai, Justice Vikram Nath, Justice Bela M Trivedi, Justice Pankaj Mithal, Justice Manoj Misra and Justice Satish Chandra Sharma with the majority of 6:1 overruled the judgment passed in *E.V. Chinnaiah v. State of Andhra Pradesh* and held that sub-classification in Scheduled Castes in permissible however such classification must be followed by 'quantifiable data' which able to prove the inadequate representation or more social backwardness of that sub-group. It was observed that determining a reservation percentage within the constitutionally allowed limits falls under the power

15 [2006] 8 SCC 212 (India).
16 [2021] 2 SCC 679 (India).
17 [2024] INSC 562(India).

of State legislatures and sub-classification may include women and disabled individuals if they are underrepresented in public services.

CONCLUSION

In conclusion, the judicial interpretation of Article 16(4) functions as a central element in the evolving narrative of reservations in public employment which reflected the delicate balance between societal needs and the principle of equality. While the provision intends to uplift historically marginalized communities by securing their representation in public services since its journey through the courts has highlighted the complexities of applying such policies in a dynamic and diverse society like India.

This critical analysis has pointed out the conflict between the need for corrective action to uplift disadvantaged groups and the challenges posed by an expanding and sometimes excessive scope of reservations. The court has, at times, upheld reservations as a necessary tool for social justice, nevertheless, it has also recognised the need for constraints to avoid perpetuating division and undermining merit-based systems in public employment.

SUGGESTIONS

1. The reservation policy may be more advantageous by strengthening the mechanisms to monitor the implementation of reservation policies and keep tabs on the progress in terms of both representation and the filling of reserved vacancies.
2. Whereas the representation of Scheduled Castes and Scheduled Tribes has surpassed the prescribed reservations, the representation of Other Backward Classes still falls short of the mandated 27%. It indicates for a comprehensive policy review is required to boost OBCs representation, possibly increasing the scope of reservations in certain sectors where their underrepresentation persists.
3. In addressing the root causes of underrepresentation in public employment requires a focus on enhancing educational opportunities for backward classes. It can better prepare individuals from these communities to compete in competitive exams and gain employment in diverse government sectors.
4. A periodic reassess of the representation of reserved categories should be conducted to ensure that reservation policies remain relevant and effective. This may involve adjusting the prescribed percentages corresponding to socio-economic developments that promote equitable representation across all sectors. The government could establish a body responsible for reviewing and suggesting adjustments to the reservation framework every five years.

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Insider Trading and its Implications for Corporate Governance: A Legal Perspective

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ABSTRACT

The current research focuses at how insider trading impacts market efficiency and investor trust in the Indian stock market. It provides a general overview of the insider trading laws that the Securities and Exchange Board of India (SEBI) enforces, highlighting the stringent measures put in place to stop insider trading and promote market integrity. The study makes use of empirical data to show how market inefficiencies, mispricing, and inefficient capital allocation are all related to insider buying. It examines how insider trading affects transaction volumes, liquidity, and price discovery, all of which hinder the market's capacity to function effectively. Major insider trading scandals in India, such those involving Satyam Computers and Reliance Petroleum have been to examine how they have impacted investor confidence and market performance.

The paper emphasizes the intense punishments for insider trading offenses, such as economic penalties. Notably, this study calls attention to the severe punishments meted out to those who commit insider trading offences, including significant monetary fines and other punitive measures intended to deter such illicit acts. In summary, this study aims to provide a thorough understanding of the many difficulties faced by insider trading in the Indian stock market. It focuses on the need of a strong legal and regulatory framework, together with strict enforcement, to ensure market efficiency and foster investor trust. The findings presented here highlight the complex relationship between insider trading and market performance, eventually fostering a more open and safer financial environment.

Keywords: Insider Trading; Market Integrity; Capital Allocation; Investor Confidence; Market Distortions; Mispricing.

INTRODUCTION

In India and other worldwide financial markets, insider trading is a persistent problem. Insider trading occurs when a person receives significant, confidential information about a company fors trading purposes or to gain an unfair advantage over rivals.

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Insider trading raises ethical issues, but it also has a negative impact on investor confidence and market efficiency.

The historical background, legal framework, regulatory structure, and contemporary difficulties are the main topics of this paper. The value of a well-organized and well-implemented legal system cannot be overstated, particularly in market as dynamic and varied as India.[1]

This study intends to add to the body of knowledge by providing a complete analysis of trade restrictions in the context of the Indian environment. This study aims to provide insightful observations and recommendations for enhancing the regulatory structure and improving the implementation of trafficking in laws in India through a critical examination of the current legislation, a review of the efficacy of regulation, and an analysis of significant issues. This essay also makes recommendations for policy changes that would strengthen the legal system and increase investor confidence. Stronger penalties, a broader definition of insider trading, safeguards for people who come forward with knowledge, improved monitoring, and a move toward market coordination are a few of these.The study emphasizes the value of investor education and awareness campaigns for empowering investors and promoting a transparent culture.

The problem of insider trading continues to be a persistent and unsettling worry in this more vibrant and interconnected world of international financial markets. Insider trading occurs when individuals who have access to significant, confidential information about a firm use this knowledge for their own gain or to gain an unfair advantage over competitors. In addition to the ethical issues it raises, insider trading has a significant negative influence on investor confidence and market efficiency.[2]

Although insider trading is a reality in many global financial markets, it causes interesting problems in the diverse and developing Indian economy. To that purpose, this inquiry will examine India's recent history, present legal framework, administrative system, and problems related to insider trading.

2. ETYMOLOGY OF INSIDER TRADING:

Early in the 20th century, the term "insider trading" was first used. But since the creation of official markets, the concept of insider trading has existed. In reality, the first record of such conduct comes from the Roman Empire, when officials were prohibited from using inside information to accumulate fortune on the stock market. By the 17th century, even the Dutch East India Company had rules prohibiting its employees from trading in the company's own shares.

1 Paula J. Dalley, From Horse Trading to Insider Trading: The Historical Antecedents of the Insider Trading Debate, 39 Wm. & Mary L. Rev. 1289 (1998), https://scholarship.law.wm.edu/ wmlr/ vol39/iss4/6

2 "Ethics." *Insider Trading: Law, Ethics, and Reform*, by John P. Anderson, Cambridge University Press, Cambridge, 2018, pp. 141–232.

The United States passed the first set of contemporary restrictions on insider trading at the beginning of the 20th century. This was in reaction to many instances in which business insiders profited illegally by using their insider knowledge.[3]

Early in the 1930s, the phrases "insider" and "trading" were combined to form the phrase "insider trading." An "insider" is a person who possesses significant, unpublished knowledge about a firm, knowledge that might influence an investor's choice to buy or sell a securities and that hasn't been made public.

Because insiders gain unfair benefits, insider trading is prohibited. Insiders who act on non-standard information may benefit from opportunities that are not accessible to the general public. For investors who lack such information, this scenario is unfair.[4]

Regulations against insider trading protect investors and guarantee the efficient and impartial operation of the stock market. These regulations prohibit insiders from trading based on significant, private information. Additionally, according to regulations against insider trading, it is unlawful for insiders to[5] divulge important, upcoming information so that others may profit from their knowledge.

3. JOURNEY OF MAKING INSIDER TRADING FROM LEGAL TO ILLEGAL

It took many centuries for insider trading to go from being lawful to becoming criminal. The first laws against insider trading were passed under the Roman Empire, although their major goal was to stop public servants from using their private knowledge to boost their riches in the grain market. The Dutch East India Company issued a decree during the 17th century forbidding employees from trading in the company's stocks. Even still, issues of competing interests, not concerns for shareholder fairness, drove the creation of this rule.

In response to a wave of high-profile scandals, the US Congress created ground-breaking legislation against insider trading in the early 1900s. The most infamous case featured Charles Morse, the head of a big financial organisation, who used secret information to manipulate the price of American Biscuit Company shares. Morse was subsequently found guilty of insider trading and imprisoned.

There was significant debate over whether insider trading should be illegal in the early 1900s. Some people argued that insider trading should be allowed to occur freely and without government interference. Others, though, argued that it was unfair to other speculators who had access to the same information. Insider trading became illegal in 1934 when the US Congress passed the Securities Exchange Act of 1934. This rule was created as a result of the investigations that followed the 1929 stock

3 Wiesenfeld, Salman. "Evo1Wiesenfeld, Salman. "Evolution of Insider Trading." *NYU Journal of Law & Liberty Policy*. https://nyujlpp.org/quorum/wiesenfeld-salman-evolution-of-insider-trading/.Top of Form

4 *The New York Times*. "Insider Trading Timeline." December 6, 2016. https://www.nytimes.com/interactive/2016/12/06/business/dealbook/insider-trading-timeline.html.

5 Wiesenfeld, Salman. "Evolution of Insider Trading." *NYU Journal of Law & Liberty Policy*. https://nyujlpp.org/quorum/wiesenfeld-salman-evolution-of-insider-trading/.

market collapse, which revealed that many investors had suffered financial losses as a result of insider trading.

Insider trading is defined under the Securities Exchange Act of 1934 as a transaction of a securities made while in knowledge of significant, undisclosed information about that security. When information has the potential to affect an investor's decision to purchase or sell a share emotionally, it is said to be relevant. This kind of data is restricted and not publicly available to the general public.[6]

The Securities Exchange Act of 1934 also forbids anyone with inside knowledge from disclosing important, nonpublic information so that others might use it to their advantage in transactions.Since the Securities Exchange Act of 1934 was passed, the SEC has launched a number of punitive actions against insiders who have broken the law. Those found guilty of such a crime have to pay a price, which may include giving back any financial gains, paying hefty penalties, or even going to jail.

Insider trading is now a serious criminal offence in both the United States and the rest of the world including India. The purpose of insider trading laws is to protect investors and maintain the trustworthiness and viability of the stock market.

4. RELATIONSHIP BETWEEN INSIDER TRADING AND CORPORATE GOVERNANCE

Insider trading and corporate governance are closely related. Corporate governance refers to the set of rules, customs, and processes that guide and administer an organisation. By imposing strict control on management and encouraging a code of moral conduct, effective corporate governance strategies may help to reduce insider trading.

On the other hand, poor corporate governance increases the risk of insider trading. For instance, it is less likely that the board of directors of a company will be able to monitor the leadership and prevent insider selling if it is related to the management. Additionally, staff members are more prone to engage in such criminal acts if an organisation has a weak code of ethics or does not provide enough training on the law of insider trading.[7]

5. INSIDER TRADING LAWS IN INDIA

SEBI Rules

Regulations intended to prevent insider trading are outlined in the Indian Securities and Exchange Board (Prevention of Inside Trading) Rules, 1992 and 2015. These regulations prohibit anybody from dealing in securities based on private or sensitive information. Additionally, they provide rules for promoting equity and openness in

6 "Insider Trading." *Encyclopedia of Management*. Encyclopedia.com. September 18, 2023. https://www.encyclopedia.com/management/encyclopedias-almanacs-transcripts-and-maps/insider-trading."Insider Trading".

7 Corporate Governance. Investopedia. https://www.investopedia.com/terms/c/corporategovernance.asp.

the stock market by avoiding misuse and manipulating shares. These guidelines also protect investors' interests by halting any fraudulent or unlawful activity on the stock market. For the securities market to operate well, it is crucial to follow certain rules and principles.[8]

The basic framework governing the problem of insider trading in India is made up of the Securities and Exchange Board of India (Prohibition of Insider Trading) Regulations, 1992 and 2015 (hence referred to as "PIT Regulations"). Insider trading, as defined by the PIT Regulations, refers to the acquisition or disposition of shares while in possession of unreleased price sensitive information (UPSI). Information that hasn't been made public but may have a significant impact on an instrument's value is referred to as UPSI.[9]

Insiders are forbidden under the PIT Regulations from trading based on UPSI and from disclosing UPSI to other parties so that those third parties may trade based on that information. Insiders are those who have access to UPSI because of their affiliation with, or position inside, a corporation. Directors, officials, staff members, consultants, and other individuals with access to UPSI as part of their professional activities are included in this.[10]

Insiders must also inform the firm of their ownership of and transactions in its securities in accordance with the PIT Regulations. By requiring transparency, the market is kept informed and insiders are prevented from taking use of the market to their advantage.

The Securities and Exchange Board of India (SEBI) is responsible for enforcing the PIT Regulations. Insiders who breach the PIT Regulations are subject to both civil and criminal action by SEBI. Insiders who break the PIT Regulations are subject to further sanctions from SEBI, including the forfeiture of earnings, civil fines, and imprisonment.

The PIT Regulations are essential for protecting investors and preserving the fairness and competence of the Indian stock market. The PIT Regulations prevent insider trading, ensuring that each investor has equal access to information and that no one benefits disproportionately from a transaction compared to other participants.[11]

COMPANIES ACT, 2013

Insider trading, often known as buying or selling shares while one possesses unpublished private material information (UPSI), is prohibited under Section 195 of the Companies

8 "Securities." West's Encyclopedia of American Law. . *Encyclopedia.com.* (September 18, 2023). https://www.encyclopedia.com/law/encyclopedias-almanacs-transcripts-and-maps/securities

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Act of 2013.[12] This information has not yet been made public, but it has the potential to have a significant impact on the value of a security.[13]

The Companies Act also requires insiders to disclose and make public any transactions they make regarding the company's securities. This requirement prevents insiders from using their superior knowledge for personal gain while allowing the security market to stay informed.

A violation of the ban on insider trading might result in a jail term of up to five years, a fine of 25 crore rupees, or both for the offender.[14]

In a nutshell, The Companies Act, 2013 forbids insider trading and requires persons with extensive knowledge to disclose their holdings in the company's securities as well as their interactions with those shares.

OTHER RELEVANT LAWS AND REGULATIONS

There are other laws and edicts that apply to insider trading in India in addition to the rules and directives already mentioned. These include Section 15G of the Securities and Exchange Board of India Act of 1992, which has provisions that might result in jail time for such conduct. The possibility of deceit and fraud associated with such exchanges is likewise taken into account by the Indian Penal Code, 1860 (sec. 420). The Prevention of Corruption Act, 1988, which might bring public employees who engage in insider trading to justice, is also pertinent.

6. RECENT DEVELOPMENTS IN INSIDER TRADING LAW IN INDIA

Key Case Laws

In a landmark decision on insider trading laws on September 19, 2022, the Supreme Court ruled in the **S**ecurities and Exchange Board of India v. Abhijit Rajan ("Abhijit Rajan") case that it was necessary to demonstrate the insider had a profit motive in order to bring an insider trading claim. Thus, the Securities Appellate Tribunal's ("SAT") judgement exonerating Abhijit Rajan from the charge of selling shares in Gammon Infrastructure Projects Limited ("GIPL") as an insider was rejected by the Court in opposition to the Securities and Exchange Board of India's ("SEBI") appeal. Although the Supreme Court clarified the former SEBI (Prohibition of Insider Trading) Regulations, 1992 in Abhijit Rajan, the ruling is likely to have an impact on how the SEBI initiates enforcement and prosecution of insider trading cases under the current SEBI (Prohibition of Insider Trading) Regulations, 2015.[15]

12 https://www.mca.gov.in/Ministry/pdf/CompaniesAct2013.pdf

13 Insider Trading Regulations: A Small Debate, SHASTA GUPTA, Vol. 2, Issue: 4, April-May 2014 ISSN:(P) 2347-5404 ISSN:(O)2320 771X

14 https://www.taxmann.com/post/blog/overview-of-sebis-prohibition-of-insider-trading-regulations/

15 https://www.snrlaw.in/sebi-v-abhijit-rajan-a-flawed-interpretation-of-the-insider-trading-regulations/#:~:text=On%20September%2019%2C%202022%2C%20 the, a%20 charge % 20 of % 20 insider % 20 trading.

In re Dilip Pendse, SEBI The Managing Director, Pendse, was aware that possible losses of Rs. 79.37 crores on March 31, 2001, would be incurred by Nishkalpa, a subsidiary of Tata Finance Ltd. (TFL), a publicly traded company. Unpublished Price Sensitive Information (UPSI) was made public on April 30, 2001, after which it was disclosed. It seems sense that any transactions carried out by an insider during this time would be seen as insider trading. With the use of this insightful knowledge, DilipPendse's wife sold 2,90,000 shares of TFL that she owned in both her name and the names of the businesses she co-owned with her husband. The SEBI labelled this behaviour as insider trading and condemned it.[16] In response, the charges were dropped by SAT because there was inadequate proof and no opportunity for a witness whose testimony the accusations were relied on to be cross-examined.[17]

In the case of **HLL v. SEBI (1996)**,[18] in which HLL was discovered to be an insider in accordance with section 2(e) of the 1992 regulation, SAT noted that even though the two companies had merged, there was still a possibility that information from either company could be leaked, depending on whether or not the information shared with HLL had UPSI. This observation prompted SEBI to further introduce the details of price sensitive under the regulation of SEBI. In the case of DSQ Holding Ltd v. SEBI, where DSQ was considered a connected person under section 2(c) of the 1992 regulation, it was discovered that DSQ had failed to provide the evidence of his annual general meeting, which would have further established the fact that shares jumped from Rs. 20 to Rs. 92, which in fact didn't occur. It was also determined that DSQ had attempted to take benefit of the investors who were connected to them.[19]

7. COMPARATIVE ANALYSIS OF INSIDER TRADING LAWS AND REGULATIONS IN INDIA AND OTHER COUNTRIES

United States

Insider trading has long been outlawed in the US. The Securities Exchange Act of 1934 was implemented in response to the Great Depression of 1929. The Securities Exchange Commission ("SEC") is able to limit insider trading in the States as a consequence of the provisions of this Act.

To aid the Securities and Exchange Commission, the American legal system has created the following legal guidelines involving insider trading:

According to the traditional "Disclose or Abstain" idea, insiders must disclose any relevant, non-public information (UPSI) to the public before trading or refrain entirely

16 https://economictimes.indiatimes.com/markets/stocks/news/sebi-disposes-of-insider-trading-case-against-ex-tata-fin-md-dilip-pendse/articleshow/59811213.cms?from=mdr

17 https://indiankanoon.org/doc/1017419/

18 (1998) 18 SCL 311 MOF

19 https://corporate.cyrilamarchandblogs.com/2017/10/insider-trading-hindustan-lever-limited-v-sebi/.

from doing so. Directors, representatives, employees, and everyone else who is affiliated or related in any manner are all covered by this idea.[20]

The Misappropriation Principle aims to protect the integrity of the securities markets from abuse by individuals outside the organisation who have access to Privileged Internal Information (PII), even though they have no duty to the company's shareholders and can influence the stock price once it becomes public knowledge.[21]

Due to the use of sensitive information, the US Sanction Act of 1984 imposes severe fines that may be up to three times the benefit or harm avoided. Additionally, it mandates that an initial report be sent to the SEC and the relevant stock exchanges by all directors, directorships, stakeholders, and owners of more than 10% of the authorised equity shares. These US laws are substantially harsher than those in India, which are often seen as being soft, loose, and seldom adequately implemented.[22]

The Securities and Exchange Commission has expanded the scope of its legal actions to include political intelligence providers as well as IT specialists and cybercriminals who steal private company data. This demonstrates how the SEC is working to solve specific issues.

UNITED KINGDOM

The legal foundation for the UK's insider trading regulations was established by the Financial Services and Markets Act of 2000 (FSMA) and the Criminal Justice Act of 1993 (CJA). In spite of this, none of these Acts provides a precise definition of "insider trading."

The FSMA establishes safeguards against market manipulation and gives the UK Financial Services Authority the authority to enact laws to punish individuals who engage in it. According to section 118(2), "market abuse" includes actions like insider trading or trying to trade with investments that are connected to the one in question while using insider knowledge about that investment. Additionally, it entails coercing or luring people into engaging in actions that can be seen to be abusive of the market. Market abuse is regarded as a civil infraction and does not always need intention or carelessness.[23]

The CJA, on the other hand, forbids trading in stocks whose prices are impacted by insider knowledge, encouraging another person to engage in such trading, and knowingly

20 https://www.investopedia.com/terms/s/seact1934.asp

21 U.S. Securities and Exchange Commission. "Division of Corporation Finance, https://www.sec.gov/page/corpfin-section-landing

22 U.S. Securities and Exchange Commission. "Exchange Act Reporting and Registration.. https://www.sec.gov/education/smallbusiness/goingpublic/exchangeactreporting

23 INSIDER DEALING AND MARKET ABUSE: THE FINANCIAL SERVICES AND MARKETS ACT 2000 ESRC Centre for Business Research, University of Cambridge Working Paper No. 222, https://www.jbs.cam.ac.uk/wp-content/uploads/2023/05/cbrwp222.pdf

disclosing inside information to another. Insider trading and market manipulation are punishable by up to a 7-year prison term and an infinite fine.[24]

'Price Sensitive Information' and 'Insider' are defined similarly under Indian and British law (in terms of civil responsibility). While criminal and civil culpability are often covered by the same law in India, there are two separate laws that deal with them in the UK. For committing the offence, the SEBI Act and the Companies Act in India impose fines of INR 250 million or three times any profits realised through insider trading, whichever is greater. One may also get a fine, a prison term of up to 10 years, or both.

8. IMPLICATIONS OF INSIDER TRADING FOR CORPORATE GOVERNANCE:

Impact on Investor Confidence

Investor confidence may suffer as a result of insider trading. Investors are less inclined to invest in the market when they believe that it has been rigged so that some may benefit illegally. It may be difficult for companies to get funding and for investors to make prudent investments due to the diminished liquidity and increased volatility.

Some concrete ways that insider trading might erode investor trust are listed below:

Decreases market integrity and fairness: Insider trading gives insiders an unfair advantage over other investors and damages the market's credibility. Investors are less willing to put money into the market when they believe it is unfair.[25]

Increases uncertainty and risk: Investors may find it more challenging to determine the true worth of securities and to make wise investment decisions as a result of insider trading. This may increase market uncertainty and danger.[26]

Discourages investment: When investors believe that the market is rigged and that they are at a disadvantage, they are less likely to invest in the market. This can lead to a decrease in liquidity and an increase in volatility.

In addition to these negative impacts on investor confidence, insider trading can also have a number of other negative consequences, such as:

Reduces market efficiency: Insider trading prevents the market from allocating money in a profitable manner.Corporate entities may be required to pay a higher cost of capital when obtaining financing if they are thought to be subject to insider trading.[27]

24 A Critical Analysis of Insider Dealing Under U.K. And U.S.A. Law, Priyam Raj Kumar. Volume 2, Issue 4. https://www.ijlmh.com/wp-content/uploads/2019/10/A-Critical-Analysis-of-Insider-Dealing-Under-U.K.-And-U.S.A.-Law.pdf

25 Anderson, P., Kidd, J., Mocsary, G. "Public Perceptions of Insider Trading, https://scholarship.shu.edu/cgi/viewcontent.cgi?article=1790&context=shlr

26 University of Pennsylvania Wharton School of Business. "Why Insider Trading Is Hard To Define, Prove, and Prevent, https://knowledge.wharton.upenn.edu/article/why-insider-trading-is-hard-to-define-prove-and-prevent/

27 U.S. Securities and Exchange Commission. "Insider Trading, https://www.investor.gov/introduction-investing/investing-basics/glossary/insider-trading.

Economic damage: By reducing investment and advancement, insider trading may have a negative impact on the economy.

RISK OF FRAUD AND CORRUPTION

Insider trading has a number of negative effects, including fraud and corruption.

Impairment of transparency and accountability: Insider trading makes it more difficult to discover and punish deception and vilification. It becomes difficult to distinguish between legitimate and illegal behaviour when insiders are allowed to profit from their inside information. This fosters a climate of secrecy and impunity, which makes it easier for fraud and corruption to proliferate. Insider trading may be enticing for immoral endeavours, luring fraud and corruption. Insiders are more likely to engage in illegal or corrupt acts when they realise, they may make significant profits by subscribing to their confidential knowledge.[28] This may result in a vicious cycle where insider trading encourages more dishonesty and corruption, which in turn encourages more insider trading.

Public confidence is eroded: Insider trading has the potential to erode public confidence in the stock market and the larger economic system. Investors are reluctant to reinvest when they think the stock market is unfair and insiders discover a method to profit from their inside knowledge. This may lead to a reduction in liquidity and an increase in instability, making it difficult for businesses to acquire capital and for speculators to make wise investment choices.[29]

DAMAGE TO THE REPUTATION OF THE COMPANY

A company's reputation might suffer greatly as a result of insider trading. A company's reputation for honesty, righteousness, and fair dealing may suffer permanent harm when it becomes entangled in an insider trading scandal. Such situations may have a wide range of consequences, including:

Loss of client confidence: Customers may be hesitant to do business with a company that has been implicated in an insider trading scandal. Sales and revenue may suffer as a result of this.

Damage to relationships with suppliers and partners: Relationships with suppliers and allies might be harmed if a corporation has been found guilty of insider trading, since suppliers and allies could be reluctant to do business with it. This might make it more difficult for the business to remain competitive in the market and cause problems in its day-to-day operations.[30]

Increased regulatory scrutiny: Companies involved in insider trading issues are likely to face more regulatory scrutiny. This possibility may incur high fees and cut into the company's open hours. Being connected to insider trading irregularities may also have

28 https://economictimes.indiatimes.com/definition/insider-trading

29 https://www.cisa.gov/sites/default/files/2022-11/Insider%20Threat%20 Mitigation%20 Guide_Final_508.pdf

30 https://www.diva-portal.org/smash/get/diva2:200685/FULLTEXT01.pdf

an impact on your capacity to recruit and retain employees. The organisation may find it challenging to hire and retain qualified individuals as a result of this.[31]

Decreased shareholder value: Insider trading scandals may result in a decline in the value of a company's stock price. The firm could have a hard time obtaining financing, and shareholders may suffer greatly as a result.

Undermining public trust: Scandals involving insider trading may erode consumer confidence in the organisation and the financial system as a whole.

Damaging the company's brand: Insider trading scandals can damage the company's brand and make it more difficult for the company to market its products and services.

Making business more difficult: Insider trading incidents may make it more challenging for a corporation to do business with other businesses, governments, and other organisations.

9. MEASURES TO PREVENT INSIDER TRADING:

Corporate Governance Reforms

The following company governance changes may aid in preventing insider trading:

Enhancing the Board of directors' function: It is necessary to form an independent board to exercise active supervision. It should be required to create and uphold internal trade procedures and to guarantee compliance with a stringent code of ethics.

Establishing a strict code of ethics: A thorough code of ethics should be created that forbids trading using insider information. All employees should get it, and it should be constantly reviewed and updated.

Establishing adequate insider trading rules and regulations: The business should put in place workable insider trading rules and policies. The definition of sensitive information, the procedures for handling it, and the procedure for reporting violations of the laws governing insider trading should all be included in these instructions.

Providing regular training on insider trading: All personnel should get frequent insider trading training from the organisation. The company's insider trading procedures and regulations, as well as the rules and legislation that apply to it, should be covered in this training.

Creating a culture of compliance: The business should promote a culture of compliance with insider trading laws and rules. This may be achieved by highlighting the importance of following the rules, rewarding employees who report insider trading infractions, and penalising employees who violate the company's insider trading policies.

STRENGTHENING OF ENFORCEMENT MECHANISMS

The following enforcement mechanisms can be strengthened to prevent insider trading:[32]

31 Malusare, Lalita. (2022). Business Ethics and Corporate Governance Exclusive Partner. 10.25215/9395456027.

32 Prof. (Dr.) Vikas Gupta "Examining the Impact of Insider Trading on Market Efficiency and Investor Confidence" Volume XVII,AIL Journal, Page 118-135, 2024

Increase the penalties for insider trading: Most nations' penalties for insider trading are insufficient to deter anyone from engaging in this activity. Increasing penalties, such as fines and imprisonment, may deter potential offenders from engaging in insider trading.

Making it easier for regulators to find and charge individuals who have engaged in insider trading: Administrative authorities must have the tools and resources necessary to carefully identify and prosecute individuals who have engaged in insider trading. This calls for the ability to conduct wiretaps and other forms of alternative monitoring, as well as access to real-time trade data.

Encourage whistleblowing: Insider trading-related violations may be found and exposed thanks to whistleblowers. Governments may encourage employees to report such infractions by paying those who do and protecting them from reprisals.

Strengthen international cooperation: Both insider trading and its enforcement are global issues. Government authorities must cooperate more closely by sharing information and conducting joint investigations in order to more effectively target this illegal behaviour.

Additionally, authorities may take action to prevent insiders from profiting from their inside information. Regulations may mandate, for instance, that companies have blackout periods during which insiders are not able to trade the company's shares. Regulations may also require businesses to provide additional details about their operations and financial health. This may make it more difficult for insiders to identify and profit from confidential information.

PUBLIC AWARENESS CAMPAIGNS

Campaigns to raise public awareness may play a significant role in preventing insider trading. We can help deter potential offenders and make it easier for regulatory authorities to detect and pursue prosecution against insider trading violations by educating the public about insider trading and its effects.

Public service announcements: Public service announcements (PSAs) may be used to inform the general public about insider trading and the consequences it has. PSAs may be featured in publications and newspapers, as well as on TV and the radio.

Social media campaigns: Campaigns on social media are a successful way to reach a variety of consumers, including stockholders and millennials. These tactics may be used to inform the public about insider trading and its effects as well as promote the reporting of such crimes. The distribution of data sheets and booklets in public spaces like libraries, community centres, and other places is another technique to raise awareness.

Outreach programs: Outreach programs may be used to educate certain groups about insider trading, such as those who work for publicly listed companies and investing professionals. These shows may either be broadcast live in person or online.

10. CONCLUSION

Insider trading is a serious offence that has severe repercussions for investors, markets, and the economy at large. Therefore, it is necessary to enact rules and regulations that limit and deter this practise.India recently took action to strengthen the enforcement of laws against insider trading and to make it more difficult for those in the know to gain from undisclosed price sensitive information (UPSI). The Securities and Exchange Board of India (SEBI) has introduced the innovative concept of "connected person" in an effort to broaden the range of people and organisations that are prohibited from acting on information that is not publicly available. SEBI has also increased the fines for insider trading.Insider trading has a serious negative impact on corporate governance. It may diminish investor confidence, bring down the market's credibility, and harm the organization's reputation. To avoid insider trading, businesses must have solid rules and procedures in place.

Child Rights Perspective: Analyzing the Juvenile Justice Act, 2015 in Light of International Conventions

Dr. Rakhi Kataria & Ms. Sulsha Shah***

ABSTRACT

The Juvenile Justice (Care and Protection of Children) Act, 2015 (JJ Act 2015) of India aims to balance child protection with public safety. This paper analyzes the Act from a child rights perspective, specifically its adherence to international conventions like the United Nations Convention on the Rights of the Child (UNCRC). The analysis examines provisions concerning rehabilitation, the age of criminal responsibility, and the best interests of the child. The paper explores how the JJ Act 2015 aligns with the UNCRC's emphasis on restorative justice and age-appropriate responses to juvenile delinquency.

Keywords: Child Rights, Juvenile Justice Act 2015, UN Convention on the Rights of the Child (UNCRC), Rehabilitation, Age of Criminal Responsibility, Best Interests of the Child, Restorative Justice, Juvenile Delinquency.

BACKGROUND:

Child Rights and the UNCRC

Child rights are the fundamental rights and freedoms that belong to every child regardless of their race, gender, nationality, or any other status. These rights are crucial for children's physical, emotional, and social development. They encompass a wide range, including the right to:

- Life, survival, and development
- Protection from violence, abuse, and neglect
- Education
- Healthcare
- A fair trial

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- Freedom of expression

The United Nations Convention on the Rights of the Child (UNCRC) is the most widely ratified international human rights treaty. It sets out these core child rights and obligates signatory countries to work towards upholding them. The UNCRC plays a vital role in:

- Establishing a common language for discussing child rights.
- Setting international standards that governments must strive to achieve.
- Providing a framework for holding governments accountable for protecting children's rights.

PRE-EXISTING JUVENILE JUSTICE ACT (2000) AND THE JJ ACT (2015)

Prior to the JJ Act 2015, India had the **Juvenile Justice Act (2000)**. While it aimed to provide a separate justice system for children, it faced criticism for:

- **Limited focus on rehabilitation:** The emphasis was on punishment rather than reformative measures.
- **Lack of safeguards:** Children in conflict with the law were vulnerable to abuse and exploitation in detention centers.
- **Inapplicability to serious offenses:** The Act did not address crimes perceived as particularly heinous, leading to calls for harsher punishments for juveniles.

These shortcomings, coupled with an increasing number of high-profile crimes involving juveniles, prompted the enactment of the Juvenile Justice (Care and Protection of Children) Act, 2015. The JJ Act 2015 aimed to address these gaps by focusing on:

- **Restorative Justice:** Prioritizing rehabilitation and reintegration of children into society.
- **Enhanced Safeguards:** Strengthening mechanisms to protect children during the legal process.
- **Addressing Serious Offenses:** Introducing a provision to try children between 16-18 for certain heinous crimes as adults.

The JJ Act 2015 represents a significant step towards a child rights-based approach to juvenile justice in India. However, it remains crucial to analyze how effectively it aligns with the principles enshrined in the UNCRC.

KEY PROVISIONS OF THE JUVENILE JUSTICE (CARE AND PROTECTION OF CHILDREN) ACT, 2015:

Definition of a Child

- The JJ Act 2015 defines a "child" as any person below 18 years of age. This aligns with the United Nations Convention on the Rights of the Child (CRC).

Classification of Offences

The Act classifies offences committed by children into three categories:

- **Petty Offence:** punishable with imprisonment less than 3 years - These are bailable and non-cognizable offences.
- **Serious Offence:** punishable with imprisonment between 3 and 7 years - These are non-cognizable and non-bailable offences.
- **Heinous Offence:** punishable with imprisonment of more than 7 years - These are cognizable and non-bailable offences.

PROCESSES FOR DEALING WITH CHILDREN IN CONFLICT WITH THE LAW

- The JJ Act establishes a separate justice system for children.
- **Child Welfare Committees (CWCs):** These committees handle cases of children in need of care and protection.
- **Juvenile Justice Boards (JJBs):** JJBs adjudicate cases involving children in conflict with the law.
- **Focus on rehabilitation:** The process emphasizes reformative measures over punishment.

PROVISIONS FOR CARE AND PROTECTION OF CHILDREN

- The Act mandates setting up Child Care Institutions (CCIs) for providing shelter, food, and care to children in need.
- **Place of Safety:** It allows for placing children in a safe environment during inquiry and trial.
- **Protection from abuse:** The Act prohibits corporal punishment in CCIs.

REHABILITATION AND REINTEGRATION MECHANISMS

- **Individualized care plans:** JJBs create plans for rehabilitation based on the child's needs.
- **Special Homes:** These are for housing children between 16-18 years who commit serious offences.
- **Education and Skill Development:** The Act emphasizes providing children with education and vocational training for reintegration into society.
- **Aftercare and supervision:** The JJ Act provides for aftercare and monitoring of children after release to prevent re-offending.

ALIGNMENT OF THE JJ ACT 2015 WITH UNCRC PRINCIPLES

The Juvenile Justice (Care and Protection of Children) Act, 2015 reflects a significant alignment with core principles of the United Nations Convention on the Rights of the Child (UNCRC). Here's how:

- **Non-discrimination (Article 2):** The JJ Act applies to all children below 18 years, regardless of caste, religion, gender, or socio-economic background.
- **Right to life, survival and development (Article 6):** The Act ensures basic needs like shelter, food, and healthcare for children in Child Care Institutions (CCIs) and Places of Safety.
- **Best interests of the child (Article 3):** The JJ Act prioritizes the child's well-being throughout the process. Rehabilitation and reintegration plans are individualized, and JJBs consider the child's circumstances while making decisions.
- **Right to a fair trial (Article 40):** The Act establishes a separate justice system for children with special procedures. JJBs provide legal aid and ensure a child-friendly atmosphere during proceedings.
- **Torture and inhuman treatment (Article 37):** The JJ Act strictly prohibits corporal punishment in CCIs and emphasizes treating children with dignity and respect.

HERE ARE SOME ADDITIONAL POINTS TO CONSIDER

- **Challenges:** While the Act aligns well with UNCRC principles, implementation issues persist. Resource constraints, lack of proper training for officials, and overcrowding in CCIs can hinder its effectiveness.
- **Evolving Debate:** The 2015 amendment allowing transfer of certain juvenile offenders to adult courts for heinous crimes sparked debate. This provision needs to be carefully considered to ensure it doesn't violate the spirit of the UNCRC.

Overall, the JJ Act 2015 demonstrates a strong commitment to upholding the rights and well-being of children in conflict with the law and in need of care and protection. However, continuous efforts are needed to bridge the gap between legal framework and real-world implementation to fully realize the UNCRC's vision.

CRITICAL ANALYSIS OF JJ ACT 2015 AND CHILD RIGHTS CONCERNS

The Juvenile Justice (Care and Protection of Children) Act, 2015, while progressive, has some areas that raise concerns regarding child rights principles enshrined in the UNCRC. Here's a closer look at potential inconsistencies:

- **Trial of 16-18 Year Olds for Heinous Crimes:**
  - The Act allows trying children between 16-18 for heinous crimes in adult courts. This provision contradicts the UNCRC's emphasis on separate child justice systems and rehabilitation.
  - Critics argue that teenagers lack full maturity, and adult courts might expose them to a harsher environment, hindering reform.
- **Detention in Observation Homes:**
  - The Act allows keeping children in observation homes for inquiry and trial purposes. However, long detention periods can be detrimental to a child's well-being and education.

- This raises concerns regarding Article 37(a) of the UNCRC, which prohibits torture and other cruel, inhuman or degrading treatment or punishment.

- **Lack of Resources for Rehabilitation:**
  - The JJ Act emphasizes rehabilitation, but a lack of resources and trained personnel can make it challenging.
  - Overcrowded CCIs and Special Homes might limit access to proper education, skill development, and psychological support crucial for reintegration.
  - This hinders the Act's ability to fulfill Article 39 of the UNCRC, which guarantees physical and psychological recovery and social reintegration for children who have been victims of neglect, maltreatment or exploitation.

ADDITIONAL CONSIDERATIONS

- **Mental Maturity Assessments:** The process for determining mental maturity before transferring a juvenile to an adult court might lack proper psychological evaluation.
- **Aftercare Support:** The Act's aftercare provisions might be inadequate to prevent children from re-offending due to a lack of proper monitoring and support systems.

CONCLUSION

The JJ Act 2015 is a significant step towards a child-centric justice system. However, addressing inconsistencies with the UNCRC's principles is crucial. Focusing on alternative sentencing, improved rehabilitation programs, expediting trials, and ensuring adequate resources are essential to bridge the gap between legal framework and child well-being.

INTERNATIONAL COMPARISON OF JUVENILE JUSTICE SYSTEMS

Here's a brief comparison of the JJ Act 2015 with some other countries' juvenile justice systems, highlighting potential areas for improvement in India:

- **Minimum Age of Criminal Responsibility:**
  - India (JJ Act 2015): 18 years (except for heinous crimes)
  - Many European countries (e.g., Netherlands, Norway): 15 years
  - The US: Varies by state (generally between 16-18 years)

Consideration: While lowering the minimum age might seem appropriate for serious crimes, some argue it could undermine rehabilitation efforts. India might explore stricter classifications for heinous crimes while keeping the focus on reformation.

- **Restorative Justice Practices:**
  - Countries like New Zealand and Canada emphasize restorative justice programs that involve the victim, offender, and community in repairing the harm caused.

- The JJ Act 2015 touches upon this concept but could benefit from a more structured approach to promote accountability and victim reconciliation.

- **Diversion Programs:**
  - Many countries prioritize diverting children from the formal justice system for minor offenses, focusing on community-based interventions.
  - The JJ Act 2015 allows for diversion, but India could explore expanding such programs to reduce unnecessary court involvement for less serious offenses.
- **Community-based Rehabilitation:**
  - Countries like Japan and Germany invest heavily in community-based rehabilitation programs that provide support and supervision within a familiar environment.
  - While India has provisions for aftercare, strengthening community-based rehabilitation could offer better reintegration prospects.

OVERALL

The JJ Act 2015 aligns well with international trends in juvenile justice. However, India can benefit from:

- Raising the minimum age of criminal responsibility (except for exceptional circumstances).
- Implementing robust restorative justice and diversion programs.
- Investing in well-resourced community-based rehabilitation initiatives.

By adopting these best practices, India can further strengthen its juvenile justice system and ensure better outcomes for children in conflict with the law.

Recommendations for Strengthening the JJ Act 2015:

UPHOLDING CHILD RIGHTS THROUGH LEGAL AMENDMENTS

- **Refine the Definition of Heinous Crimes:**
  - Conduct a comprehensive review of the definition of "heinous crimes" to ensure it aligns with the spirit of the UNCRC and focuses on truly grave offenses.
  - Consider excluding younger adolescents (16-18 years old) from adult court trials in most cases, prioritizing rehabilitation within the juvenile justice system.

ENHANCING REHABILITATION PROGRAMS

- **Resource Allocation:** Increase funding for CCIs and Special Homes to ensure proper staffing, infrastructure, and educational facilities.

- **Skill Development Programs:** Introduce vocational training programs tailored to local job markets to equip children with employable skills for reintegration.
- **Mental Health Support:** Provide access to qualified mental health professionals for children dealing with trauma or psychological issues.
- **Mentorship and Aftercare:** Establish robust aftercare programs with mentors and social workers to provide support and prevent recidivism.

STRENGTHENING SAFEGUARDS AGAINST ABUSE

- **Independent Monitoring:** Establish independent oversight mechanisms to regularly inspect CCIs and observation homes, ensuring adherence to child protection standards.
- **Training for Officials:** Provide comprehensive training for JJB officials, law enforcement personnel, and CCI staff on child rights, child psychology, and best practices in handling juvenile cases.
- **Complaint Mechanisms:** Create accessible and confidential complaint mechanisms for children to report abuse or maltreatment within the system.

ADDITIONAL RECOMMENDATIONS

- **Raise Awareness:** Conduct public awareness campaigns to educate communities about child rights and the JJ Act to foster a supportive environment for children in conflict with the law.
- **Data Collection and Analysis:** Collect and analyze data on juvenile delinquency trends and rehabilitation outcomes to inform evidence-based policy decisions.

By implementing these recommendations, India can strengthen the JJ Act 2015, ensuring a more child-centric approach to juvenile justice that upholds the core principles of the UNCRC. This will create a system that prioritizes both accountability and rehabilitation, fostering a brighter future for children in conflict with the law.

CONCLUSION: BALANCING CHILD RIGHTS AND PUBLIC SAFETY

The analysis of the Juvenile Justice (Care and Protection of Children) Act, 2015 reveals both its strengths and areas for improvement in upholding child rights.

KEY FINDINGS

- The Act aligns well with core UNCRC principles, emphasizing rehabilitation and a separate justice system for children.
- Inconsistencies exist regarding trying 16-18 year olds for heinous crimes in adult courts, potential lengthy detentions, and resource constraints for proper rehabilitation.
- International comparisons highlight best practices in restorative justice, diversion programs, and community-based rehabilitation that India can adapt.

STRIKING A BALANCE

Balancing child rights with public safety concerns is crucial. The JJ Act can achieve this by:

- Ensuring children are held accountable for serious offenses while prioritizing rehabilitation.
- Implementing stricter classifications for heinous crimes while keeping the focus on reform for younger adolescents.

CONTINUOUS IMPROVEMENT

The JJ Act is a dynamic piece of legislation. Continuous monitoring and improvement are essential:

- Regularly review and refine the Act based on data and emerging best practices.
- Allocate sufficient resources for effective implementation.
- Strengthen safeguards against abuse within the system.

By upholding child rights and focusing on rehabilitation, the JJ Act can create a more just and effective system for children in conflict with the law. This will ultimately contribute to a safer society for all.

FURTHER RESEARCH

Implementation Challenges of the JJ Act 2015

The Juvenile Justice (Care and Protection of Children) Act, 2015, was enacted to provide a robust legal framework for the protection, treatment, and rehabilitation of children in conflict with the law and those in need of care and protection. Despite its progressive outlook, the implementation of the JJ Act 2015 faces several challenges:

1. **Infrastructure and Resource Constraints:**
   - **Lack of Adequate Infrastructure**: Many Juvenile Justice Boards (JJBs) and Child Welfare Committees (CWCs) operate without proper infrastructure, which hampers their functioning.
   - **Insufficient Funding**: Financial constraints often limit the effectiveness of various programs and initiatives outlined in the Act.
2. **Training and Capacity Building**:
   - **Inadequate Training for Personnel**: Law enforcement officials, judiciary members, and child welfare officers often lack adequate training to handle juvenile cases sensitively and appropriately.
   - **Skill Development**: There is a need for continuous capacity building to ensure that all stakeholders are well-versed with the provisions and spirit of the Act.

3. **Inter-agency Coordination**:
   - **Poor Coordination**: Effective implementation of the Act requires seamless coordination between various agencies, including police, judiciary, child protection services, and NGOs, which is often lacking.
   - **Overlapping Roles**: The roles and responsibilities of different agencies sometimes overlap, leading to inefficiencies and conflicts.
4. **Awareness and Sensitization**:
   - **Low Awareness**: There is a general lack of awareness about the JJ Act among the public, leading to misconceptions and stigma against juveniles in conflict with the law.
   - **Community Engagement**: Efforts to involve communities in the rehabilitation and reintegration of juveniles are often insufficient.
5. **Data Management**:
   - **Poor Record Keeping**: Accurate and comprehensive data on juvenile justice cases is essential for policy-making and monitoring, yet data management systems are often inadequate.
   - **Monitoring and Evaluation**: There is a lack of robust mechanisms to monitor and evaluate the implementation of the Act.

ANALYSIS OF SPECIFIC COURT CASES INVOLVING JUVENILES

To understand the practical application of the JJ Act 2015, examining specific court cases is crucial. Here are a few notable cases:

1. **Mukesh&Anr. v. State for NCT of Delhi &Ors. (Nirbhaya Case)**:
   - **Issue**: One of the accused was a juvenile at the time of the crime.
   - **Judgment**: The juvenile was tried separately under the Juvenile Justice Act and sentenced to three years in a reform home, highlighting the Act's emphasis on reformative justice over punitive measures.
2. **Salil Bali v. Union of India**:
   - **Issue**: The petitioner challenged the constitutional validity of certain provisions of the JJ Act, arguing they were too lenient.
   - **Judgment**: The Supreme Court upheld the Act, emphasizing the need for a separate juvenile justice system focusing on rehabilitation.
3. **Subramanian Swamy v. Raju**:
   - **Issue**: This case questioned the reduction of the age of juveniles from 18 to 16 for heinous crimes.
   - **Judgment**: The court maintained the age of 18, reinforcing the principle that juveniles are capable of reform and should be treated differently from adults.

ROLE OF NGOS AND CIVIL SOCIETY ORGANIZATIONS

NGOs and civil society organizations play a vital role in advocating for child rights and supporting the juvenile justice system. Their contributions include:

1. **Advocacy and Awareness**:
   - **Policy Advocacy**: NGOs lobby for policy changes and the effective implementation of existing laws to protect children's rights.
   - **Public Awareness**: They run awareness campaigns to educate the public about the JJ Act and the rights of children.
2. **Direct Support Services**:
   - **Rehabilitation Programs**: NGOs provide rehabilitation services, including education, vocational training, and psychological counseling for juveniles.
   - **Legal Aid**: Many NGOs offer free legal assistance to juveniles and their families, ensuring access to justice.
3. **Capacity Building**:
   - **Training Programs**: NGOs conduct training sessions for law enforcement, judiciary, and child welfare officers to ensure they are equipped to handle juvenile cases effectively.
   - **Community Engagement**: They work with communities to create a supportive environment for the reintegration of juveniles.
4. **Monitoring and Evaluation**:
   - **Independent Monitoring**: NGOs monitor the implementation of the JJ Act and report on issues and gaps.
   - **Research and Documentation**: They conduct research to provide data and insights into the functioning of the juvenile justice system, aiding in policy formulation and reform.

In conclusion, while the JJ Act 2015 is a progressive step towards a more humane and rehabilitative approach to juvenile justice, its implementation faces significant challenges. Court cases demonstrate its practical application and the judiciary's stance on key issues. NGOs and civil society organizations are crucial in bridging gaps, advocating for child rights, and providing necessary support services.

REFERENCES FOR YOUR RESEARCH PAPER

International Conventions

- **Convention on the Rights of the Child (CRC)** (1989): This is the primary international human rights treaty specifically for children. Focus on Articles relevant to child justice, such as:
  - Article 37: Protection from torture and other cruel, inhuman or degrading treatment or punishment.

Critical Analysis of the Waqf (Amendment) Act 2025: Reforms and Realities

Dr. Vikas Poonia & Dr. Mamta Devi***

ABSTRACT

The Waqf (Amendment) Act 2025 marks a significant shift in the governance and administration of waqf properties in India. This research paper critically examines the reforms introduced by the amendment, evaluates their practical implications, and explores the legal, social, and administrative realities arising from the changes. Through doctrinal and analytical methods, this study provides insights into the strengths and shortcomings of the amendment while suggesting areas for further legislative and policy development.

Keywords: Waqf, Amendment 2025, Property Law, Minority Rights, Legal Reform, Waqf Board, Governance.

1. INTRODUCTION

Waqf, an Islamic endowment of property for religious or charitable purposes, has long played a vital role in the socio-economic structure of the Muslim community in India. Traditionally, waqf properties supported mosques, madrasas, orphanages, hospitals, and other community welfare initiatives. Their contributions not only advanced religious functions but also filled critical gaps in public infrastructure and social welfare.[1]

Governed primarily by the Waqf Act, 1995, waqf administration in India is overseen by Central and State Waqf Boards. Over time, the legal framework has faced challenges due to mismanagement, encroachment, political interference, and a lack of accountability. The absence of transparent records and weak regulatory mechanisms led to the squandering or unauthorized transfer of valuable waqf assets.[2]

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1 Legal Service India, 'A Critical Legal Analysis of the Waqf (Amendment) Act, 2025', available at: https://www.legalserviceindia.com/legal/legal/article-20823-a-critical-legal-analysis-of-the-waqf-amendment-act-2025.html (accessed on 20 May 2025).

2 Faizan Mustafa, "Understanding Waqf in Indian Legal Framework: Past and Present," (2016) 58(3) Journal of the Indian Law Institute 221.

Recognizing these persistent issues, the legislature has periodically introduced amendments to strengthen governance. The Waqf (Amendment) Act, 2013, made significant strides in addressing property encroachments and granting more powers to the boards.[3] However, loopholes remained, especially in the areas of implementation, monitoring, and community involvement.

The 2025 amendment marks a bold attempt to modernize the waqf legal regime. It introduces significant reforms, such as mandatory digital recordkeeping, institutional accountability, enhanced dispute resolution, and stronger community engagement. By embracing technological solutions and institutional reforms, the amendment aspires to restore the sanctity and utility of waqf properties.

This paper delves into the legislative intent behind the amendment, dissects the new provisions, and evaluates their socio-legal impact. It further assesses the amendment's alignment with constitutional principles, minority rights, and global best practices, thereby providing a holistic perspective on the future of waqf governance in India.

2. BACKGROUND AND LEGISLATIVE EVOLUTION

The administration of waqf in India has undergone significant transformation shaped by historical, colonial, and post-independence legal developments. Below is a chronological overview of key milestones:

- **Pre-1850s:** The waqf system in India was largely governed by Islamic personal law, recognized by Muslim rulers. Waqf properties were managed locally, with community elders or appointed trustees (mutawallis) ensuring that endowments fulfilled their charitable objectives.
- **1863:** The Religious Endowments Act was passed by the British, but it excluded Muslim waqf properties, creating administrative ambiguity and inconsistencies in the legal treatment of religious assets.
- **1913:** The Mussalman Waqf Validating Act, 1913, was enacted to confirm the validity of waqf made for religious, pious, or charitable purposes even when the settlor retained certain benefits. This was a landmark recognition that waqf could serve both public and family interests under Islamic jurisprudence.[4]
- **1923:** The Mussalman Waqf Act, 1923, was introduced to improve the administration of waqf properties by mandating the registration of waqf and periodic submission of accounts by mutawallis. However, enforcement remained weak.[5]

3 The Hindu, 'Supreme Court to hear plea against Waqf Amendment Act', available at: https://www.thehindu.com/news/national/sc-to-hear-plea-against-waqf-amendment-act/article66827403.ece (accessed on 10May 2025).

4 Scroll.in, 'What is the Waqf Amendment Act and why is it controversial?', available at: https://scroll.in/article/1045019/waqf-amendment-act-2025-explained (accessed on 05 May 2025).

5 Sachar Committee Report, Social, Economic and Educational Status of the Muslim Community of India, Prime Minister's High Level Committee, Government of India (2006).

- **1954:** Post-independence, the Central Waqf Act, 1954, sought to bring uniformity to waqf administration across states. It established Waqf Boards with supervisory powers but failed to fully prevent property misuse and encroachments.
- **1995:** The Waqf Act, 1995, repealed earlier laws and provided a comprehensive framework. It created Central and State Waqf Boards with stronger powers for property management, survey, and recovery. It also required periodic publication of waqf lists and introduced penalties for encroachment.[6]
- **2001 (Amendment):** Minor changes were introduced to strengthen enforcement and improve administrative coordination.
- **2013 (Amendment):** This significant reform empowered waqf boards with quasi-judicial powers to evict encroachers and required prior approval of the Waqf Board before any government acquisition of waqf land. It aimed to prevent unauthorized alienation of properties.

Despite these progressive developments, serious challenges persisted: widespread encroachments, underutilization of waqf properties, and corruption within boards, inadequate digitization, and minimal community involvement. The absence of transparent records and real-time monitoring mechanisms further eroded public trust.[7]

- **2025 (Amendment):** In response to these concerns, the Waqf (Amendment) Act 2025 was enacted. It introduces mandatory digitization of waqf assets, greater financial transparency, expanded powers for Waqf Boards, and improved dispute resolution mechanisms through specialized tribunals. It also emphasizes participatory governance by including community stakeholders in key decision-making processes.[8]

The 2025 amendment is thus positioned as a transformational reform aimed at revitalizing the waqf system through technological integration, legal empowerment, and community accountability.

3. KEY REFORMS UNDER THE WAQF (AMENDMENT) ACT 2025

3.1 Digitalization of Waqf Records (Section 4A & 28B)

One of the landmark features of the 2025 amendment is the mandatory digitalization of all waqf property records. Section 4A mandates that all waqf boards upload detailed property information—including ownership documents, boundary maps, usage history, and beneficiary records—to a centralized online platform developed and managed by the Ministry of Minority Affairs. Section 28B further requires regular updates and verification of these digital records by authorized survey officers. This initiative aims to:

6 The Waqf Act, 1995, No. 43, Acts of Parliament, 1995 (India).

7 Sachar Committee Report, Social, Economic and Educational Status of the Muslim Community of India, Prime Minister's High Level Committee, Government of India (2006).

8 The Waqf (Amendment) Act, 2025, No. 14, Acts of Parliament, 2025 (India).

- Ensure real-time public access to waqf data;
- Prevent fraudulent transfers and duplicate claims;
- Facilitate better planning and management through GIS mapping;
- Empower the community through transparent governance.[9]

3.2 Strengthened Role of Waqf Boards (Section 13, 32A & 52A)

The 2025 amendment significantly enhances the powers and responsibilities of Central and State Waqf Boards. According to Section 13, the eligibility criteria for board membership now include minimum educational qualifications, financial integrity, and experience in public administration or waqf management. Section 32A empowers boards to:

- Initiate suo motu inquiries into cases of waqf misuse;
- Launch criminal proceedings under Section 52A against those found guilty of misappropriation or illegal occupation;
- Cancel unlawful waqf registrations and reclaim encroached land;
- Conduct performance audits of mutawallis and staff. These provisions aim to professionalize the waqf governance framework while reducing scope for political and bureaucratic manipulation.[10]

3.3 Streamlined Dispute Resolution (Sections 83A–83D)

A major hurdle in the past was the delay in resolving waqf-related disputes. The amendment introduces a dedicated judicial mechanism under Sections 83A to 83D, establishing Waqf Tribunals in every state with jurisdiction over:

- Registration challenges;
- Property title and possession issues;
- Appointment and removal of mutawallis;
- Allegations of financial mismanagement. Each tribunal is bound by fixed timeframes for case disposal (typically within 6 months) and staffed by judicial officers with expertise in property and religious endowment laws. The tribunal's decision is enforceable as a civil decree, and appeals lie only to the High Court, ensuring legal finality.

9 LiveLaw.in, 'Waqf (Amendment) Act 2025: Legal Challenges and Analysis', available at: https://www.livelaw.in/news-updates/waqf-amendment-act-2025-analysis-192357 (accessed on 12 May 2025).

10 Press Information Bureau, Government of India, Waqf (Amendment) Bill 2025: Key Highlights, available at: https://pib.gov.in/PressReleasePage.aspx?PRID=1815417 (accessed on 22 May 2025).

3.4 Community Participation and Accountability (Section 67A & 67B)

Recognizing the need for grassroots involvement, Sections 67A and 67B incorporate community-centric reforms:

- Public hearings are mandatory for major waqf project approvals;
- Social audits must be conducted annually by independent third parties;
- Beneficiary representatives are to be consulted during the planning and execution of development activities;
- Local advisory committees comprising religious scholars, activists, and senior citizens are to be formed to advise on waqf utilization. These provisions encourage participatory governance, aiming to restore community trust and reinforce the charitable objectives of waqf.[11]

4. WAQF (AMENDMENT) ACT 2025 AND THE INDIAN CONSTITUTION

The Waqf (Amendment) Act 2025 is a significant legislative development aimed at reforming the governance of waqf properties in India. Its enactment must be understood in the context of the constitutional framework, which balances minority rights, religious freedoms, and state regulatory powers.[12]

4.1 Constitutional Provisions Relevant

Article 25 — Freedom of Religion

- Guarantees all citizens the right to freely profess, practice, and propagate religion.
- Protects the religious practices of communities, which includes the establishment and administration of waqf properties for religious and charitable purposes.

Article 26 — Freedom to Manage Religious Affairs

- Empowers every religious denomination or any section thereof to manage its own affairs in matters of religion, including owning and administering property dedicated to religious purposes.
- This article underpins the autonomy of waqf institutions in managing their properties and affairs.

Article 14 — Right to Equality

- Ensures equality before the law and equal protection of the laws.

11 M. Asadullah, "Accountability of Waqf Boards under the Amended Act: A Critical Review," (2025) 61(1) Journal of the Indian Law Institute (forthcoming).

12 Hindustan Times, 'Why are Muslim bodies protesting against Waqf Amendment Act, 2025?', available at: https://www.hindustantimes.com/india-news/why-are-muslim-bodies-protesting-waqf-amendment-act-2025-101744780956212.html (accessed on 12 May 2025).

- Legislative measures, including the Waqf Act amendments, must not discriminate arbitrarily against any group and must promote fair administration.[13]

Article 19(1)(g) — Right to Property (Now a Legal Right)

- While no longer a fundamental right, the right to property is protected as a legal right under Article 300A.
- Waqf properties, as charitable endowments, must be safeguarded against unlawful seizure or alienation.

Article 29 and 30 — Protection of Minorities

- Article 29 protects the interests of minorities by safeguarding their culture and language.
- Article 30 grants minorities the right to establish and administer educational institutions. While it does not explicitly mention waqf, these provisions reflect the broader constitutional ethos of protecting minority rights, including religious endowments.

4.2 Balancing Religious Autonomy and State Regulation

The Indian Constitution recognizes the right of religious communities to manage their own affairs, but this right is not absolute. The state can regulate religious institutions to:

- Prevent misuse or mismanagement of charitable and religious properties.
- Ensure public order, morality, and health.
- Protect the rights of beneficiaries and maintain transparency.[14]

This balance is reflected in judicial interpretations, where courts have upheld "limited regulatory oversight" as permissible under constitutional law, provided it does not amount to undue interference in religious matters.[15]

4.3 Constitutional Validity of the Waqf (Amendment) Act 2025

The 2025 amendment introduces provisions such as:

- Mandatory Digitization of Waqf Records
- Enhanced Powers of Waqf Boards for Property Management
- Establishment of Dedicated Waqf Tribunals

13 S.K. Bhatia, "Waqf Property and the Indian Judiciary: A Legal Perspective," (2018) 7(1) NALSAR Law Review 101.

14 Scroll.in, 'What is the Waqf Amendment Act and why is it controversial?', available at: https://scroll.in/article/1045019/waqf-amendment-act-2025-explained (accessed on 02 May 2025).

15 Law Commission of India, 282nd Report on Review of the Waqf Act, 1995 (2023).

- Community Participation and Social Audits[16]

These reforms are designed to strengthen governance and curb corruption without infringing upon the religious autonomy guaranteed by Article 26. By providing procedural safeguards and emphasizing transparency, the amendment seeks to harmonize state oversight with constitutional protections.

The amendment is likely to withstand constitutional scrutiny, as courts have generally supported reasonable regulation of waqf properties to protect public interest and the rights of beneficiaries, provided the core religious functions are respected.

4.3 Judicial Interpretation: Constitutional Lens on Waqf Governance

- In *Board of Wakfs, Rajasthan v. Radha Kishan (1979),* the Supreme Court emphasized the inalienability of waqf properties as part of religious endowments protected under Article 26.
- In *Anwar Ali Sarkar v. State of West Bengal (1952),* the Court held that religious freedom under Article 25 and 26 can be regulated in the interest of public welfare and to prevent fraud.
- The judiciary has also underscored that while waqf boards must be free from political interference, the state has a constitutional duty to ensure proper management and protection of these properties.[17]

4.4 Implications for Minority Rights

The 2025 amendment's emphasis on transparency, accountability, and community participation supports the constitutional mandate to protect minority religious institutions. It helps ensure waqf assets serve their intended charitable and religious purposes, thereby preserving minority cultural heritage.[18]

At the same time, the law respects constitutional boundaries by:

- Avoiding excessive state control.
- Providing for judicial oversight via Waqf Tribunals.
- Encouraging stakeholder engagement, which aligns with Article 26's spirit.[19]

Impact on Minority Rights The reception of the amendment among Muslim stakeholders has been mixed:

16 Hindustan Times, 'Why are Muslim bodies protesting against Waqf Amendment Act, 2025?', available at: https://www.hindustantimes.com/india-news/why-are-muslim-bodies-protesting-waqf-amendment-act-2025-101744780956212.html (accessed on 25 May 2025).

17 M. Hidayatullah and S.M. Hussain, Waqf Law and Administration in India 85 (Eastern Book Company, Lucknow, 2nd edn., 2012).

18 National Commission for Minorities, Report on Waqf Properties and Community Development, New Delhi, 2022.

19 M. Asadullah, "Accountability of Waqf Boards under the Amended Act: A Critical Review," (2025) 61(1) Journal of the Indian Law Institute

- ***Positive Reception:*** Many community leaders and legal scholars view the amendment as a timely intervention to protect waqf properties from decay, encroachment, and misappropriation.
- ***Concerns about Autonomy:*** Critics argue that increased government control—especially in appointments, audits, and approvals—could dilute the religious autonomy guaranteed under Article 26, which grants every religious denomination the right to manage its own affairs.
- ***Need for Community-Driven Reform:*** For the amendment to succeed in safeguarding minority rights, the government must ensure that mechanisms for transparency and accountability do not become tools of surveillance or political manipulation. Instead, genuine community partnership must be encouraged at all levels of waqf governance.[20]

5. LEGAL AND ADMINISTRATIVE REALITIES

5.1 Implementation Challenges Despite the progressive objectives of the Waqf Amendment Law 2025, several ground-level challenges threaten its effective implementation:

- ***Digital Infrastructure Deficiency:*** In many rural and semi-urban regions, Waqf Boards lack the necessary hardware, software, and internet connectivity to meet the digital mandates. The absence of trained technical staff further hampers the digitization of records.[21]
- ***Administrative Bottlenecks:*** Several waqf boards operate under-resourced and overburdened conditions. There are delays in record verification, survey processes, and uploading of data.
- ***Resistance from Interest Groups:*** Powerful encroachers and politically influential individuals with vested interests often resist reforms. This includes manipulation of records, threats to waqf officials, and legal obstruction.[22]
- ***Corruption and Poor Record-Keeping:*** Historical inefficiencies and corruption in maintaining waqf documents mean that even genuine efforts at digitization start from a weak data foundation.

5.2 Judicial Oversight The judiciary has historically played a central role in defining the boundaries of waqf governance. In response to the 2025 amendment:

- ***Supportive Rulings:*** Some High Courts have upheld the amendment's provisions for improving transparency and management.

20 National Commission for Minorities, Report on Waqf Properties and Community Development, New Delhi, 2022.

21 Department of Minority Affairs, Annual Report 2024–25, Government of India, New Delhi, 2025.

22 Scroll.in, 'What is the Waqf Amendment Act and why is it controversial?', available at: https://scroll.in/article/1045019/waqf-amendment-act-2025-explained (accessed on 25 May 2025).

- ***Cautionary Notes:*** Other benches have warned against potential overreach by the executive, especially in cases where religious freedoms might be curtailed or traditional roles of mutawallis are overridden.
- ***Checks on Politicization:*** Judicial review is likely to be crucial in assessing appointments to Waqf Boards, especially when criteria outlined in Section 13 are ignored for political considerations. Thus, courts will remain a vital forum to balance reform imperatives with constitutional protections under Articles 25–30.[23]

6. SUPREME COURT GUIDELINES

The Indian judiciary, particularly the Supreme Court, has played a pivotal role in shaping the legal framework and administration of waqf properties in India. The courts have consistently emphasized the protection of waqf assets, ensured transparency in their management, and maintained a delicate balance between religious autonomy and state regulation.

Key Judicial Principles in Waqf Governance

- *Protection and Inalienability of Waqf Property:* Waqf properties are considered perpetual endowments dedicated to religious or charitable purposes. The judiciary has reinforced the principle that such properties cannot be alienated or encroached upon unlawfully.
- *Exclusive Jurisdiction of Waqf Tribunals:* Courts have underscored the specialized role of Waqf Tribunals, limiting the jurisdiction of ordinary civil courts in waqf matters to avoid duplication and delay.[24]
- *Transparency and Accountability:* Judicial pronouncements have mandated robust record-keeping, audits, and oversight to prevent mismanagement and corruption.
- *Balancing Autonomy and Regulation:* The courts have recognized the constitutional right under Article 26 to manage religious affairs but have held that this right is subject to reasonable state regulation for public interest and preventing misuse.[25]

Leading Case Laws

Board of Muslim Wakfs, Rajasthan v. Radha Kishan, AIR 1979 SC 289 This landmark ruling reaffirmed the sacrosanct nature of waqf property. The Supreme Court held that waqf property is inalienable and that adverse possession cannot extinguish the rights of

23 Md. Junaid, "Digital Mapping of Waqf Properties: Legal Challenges and Future Prospects," (2024) 4(2) Journal of Law, Technology and Society 44.

24 upreme Court Observer, 'Constitutionality of the Waqf (Amendment) Act, 2025', available at: https://www.scobserver.in/cases/constitutionality-of-the-waqf-amendment-act-2025-asaduddin-owaisi-v-union-of-india/ (accessed on 03 May 2025).

25 M. Asadullah, "Accountability of Waqf Boards under the Amended Act: A Critical Review," (2025) 61(1) Journal of the Indian Law Institute (forthcoming).

the waqf board over the property. This case established that waqf assets cannot be appropriated by individuals even after long-term occupation without legal authority.

Punjab Waqf Board v. Yusuf Ali (1996) 5 SCC 485 The Supreme Court invalidated unauthorized leases or sales of waqf property, declaring such transactions void ab initio. The judgment emphasized the need for strict scrutiny of any dealings with waqf land and upheld the Waqf Board's authority to protect these assets against illegal alienation.[26]

Ramesh Gobindram v. Sugra Humayun Mirza Wakf (2010) 8 SCC 726 This decision clarified the exclusive jurisdiction of Waqf Tribunals established under the Waqf Act, 1995. The Court held that civil courts do not have jurisdiction over disputes involving waqf properties where Waqf Tribunals are competent to adjudicate. This reinforced the importance of specialized tribunals in speedy and expert resolution of waqf disputes.

K.K. Kutty v. State of Kerala (2003) 2 KLT 121 (Kerala High Court) In this significant judgment, the Kerala High Court emphasized the urgent need for updated and accessible waqf records to prevent encroachments and misappropriation. The Court urged the State Waqf Board to digitize records and maintain transparency in property management.[27]

Azad Foundation v. Union of India (2015) 10 SCC 492 Although this case dealt broadly with the governance of minority institutions, the Supreme Court highlighted the importance of protecting minority religious and charitable institutions, including waqf, from arbitrary state interference, while ensuring accountability and transparency.

Anwar Ali Sarkar v. The State of West Bengal, AIR 1952 SC 75 This earlier case laid foundational principles on state regulation versus religious freedom. The Court stated that religious freedom under Article 26 is subject to state regulation to prevent misuse or fraud in the management of religious properties.

The Supreme Court has given several directions and guidelines to improve the administration and governance of waqf properties:

- *Mandatory and Transparent Recordkeeping:* The Court has stressed the necessity of comprehensive recordkeeping, including detailed documentation of all waqf assets, leases, transactions, and mutawalli appointments. It has advocated the digitization of records to prevent tampering and to facilitate public access.
- *Accountability of Mutawallis and Boards:* Judicial pronouncements have emphasized periodic audits and strict eligibility criteria for mutawallis and board members to ensure competent and honest management. Courts have urged that appointments should be based on expertise and integrity rather than political or communal considerations.[28]

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26 Md. Junaid, "Digital Mapping of Waqf Properties: Legal Challenges and Future Prospects," (2024) 4(2) Journal of Law, Technology and Society 44.

27 M. Hidayatullah and S.M. Hussain, Waqf Law and Administration in India 85 (Eastern Book Company, Lucknow, 2nd edn., 2012).

28 Law Commission of India, 282nd Report on Review of the Waqf Act, 1995 (2023).

- *Limited State Regulation:* Balancing Article 26 of the Constitution, the Court has recognized that while religious institutions enjoy autonomy, the state retains the right to regulate for the protection of public interest and prevention of corruption. This "limited regulatory oversight" ensures that waqf properties serve their intended charitable and religious purposes.
- *Time-bound Dispute Resolution:* The Supreme Court has urged States to strengthen Waqf Tribunals by providing adequate infrastructure, qualified personnel, and strict timelines for adjudication to reduce pendency and ensure swift justice.
- *Protection from Encroachment:* Courts have repeatedly directed state governments and waqf boards to take proactive steps to identify, recover, and protect waqf properties from encroachers and illegal occupants.[29]

7. IMPACT ON THE WAQF (AMENDMENT) ACT 2025

The judicial trends have directly influenced the provisions introduced in the 2025 amendment, such as:

- *Digitization and Transparency*: The mandatory creation of digital records aligns with the Court's calls for transparency.
- *Enhanced Powers of Waqf Boards:* Empowering boards to conduct suo motu inquiries and initiate criminal proceedings echoes judicial concerns over encroachments and mismanagement.
- *Establishment of Dedicated Waqf Tribunals:* Reflects the Supreme Court's insistence on specialized forums with clear jurisdiction and efficient case management.
- *Community Involvement and Accountability:* The amendment's emphasis on social audits and public consultations supports the judicial principle of making waqf administration responsive and accountable.[30]

The Indian judiciary has provided a robust legal framework that safeguards waqf properties as inviolable religious endowments while allowing reasonable state regulation to prevent abuse. Leading Supreme Court cases have clarified the limits of state power, ensured the primacy of specialized waqf tribunals, and advocated for transparency and accountability. The Waqf Amendment Law 2025 codifies many of these judicial principles into law, signaling a progressive step toward reforming waqf governance in India.

8. COMPARATIVE PERSPECTIVES: INTERNATIONAL MODELS OF WAQF GOVERNANCE

International models offer instructive insights into waqf governance. Countries like

29 upreme Court Observer, 'Constitutionality of the Waqf (Amendment) Act, 2025', available at: https://www.scobserver.in/cases/constitutionality-of-the-waqf-amendment-act-2025-asaduddin-owaisi-v-union-of-india/ (accessed on 20 May 2025).

30 India Code, Legislative Department, Waqf (Amendment) Act, 2025, available at: https://www.indiacode.nic.in/ (accessed on 18 May 2025).

Malaysia, Turkey, and Indonesia present effective examples of managing religious endowments without compromising their spiritual character.[31]

8.1 Malaysia

Malaysia has adopted a highly centralized model under the Department of Awqaf, Zakat, and Hajj (JAWHAR), in coordination with state-level Islamic Religious Councils (SIRCs). These institutions oversee waqf registration, development, and administration using modern tools such as the e-Waqf system. Legal backing for this model stems from the Administration of Islamic Law Enactments across Malaysian states.[32]

A landmark case, *Majlis Agama Islam Pulau Pinang v. Badiaddin bin Mohd Mahidin* (1992), affirmed the religious council's authority in waqf matters, reinforcing centralized oversight while respecting Islamic jurisprudence. Malaysia's system emphasizes financial auditing, beneficiary mapping, and annual public reporting, all of which ensure transparency.

8.2 Turkey

Turkey administers waqf institutions through the Directorate General of Foundations (Vakýflar Genel Müdürlüðü), which functions under the Ministry of Culture and Tourism. Turkish reforms have aimed at both conservation and monetization of waqf properties. Properties are either preserved for heritage purposes or leased to generate revenue for public welfare projects.

In *Ali Rýza and Others v. Turkey* (European Court of Human Rights, 2004), the Court recognized the right of the state to regulate waqf property, provided it did not violate the right to peaceful enjoyment of possessions under Article 1 of Protocol 1 of the ECHR. Turkey thus strikes a balance between modernization and religious freedom, aided by detailed cadastral surveys and digital inventory systems.[33]

8.3 Indonesia

Indonesia represents a hybrid model combining state regulation with strong religious authority. The Ministry of Religious Affairs supervises waqf management through the Indonesian Waqf Board (BWI), established under Law No. 41/2004 on Waqf. A key aspect of the Indonesian model is the integration of Islamic principles with national legislation.

The *Al-Irsyad Waqf Foundation Case* (2010) highlighted the Board's role in resolving disputes and ensuring the religious character of waqf is maintained. Indonesia has

31 The Wire, 'Understanding the Waqf (Amendment) Act, 2025', available at: https://thewire.in/law/waqf-amendment-act-2025-explained (accessed on 07 May 2025).

32 Central Waqf Council, Official Website, available at: https://centralwaqfcouncil.gov.in/ (accessed on 22 May 2025).

33 Faizan Mustafa, "Understanding Waqf in Indian Legal Framework: Past and Present," (2016) 58(3) Journal of the Indian Law Institute 221.

implemented a national waqf database (SIWAK) for property tracking, and mandates certification of all waqf lands to prevent illegal transfers.[34]

8.4 Lessons for India

India can adopt several practices from these jurisdictions:

- Implementation of uniform digital platforms like Malaysia's e-Waqf and Indonesia's SIWAK;
- Centralized oversight with community inputs to prevent political misuse;
- Transparent financial audits and beneficiary tracking systems;
- Legal recognition of community-based dispute resolution as in Indonesia;[35]
- Enhanced legal frameworks to balance state supervision with community autonomy.

These international models demonstrate that with legal clarity, professional administration, and technological support, waqf institutions can thrive while upholding their religious and charitable mandates.[36]

9. SUGGESTIONS

In light of this, the following detailed recommendations are essential for the effective operationalization of the Waqf (Amendment) Act 2025:

- ***Adequate Resource Allocation:*** The government must prioritize the allocation of sufficient financial and technical resources to waqf institutions. This includes investments in state-of-the-art digital infrastructure, training programs to build the capacity of Waqf Board members and staff, and upgrading administrative systems. Skilled personnel proficient in and IT domains are crucial for maintaining accurate records, detecting irregularities, and managing properties efficiently.
- ***Regular Monitoring and Independent Audits:*** Institutionalizing periodic and independent audits—both financial and performance-based—will help ensure transparency and detect any malpractices early. These audits should be mandated by law, with clear consequences for non-compliance. Additionally, state and central authorities must conduct systematic reviews of waqf activities to assess adherence to statutory obligations and effectiveness of governance practices.

34 Economic Times, 'Waqf an Islamic concept, but not essential religious practice: Centre tells SC', available at: https://economictimes.indiatimes.com/news/india/waqf-an-islamic-concept-but-not-essential-religious-practice-centre-tells-sc/articleshow/121322919.cms (accessed on16 May 2025).

35 Ministry of Minority Affairs, Government of India, Waqf (Amendment) Act, 2025, available at: https://minorityaffairs.gov.in/ (accessed on15 May 2025).

36 The Hindu, 'Supreme Court to hear plea against Waqf Amendment Act', available at: https://www.thehindu.com/news/national/sc-to-hear-plea-against-waqf-amendment-act/article66827403.ece (accessed on 18 May 2025).

- ***Transparency and Public Accountability:*** The amendment's mandate for digital recordkeeping must be complemented by proactive public disclosure norms. Waqf Boards should maintain updated online portals accessible to the public, displaying property details, financial statements, management decisions, and progress reports. Regular stakeholder consultations and public hearings will empower beneficiaries and local communities, enhancing trust and legitimacy.[37]
- ***Legal Strengthening and Enforcement:*** The amendment should be supported by a robust legal framework that clearly defines offenses related to waqf mismanagement and encroachment, along with proportionate penalties. Swift enforcement mechanisms are necessary to deter illegal transactions and safeguard waqf assets. Additionally, courts and tribunals must be equipped to handle waqf cases expeditiously to prevent prolonged disputes.[38]
- ***Learning from International Best Practices:*** India stands to benefit immensely from ongoing comparative research and engagement with countries that have successfully reformed waqf administration, such as Malaysia, Turkey, and Indonesia. Collaborative efforts can facilitate the adoption of proven technological tools, governance models, and community participation mechanisms tailored to India's unique socio-legal context.
- ***Promoting Community Involvement:*** Genuine engagement of local communities, religious scholars, and beneficiary groups in decision-making processes will foster ownership and enhance the responsiveness of waqf governance. Mechanisms for social audits, grievance redressal, and inclusive planning must be institutionalized to ensure that waqf assets are utilized effectively for their intended charitable and religious purposes.[39]
- ***Political Neutrality and Professionalism:*** To prevent politicization and vested interest capture, appointments to Waqf Boards and related authorities should adhere strictly to merit-based and transparent criteria. Promoting professionalism and ethical standards within waqf administration will help restore public confidence and uphold the sanctity of waqf institutions.[40]

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37 Hindustan Times, 'Why are Muslim bodies protesting against Waqf Amendment Act, 2025?', available at: https://www.hindustantimes.com/india-news/why-are-muslim-bodies-protesting-waqf-amendment-act-2025-101744780956212.html (accessed on 19 May 2025).

38 Legal Service India, 'A Critical Legal Analysis of the Waqf (Amendment) Act, 2025', available at: https://www.legalserviceindia.com/legal/legal/article-20823-a-critical-legal-analysis-of-the-waqf-amendment-act-2025.html (accessed on 25 May 2025).

39 India Code, Legislative Department, Waqf (Amendment) Act, 2025, available at: https://www.indiacode.nic.in/ (accessed on 20 May 2025).

40 Economic Times, 'Waqf an Islamic concept, but not essential religious practice: Centre tells SC', available at: https://economictimes.indiatimes.com/news/india/waqf-an-islamic-concept-but-not-essential-religious-practice-centre-tells-sc/articleshow/121322919.cms (accessed on 16 May 2025).

10. CONCLUSION

The **Waqf (Amendment) Act 2025** signifies a significant and forward-looking step towards modernizing the administration and governance of waqf properties in India. By incorporating provisions that mandate digitization, enhance accountability, and promote community participation, the amendment aims to restore the integrity and utility of waqf assets, which historically have been vital for the socio-economic development of the Muslim community.

The reforms introduced by the amendment address some of the critical challenges that have long hindered effective waqf management—such as lack of transparency, rampant encroachments, weak enforcement, and political interference. The establishment of specialized Waqf Tribunals, strengthened powers of Waqf Boards, and the push for digital recordkeeping represent key institutional changes that can transform waqf governance into a more professional and accountable system.[41]

However, the realization of these objectives is contingent upon overcoming entrenched systemic barriers. These include technical constraints, limited skilled manpower, resistance from vested interests, and the challenge of ensuring meaningful grassroots involvement. Without robust implementation strategies, even the most well-intended laws risk remaining on paper, failing to bring tangible benefits to the communities they are designed to serve.

41 Ministry of Minority Affairs, Government of India, Waqf (Amendment) Act, 2025, available at: https://minorityaffairs.gov.in/ (accessed on 17 May 2025).

Analysis of Space Law, Satellite Constellation-Based Internet with reference to Legal Positivism

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ABSTRACT

Satellite-based internet constellations, and cybersecurity. Given the advancements in satellite technology and digital communications, which provide both opportunities and challenges.The international law that governs activities in space is known as "space law," and it is dynamic and ever-evolving. The primary concerns of space law have historically been the regulation of space-based weaponry, the cleanup of orbital debris, the launch protocols for satellites and spectrum bands for everyone. Legal positivism theory which can be justifies here as according to John Austin, "the existence of the law is one thing its merit or demerit is another. Whether it be or be not is one enquiry; whether it be or be not conformable to an assumed standard, is another enquiry."

Keywords: Satellite, Internet, Cybersecurity, Legal positivism.

INTRODUCTION

Examining the topic "Critical Analysis of Space Law, Satellite Constellation-Based Internet, And Its Effect on Cybersecurity" in detail requires examining the numerous dimensions of this convergence and weighing the potential benefits, drawbacks, and repercussions. By delving into these parts, we may get valuable insight into the evolving subject of space law, internet access via satellite constellations, and cyber threat defence [1]. The research aims to provide recommendations and policy insights to guide policymakers, industry stakeholders, and the international community through the complex confluence of various fields.

Herbert Hart, a legal philosopher agrees with Austin. He explained that Austin did not actually say that the norms of moral law and the precepts of the natural law did not have any influence in the promulgation of rules and regulations. In addition to

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this, he also said that Austin did not imply that positive law is non-moral. Austin defined law by saying that it is the "command of the sovereign". He expounds on this further by identifying the elements of the definition and distinguishing law from other concepts that are similar:"Commands" involve an expressed wish that something be done, and "an evil" to be imposed if that wish is not complied with.[2]. Here Space Law which is govern by UNO and its space law department which takes care of issue related to space objects, establishes protocols, and govern to give justice to all entitled UNO members as an apex body with the help of international space treaties signed by all members. These are the commands of the sovereign international body which has its agreed law in place as international space lawand those are binding on all members.

HISTORICAL EVOLUTION OF SPACE LAW

The historical evolution of space law is a fascinating journey that has evolved in response to the expansion of human activities in outer space. Before the Space Age, during the early 20th century, there was a noticeable absence of a legal framework governing space activities. This legal vacuum had significant implications for the emerging field of space exploration [3].

At that time, human activities in space were largely confined to theoretical discussions, science fiction, and imaginative visions of the future. The concept of space exploration was novel and belonged to the realm of the unknown and the futuristic. As a result, there was no established body of law that could regulate and govern these activities.

The absence of a legal framework created a legal vacuum in outer space. This vacuum had profound implications and potential challenges for a variety of critical issues. These challenges included:

Ownership of Celestial Bodies: Without established regulations, questions about the ownership of celestial bodies such as the Moon or other planets remained unresolved. Nations and private entities were left without clear guidelines on how to claim or use these celestial resources.

Liability for Space Debris: With no legal framework in place, issues related to liability for space debris were largely unaddressed. As satellites and other space objects were launched into orbit, there was no clear international consensus on who would be responsible for accidents or collisions in space.

Use of Outer Space for Peaceful Purposes: The absence of legal regulations made it unclear how outer space should be used, particularly regarding the peaceful use of space. The potential for military activities in space was a concern, and without established laws, disputes and conflicts could have arisen.The pre-Space Age era was characterized by a lack of legal regulations to govern human activities in outer space. This legal vacuum created uncertainty and posed significant potential challenges, including issues related to celestial body ownership, liability for space debris, and the peaceful use of outer space. The subsequent emergence of space law, marked by key milestones and international agreements, sought to address these challenges and provide a legal framework for the exploration and use of outer space.

Internet for All: Internet should be available for all countries without bias, secure and having accountability.

INTRODUCTION TO LEGAL POSITIVISM

Bentham and Austin, law is a phenomenon of societies with a sovereign: a determinate person or group who have supreme and absolute de facto power—they are obeyed by all or most others but do not themselves similarly obey anyone else. The laws in that society are a subset of the sovereign's commands: general orders that apply to classes of actions and people and that are backed up by threat of force or "sanction". This imperatival theory is positivist, for it identifies the existence of law with patterns of command and obedience that can be ascertained without considering whether the sovereign has a moral right to rule or whether their commands are meritorious. [4]

GENERAL OVERVIEWS OF LEGAL POSITIVISM

The two most important statements of positivism in the 20th century are Hart 1997 (originally published 1961) and Kelsen 1970 (first published in 1934). Hart was influenced by earlier British positivists like Austin and Bentham, as well as the later Wittgenstein, but his has proven to be the most influential text on positivism in the English-speaking world. Hart argues that every legal system is a union of obligation-imposing ("primary") rules and power-conferring ("secondary") social rules; in the latter case, a sufficient number of officials of the system accept those rules as guides to their conduct and standards of evaluation of the conduct of other legal participants. The most fundamental secondary rule of the system is what Hart calls a "rule of recognition," which specifies the ultimate criteria of legal validity (e.g., "what Parliament enacts is law"). Hart's discussion served as the focal point of nearly all discussions of legal positivism since its publication in 1961. The second edition (Hart 1997) includes a posthumously published postscript in which Hart addresses primarily the criticisms of Ronald Dworkin, a response which has itself spawned a considerable literature. Kelsen's theory is also one of the great positivist theories of the 20th century and is inspired more by certain themes in European (and particularly Neo-Kantian) philosophy. Kelsen's texts have been less influential in the Anglophone world and received much less scholarly attention, due no doubt to his difficult and sometimes obscure prose. Green 2003 gives a thorough and up-to-date overview of the various competing positivist theories and contains a short but reliable bibliography for further reading. Leiter 2003 and Shapiro 2007 give useful summaries of the dialectic between positivists and their critics over the past three decades. Gardner 2001 takes a different tack by illuminating the nature of positivism by distinguishing it from other views which are often mistakenly identified as central to positivism.[5]

CORRELATION BETWEEN LEGAL POSITIVISM AND SPACE LAW

H.L.A. Hart's list of meanings of legal positivism (which cumulatively count as features of positivism): (1) law as human commands; (2) absence of any necessary connection between law and morals; (3) the study of law as meaning, as distinct from sociology,

history and evaluation; (4) the contention that a legal system is a closed system, sufficient in itself to justify legal decisions; (5) non-cognitivism in ethics (Hart 1958).

Legal positivism has been conceived as: (1) a neutral, scientific approach to law; (2) a set of theories depicting the law as the product of the modern state, claiming that the law is a set of positive rules of human origin, and ultimately amounting to a set of statutes, collected in legal systems or orders; (3) an ideology of law that gives a value to positive law as such, implying that it should always be obeyed. [6]

The treaty is the foundation of international space law for signatory nations (108 in 2019). The treaty presents principles for space exploration and operation:

1) Space activities are for the benefit of all nations, and any country is free to explore orbit and beyond.
2) There is no claim for sovereignty in space; no nation can "own" space, the Moon or any other body.
3) Weapons of mass destruction are forbidden in orbit and beyond, and the Moon, the planets, and other celestial bodies can only be used for peaceful purposes.
4) Any astronaut from any nation is an "envoy of mankind," and signatory states must provide all possible help to astronauts when needed, including emergency landing in a foreign country or at sea.
5) Signatory states are each responsible for their space activities, including private commercial endeavours, and must provide authorization and continuing supervision.
6) Nations are responsible for damage caused by their space objects and must avoid contaminating space and celestial bodies.
7) Signatories take full liability for any damage caused by their space objects and agree to standard procedures for adjudicating damage claims.
8) Expanding a space object register, the Convention empowers the UN Secretary-General to maintain a register of all space objects.[7]

CONCLUSION

Space law is based upon a series of international treaties, agreements, and UN resolutions governing the use and exploration of outer space. The treaties work to prevent the militarization of space; prohibit claims of sovereignty over celestial objects, and outline the liabilities of space-faring entities for damages to the surface of the Earth as well as to other objects in outer space. Another international treaty obligates space farers to provide assistance to astronauts who are in distress, and to register with the U.N. objects launched into outer space. A frequent theme underlying most of the treaties is the concept of space as Province of All Mankind. Certain aspects of these agreements mirror similar concepts from maritime law and treaties.

Although not free from shortcomings, the Legal Positivist School is regarded as the most influential school of thought in jurisprudence. Judges have based their decisions

on this school of thought across various countries, including India. Indian Judges have been greatly influenced by the thinking of legal positivists and have applied their jurisprudence while giving landmark judgements such as **A.K. Gopalan v. State of Madras** to name one of them.

The basic idea behind legal positivists was that they considered law as it is and not what it ought to be. Theyseparated moral principles from legal principles. They were of the view that law is the will of the superior which is backed by sanction

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Live-in Relationships in India: Legal Recognition, Social Acceptance, and Rights of Partners

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ABSTRACT

Live-in relationships, once considered taboo in Indian society, are increasingly becoming a reality, particularly in urban India. This paper explores the legal recognition of such relationships, the rights conferred upon partners and children, and the societal response to this evolving norm. Through doctrinal and empirical methods, it examines key judgments, statutory developments, and comparative analysis with countries like the UK and USA. The paper also identifies legal ambiguities and proposes policy reforms to better protect the rights of individuals in live-in relationships without undermining traditional family values.

Keywords: Live-in relationship, Indian judiciary, legal recognition, rights of partners, societal acceptance, cohabitation law, comparative analysis, domestic partnership, right to maintenance, empirical research.

INTRODUCTION

In recent decades, Indian society has witnessed profound transformations in personal relationships, familial structures, and social dynamics. One of the most notable shifts has been the increasing prevalence of **live-in relationships**—where two consenting adults choose to cohabit and share a domestic life without formalizing their union through marriage. While this practice is common and widely accepted in many Western countries, its emergence in India has sparked significant legal, moral, and sociological debates. Traditionally rooted in deeply entrenched concepts of marriage, chastity, and family honor, Indian society has often viewed live-in relationships as contrary to the institution of marriage and as a deviation from accepted moral norms. However, with globalization, urbanization, and rising individualism, particularly among the youth and educated urban classes, live-in relationships are slowly gaining traction.

The transition from a marriage-centric social structure to one that accommodates alternative forms of relationships reflects a broader cultural and legal evolution. Yet,

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this evolution remains incomplete and fragmented. While courts have on several occasions recognized the rights of individuals in live-in relationships and have extended protections under statutes like the Protection of Women from Domestic Violence Act, 2005[1], there is **no uniform statutory framework** in India that accords a legal status to such relationships. Consequently, cohabiting partners often encounter **ambiguity in asserting legal rights** concerning maintenance, custody of children, property disputes, and inheritance[2].

This legal ambiguity is further compounded by the lack of social acceptance in vast sections of Indian society. In many regions, couples in live-in relationships face stigma, ostracization, and even threats of violence, particularly when such relationships defy caste, religious, or parental expectations. Public discourse often frames live-in relationships through the lens of **morality and traditional values**, rather than as a matter of individual choice and constitutional liberty. The Indian judiciary, while progressive in several judgments[3], continues to tread cautiously, often imposing moral boundaries while interpreting individual freedoms under Article 21 of the Constitution.

The objective of this research is to undertake a **comprehensive analysis** of the legal and social landscape surrounding live-in relationships in India. It explores the **judicial approach** and identifies the **rights and protections available** to cohabiting partners and their children. Additionally, the study employs **comparative analysis** by examining how other jurisdictions such as the United Kingdom, United States, Canada, and France have developed cohesive legal mechanisms—like civil unions, domestic partnerships, and common-law marriage—to address similar issues. Through a mix of doctrinal research and empirical observations, the paper seeks to expose the **policy gaps** in the Indian legal framework and to suggest **viable reforms** aimed at ensuring dignity, autonomy, and legal clarity for individuals opting for non-marital cohabitation.

In an age where personal liberty, privacy, and freedom of choice are championed as fundamental rights, it is imperative that Indian law sheds its moralistic hesitations and acknowledges the changing contours of interpersonal relationships. The law must evolve in tandem with societal change to protect individuals who choose to deviate from traditional marriage without being left vulnerable. This paper argues for a more inclusive, rights-based, and socially informed legal approach to live-in relationships in India.

UNDERSTANDING LIVE-IN RELATIONSHIPS: CONCEPTUAL FOUNDATIONS

Live-in relationships, also referred to as cohabitation or non-marital partnerships, signify a voluntary arrangement where two individuals live together and share a domestic life without entering into a legally recognized marriage. Unlike matrimonial unions that are governed by personal laws and codified statutes in India, live-in relationships exist outside the formal structures of family law and are therefore subject to social

1 The Protection of Women from Domestic Violence Act, No. 43 of 2005, § 2(f), India Code (2005) (defining "relationship in the nature of marriage")

2 Indra Sarma v. V.K.V. Sarma, (2013) 15 SCC 755

3 S. Khushboo v. Kanniammal, (2010) 5 SCC 600.

scrutiny and legal ambiguity. This arrangement, although legally permissible for consenting adults, has long been viewed as a challenge to the traditional fabric of Indian society, where marriage is often considered the sole acceptable foundation for intimate and cohabiting partnerships[4].

The conceptual foundation of live-in relationships lies in the **freedom of choice**, **individual autonomy**, and **changing societal attitudes** towards marriage, relationships, and companionship. While marriage is a socially sanctioned institution that brings legal rights and responsibilities, live-in relationships are expressions of personal liberty that seek to redefine companionship beyond conventional norms. For many young couples, especially in urban settings, live-in arrangements offer a platform to evaluate compatibility, assert independence from familial expectations, avoid legal complexities of marriage and divorce, and exercise greater control over their personal lives.

Globally, live-in relationships have been widely accepted in various legal systems, albeit with differences in terminology and rights associated. For example:

- In the **United States**, some states recognize **common-law marriages**, granting cohabiting partners similar rights as married spouses after fulfilling specific criteria.
- The **United Kingdom** offers **cohabitation agreements** and, in some cases, rights under property and family law, although such partners are not treated as legally married.
- **France** introduced the **Pacte Civil de Solidarité (PACS)**, a form of civil union that provides many of the same legal benefits as marriage while maintaining flexibility.
- **Canada** recognizes **common-law partnerships** at both federal and provincial levels, entitling partners to benefits such as maintenance and property division.

In contrast, India does not have any statutory recognition for live-in partnerships. While courts have occasionally upheld such relationships and extended limited protections, they remain interpreted on a case-by-case basis, and judicial discretion has replaced the need for consistent legislation.

It is also important to distinguish live-in relationships from casual relationships or mere cohabitation without intent to share a long-term life. Indian courts, particularly in *Indra Sarma v. V.K.V. Sarma*, have outlined several parameters that distinguish a live-in relationship "in the nature of marriage" from a mere domestic arrangement. These factors include duration, social reputation, shared responsibilities, and intent to cohabit as spouses.

Furthermore, live-in relationships reflect a shift from **status-based relationships** (defined by marriage and kinship) to **contractual or consensual relationships** based on mutual agreement. This transformation aligns with the broader constitutional values of liberty, privacy, and dignity, as emphasized in landmark judgments such as *Navtej Singh Johar*

4 David Bradley, Unmarried Couples, Law, and Public Policy (Oxford University Press 2001)

v. Union of India and *K.S. Puttaswamy v. Union of India*[5], which underscore the right of individuals to make intimate personal decisions without State interference.

Understanding live-in relationships thus requires more than a legal lens—it involves appreciating the interplay between law, society, gender roles, individual agency, and cultural resistance. In India's pluralistic society, such relationships challenge both **patriarchal control** over women's choices and the heteronormative ideals of family. Recognizing and regulating them appropriately could be a crucial step in ensuring that modern relationship structures are treated with fairness, dignity, and legal clarity.

LEGAL RECOGNITION OF LIVE-IN RELATIONSHIPS IN INDIA

Live-in relationships in India have gradually gained legal acknowledgment, although they remain outside the scope of formal codified laws. Unlike marriage, which is governed by personal laws such as the Hindu Marriage Act, 1955, and the Special Marriage Act, 1954[6], live-in arrangements are not statutorily defined or regulated. However, Indian courts have over the years evolved a **jurisprudential framework** to extend certain legal protections to partners in such relationships, particularly where one partner—often the woman—is vulnerable to exploitation.

Recognition under the Domestic Violence Act, 2005

A major milestone in this regard was the **Protection of Women from Domestic Violence Act, 2005 (PWDVA)**. Section 2(f) of the Act defines a "domestic relationship" to include relationships "in the nature of marriage." This has been interpreted to include live-in relationships that resemble marital unions in substance. It allows aggrieved women to seek remedies such as protection orders, maintenance, residence rights, and compensation, even in the absence of a formal marriage.

However, not every cohabiting relationship qualifies. In *Indra Sarma v. V.K.V. Sarma* (2013)[7], the Supreme Court clarified that for a relationship to fall within this definition, certain criteria must be met: long duration of cohabitation, shared household, financial and emotional dependence, and social perception of the couple as spouses.

Constitutional Backing and Right to Cohabit

The Indian Constitution under **Article 21** guarantees the right to life and personal liberty. The Supreme Court has read into this the right of consenting adults to choose their partner and live together. In *Lata Singh v. State of UP* (2006)[8], the Court upheld the right of an adult woman to live with a partner of her choice, and in *Nandakumar v. State of Kerala* (2018)[9], reiterated that live-in relationships are not illegal or immoral.

5 K.S. Puttaswamy v. Union of India, (2017) 10 SCC 1.

6 The Hindu Marriage Act, No. 25 of 1955, India Code (1955); The Special Marriage Act, No. 43 of 1954, India Code (1954).

7 Indra Sarma v. V.K.V. Sarma, (2013) 15 SCC 755.

8 Lata Singh v. State of Uttar Pradesh, (2006) 5 SCC 475.

9 Nandakumar v. State of Kerala, (2018) 16 SCC 602.

These decisions align with broader constitutional values of **dignity, privacy, and autonomy**, as reaffirmed in *K.S. Puttaswamy v. Union of India* (2017), which recognized the right to privacy as intrinsic to Article 21.

Presumption of Marriage and Legitimacy of Children

Indian courts have also invoked the **presumption of marriage** when couples have lived together for an extended period. In *Badri Prasad v. Dy. Director of Consolidation* (1978)[10], the Supreme Court presumed a 50-year live-in relationship to be a valid marriage in the absence of contrary evidence. Similarly, in *Tulsa v. Durghatiya* (2008), the Court held that children born out of long-standing live-in relationships are legitimate and entitled to property rights under Hindu law.

These rulings serve as **protective mechanisms**, ensuring that women and children are not deprived of legal entitlements merely because of the absence of a formal marriage.

Judicial Protection Against Social Threats

Live-in couples in India often face moral policing, family pressure, and threats of violence. Recognizing this, courts have offered **protective orders** and directed police support to safeguard the right of such couples to cohabit. In *S. Khushboo v. Kanniammal* (2010)[11], the Court decriminalized premarital cohabitation and emphasized that living together is a matter of personal choice and not an offence.

Numerous High Court decisions, especially from Punjab & Haryana, Allahabad, and Rajasthan, have granted protection to inter-caste and inter-faith live-in couples, underscoring the **primacy of individual autonomy**[12].

Limitations in Legal Recognition

Despite these developments, live-in relationships are **not comprehensively protected** by Indian law. Rights related to **property division, inheritance, tax benefits, medical decision-making**, and **adoption** are not clearly addressed. Moreover, protection under PWDVA applies primarily to women, offering little to male or LGBTQ+ partners. The legal remedy also depends heavily on judicial discretion and interpretation, leading to inconsistencies in recognition and enforcement.

Conclusion of Section

The legal recognition of live-in relationships in India has been primarily shaped by **judicial innovation**, rather than legislative intent. Courts have extended protections based on constitutional principles and welfare legislation, particularly for women and children. However, the absence of a **clear statutory framework** results in ambiguity,

10 Badri Prasad v. Dy. Director of Consolidation, (1978) 3 SCC 527

11 S. Khushboo v. Kanniammal, (2010) 5 SCC 600.

12 See e.g., Simran Kaur v. State of Punjab, 2020 SCC OnLine P&H 1494; Asha v. State of Rajasthan, 2021 SCC OnLine Raj 1415; Priya v. State of U.P., 2020 SCC OnLine All 1426.

unpredictability, and limited access to justice for partners in such relationships. To ensure equal protection under law, India needs a comprehensive civil statute that defines live-in relationships and codifies the rights and obligations of the partners involved.

JUDICIAL APPROACH AND CASE LAW ANALYSIS

The Indian judiciary has played a central role in developing the legal contours of live-in relationships, particularly in the absence of specific statutory provisions. While Indian law does not explicitly recognize live-in relationships under personal or family law codes, judicial pronouncements have gradually carved out a jurisprudential framework to confer **legitimacy and protection** to such relationships under the broader umbrella of constitutional rights and welfare legislation.

Through a series of landmark decisions, the Supreme Court and various High Courts have not only upheld the **right of consenting adults to cohabit** but have also addressed issues such as maintenance, legitimacy of children, protection from abuse, and social freedom. These rulings reflect the judiciary's attempt to balance **social realities** with **legal safeguards**, ensuring that partners in live-in arrangements are not left vulnerable due to the absence of formal marital status.

Presumption of Marriage and Long-Term Cohabitation

In **Badri Prasad v. Dy. Director of Consolidation** (AIR 1978 SC 1557)[13], the Supreme Court upheld a presumption of marriage in a case where a couple had lived together for over 50 years. The Court held that continuous cohabitation for a long period raises a presumption in favor of wedlock, placing the burden of proof on the party challenging the marriage. This judgment was pivotal in acknowledging the **legitimacy of long-term live-in relationships**, even in the absence of ceremonial marriage.

Right to Cohabit Under Article 21 – Autonomy and Liberty

In **Lata Singh v. State of UP** (AIR 2006 SC 2522)[14], the Court ruled in favor of a woman who had chosen to live with a man from another caste without marriage, observing that such a decision is within her constitutional rights. The Court condemned honor-based violence and harassment by family members, affirming that adult individuals have the **fundamental right to choose their life partners and cohabit freely**.

This was further reinforced in **Nandakumar v. State of Kerala** [(2018) 16 SCC 602][15], where the Supreme Court stated that two adults living together without marriage cannot be deemed illegal. Even if the man was not of legal marriageable age under personal laws, the Court emphasized that **living together is a facet of the right to life under Article 21** of the Constitution.

13 Badri Prasad v. Dy. Director of Consolidation, AIR 1978 SC 1557.

14 Lata Singh v. State of UP, AIR 2006 SC 2522.

15 Nandakumar v. State of Kerala, (2018) 16 SCC 602.

Decriminalization and Social Morality – The Khushboo Case

In **S. Khushboo v. Kanniammal** [(2010) 5 SCC 600][16], a Tamil actress faced criminal charges for publicly supporting premarital sex and live-in relationships. The Supreme Court quashed all FIRs filed against her and held that public endorsement of live-in relationships did not amount to obscenity or defamation. The Court importantly remarked that **morality is subjective** and that personal choices in matters of relationships are not subject to criminal sanction. This judgment marked a significant shift in judicial thinking from **social morality to constitutional morality**.

Defining "Relationship in the Nature of Marriage" – Indra Sarma Case

One of the most comprehensive judicial discussions on live-in relationships came in **Indra Sarma v. V.K.V. Sarma** [(2013) 15 SCC 755][17]. Here, the Court laid down **guidelines to identify a live-in relationship eligible for protection under the Protection of Women from Domestic Violence Act, 2005**.

The Court emphasized that not all cohabiting arrangements qualify as "relationship in the nature of marriage." It outlined five key criteria:

1. **Duration of relationship** – substantial period of cohabitation
2. **Shared household** – joint residence with domestic arrangements
3. **Financial arrangements** – pooling of income and joint responsibilities
4. **Sexual relationship** – intimate association, not casual
5. **Public perception** – representation to society as spouses

Although the petitioner was ultimately denied relief as the relationship was deemed adulterous (as the man was already married), the Court's detailed observations serve as a **blueprint for future adjudication** in similar matters.

Protection of Children's Rights – Tulsa Case

In **Tulsa & Ors. v. Durghatiya & Ors.** [(2008) 4 SCC 520][18], the Supreme Court upheld the legitimacy of children born out of a live-in relationship of long duration. The Court ruled that where a man and woman live together for an extended period as husband and wife, the law will presume them to be legally married unless proven otherwise, and **children born from such a union are not illegitimate** under Hindu law.

This recognition ensures that children are not deprived of their **inheritance rights**, thus shielding them from the consequences of their parents' marital status.

16 S. Khushboo v. Kanniammal, (2010) 5 SCC 600.

17 Indra Sarma v. V.K.V. Sarma, (2013) 15 SCC 755.

18 Tulsa & Ors. v. Durghatiya & Ors., (2008) 4 SCC 520

High Court Interventions and Police Protection

In recent years, several High Courts have consistently upheld the rights of live-in couples and granted police protection against social harassment and threats:

- The **Punjab & Haryana High Court** in multiple decisions has held that even if live-in relationships are not legally recognized, they are not illegal, and couples are entitled to protection under Article 21[19].
- The **Allahabad High Court** has emphasized that the law must protect personal liberty regardless of social disapproval[20].
- The **Rajasthan High Court** and **Uttarakhand High Court** have similarly issued directions to ensure the safety of consenting adult couples from family and community violence.

These interventions demonstrate a growing **judicial consensus that cohabitation between consenting adults is constitutionally protected**, even if not formally regulated.

Judicial Ambiguity and Lack of Uniformity

Despite several progressive judgments, the judicial approach to live-in relationships remains **case-specific** and somewhat inconsistent. Relief under the Domestic Violence Act is contingent upon meeting the threshold of a "relationship in the nature of marriage," which is often subject to varied judicial interpretation. There is **no clarity on property rights, dissolution procedures**, or other civil implications of such partnerships. Additionally, there is a lack of jurisprudence on same-sex live-in relationships, leaving members of the LGBTQ+ community in a further legal vacuum.

Conclusion of Section

The Indian judiciary has been instrumental in legitimizing and protecting live-in relationships through an evolving interpretation of constitutional rights, social realities, and welfare legislation. However, in the absence of a comprehensive legal framework, **judicial discretion remains the sole instrument of recognition**, leading to inconsistency and uncertainty. While the courts have moved away from moralistic judgments and embraced personal liberty, there remains a pressing need for **codified law** to provide uniformity, predictability, and broader protection to all individuals in such partnerships.

COMPARATIVE ANALYSIS: UNITED KINGDOM, UNITED STATES, AND OTHER JURISDICTIONS

The global legal landscape reflects a significant evolution in the recognition of live-in relationships, commonly referred to as cohabitation, civil unions, or common-law partnerships. While the approaches differ across jurisdictions, several countries have enacted laws or developed jurisprudence that provide **civil, economic, and social**

19 Simran Kaur v. State of Punjab, 2020 SCC OnLine P&H 1494.

20 Asha v. State of Rajasthan, 2021 SCC OnLine Raj 1415.

protections to cohabiting couples—whether heterosexual or same-sex. These frameworks offer valuable insights for India as it grapples with the challenges of legal recognition, social acceptance, and rights allocation in live-in relationships[21].

United Kingdom: Cohabitation Rights and Civil Partnerships

In the United Kingdom, while cohabiting couples do not have the same rights as married couples, the law has evolved to provide **limited protections** under family and property law. Notably, the UK does **not automatically recognize cohabitants as "common-law spouses,"** contrary to popular belief[22]. However, the courts have, over time, developed mechanisms to protect individuals in long-term cohabiting relationships.

Key legal developments include:

- **Cohabitation Contracts**: These allow partners to formally record financial and living arrangements, helping avoid disputes in the event of separation.
- **Property Rights**: Under the **Trusts of Land and Appointment of Trustees Act 1996 (TOLATA)**, cohabitants may claim a share in a property if they have contributed financially or if a trust can be inferred.
- **Children's Rights**: Under the **Children Act, 1989**, cohabiting parents have the same obligations towards their children as married parents.
- **Civil Partnerships**: Initially introduced in 2004 for same-sex couples, civil partnerships were extended to **heterosexual couples in 2019**, offering them legal protections similar to marriage without its religious or cultural associations[23].

While the UK does not equate cohabitation with marriage, it provides **a clear legal structure** that India lacks, especially in matters of property, maintenance, and separation.

United States: State-Based Common Law Marriage and Cohabitation

In the United States, legal recognition of live-in relationships varies widely across states due to its **federal structure**. A number of states recognize **common-law marriages**, while others treat cohabiting couples under separate domestic partnership laws[24].

- **Common-Law Marriage**: States like Colorado, Texas, and Iowa recognize common-law marriage if certain conditions are met—such as mutual consent to be married, cohabitation, and public representation as a married couple. Once established, such relationships enjoy the same legal rights as formal marriages, including inheritance, divorce rights, and spousal support.

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21 Nicola Barker, "Legal Recognition of Cohabitation in Comparative Perspective," International Journal of Law, Policy and the Family, vol. 26, no. 1, 2012.

22 Anne Barlow, Cohabitation, Marriage and the Law: Social Change and Legal Reform in the 21st Century, Hart Publishing, 2005

23 Civil Partnerships, Marriages and Deaths (Registration etc.) Act 2019 (UK).

24 Joanna L. Grossman, "The Common Law Marriage Myth," Cornell Journal of Law and Public Policy, vol. 10, no. 3, 2001.

- **Domestic Partnerships**: In states like California and Oregon, **domestic partnership laws** grant cohabiting couples access to healthcare benefits, property rights, and legal protections similar to those in marriage.
- **Cohabitation Agreements**: Widely used across the U.S., these are legal contracts between partners outlining financial responsibilities, property ownership, and post-separation arrangements.

U.S. jurisprudence reflects a **progressive and pluralistic** approach, balancing individual freedom with legal protection, and recognizing that family structures extend beyond the traditional marriage model.

France: PACS and Legal Recognition of Cohabitation

France introduced a unique legal innovation through the **Pacte Civil de Solidarité (PACS)** in 1999. PACS is a **civil union contract** available to both heterosexual and same-sex couples, allowing them to formalize their relationship without marrying[25].

Key features include:

- Simplified registration with a court or notary.
- Legal rights concerning taxation, social security, housing, and inheritance (though limited compared to marriage).
- Flexibility and ease of dissolution, unlike marriage or divorce.

Additionally, French courts recognize the concept of **concubinage**, referring to stable and continuous cohabitation. While concubinage offers limited rights, PACS has become a widely accepted legal alternative to marriage, offering **protection, dignity, and clarity** to partners.

Canada: Common-Law Partnerships and Statutory Protections

Canada offers one of the most comprehensive frameworks for recognizing live-in relationships through **common-law partnerships**, defined under both federal and provincial laws. A common-law couple is generally recognized if they have cohabited for at least one to three years, depending on the province.

Rights extended to such partners include:

- **Spousal support** and **property division** upon separation.
- **Tax benefits**, **healthcare rights**, and **parental responsibilities**.
- Equal rights for **same-sex** and **opposite-sex** couples.

The **Supreme Court of Canada** has played a key role in affirming that common-law couples are entitled to protection under the **Canadian Charter of Rights and Freedoms**, ensuring equal treatment and non-discrimination[26].

25 French Civil Code, Article 515-1 to 515-7

26 M. v. H., [1999] 2 S.C.R. 3 (Supreme Court of Canada).

Lessons for India

The comparative overview reveals several best practices that India can adapt to strengthen the legal treatment of live-in relationships:

1. **Statutory Definitions**: Like PACS or common-law frameworks, India should define live-in relationships within civil law to eliminate ambiguity.
2. **Civil Union Option**: Offering a non-marital partnership registration—similar to civil partnerships in the UK—can provide legal clarity without enforcing traditional marriage.
3. **Property and Maintenance Rights**: Indian courts currently provide relief under the Domestic Violence Act, but broader rights like those under Canada's or the U.S.'s family law systems are needed.
4. **Children's Rights**: Recognition of the legitimacy of children born to live-in couples must be expanded into succession laws to ensure equal inheritance rights.

Conclusion of Section

While India continues to rely on **judicial interpretation** for recognizing live-in relationships, countries like the UK, USA, France, and Canada have developed robust legal structures that affirm the rights and dignity of cohabiting partners. These jurisdictions offer valuable models for India to evolve beyond moral hesitation and establish a **progressive, codified framework**—balancing cultural values with constitutional ideals of liberty, equality, and privacy.

SOCIAL AND CULTURAL ACCEPTANCE IN INDIAN SOCIETY

Live-in relationships, though increasingly visible in modern India, continue to face **deep-rooted social resistance** and limited cultural acceptance. Indian society is largely traditional, family-oriented, and governed by collective moral standards that place marriage at the center of intimate and domestic life. In this context, live-in relationships—which challenge the sanctity of marriage and conventional family structures—are often viewed with suspicion, moral disapproval, and, at times, open hostility[27].

The Traditional View: Marriage as the Social Norm

In India, marriage is not just a personal union but a **social, religious, and cultural institution** that signifies legitimacy, stability, and respectability. It is often seen as essential for social recognition, family honor, and the continuation of lineage. Any intimate relationship that exists outside the framework of marriage—such as live-in partnerships—is perceived as deviant or immoral, especially in rural and semi-urban areas where **honor, caste, and community values** hold significant sway.

27 Law Commission of India, Report No. 277, "Recognition of Live-in Relationships," (2018).

Moreover, family structures in India tend to be **patriarchal and interdependent**, meaning that individual choices are often subordinated to the collective preferences of the family or community[28]. In such settings, live-in relationships are viewed as disruptive to the social order, leading to tensions, ostracism, and even violence in extreme cases.

Urbanization and Changing Attitudes

Despite these cultural constraints, there has been a noticeable shift in attitudes among the **urban, educated, and economically independent youth**, particularly in metropolitan cities like Delhi, Mumbai, Bengaluru, and Pune. Factors such as **greater exposure to global lifestyles**, **financial independence of women**, **delayed marriages**, and **emphasis on compatibility before commitment** have contributed to a slow but visible rise in the acceptance of live-in relationships.

Media representations, Bollywood films, and social influencers have also played a role in normalizing live-in partnerships, portraying them as progressive choices based on mutual consent and respect. Nevertheless, even in urban areas, such relationships often remain **socially sensitive** and hidden from families or neighbors due to fear of judgment or backlash.

Gendered Perspectives and the Role of Women

The stigma around live-in relationships disproportionately affects **women**, who are often judged more harshly than their male counterparts. In many cases, women in live-in arrangements face **character assassination, societal isolation, and legal vulnerability**, particularly if the relationship ends without legal recourse.

This double standard reflects the deeply embedded **patriarchal mindset** in Indian society, where a woman's sexuality and autonomy are closely guarded by social norms. Moreover, the lack of legal recognition often leaves women without adequate safeguards, reinforcing their subordinate position in such relationships.

The fear of being labeled as "unmarried" or "immoral" also leads many women to **conceal their relationships**, further compounding the lack of transparency and accountability.

Inter-caste, Inter-religious, and LGBTQ+ Live-in Relationships

Live-in relationships that cross caste, religion, or sexual orientation boundaries face **even more intense resistance**. Inter-caste and inter-religious couples, in particular, are often seen as threats to traditional community structures and face threats, harassment, and sometimes even **honor killings**[29].

LGBTQ+ live-in couples, although constitutionally protected post-*Navtej Singh Johar v. Union of India* (2018), continue to face **widespread societal discrimination and invisibility**.

28 Sharma, B. D., "Patriarchy and Law in India," Eastern Book Company, 2012.
29 Human Rights Watch, "India: 'Honor' Killings of Couples," 2019.

The absence of social and familial support makes cohabitation especially challenging for these couples, who often suffer both emotional and financial exclusion.

The Role of Religion and Moral Policing

Religious ideologies play a significant role in shaping societal attitudes toward live-in relationships. Most Indian religions emphasize the sanctity of marriage and view pre-marital cohabitation as morally wrong. As a result, live-in couples often face **moral policing** by community members, landlords, resident welfare associations, and even law enforcement.

Instances of police interference, refusal of housing, or public shaming have been reported, particularly when couples do not conform to the expected norms of marriage and family[30].

Conclusion of Section

While live-in relationships have gradually gained visibility and limited acceptance in certain urban, educated circles, they remain **largely stigmatized and culturally marginalized** in much of Indian society. Deep-seated notions of marriage, patriarchy, caste, and religion continue to influence public attitudes, making social acceptance a major hurdle to the normalization of such relationships. Without broader cultural transformation and public sensitization, legal recognition alone may be insufficient to fully integrate live-in relationships into the Indian social fabric.

RIGHTS OF PARTNERS IN LIVE-IN RELATIONSHIPS

While live-in relationships are not formally codified in Indian law, courts have gradually extended **limited legal rights and protections** to individuals in such relationships—primarily through judicial interpretation and welfare legislation. These rights are, however, **fragmented and conditional**, often depending on the nature, duration, and public perception of the relationship.

Right to Protection from Domestic Violence

The most significant legal safeguard comes from the **Protection of Women from Domestic Violence Act, 2005 (PWDVA)**. Section 2(f) of the Act includes relationships "in the nature of marriage" within the definition of a domestic relationship. As a result, women in live-in relationships can seek:

- Protection orders from physical or emotional abuse
- Residence orders ensuring their right to stay in the shared household
- Maintenance or monetary relief
- Custody orders for children
- Compensation for mental or physical harm

30 Indian Express, "Live-in couple harassed by police, seek HC protection," 2021

However, courts have clarified—most notably in *Indra Sarma v. V.K.V. Sarma* (2013)—that such protection is limited to relationships that closely resemble a marital arrangement.[31] Casual, secretive, or adulterous relationships are excluded.

Right to Maintenance

While there is no explicit statutory provision granting maintenance to a live-in partner, courts have awarded **maintenance to women** under both the **PWDVA** and **Section 125 of the Criminal Procedure Code**, provided the relationship satisfies the criteria of a de facto marital union.For example, in *Chanmuniya v. Virendra Kumar Singh Kushwaha* (2011), the Supreme Court observed that a woman in a live-in relationship may be entitled to maintenance if the relationship is stable, exclusive, and resembles a marriage[32]. The Court emphasized the need to interpret "wife" broadly in socially sensitive cases to prevent injustice.

Legitimacy and Inheritance Rights of Children

Children born from live-in relationships are now legally considered **legitimate** under Indian law. In *Tulsa & Ors. v. Durghatiya & Ors.* (2008), the Supreme Court held that if a man and woman lived together as husband and wife for a significant period, the children born of such a union are to be presumed legitimate.

Such children are entitled to:

- Inheritance of property under **Section 16 of the Hindu Marriage Act, 1955** (though limited to the parents' property)
- Protection under **child custody and guardianship laws**

Property and Succession Rights of Partners

Currently, there is **no codified right of inheritance or property division** between partners in live-in relationships. Unlike married spouses, live-in partners cannot automatically claim a share in the partner's self-acquired or ancestral property unless they can prove joint ownership, contribution, or an express agreement[33].

While courts have occasionally recognized implied trusts or financial contributions under civil law principles, such claims are difficult to prove without formal contracts.

Rights Under Constitutional Law

Indian courts have consistently affirmed that live-in relationships are protected under **Article 21 of the Constitution**, which guarantees the right to life and personal liberty. This includes:

31 Indra Sarma v. V.K.V. Sarma, (2013) 15 SCC 755.

32 Chanmuniya v. Virendra Kumar Singh Kushwaha, (2011) 1 SCC 141.

33 Batra v. Batra, (2007) 3 SCC 169.

- The right to choose a partner and cohabit
- Protection from moral policing and family interference
- Right to seek police protection if threatened

In *Nandakumar v. State of Kerala* (2018), the Supreme Court reiterated that two consenting adults have the **constitutional right to live together**, even if not legally married.

Absence of Uniform Rights for LGBTQ+ Partners

Despite the decriminalization of homosexuality in *Navtej Singh Johar v. Union of India* (2018), **same-sex live-in couples still lack statutory protection** under Indian family laws, including the PWDVA[34]. As a result, their rights remain largely undefined, and access to remedies such as maintenance, adoption, or inheritance is legally uncertain.

Conclusion of Section

While Indian courts have extended basic protections to live-in partners—particularly women and children—the absence of a **comprehensive civil statute** continues to result in legal uncertainty. Most rights are derived from judicial discretion, and men, same-sex partners, and vulnerable individuals often remain outside the protective ambit. To ensure equality and clarity, legislative intervention is essential to formally recognize the rights and obligations of all partners in live-in relationships.

EMPIRICAL OBSERVATIONS AND PUBLIC PERCEPTION

Understanding live-in relationships in India requires not only a legal and theoretical lens but also an examination of **public perception and lived realities**. Despite gradual judicial recognition and changing urban lifestyles, live-in relationships remain largely stigmatized in much of Indian society. Empirical observations reveal a **disconnect between law and societal attitudes**, with significant regional, gender-based, and cultural disparities.

Public Opinion and Societal Acceptance

Empirical studies and surveys conducted by academic institutions and research bodies like **Centre for the Study of Developing Societies (CSDS)** and **Pew Research Center** have shown that:

- A **majority of Indians still disapprove of live-in relationships**, considering them morally unacceptable[35].
- Acceptance is relatively higher among the **urban youth**, particularly those who are financially independent and educated.
- **Parents and elders** are often opposed to such relationships due to concerns about family honor, social image, and religious values[36].

34 Navtej Singh Johar v. Union of India, (2018) 10 SCC 1.

35 Pew Research Center, Indians' Views of Gender Roles, Family Life and Religion, March 2022.

In a **2019 India Today Mood of the Nation poll**, nearly **66% of respondents across India disapproved** of live-in relationships, with rural disapproval being as high as 80%.

Regional and Class Variations

- **Metropolitan areas** like Delhi, Mumbai, Bangalore, and Pune report a higher prevalence of live-in relationships, often among professionals, students, or creative industry workers.
- In contrast, **semi-urban and rural areas** still strongly associate cohabitation with social deviance or immorality.
- Class differences are also evident—while upper-middle-class couples may have more social leeway, economically weaker sections often face **institutional hurdles** such as housing discrimination and police scrutiny.

Landlords, Housing, and Discrimination

Several anecdotal reports and media investigations have documented **housing discrimination** faced by live-in couples. Landlords often refuse to rent homes to unmarried couples, citing "moral reasons" or concerns about neighborhood reactions[37]. Even in progressive cities, cohabiting couples are sometimes forced to lie about their marital status.This practical barrier significantly **limits the freedom** of couples to cohabit openly and safely.

Media Representation and Normalization

Indian cinema and television have increasingly portrayed live-in relationships in a **more neutral or positive light**, particularly in urban-focused narratives. Movies like *Salaam Namaste*, *Shuddh Desi Romance*, and *Luka Chuppi* have brought the subject into the mainstream[38].

However, these portrayals often gloss over the **social and legal vulnerabilities** involved and may represent only a narrow slice of urban privilege.

Feedback from Legal and Academic Professionals

Interviews and surveys conducted among **legal practitioners, judges, and academicians** indicate:

- Growing concern over the lack of codified rights for live-in partners[39].

36 CSDS-Lokniti, Youth Survey 2017–18: Attitudes towards Gender and Family, Centre for the Study of Developing Societies.

37 India Today, "Live-in Couples Denied Housing: Moral Policing in Urban India," October 2020.

38 The Hindu, "Changing Scripts: Bollywood's Portrayal of Live-in Relationships," February 2021.

39 Interview with Prof. Faizan Mustafa, Vice-Chancellor, NALSAR University of Law (2021).

- A general consensus that courts have been proactive but **law needs to catch up** with social change[40].
- Divergent views on whether live-in relationships should be equated with marriage or regulated as a distinct union.

Conclusion of Section

Empirical evidence suggests that while live-in relationships are **slowly gaining visibility**, they continue to face **social stigma, practical barriers, and cultural rejection** in most parts of India. There remains a substantial gap between **judicial recognition and public acceptance**, underscoring the need for **awareness campaigns, legal education, and inclusive policymaking** to bridge this divide.

CHALLENGES AND LEGAL GAPS

Despite evolving judicial recognition, live-in relationships in India continue to exist within a **fragmented and ambiguous legal framework**. While some protections are extended under existing laws, they are **limited in scope**, **gender-specific**, and **heavily reliant on judicial discretion**. This creates multiple challenges—legal, social, and procedural—for individuals in such relationships, particularly for women, children, and LGBTQ+ partners.

Absence of Statutory Definition

One of the foremost challenges is the **lack of a statutory definition or dedicated legislation** recognizing live-in relationships. Unlike many other countries where such relationships are codified under civil union laws or common-law marriage doctrines, Indian law treats live-in relationships **on a case-by-case basis**, often requiring judicial interpretation to determine rights and remedies.

This leads to legal uncertainty and inconsistency, especially in matters involving **property division, succession rights, custody, and dissolution** of relationships.

Gender Bias and Limited Protection

The existing legal protections under the **Protection of Women from Domestic Violence Act, 2005** are available **only to women**. Male partners, same-sex partners, or non-binary individuals in live-in relationships do not have equal access to remedies such as protection orders, maintenance, or residence rights.

This creates a **gendered imbalance**, leaving large sections of the population without recourse to justice in the event of domestic abuse or breakdown of the relationship.

Property and Inheritance Issues

Live-in partners do not enjoy automatic rights to **joint property, alimony, or inheritance**

40 Bar and Bench, "Panel Discussion: Evolving Jurisprudence of Live-In Relationships," November 2022.

unless proven through a contractual agreement or legal presumption. Courts may apply equitable principles in long-term relationships, but there is no **uniform guideline or enforceable provision** under Indian civil or family law.

Similarly, while the **legitimacy of children** born out of live-in relationships is now accepted, **their inheritance rights** are limited to the self-acquired property of their parents and not ancestral property under Hindu law.

Lack of Protection for LGBTQ+ Partners

After the landmark *Navtej Singh Johar v. Union of India* (2018) decision decriminalizing homosexuality, same-sex couples gained the constitutional right to cohabit. However, **there is still no legal recognition** of their relationships under personal, family, or civil law. As a result, same-sex live-in partners face **exclusion from property, adoption, and succession rights**, and are often denied police or housing protection.

Enforcement Challenges and Moral Policing

Even when courts affirm the rights of live-in couples, **enforcement on the ground remains weak**. Couples frequently face:

- **Social stigma** and **harassment by families or neighbors**
- **Housing discrimination** from landlords and resident welfare associations
- **Interference by police**, often based on moral or religious grounds rather than legal merit

These practical barriers deter couples—especially women—from exercising their legal rights and accessing justice mechanisms.

Judicial Inconsistency and Subjectivity

Judicial decisions on live-in relationships vary widely across jurisdictions. Some High Courts have granted protection to live-in couples regardless of marital status, while others have denied relief citing morality or public policy.

This **lack of consistency** increases the vulnerability of partners, especially in conservative or rural areas where courts may be more inclined to uphold societal norms over constitutional freedoms.

Conclusion of Section

Live-in relationships in India face multiple legal and societal challenges due to the **absence of a comprehensive legal framework**, **gender-specific limitations**, and **implementation gaps**. Although courts have attempted to fill these voids through progressive interpretation, the lack of codified rights continues to leave live-in partners in a **precarious position**, both legally and socially. Legislative intervention is imperative to ensure **uniformity, inclusivity, and equal protection** under the law.

POLICY RECOMMENDATIONS AND REFORMS NEEDED

The growing prevalence of live-in relationships in India calls for **comprehensive legal reform** that bridges the gap between constitutional rights, judicial precedents, and societal realities. While courts have taken progressive steps to protect individuals in such relationships—especially women and children—this judicial activism must now be **supplemented by clear legislative policy**. Codification of rights, responsibilities, and procedures is essential to remove ambiguity, ensure uniform protection, and uphold the dignity and autonomy of all partners, regardless of gender, sexual orientation, or social background.

Enactment of a Comprehensive Live-in Relationship Law

India needs a dedicated legislation that:

- **Defines live-in relationships** clearly (e.g., based on duration, mutual commitment, cohabitation, and public perception).
- Provides a **registration mechanism** for couples who wish to formalize their union without marrying—similar to civil unions or domestic partnerships in the UK, USA, or France.
- Codifies the rights and responsibilities of partners with regard to **maintenance, property sharing, inheritance, separation**, and **custodial rights**.

This would remove legal uncertainties and bring live-in relationships under the protective ambit of civil law, reducing dependency on judicial discretion.

Gender-Neutral and Inclusive Protections

Legal protections—particularly under laws like the **Protection of Women from Domestic Violence Act, 2005**—must be expanded to cover **all genders and sexual orientations**. Live-in relationships involving **male partners, non-binary individuals, and LGBTQ+ couples** must be equally eligible for legal remedies such as protection from abuse, maintenance, and property disputes.

A **gender-neutral domestic partnership law** can help ensure fairness, address modern family structures, and align with India's constitutional commitment to equality under Articles 14 and 15.

Clarification of Property and Succession Rights

Reform is needed in both **family law** and **succession law** to:

- Allow live-in partners to claim a **share in jointly acquired or contributed property**.
- Enable **nominations, next-of-kin rights**, and **inheritance of self-acquired property** through codified provisions.

- Clarify **inheritance rights of children** born to live-in couples, ensuring parity with children of formally married parents in terms of succession and welfare benefits.

Such reforms will help protect vulnerable partners—especially homemakers or dependent partners—from being left destitute after separation or death.

Housing and Anti-Discrimination Measures

A national policy or model guidelines should be framed to prevent **housing discrimination** against live-in couples. This could include:

- Directions to state governments and municipal bodies to **prevent moral policing** by housing societies, RWAs, or landlords.
- Mechanisms for redressal of discrimination based on **marital status**, **gender**, or **sexual orientation**.
- Sensitization programs for law enforcement, housing authorities, and real estate associations to promote inclusive housing rights.

Sensitization and Awareness Campaigns

Law reform must be accompanied by **extensive public education** to address social stigma. Government and civil society organizations should collaborate to:

- Conduct **media campaigns** promoting awareness about the legal rights of individuals in live-in relationships.
- Organize **legal literacy drives** in schools, colleges, and communities.
- Train police, welfare officers, and judiciary in **handling live-in partnership issues** with sensitivity and constitutional objectivity.

Changing the legal landscape without changing public perception will not ensure access to justice in real-world scenarios.

Judicial Training and Uniform Guidelines

To minimize inconsistency in verdicts across courts, the Supreme Court or Parliament should consider:

- Issuing **model judicial guidelines** on the recognition and assessment of live-in relationships under existing laws.
- Promoting **judicial training modules** on interpreting Article 21 and gender-inclusive rights in the context of non-traditional partnerships.

This will ensure a more **uniform, principled approach** rather than case-by-case subjectivity.

Incorporation into National Family Policy

India is in the process of updating its **National Family Policy**. This is an opportune moment to:

- Acknowledge and include **diverse family structures**, including live-in partnerships and same-sex families.
- Extend **social security schemes**, **welfare benefits**, and **taxation policies** to all recognized forms of cohabitation.

A family policy that embraces legal pluralism and personal autonomy will reflect the **progressive, rights-based ethos** of the Constitution.

Conclusion of Section

The time has come for India to move beyond ad hoc judicial recognition and address live-in relationships through **inclusive, forward-looking policy reforms**. By adopting a rights-based legislative framework, ensuring gender-neutral protections, and combating social discrimination, India can protect individuals' autonomy while fostering a more just and equal society. Legal recognition should no longer be contingent upon marital status alone, but should extend to all adult consensual partnerships built on mutual respect and shared domestic life.

SUGGESTIONS AND WAY FORWARD

As Indian society transitions toward modernity, the legal system must keep pace with the **realities of evolving social relationships**. Live-in relationships, once considered taboo, are increasingly a part of urban and semi-urban life. Yet, the absence of statutory recognition, coupled with societal resistance and legal ambiguity, continues to place individuals—especially women and LGBTQ+ persons—in a vulnerable position. Hence, a **multi-pronged approach combining legal, institutional, and social reforms** is imperative.

Below are key suggestions and the proposed way forward:

Enact a Uniform Civil Code or Special Statute on Cohabitation

While the debate around a **Uniform Civil Code (UCC)** remains politically sensitive, there is growing consensus that a **special statute dedicated to live-in relationships** is needed. Such legislation should:

- Clearly define what constitutes a live-in relationship.
- Provide eligibility criteria for legal recognition (e.g., duration, mutual consent, shared household).
- Outline the rights and obligations of partners, especially regarding **maintenance, child custody, property sharing, and dissolution procedures**.
- Incorporate **gender-neutral provisions** and **inclusive language** to ensure applicability across all genders and sexual orientations.

This would offer legal clarity, reduce reliance on judicial discretion, and prevent abuse of legal loopholes.

Develop a Voluntary Registration Mechanism

To address the ambiguity surrounding proof of cohabitation, the government may consider introducing a **voluntary live-in relationship registration system**, akin to **civil partnerships in the UK** or **PACS in France**. This registry could:

- Serve as prima facie evidence in legal disputes.
- Help facilitate access to welfare schemes, insurance, and housing rights.
- Provide couples an opportunity to define terms of cohabitation through **cohabitation contracts**.

Such a framework would empower individuals to formalize their domestic arrangements while respecting their choice not to marry.

Ensure Equal Access to Legal Remedies

Existing laws such as the **Protection of Women from Domestic Violence Act, 2005** must be revised to:

- Extend protections to **male**, **transgender**, and **non-binary** partners in abusive live-in arrangements.
- Recognize **same-sex live-in relationships** explicitly, ensuring access to maintenance, protection, and legal redress.
- Standardize judicial interpretation of "relationship in the nature of marriage" to avoid arbitrariness and exclusion.

These steps would help align India's domestic laws with its **constitutional commitment to equality under Article 14** and non-discrimination under **Article 15**.

Promote Sensitization in Law Enforcement and Housing Sectors

One of the most urgent needs is to **sensitize police officers, landlords, and resident welfare associations (RWAs)** to the legality of live-in relationships. This can be achieved by:

- Issuing clear government circulars to **prevent moral policing** and ensure protection of consenting adult couples.
- Conducting **training workshops** and awareness programs for local law enforcement and public housing authorities.
- Encouraging state commissions for women and LGBTQ+ rights to develop **helplines and legal support cells** for couples in distress.

These initiatives would help reduce harassment, arbitrary evictions, and threats from hostile community members.

Incorporate Relationship Diversity in Academic Curricula

To address **long-term cultural stigma**, the education system must foster **awareness**

and tolerance from an early age. Law schools, sociology departments, and civil service academies should:

- Integrate modules on **relationship diversity**, **family law reform**, and **constitutional rights**.
- Promote empirical research on family structures, gender roles, and legal pluralism.
- Encourage student-led legal aid clinics to support couples facing legal or social challenges due to cohabitation.

State-Level Policy Initiatives and Pilot Projects

State governments can play a pioneering role by:

- Enacting **state-specific live-in relationship recognition schemes**, especially in progressive states like Kerala, Maharashtra, or Delhi.
- Launching **pilot projects** for live-in partner welfare (e.g., cohabitation benefits in housing schemes or local municipal recognition).
- Including cohabiting couples in existing **domestic violence, mental health, and gender sensitization policies**.

These decentralized efforts can act as models for national legislation in the future.

Engage Civil Society and Media in Re-shaping Narratives

Non-governmental organizations, women's rights groups, and LGBTQ+ collectives must collaborate with legal bodies to:

- Conduct **community-level dialogues** to reduce stigma.
- Use **media platforms and storytelling** to humanize the experiences of cohabiting couples.
- Advocate for **data collection and academic research** on live-in partnerships to build evidence for policy change.

By normalizing alternative relationship models, these interventions can gradually erode deep-rooted cultural resistance.

Conclusion of Section

The way forward lies not in dismantling traditional values, but in **reconciling them with constitutional liberties, evolving social realities, and global legal trends**. Live-in relationships, as a personal choice among consenting adults, must be seen not as a threat to Indian culture but as an expression of individual autonomy. Through inclusive legislation, public sensitization, and institutional reform, India can ensure that all forms of familial bonds are treated with **equal dignity, legal security, and human compassion**.

CONCLUSION

Live-in relationships represent a significant shift in India's socio-legal fabric, where

individual autonomy and modern notions of companionship are gradually gaining ground against deeply entrenched norms of marriage, patriarchy, and moral policing. Though once stigmatized and seen as illegitimate, such relationships have slowly gained **judicial recognition** and a degree of **social visibility**, especially in urban India.

However, despite notable Supreme Court decisions and protections extended under statutes like the **Protection of Women from Domestic Violence Act, 2005**, the legal framework around live-in relationships remains **fragmented, ambiguous, and exclusionary**. Most rights available to cohabiting partners—such as protection from abuse, maintenance, legitimacy of children, and limited recognition of the right to cohabit—are subject to **judicial interpretation** rather than codified statutory guarantees. This results in **legal uncertainty** and **unequal access to justice**, particularly for **same-sex couples, non-binary individuals, and economically vulnerable women**.

The societal acceptance of live-in relationships continues to lag behind legal recognition. Strong resistance from family structures, religious groups, and community elders often leads to social ostracism, housing discrimination, and even threats to life and liberty. Moreover, the gendered lens through which cohabitation is viewed places a disproportionate burden of social stigma and vulnerability on women.

Comparative analysis with countries like the **UK, USA, France, and Canada** shows that it is possible to develop **inclusive legal models** that protect cohabiting partners without undermining the institution of marriage. These countries offer civil union systems, cohabitation contracts, and common-law partnerships that provide clarity, dignity, and enforceable rights to all partners.

As India evolves, it must embrace this shift by framing a **comprehensive, inclusive, and gender-neutral legal framework** for live-in relationships. Legislative reform, coupled with public sensitization and institutional safeguards, is essential to bridge the existing gap between **constitutional ideals of liberty and equality** and the **ground realities of legal and social discrimination**.

In conclusion, live-in relationships should no longer remain in a legal grey zone. A well-defined statutory recognition, along with policy support and societal dialogue, is the way forward to ensure that individuals who choose such partnerships are treated not with suspicion, but with **dignity, equality, and legal certainty**.

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The Double-Edged Sword: Fintech Growth and Its Cybersecurity Challenges

Dr. Shikha Gupta, Manasvi Pilani** & Sakshat Sharma****

ABSTRACT

This paper emphasizes the rise, growth of fintech along with its cybersecurity challenges in which we addressed the problem of cybersecurity threats and cyberattacks and the growth with the help of technological advancements with new systems. As per this paper we understand the importance of cybersecurity challenges and role of cybersecurity along with the rise of fintech. This study seeks to accomplish the growth, innovation and rise of fintech with literature reviews in which different authors state many things about fintech and cybersecurity. The aim of this research is to show the rise in financial companies and the role of cybersecurity or threat that they were faced in between with deep research .This research is conducted with secondary data which includes the research objectives like to study the rise, growth and innovation along with the role of cybersecurity risks or you can say challenges.This paper involves deep descriptive research with growth graphs and tables for better understanding in research methodology. This study shows the prevention strategies along with some cyberthreats which include attacks like phishing , malware and cyberthreats . So that customers can learn from this and can't be fooled by the threats and attacks. Prevention strategies like patch management, zero trust security, network segmentation and many more which guides us to prevent cyber threats and cyber attacks. This study provides a unique perspective on the subject,enabling researchers and practitioners to re–evaluate the direction, the rise, growth and innovation of fintech as shown above and states the challenges that they are facing due to cyberthreats and attacks in cybersecurity infringement.

Keywords: Fintech growth, Cybersecurity challenges, Technological innovation, Cyber threats & attacks, Prevention, Strategies.

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INTRODUCTION

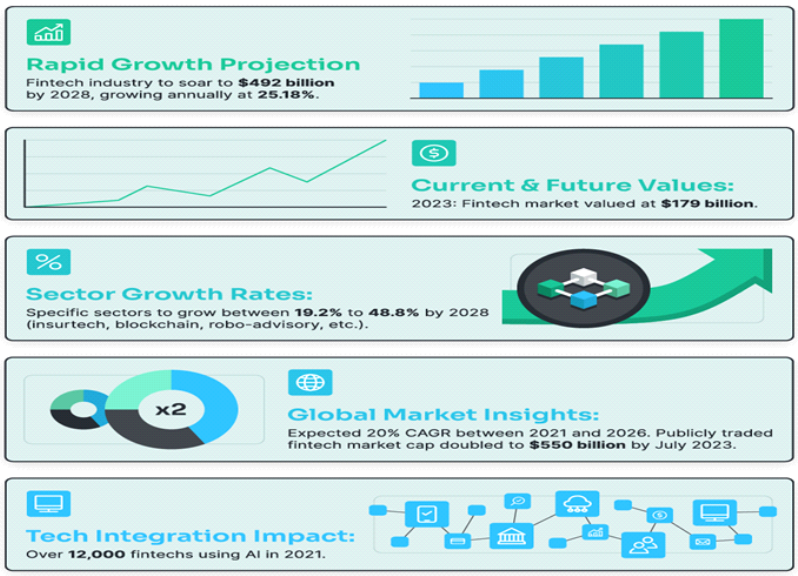
What does fintech actually mean? Fintech, also known as financial technology, is a service that shows price, time and many other dimensions as well. Fintech integrates mathematical, statistical, computational and economic things or you can say concepts with an analytical system (rahma wahyu idayani). As we all know that fintech is a fast becoming global phenomenon which is led and followed by innovators, by academics and now attracts the attention of regulators. On a wider scale, Fintech is a modern term that refers to modern things, tech driven services and it helps in many businesses (Anne laure). The use of fintech itself has been proven to help in the process of transactions for many years. This is of course nicely balanced with the development with the user interface and its experience over the period of time. Currently, there are hundreds of mobile payment services in the world which aim at facilitating the transaction process . In this case or you can say in this case, the use of fintech varies, ranging from payments which are required by users for casual things (Rahma Wahyu Idayani). Fintech has completely transformed how we manage our money—making things like banking, investing, and payments quicker and more convenient. But as the industry grows, so does the risk of cyberattacks. Because fintech companies handle a lot of sensitive financial and personal information, they've become attractive targets for hackers. So, while fintech offers great advantages, it also brings serious security challenges. To keep progressing safely, the industry needs to prioritize cybersecurity just as much as innovation. With the growth of the fintech industry at an unpredicted rate, it is critical to protect the cybersecurity and privacy. We have to be sure about privacy and data breach as nowadays it's growing at a very huge rate. This research also shows the challenges along with the risks and many other things faced by financial technology companies, highlighting the risk which is posed by the malware and other network vulnerabilities. (Rajath karangara). As fintech continues to shake up the traditional financial world, it's important to take a closer look at what this shift means for cybersecurity and data privacy. (Milian E.Z. et al, 2019), (Cocco et al., 2017). With more people relying on digital platforms and online transactions, strong security systems and clear regulations are more important than ever to guard against cyber threats. (Sangwan, V. et al, 2020), (Arner et al., 2016). On top of that, as fintech keeps evolving—with technologies like blockchain and AI entering the scene—new challenges and risks are emerging that need careful attention.(Catalini & Gans, 2016). Fintech is growing rapidly at a very nice rate and in the future as well, we all will see the results in the future in this sector surely.

FINTECH BOOM: CHANGING THE FACE OF FINANCE

Over the past few years, the financial technology (fintech) industry is emerging as one of the most informative and transformative forces in the global economy, by reshaping the way individuals and businesses interact with some financial services. By blending advanced technologies such as applications in mobile, blockchain systems, data analysis and cloud computing. Fintech has redefined traditional banking, lending, investments and insurance processes by making them faster, more accurate, more accessible and more efficient with effective manners. The rise of fintech can be attributed

to a combination of many factors, including increased smartphone usage, evolving consumer expectations, regulatory support for innovation and growing investor interest in finance and digital solutions. All this rapid expansion has led to many fintech startups, strategic partnerships between technology firms and many financial institutions and development of new financial products tailored towards population. Fintech is playing a key role in expanding access to financial services in developing regions, while also intensifying competition in more established markets. This competitive pressure is prompting conventional banks to speed up their adoption of digital technologies. However, alongside these positive advancements, the rapid rise of fintech has introduced several complex challenges—such as unclear regulatory frameworks, issues surrounding the protection of user data, and growing concerns over cyber threats. This research seeks to investigate the primary factors fueling the expansion of the fintech industry, assess its influence on the broader financial services landscape, and highlight both the potential benefits and challenges that accompany its ongoing development. By analyzing relevant literature and current market trends, the research aims to offer a detailed insight into the ways fintech is transforming financial systems on a global scale.

Growth in this sector (fintech) is impressive and is emerging at a nice rate which is useful for all of us and for the GDP of the country as the fintech companies are growing. The GDP of India is also growing at an impressive rate which is beneficial for the country also.



The rate of growth of the fintech sector in the past decade has been exceptional, and successfully reshaped traditional financial services by employing multi-dimensional technologies. By 2022, global estimates projected the fintech market would exceed $492 billion in market valuation, demonstrating tremendous growth. Growth is being propelled by swift consumer expectations for greater access, speed and usability of

financial products and services. There has been significant growth in many areas of fintech, but a revolution of sorts is currently being witnessed within digital payments, blockchain innovation, robo-advisory, Insurtec online lending etc. With this rise in fintech products and services being largely attributable to the proliferation of smartphones in society, we have also seen the widespread acceptance of mobile wallets and touchless payment options for making cashless purchases. Additionally, the growth of funding to the fintech startup ecosystem raised historic levels of investment from traditional financial institutions and venture capital firms into the disruptive fintech space in 2021.

Furthermore, the favorable regulatory environment for fintechs, combined with advances in technologies, including artificial intelligence, machine learning, and big data analytics, increased security, customization of solutions, and expedited delivery of financial services.

Fintech Segments

Fintech, as a dynamic and expansive industry can be segmented into different categories which caters to specific financial needs and transforming different traditional practices. These segments include things like payments, leding, digital banking and wealth operations each have a huge role in the financial landscape.

Payments: This area of payment includes some digital tools such as mobile wallets , contactless payments and many other digital systems. Advancements of technology in fintech have transformed the way both individuals and businesses handle the transactions, prioritizing speed, easy usage and enhanced security level. Through mobile payments platforms, users can conduct instant transfers, make purchases online and pay in stores.

Lending: Fintech-based lending services utilize modern digital tools to make the loan application and approval process more efficient, often functioning without the involvement of traditional banks. Platforms that support peer-to-peer lending directly link individuals seeking loans with private investors, cutting out intermediaries. Online lenders also assess credit eligibility using innovative evaluation methods and alternative sources of information beyond conventional credit scores. This model supports faster loan processing and enables tailored financial solutions for individual borrowers and small businesses.

Digital Banking: This segment focuses on the full digital transformation of banking services, offering customers access to their finances through web portals, smartphone applications, and banks that operate entirely online. These fintech-enabled banks eliminate the need for physical branches, delivering low-cost, user-friendly services such as checking and savings accounts, credit products, and investment tools—all designed to improve accessibility and efficiency.

Wealth Management: Fintech firms in this space provide modern investment solutions and financial advisory services. Automated platforms, commonly known as robo-advisors, use algorithmic models to deliver affordable, data-driven investment strategies, broadening access to wealth management services. Additionally, platforms offering

fractional ownership allow users to invest in smaller portions of high-value assets like stocks or real estate, making investing more inclusive and flexible.

INNOVATION IN FINTECH: RESHAPING FINANCE

Following the rapid expansion in the world, the fintech industry has become a technological innovator in financial services. A wide range of new such tools and platforms have merged beautifully, changing how people access, manage and move money. One of the most eye-catching developments is in the area of digital payments like mobile wallets, qr code and contactless or seemless payment systems which replaced cash and traditional card use for billions of consumers.These are not only convenient to us but also helps in speed up transactions and improve security .

Lending services have also undergone a significant transformation recently. Nowadays online platforms allow individuals and small businesses to apply and receive loans with minimal paperwork and faster processing time. Peer- to peer lending has further expanded access to credit by connecting all borrowers directly with lenders, often using alternative data sources to evaluate risks.

In the banking sector, digital-only banks or non banks — are gaining traction by offering fully online services through mobile apps. These banks reduce operational costs by eliminating physical branches, passing the savings on to customers through lower fees and better interest rates. They also focus heavily on user-friendly interfaces and real-time account management, making banking more accessible and transparent.

Wealth management has also seen innovation through digital platforms that allow users to invest with small amounts of capital. These tools simplify investing by offering educational resources, goal tracking and personalized recommendations. Likewise, the insurance industry has been disrupted by Insurtech firms, which use technology to streamline policy management and claims processing. Customers can now buy coverage, submit claims and track their status entirely online.

Another area witnessing notable innovation is the integration of financial services into non-financial platforms, commonly known as embedded finance. This trend enables users to access lending, payments, insurance, or savings options directly within apps and services they already use, such as e-commerce websites, ride-sharing platforms, or social media. For example, “buy now, pay later” services are now frequently offered at online checkout, giving consumers flexible payment options without interacting with a separate financial provider.

CYBERSECURITY: THE SHADOW SIDE OF FINANCIAL TECHNOLOGY

Cybersecurity involves the methods, tools, and rules put in place to stop digital attacks or lessen the harm they cause. It also involves the strategies, and things designed to stop cyberattacks or reduce their damage. Its main purpose is to keep computer systems, software, digital devices, sensitive information and financial resources safe from threats like ransomware, viruses, phishing, data breaches and other harmful online activity. It also plays a key role in protecting the people and organizations using these technologies.

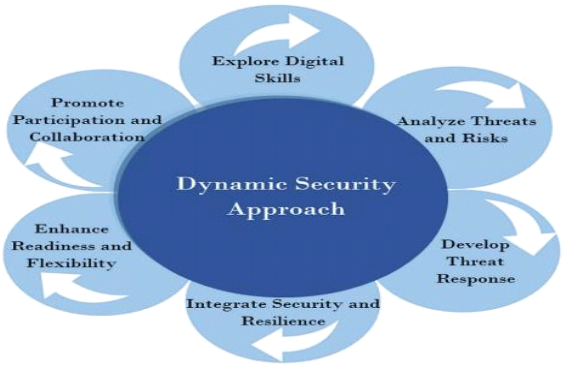


Figure 1: Counterattacking Cyber Threats: A Framework for the Future of Cybersecurity

A framework for the future of cybersecurity shows the dynamic security approach which counter attack cyber threats by the terms mentioned above - Explore digital skills, analyze threats and risks, develop threat response, integrate security and resilience and many other things as well.

The merging of cybersecurity and fintech, brought us new kinds of security issues that demand new and different approaches. With the rise of digital currencies like DeFi which means decentralized finance and systems like blockchain and the structure of modern finance is evolving rapidly. Offers new transparencies, decentralization and secured encryption which isn't completely safe from cyberattacks. Which have been the real world incidents involving flaws in smart contracts, some encrypted keys and many hacked exchanges - each leading towards significant financial damage.

Modern cybersecurity tools have made significant progress in improving how financial threats are identified, fraud is prevented and large amounts of financial data are monitored for unusual activity. At the same time, cybercriminals are developing more advanced methods to bypass traditional defenses, pushing financial institutions to upgrade their security systems to better handle these evolving threats. In response, major regulatory organizations—including the European Central Bank (ECB), the U.S. Securities and Exchange Commission (SEC), and the Financial Action Task Force (FATF)—have established strict cybersecurity requirements aimed at protecting financial systems. Meeting these standards, such as the General Data Protection Regulation (GDPR), the Payment Card Industry Data Security Standard (PCI DSS), and the Cybersecurity Maturity Model Certification (CMMC), is crucial for reducing security risks and maintaining overall financial stability. To stay protected, financial institutions need a well-rounded security strategy that includes multiple layers of defense, strong data encryption, and real-time monitoring to quickly detect and respond to threats.

ROLE OF CYBERSECURITY

So the importance of cybersecurity in fintech cannot be overestimated , as the world nowadays increasingly relies on superior technology to supply the services effectively

and in a most securable way(Jameaba MS). Fintech companies handle a very huge amount of sensitive and crucial financial data which includes personal information, transaction details and payment credentials (Nicoletti B, Nicoletti W, Weis A). To protect the data from cyber threats is not only the essential thing for maintaining consumer trust but also for complying with the straight data protection regulations which are enforced by the authorities like general data protection regulation (GDPR) in Europe and payment card industry data security standard (PCI DSS) globally . Businesses in fintech rely heavily on customer trust, which is based on one guarantee that their data is protected (Aldboush HH, Ferdous M). A company's image is single handedly harmed by the breach of data or any kind of cyberattack which majorly results in loss in business.

These businesses need to make some investments through cybersecurity frameworks that are adapted to unique operating requirements and some kind of dangers (Kaur G, Lashkari ZH, Lashkari AH). Robust encryption mechanisms in place to safeguard data while it's in motion and at rest , making sure that the data is private is in unreadable form so that an unauthorized party can not decrypt it easily by breaching the password (Mäkitalo N).

CYBERSECURITY CHALLENGES IN FINTECH

Fintech companies are increasingly grappling with serious cybersecurity challenges due to the rapid pace of digital transformation and the rising sophistication of cyber threats. Positioned where finance and technology meet, these organizations rely on advanced tools such as robo-advisors, mobile payment platforms, blockchain technology and online banking services to boost operational efficiency and enhance user experience (Khayer A).However, these innovations also heighten exposure to cyber risks, emphasizing the urgent need for robust security frameworks to protect sensitive financial data and maintain customer trust.

One of the most pressing concerns in this space is the threat of data breaches (Najaf K, Mostafiz MI).Because fintech firms handle large volumes of confidential data—including personal information, transaction histories and payment details—they have become prime targets for cybercriminals seeking to exploit gaps in digital infrastructure.The consequences of a successful breach can be severe, leading to major financial losses, reputational harm and regulatory sanctions. This underscores the necessity for strong data protection practices and a forward-looking approach to cybersecurity

Fintech companies must navigate not only technical vulnerabilities but also a complex regulatory landscape that oversees cybersecurity, financial operations, and data privacy (Allen F, Gu X). Compliance with frameworks such as the General Data Protection Regulation (GDPR), the Payment Card Industry Data Security Standard (PCI DSS) and other industry-specific guidelines is essential to protect consumer rights, maintain smooth operations, and avoid legal consequences (Kim S.).

REVIEW OF LITERATURE

The rapid advancements and growth which we see nowadays in financial technology

(fintech) has significantly managed all the landscapes of financial services by providing or we can say integrating tools like cutting edge digital tools into banking, investing, lending and in insurance. As fintech is evolving rapidly nowadays, it introduces a new spectrum of cybersecurity threats or challenges. Many researchers have explored these risks and emphasized how the digitalization of the financial system has created new threats , and vulnerabilities. So, according to arner barberis and (Buckley, 2016), the transformative effects of fintechs on its financial services has broadened attack surfaces due to its reliability on cloud computing systems and different mobile applications . These technologies enable much greater efficiency and user accessibility which simultaneously opens the door for malicious activities like data breach, data leak, identity theft and many different types of cyber attacks. (Kshetri, 2017) further said that by pointing out that fintech companies store and process large volumes of important and sensitive data with them, so they become the high value targets for cyber-criminals. The increasing rate of hacking techniques has forced fintech firms to prioritize not only its sensitive data but their cyber defense mechanisms as well. By exploring some specific areas of concern, (Mhlanga, 2020) argues on the regulatory gaps and inconsistencies in different jurisdictions cybersecurity risks. Fintech companies often operate across many things via different digital platforms, they are subject to a variety of different regulatory things, some of which may be lacking in the cyber security chain. Moreover, the reliance on the third party app or you can say other service providers such a cloud computing system adds another layer of risk. A key issue analyzed in recent studies stems from the inability to identify cyber threats with sufficient speed in the quickly evolving contexts of fintech. Transactions take place in sub-second intervals, thereby making it impossible for security systems to identify malicious activity in real-time. Security monitoring systems, especially with multi-stage sophisticated attacks which are not easy to detect at the onset, have very limited automation. For these reasons, many fintech firms are looking into advanced technologies such as blockchain to improve preemptive security and reaction mechanisms always active in real-time for immediate adjustments. Due to a lack of funding, fintech startups tend to face greater risks in the realm of cybersecurity. (Nicoletti, 2017) notes that these businesses usually prioritize product development and marketing over all else, and security is deprioritized, leading to a myriad of dangers. These companies can find themselves in scenarios wherein new services are deployed without adequate encompassing defenses, which makes it far easier for cybercriminals to exploit. Larger fintech firms and established banks that implement fintech solutions, however, manage cybersecurity with greater effectiveness and efficiency due to more comprehensive budgets and advanced risk management systems. Moreover, customer actions, or the lack thereof, add to the cybersecurity risk within fintech companies. (Suri and Jack, 2016) noted that poorly chosen passwords, credential recycling, and app neglect are common user behaviors, which expose even the most protected systems. This illustrates the urgent need for user training campaigns, improved authentication frameworks and encryption-by-default policies. One of the greatest challenges in protecting fintech platforms is the ability to detect cyberattacks shortly after they occur. (Gai, Qiu, and Sun, 2018) explain that the incredibly rapid rate as which financial transactions are processed in

the fintech environment does not afford a lot of time for detection and prevention of harmful activity in real-time. Traditional security systems typically lag behind, and because of this lag, they often struggle to respond quickly to advanced threats that take advantage of unknown software vulnerabilities. (Johnson and Shadab, 2019) also notes how companies that do not have continuous surveillance systems to monitor their networks may not recognize a breach until they have done significant damage. To solve this issue, more organizations are searching into blockchain technology as a more reliable and secure method to verify financial transactions. New fintech organizations are especially vulnerable to security-related threats due to their limited financial and operational resources. (Nicoletti, 2017), observes how new fintech startups typically spend a considerable amount of time trying to grow their user base and optimising their product, which often results in the postponement of essential cyber-investments that are vital to prove safety for every consumer using their products. Subsequently, rather than being cycled through the proper security processes, products are released that could, and oftentimes do contain grave vulnerabilities. (Puschmann, 2017) provides a similar argument noting how the fintech môi trýÝng is competitive in nature, and that as a result requires companies to act quickly or get left behind, and to that end security generally gets left behind. On the other hand, large and more developed companies, such as traditional banks or well funded fintech companies, likely have the financial resources and the luxury of strategic thinking to account for security at the foundations of their operations. Users contribute to the lack of cybersecurity in fintech as well. In the early stages of adopting electronic transactions and network-based operations, cybersecurity in the financial sector was primarily regarded as a matter of business functionality rather than a strategic priority (Gai et al., 2016). During this period, various studies were conducted to help financial institutions establish reliable information security frameworks (Gai & Steenkamp, 2013, 2014). A common concern among financial organizations was the uncertainty surrounding the effectiveness and return on investment (ROI) of implementing advanced security technologies (Farzan et al., 2013). Additionally, financial service institutions often struggled to categorize and comprehend cyber incidents, which hindered their ability to make informed and timely strategic decisions (Gai et al., 2016). In response to these challenges, research by (Chai et al., 2011) indicated that higher investments in cybersecurity tended to yield proportionate returns, suggesting a positive correlation between investment level and security benefit. Further findings by (Liao et al.,2011) emphasized that addressing user's privacy concerns and developing strong trust frameworks are essential for ensuring the safety and reliability of digital financial transactions. At the same time, several studies have focused on identifying the origins of cyber threats within financial operations. For instance, (Roumani et al. 2016) explored the relationship between cybersecurity weaknesses and the internal records of financial institutions. Their research analyzed how factors such as the organization's operational scope, financial performance, market presence, and sales figures could influence vulnerability levels. In a related context, (Duan and Da, 2012) suggested that adopting financial technology (fintech) tools could serve as a strategic approach to enhance operational efficiency and improve various elements of financial business. As we are talking about the fintech companies it is

said that Over the past decade, fintech companies have played a crucial role in advancing key European Union policy initiatives such as the Capital Markets Union and the Banking Union. According to (Milne 2016), these firms act as engines for value creation across a range of entrepreneurial ventures. Fintech businesses benefit from numerous technological advantages that enable them to meet rising consumer expectations, navigate fewer regulatory obstacles, enhance user experience, streamline operations, and adopt innovative business models that support rapid expansion (Pollari, 2016). These innovations have led to transformative changes across multiple sectors, including big data analytics (Yin & Gai, 2015), mobile communication technologies (Topol, 2019),(Wen et al., 2012), (Zhang et al., 2012) Zhang & Soong, 2004), mobile embedded systems (Gai et al., 2017),(Zhang et al., 2011), trust and security frameworks (Abawajy et al., 2016), (Zhang et al., 2015), cloud computing (Castiglione et al., 2015),(Gai et al., 2018), and image processing technologies (Castiglione et al., 2007). Furthermore, one of the significant developments in the fintech ecosystem has been the increased participation of traditional banks in fintech ventures, which is helping to shape the future landscape of financial services. Technological progress in this space is also driving financial inclusion, expanding the accessibility and credibility of financial services, opening up new market opportunities for smaller enterprises, and giving fintech ventures a competitive advantage (Medeiros & Chau, 2016).

As the literature illustrates, cybersecurity risk in fintech is a complicated litany of factors technological, regulatory, organizational, and social. With the development of fintech and its embracement within the traditional financial ecosystem, firms and regulators should take initiative proactively to collaborate on efforts to enhance cybersecurity. The future research emphasis should be cross-border regulatory alignment AI-based detection systems and security-by-design ethos for innovative financial technologies.

RESEARCH OBJECTIVES

The aim of this study is to do a detailed analysis about the growth of financial technology, current challenges faced by this industry because of cybersecurity , and understanding the importance of cybersecurity for fintech firms. It lists various cybersecurity threats that fintech firms are likely to face and suggest ways to stop them. The objectives of this study are as follows:-

1. To study how the fast rise of FinTech services leads to more cyber risks.
2. To check if more people using FinTech results in more financial cybercrimes.
3. Find possible cyber threats and suggest ways to stop them.

RESEARCH METHODOLOGY

This research is descriptive in nature. In this research secondary data was used. The type of data used in this research was qualitative (words, images etc) in nature.

DATA COLLECTION

1. Data for this research was collected from sources like published research papers from google scholar, online articles, project reports etc.
2. The study uses previous data from various sources , as it perfectly fits the objectives of this research. Firstly, since the data was already collected and approved, it saves time and avoids the lengthy process of data collection. Because the data collected for the past decade offers a historical perspective that would be hard to get and it also serves as a basis for future research. To make sure our findings were reliable, we also checked newer studies on the same topic. This saved this research from any possible biases from using previous data.

HOW THE FAST RISE OF FINTECH IS FUELING CYBERCRIME

Fintech Market Growth (2015–2025): A Global Overview

Over the past few years, the financial technology which is also known as fintech is growing at a rapid speed. It provides many services like mobile banking, payment apps, cryptocurrency platforms and online investment tools. Fintech is changing the way we manage money. But with this brighter side comes a darker side: a sharp rise in cybercrime.

Fintech Growth vs. Cybercrime Costs (2015–2025)

Year	Global Fintech Market Size (USD Billion)	Estimated Annual Cybercrime Costs (USD Trillion)
2015	105.4	3.0
2016	131.9	3.5
2017	165.1	4.0
2018	206.7	4.5
2019	258.8	5.0
2020	324.0	6.0
2021	405.6	7.0
2022	514.9	8.0
2023	644.6	9.0
2024	814.7	10.0
2025	1,000.0 (Projected)	10.5

OBSERVATION

From 2015 to 2025, the fintech industry is expected to grow from about $100 billion to over $1 trillion. But as the fintech industry grows, the risk also grows . The Cybercrime is also expected to cost the world $10.5 trillion each year by 2025.

KEY FACTORS BEHIND INCREASING CYBER THREATS

The rapid growth of financial technology (fintech) can lead to an increased rate of cybercrimes for several key reasons:

1. **Larger Attack Surface:** As fintech services increase by introducing services like mobile apps, online platforms, digital wallets, blockchain technologies and APIs. This increases the digital surface area for the attackers. This means each new service can become a new entry point for them.
2. **High Value Targets:** Fintech platforms deal directly with money, sensitive personal information, and financial transactions, credit card details etc which makes these platforms attractive to hackers to steal money. Unlike general tech platforms, successful break in in the fintech systems can lead to direct financial gain to them.
3. **Rapid Innovation Outpacing Security:** The fast pace of fintech innovation often prefers user experience and market speed over good cybersecurity infrastructure. Startups, in particular, may spend less money in the security infrastructure which may be used by the attackers to disrupt the security system
4. **Increased Use of Third-Party Services:** Fintech companies often depend on third-party companies like payment gateways, cloud providers and analytics services which can create indirect entry points for attackers to break in. A breach in one point of supply chain can fail the entire system
5. **Growing User Base with Varying Digital Literacy:** As fintech platforms are adopted by everyone which means a huge amount of users will use these apps and some of these people would not be aware about safe online behaviour which makes them a easy target for frauds
6. **Data-Rich Environments:** Fintech apps store huge amounts of personal and financial data like banking details, credit scores, and transaction histories. Cybercriminals are motivated to steal or ransom this data, which can be resold or used for identity theft
7. **Global Connectivity"** Fintech services are basically internet based which means global connectivity (it can operate across borders). This global connectivity can sometimes become a big nightmare as it makes us vulnerable to attacks anywhere in the world.

CYBER THREATS

The different types of Cyber threats are here as follows:-

Phishing : Phishing is a type of cyber attack in which scammers send fake messages and trick people to send their personal information like passwords and credit card numbers. It is mostly done through emails and these attacks are getting more advanced and use more advanced tricks to fool people.The 2019 Kaspersky phishing report states that 17% of phishing victims were in the Philippines, 16% were in Malaysia, and 14% were in Indonesia. Scam targets in the Southeast region are most prevalent in these nations.

Ransomware: Ransomware is a type of malware that gets into the system and encrypts certain data and makes it impossible for users to view it. They ask the user to pay

ransom and then they will be able to see that data. Many large corporations worldwide have become a target of this cybercrime.

Botnet: A botnet is a type of network which consists of computers and devices under the control of cybercriminals that can be used to target financial institutions and their customers.

Cryptojacking : Cryptojacking is a type of cyber threat in which a hacker uses someone else's computer to mine bitcoin. This slows down the victim's device. According to Interpol, 18% of the world's cryptojacking cases happen in southeast Asia. It is now becoming a growing issue that affects both businesses and individuals. The main reason behind this attack is the money earned from bitcoin

Malware: Malware is a type of harmful software which shows itself as a safe software but it actually damages the computer after being installed in that computer. It is constantly evolving. For example, Emotet was used to steal banking information but now it distributes other types of malware.

Insider Threats: It occurs when workers, subcontractors or partners from external partners misuse their right to access the important system. These threats can be unintentional and intentional as well. This could happen because of carelessness and inadequate instruction. For example in 2022 , an employee at a fintech startup leaked a private client's information which shows weak internal security controls. These type of incidents shows the need of strong identity and strong access management systems, regular employee training and building a culture of security awareness (Chukwunweike JN, Adeniyi SA, Ekwomadu CC,Oshilalu)

PROACTIVE MEASURES AGAINST CYBER THREATS

The prevention strategies of the Cyber threats are as follows :-

1. **Patch management-** Patch management means regularly updating software, operating systems, and apps to fix problems and improve security.(I. Whitepaper, B. M. Felicia Nicastro, and B. M. Felicia). These updates often fix serious weaknesses that hackers could use to break into the systems and damage the system. By keeping everything up to date with the latest fixes, organizations can lower the risk of cyberattacks and keep their systems safer.(Goni, A., Jahangir, M. U. F., & Chowdhury, R. R) .
2. **Security Awareness Training**: Mistakes made by humans is an important element in cybersecurity breaches. The purpose of this training is to educate employees and users about potential threats and how to identify them and respond to them. It motivates them to be alert, especially for common attacks like phishing and social engineering(D. Ghelani)
3. **Intrusion Detection and Prevention Systems (IDPS):** IDPS (K. A. Scarfone and P. M. Mell,) are important tools that help keep an eye on what's happening in networking in real time. They look at networking traffic and system activities closely to identify and stop anything that looks suspicious. These systems help organizations in identifying and responding to possible threats, which can reduce

damage if something goes wrong. (Goni, A., Jahangir, M. U. F., & Chowdhury, R. R)

4. **Zero Trust Security**: This model challenges the traditional trust within the networks . as it works on the principle of "never trust, always verify". This technique requires daily verification of the identity and trustworthiness of devices and users, irrespective of their location within or outside the network (Goni, A., Jahangir, M. U. F., & Chowdhury, R. R) .
5. **Access Control:** Access control (S. Abraham) Involves managing that who has the permission to access specific resources or areas within a single network . the principle of least benefits is important here , as it ensures that only a minimum number of users will have access to only those resources which are necessary to perform their task which will minimize the chances of cyber attacks (Goni, A., Jahangir, M. U. F., & Chowdhury, R. R).
6. **Network Segmentation:** Branches of networks involve dividing a network into many segments or zones. This practice separates critical assets from a broader network , making it more difficult for attackers to move accordingly within the network if they breach one segment segment (P. Mell, T. Bergeron, and D. Henning), (R. Syed and H. Zhong).
7. **Threat intelligence :** This gives organizations real time information about the all new threats along with the weaknesses . This helps them to quickly update their security to stay protected against these cyber risks.(D. Ghelani), (R. Syed and H. Zhong) .
8. **Regular Security Audits and Testing**: Doing regular checks like vulnerability assessment, penetration tests and security audits is important to find weak spots in an organization's security defense. These regular check help to focus on fixing serious problems and to make sure that security systems are working efficiently (D. Ghelani)
9. **Multi-Factor Authentication (MFA)**: Requires users to confirm their identity using more than one method before they are granted access. This extra layer of protection significantly lowers the chances of unauthorized access, even if someone manages to steal or guess the user's password. (S. Abraham)
10. **Continuous Monitoring:** Continuous monitoring of network and system is required for detecting and responding to the abnormal patterns quickly and efficiently .Which allows organizations to identify and tackle all security threats in real-time (I. Whitepaper, B. M. Felicia Nicastro, and B. M. Felicia) .
11. **User and Entity Behavior Analytics (UEBA)**:UEBA tools help us to monitor how users and systems normally behave, and how they look for unusual activity or changes. This also helps organizations to spot possible security problems or threats from inside the company. (R. Syed and H. Zhong).
12. **Regular Backup and Recovery**: Data is an important asset, and so the regular backups are , It ensures the safety concerns. As , in case of data loss due to

cyberattacks or other incidents, backups help in easy and smooth recovery of data (S. Abraham).

The Future of Fintech

The fintech industry continues to grow and change , the importance of good cybersecurity becomes more important. With more people using financial apps and making digital transactions, protecting sensitive financial information is a top priority. Here's what the future may look like:

Quantum Computing

As quantum computing makes new innovations it will bring both challenges and solutions in cybersecurity. Quantum-resistant encryption will be key to protecting data from quantum computing attacks..

Biometric Security

Biometric authentication methods like facial recognition, fingerprints, and voice recognition. These methods will be used more often to improve security and fraud detection.

Blockchain for Security

Blockchain offers services like decentralization, immutability, and transparency and these features make it useful for safe transactions, identity management, and reducing fraud. Blockchain ensures that the data shared between banks and financial systems is accurate, secure, and can't be easily changed or faked.

Zero Trust Architecture

The zero trust model suggests not to trust anyone inside or outside of the network and it will become a standard. In the future every action will request a verification making systems difficult to hack.

RegTech (Regulatory Technology)

As the rules of government are becoming more strict, the companies will turn themselves into regtech solutions to stay compliant with complex regulations. These tools will automatically obey the rules and reduce the risk of legal trouble..

Smarter Cyber Threats

With advancement in technology the defence mechanism is improving which is accompanied by improved attacks. Future threats like **a**dvanced phishing, ransomware, and APTs (Advanced Persistent Threats will be more complex and not easy to detect. Fintech firms will need stronger and smarter protection.

Mobile & Endpoint Security

All the financial activities are happening on smartphones and tablets so protecting these device is important, Advanced Endpoint Detection and Response (EDR) tools will protect them from cyber attacks

IoT Security

As IoT devices are being mostly used nowadays , they open up new ways for hackers to get in the system. Securing these devices are critical and securing them would be a key part of fintech cybersecurity plan

Global Data Protection & Privacy Laws

The concerns of data privacy are growing worldwide. The fintech firms must follow some tight global regulations to avoid breaches. Obeying these privacy laws is necessary for fintech firms

CONCLUSION

This paper shows us the rise , growth and innovation of fintech by enhancing speed , user experience . However this success comes with the significant cyberthreats and cybersecurity attacks that cannot be ignored . As this sector grows , so do the risks and the major risks and challenges are shown above in the paper which is cybersecurity challenges along with the risks. This challenge is navigated with the help of technological advancements which lead to the growth in the fintech sector .

This paper shows the future of fintech with the help of prevention techniques . The sustainability of fintechs growth will depend not only on its ability to innovate but also depends on its capacity to grow without any inconvenience , which is caused due to cybersecurity infringements nowadays. This paper ensures the balance which is crucial for the long term growth and trust in the fintech ecosystem .

This expansion of fintech has redefined how financial services can operate while bringing greater efficiency and broader access to digital finance . As said earlier , fintech companies nowadays are facing challenges of not only driving innovation along with cybersecurity but also establishing secure infrastructure into financial ecosystems .

This paper ends by showing us the prevention strategies , by which we can understand the cyberthreats and not fall again in any such types of cyberthreats or cyberattacks.

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Legality in Sustainable Urban Planning:Environmental Issues and Challenges

*Dr. Yuvraj Dilip Patil**

ABSTRACT

The rapid growth of population and urbanization is the major problem which is faced by developing countries like India.. nature. The Research paper gives deep insights on topics ranging from urban planning and its issues and challenges to various land use policies which are also discussed.The research paper seeks to provide various insights into the complex dynamics of the legality of sustainable urban planning and offer valuable perspectives for the policymakers, and urban planners.The research paper also gives information on various judgments by the Honorable Court of India.

The objectives of the research paper are

1. To understand & analyze the importance of environment in the urban planning.
2. To study the issues & challenges in urban planning specifically relating to the environment.
3. To analyze the laws relating to urban planning.
4. To make recommendations for the best practice for urban planning which leads towards "smart city planning

Keywords: Urbanization, Legal, Environment, Sustainable Urban Planning.

INTRODUCTION

The rapid growth of population and the urbanization is the one of the major problems which is faced by developing countries like India. The paper gives deep insights on topics ranging from urban planning and its issues to challenges for which various land use policies are discussed. The paper gives analyses of the legal aspect of urban planning in which various acts ranging from the Biodiversity Act and Forest Conservation Act to punishment and rules for violation of the act. The paper also gives information on various judgments given by the honorable Court of India

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The paper is Socio-Legal in Nature. In this research paper researchers have used doctrinal research methodology. It is armchair research that involves analysis of papers and case laws relating to legality and urban planning.

URBAN PLANNING: ENVIRONMENT ISSUES & CHALLENGES

Urban Planning: Environmental Issues & Challenges The topic explores the connection between urban development and the environmental concerns, highlighting the need for sustainable strategies amidst rapid urbanization as well as environmental degradation. The study aims to provide insights into various policies balancing urban development and along with Heritage preservation.

i. **Land Use Policy for Railway (1989)**

To ensure transparency in processes which are related to the development of highways and land acquisition, the National Highway Act was introduced in the year 1956. According to this act the set guidelines for the construction of buildings must be 45-60 meters from the four-lane road and also extra setbacks which are decided by the planning authority. According to the Indian Road Congress building is set at 80m and the control line which helps in the management of urban sprawl is set at 150m. Right of way which ensures the effective and efficient functioning of the highway is 150 m according to the National Highway Authority of India

ii. **Land Use Policy for Airport**

The amended National Highways Act defines property acquisition forhighway development. Minimum distances for building construction vary, typically 45-60 meters for four-lane roads, with additional setbacks determined by planning authorities. Indian Road Congress guidelines specify building lines at 80 meters and control lines at 150 meters for highways, with a right of way of approximately 90 meters.

iii. **Land Use Policy for Highway**

The amended National Highways Act of 1956 guides land acquisition for highway development, ensuring transparency and due process. Minimum distances for building construction along highways range from 45-60 meters for four-lane roads, as per guidelines. Indian Road Congress standards establish building and control lines at 80 meters and 150 meters, respectively, with a right of way approximately 90 meters wide, according to the National Highway Authority of India.

iv. **Issues and Challenges for the Protection of Ancient Monuments Act (2010)**

The prime focus of the act is to ensure conservation, preservation of the historical identities and attracting tourism to generate growth and development. It safeguards old and heritage structure which are over 100 years old from excavation. The act mandates prohibition for any construction within 100 meter of heritage and monument site along with special permission within 200m in buffer zone.

Directive principles

Articles 48: It states that state are directed to modernize animal husbandry and agricultural along with preserving cattle breed.

Article 51-A(f) It is Citizens prime value to safeguard diverse cultural heritage of the nation

Article 51-A(f) Encourage the citizens for humanism and Scientific temper.

Law regarding protection of river

For the developing Country like India river pollution fall as one of the major problems. According to the Central pollution control board data which was published in the year 2018 around 351 river stretches are polluted in India. According to the CPCB board untreated wastewater is one of the biggest problem. According to the report of the 2021 around 72,368 million liters per day (MLD) of sewage is being generated and out of it only 26,889 million liters per day is treated.

v. Laws regarding the Protection of River

River pollution has become one of the major problems in countries like India. According to the Central Pollution Control Board data, in 2018 around 351 river stretches are polluted in India. According to the CPCB (Central Pollution Control Board), untreated wastewater is the biggest problem in India. According to the 2021 report 72,368 million litres per day (MLD) of sewage is generated and only 26,889 MLD capacity is treated.

vi. The laws related to the Water Pollution Act (1974)

The Act prohibits the exceeding prescribed pollutant standards in water bodies and also mandates obtaining consent for industrial operations, hazardous substance handling, or pollutant discharge. It grants authorities the power to set water quality standards, authorize inspections, and monitor and analyze water quality.

vii. Construction and Demolition Waste (2016)

According to this law, waste generators, local authorities, and government bodies must manage the construction and demolition waste. Waste generators must segregate and store waste properly, while the stakeholders must ensure waste is handed to authorized facilities. Rules mandate local authorities to identify and authorize waste processing facilities, promoting the recycling and reuse to reduce landfill burden.

viii. Formation of NITI Aayog

In 2015, NITI Aayog replaced the Planning Commission, adopting a consultative approach with input from multiple governments. Its priorities include accelerating economic growth, enhancing healthcare and also education infrastructure in cities, focusing on infrastructure and urbanization, promoting digital transformation and innovation, addressing environmental sustainability and climate change, and supporting rural development and agriculture modernization.

LEGAL ASPECT OF URBAN PLANNING

Implementation of the Legal laws plays a very important role in developing countries like India. This topic drives into the various acts and laws ranging from Hazardous waste management, the Biodiversity Act for sustainable development, and various punishments for violation of laws. The chapter also highlights EIA regulation green zone and waste management rules.

i. Hazardous Waste Management Rule (2016)

- The act mandates municipalities to levy fees for the disposal of waste management and also makes the individual responsible for the disposal of their garbage.
- It Includes steps to handle hazardous waste ranging from Prevention, Minimization, reuse, recycling, and safe disposal.
- The law was amended in the year 2019 (Management & Transboundary Movement) and the rules are as follows.
- Solid waste import has been prohibited which includes SEZ (Special Economic Zone).
- Electrical and Electronic assemblies and the defective components are required to be directly exported without permission of the Ministry of Forest and Climate Change.
- Industries that do not require consent from the Water Act 1974 and Air Act 1981 are exempted from requiring authorization to provide hazardous waste if it is generated and also given to proper disposal facilities.

ii. Noise Pollution Control Rule (2000)

- The Air (Prevention and Control of Pollution) Act considers noise as a pollutant. The Central Pollution Control Board sets the noise level criteria for different zones, ranging from 50 dB to 75 dB during the day and 40 dB to 70 dB at night.
- Silence zones around hospitals and schools prohibit loud noises, including horns and firecrackers. Public gatherings are limited to 75 dB for loudspeakers.
- Manufacturing noise for two-wheelers should not exceed 75 dB, and busy airports must maintain noise levels below 70 dB during the day.

iii. Offences and Punishments Under the Air Pollution Act (1981)

Operating an industrial plant without permission can lead to the jail time of 1.5 to 7 years and a daily fine of up to Rs. 5,000, while unsafe vehicle use incurs fines of Rs. 1,000 or Rs. 2,000. Violating PUC certificates results in a fine of Rs. 10,000, while environmental pollution can lead to jail time of up to 5 years and fines up to Rs. 1,00,000, with daily non-compliance fines of Rs. 5,000. Releasing harmful pollutants incurs a fine of Rs. 500.

iv. Punishment for Environment, Air, Water Act

Non-compliance with the stream or well pollution bans can lead to 1.5 to 6 years imprisonment. Disobeying Pollution Control Board directives results in up to three months jail time and a Rs. 10,000 fine, with an additional Rs. 5,000 daily penalty for continued non-compliance. Disregarding court orders leads to 1.5 to 6 years imprisonment and a Rs. 5,000 daily fine. Intentional contamination of public water sources results in up to 3 months jail time and a Rs. 500 fine.

v. Biodiversity Act (2002)

The Biodiversity Act is one of the most important acts enacted in India. The act mainly focuses on the prevention of habitat destruction. It acts as a need to conserve sustainable management for the various biological diversity. The act prevents citizens from over-exploitation of resources. The act gives legality to the sustainable urban planning as it provides a systematic legal framework for the sustainable development of projects by taking various biodiversity clauses and considerations.

This act will ensure efficient urban planning of any which will take into account ecological and sustainable development meeting the current needs as well as taking into account future generations. Therefore it acts as a way of interlinkage link of urban development initiatives and biodiversity conservation.

The prime objective of the act was the conservation of various types of biodiversity which also include species that have genetic resources. The act throws light on the sustainable use of resources which also keeps in mind long-term viability. It focuses on the idea of benefit sharing. One of the most important aspects is maintaining Indigenous and community rights which are useful for their traditional knowledge and resources. It also provides various benefit-sharing mechanisms.

FOREST CONSERVATION ACT (1980)

The Forest Conservation Act is one of the important acts in the Constitution. Its main goal is toprotect the integrity of the forests, preventing the industrial encroachment and alsobiodiversity loss.

Section 2 mandates in the act give special permission for the non-forest uses like tea as well as spices cultivation, while Section 3 of the act allows the forming advisory committees to the preserve forests. The act also aims to protect flora and fauna and prevent the conversion of forest land into the industrial buildings. It also ensures efficient utilization of funds for the purpose of afforestation, reforestation, and also wildlife management.

One of the important amendments is the development of compensatory afforestation according to which special funds will be provided and this Act ensures efficient utilization of funds for afforestation, reforestation, and also for wildlife management endeavors.

EIA REGULATION (2006 AMENDED IN 2020)

It is an act that gives priority to various processes of evaluating the environmental effects that happen due to various activities.

EIA helps companies to identify the environmental impact and ways to mitigate it by doing CSR which is corporate social responsibility activities. The act can be understood using a small example if a company is planning to invest their money in renewable project. EIA will help them to identify the impacts the projet carries if project is constructed.

EIA regulations require a certain percentage of the land within real estate projects which are known as green zones, typically 10% to 30%. These zones aim to preserve the natural ecosystems like forests and mitigate environmental impacts and to promote environmental sustainability.

NATIONAL GREEN TRIBUNAL ACT (2010)

NGT, founded in the year 2010, resolves environmental disputes swiftly, aiming for the conservation and protection. It offers relief for damages and operates regional benches for accessibility, ensuring compliance with environmental laws in India.

NGT(NationalGreenTribunal)wasestablishedinOctober2010asaspecializedbodythatcanhandle any environmental dispute. The objective of the NGT includes expeditious and effectivedisposal of the cases that are related to the protection and conservation of the environment,forests, as well as other natural resourcing formed to give relief and compensations for anydamages that are caused to persons and their properties. To handle the environmental disputeswhichinvolvemulti-disciplinaryissues.

DISPOSAL OF WASTE MANAGEMENT RULE (2016)

The Waste Management Rules (2016) in India address the significant waste management challenges brought about by rapid urbanization. Emphasizing scientific disposal methods like segregation and recycling, the rules aim to mitigate environmental impacts. Key initiatives include mandatory waste segregation at the source, in-house waste management for new developments, and allocating space for recycling facilities in industrial areas. With municipal solid waste (MSW) generation projected to reach 165 million tons by 2031 and 436 million tons by 2050, efficient waste management is crucial. The planning commission reports an unused potential of 439 MW of power from waste, highlighting the need for improved waste-to-energy conversion.

Salient features of the rules include mandatory segregation of waste at the source for reduction, reuse, and recycling. Generators are required to segregate waste into categories like wet waste, napkins, and empty containers and hand over the segregated waste to authorized collectors. New townships and group housing societies must develop in-house waste handling and processing systems for biodegradable waste. Additionally, developers of Special Economic Zones, industrial estates, and parks must earmark at least 5% of the total area or a minimum of five plots for recovery and recycling facilities.

SALIENT FEATURES INCLUDE:

Sources of segregation should be channeled for reduction, reuse, and also recycling.

The generator has been introduced which can segregate the waste into Wet, napkins, empty containers of cleaningagents, mosquito repellents, etc.) and hand overs egregated wastes to authorized rag-pickers or waste collectors or the local bodies.

New townships and Group Housing Societies have been made responsible for developing in-house waste handling, and processing arrangements for bio-degradable waste.

Judicial Scenarios

1. M.C. Mehta vs Union of India (2002)

Issues: In the landmark ruling on September 23, 1986, the Court compelled the Delhi Administration to address pollution from vehicles, setting a precedent for environmental protection. Measures included a sulfur reduction in diesel, lead-free petrol, catalytic converters, pre-blend 2T oil, phasing out old cars, and benzene reduction. This directive aimed to fulfill constitutional duties, safeguard public health for current and future generations, and underscore the responsibility of authorities in curbing emissions, ensuring cleaner air, and mitigating environmental degradation

Judgments: The court found that these hazardous industries contribute to the growth and development of people. For instance, they produce chlorine, which helps in the disinfection of water. These industries also contribute to the employment of people. Therefore, the final decision of the judges was to move such factories to a less populated area so that they do not pose a risk to human life. The court suggested that the government should adopt a national policy on the location of these toxic plants. The government should thoroughly check if the plants are posing a risk to the community.

2. M.C. Mehta vs Union of India (1987)

Issues: In the landmark decision environmental issues arising from hazardous industries near Delhi were addressed. Violations of environmental laws led to degradation and health hazards. The case highlighted the State responsibility, strict liability of industries, and also the role of public interest litigation in environmental activism, shaping Indian environmental jurisprudence.

Judgments: The court recognized the importance ofthe polluting industries in the growth of the economy and the creation of jobs. For example, chlorine is used to disinfect the water. The court ruled that such factories should be moved to the less populated areas to reduce the risk of human fatalities. The court also advised the government for establishment of a national policy on the location of such polluting plants and to ensure they do not endanger the community.

3. Indian Council for Enviro-Legal Action vs Union of India (2011)

Issues: The case addressed illegal mining activities in the state of Karnataka and Goa, highlighting environmental law violations and the state's duty to protect the natural resources. It emphasized sustainable development and the PIL's role in holding authorities accountable and influencing environmental governance in India.

Judgments: The court annulled the amendment as it violated Article 21. The Supreme Court found that the authorities responsible for implementing the CRZ Notification have been overworked and have very limited control. The court ordered the establishment of Coastal Zone Management Authorities to oversee the implementation of the CRZ Notification and provide advice to the Ministry of Foreign Affairs and the Government of India on matters related to coastal regulation.

4. Gujarat Water Pollution Control Board vs Kohinoor Dyeing and Printing Works (1993)

Issues: In the case canteredon theuntreated effluent discharge, violating environmental laws like the Water (Prevention and Control of Pollution) Act, 1974, and the Environment (Protection) Act, 1986. It emphasized regulatory responsibility, urging the industries to adopt pollution control measures for environmental sustainability.

Judgments: The judgment and the order of the Learned Session Judge Surat is annulled and annulled. The order of the Learned Magistrate Surat is confirmed. This Court hereby, of its motion for a preliminary ruling, stays the execution, execution, and also enforcement of the judgment for one month from this date.

5. Delhi Pollution Control Committee vs Splendor Landbase Ltd. (2012)

Issues: the focus was on the company's breach of environmental regulations, notably the Water (Prevention and Control of Pollution) Act, of 1974, and the Environment (Protection) Act, of 1986. The judgment stressed the regulatory accountability, urging industries to adopt effective pollution control measures for environmental preservation.

Judgments: The court maintained the position that residential complexes are exempt from the Water Act's application, whereas the retail centres and commercial buildings are. The DPCC's actions about residential complexes were ruled null and illegal, and also writ petitions were granted in this context. Prior authorization is required for retail malls and commercial complexes under the Water Act and the Air Act. The court granted cross objections while rejecting the DPCC's appeals. All interim orders are void, and each party is responsible for the expenditures.

RECOMMENDATION

1. Review and update laws like the Forest Conservation Act and National Environment Policy to improve sustainable urban planning in India. This can be achieved by revisiting the existing laws, such as the Forest Conservation Act (1980) as well as the National Environment Policy (NEP 2006).

2. Strengthen enforcement of urban planning and environmental laws with more resources and authority for implementing agencies. Enforcement of the laws which are related the urban planning and the environment should be followed up in a better manner.
3. Involve citizens in decision-making through forums and awareness campaigns to promote ownership of sustainable urban planning. Educating and training the public about the importance of environmental conservation and their role in promoting sustainable practices is crucial.
4. Use technology and smart solutions for waste management, energy conservation, and infrastructure development. Smart tech aids sustainable, resilient cities.
5. Develop waste management strategies with source segregation and recycling to reduce pollution and promote resource efficiency. Segregating waste, recycling, and proper disposal mitigate pollution, promote resource efficiency, and enhance environmental sustainability in urban areas.
7. Promote green building practices, urban green spaces, and nature-based solutions to mitigate urbanization's impact on the environment.
8. Provide capacity-building programs for urban planners, government officials, and stakeholders.
9. Foster collaboration among government agencies, NGOs, academia, and community organizations for sharing knowledge and best practices. Promote collaboration among government, NGOs, and academia for sustainable urban planning.
10. Offer incentives and recognition for adopting sustainable practices in urban development projects.
11. Establish monitoring and evaluation mechanisms to assess the effectiveness of sustainable urban planning initiatives.
12. Conduct workshops and campaigns to educate communities about sustainable practices and environmental conservation.
13. Develop robust disaster management strategies to protect heritage sites from natural calamities. Regular assessments and feedback loops can help identify gaps, measure progress, and inform future policy decisions for continuous improvement.
14. Use advanced technologies like 3D scanning and digital mapping for preserving and restoring historical monuments. Advanced technology should be used in a precise manner.
15. Promote responsible tourism to minimize negative impacts on heritage sites and ecosystems while promoting cultural appreciation.
16. Enforce environmental laws rigorously and ensure proper river protection and waste management practices.

17. Involve local communities in river conservation efforts and decision-making processes related to environmental policies.
18. Invest in modern waste management facilities to streamline disposal processes and encourage recycling.
19. Implement strict regulations and monitor dumping sites to prevent environmental contamination and health hazards.
20. Collaborate for holistic, sustainable urban solutions among planners, scientists, and policymakers.
21. Support research initiatives aimed at developing innovative technologies and approaches for sustainable urban planning and environmental management.

CONCLUSIONS

In conclusion, the given paper delves into the critical intersection of sustainability, environmental challenges, and urban planning, particularly in the context of rapid urbanization and population growth observed in developing countries like India. It also highlights the pressing need for sustainable urban planning practices to mitigate environmental degradation and also to promote the well-being of the residents amid exponential urban expansion.

Despite existing laws that safeguard the environment, inadequate and legal frameworks, enforcement mechanisms persist which leads to issues such as pollution, unplanned urbanization, and inadequate waste management. Through the comprehensive analysis of legal dimensions, challenges, and recommendations, the given paper emphasizes on the urgency of strengthening legal frameworks and governance to ensure effective sustainable urban planning and various mitigate environmental risks.

Furthermore, the paper also encompasses various policies, acts, and the initiatives such as the, Biodiversity Act which are aimed at promoting sustainable urban development and addressing environmental concerns. The incorporation of the renewable energy, waste reduction strategies and the heritage conservation efforts underscores India's commitment towards achieving more inclusive and more sustainable growth. With the establishment of the NITI Aayog, India's approach to the planning has evolved to embrace consultative processes and diverse stakeholder input, emphasizing on the importance of collaborative efforts the in promoting sustainable development and addressing environmental challenges for a more resilient future.

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Evidential Value of DNA Profiling: An Insight on its Utility and Admissibility in India

*Dr. Sumit Jaiswal**

ABSTRACT

Our judiciary believes in the principle that the innocent person must not be punished and at the same time, the guilty person must not be escaped. To punish the guilty person or to save the innocent person evidence plays an important role. The present era of technology has affected us in all the spheres of our life. Using DNA profiling as evidence is one of the best examples of how modern technology has transformed the justice delivery system. DNA contains general information common to all humans, so it is also known as the blueprint of life. two randomly selected individuals, from anywhere in the world, are supposed to be 99.9 percent genetically similar that is why the number of arms, legs, fingers, and toes remains exactly the same in all individuals but some parts of the stored information of DNA are unique and relate to only a specific person. On the basis of that unique information, offenders can be identified with the help of the DNA sample as well as innocents can easily be exonerated from suspects. In other words, DNA profiling is a very useful tool in the cases where we have to identify the perpetrator(s), the suspect(s), or victim(s) through the biological evidence traced from the body of the suspect(s), the victim(s), crime scene, or weapons used for committing the crime, etc. So, due to its utility, DNA Profiling has been getting increasing acceptance during the past thirty years and at present, it is extensively used by police, investigation agencies, prosecution, and defence advocates in courts across the globe. But in criminal cases, identity is not a major issue than *mens rea* or consent, for which ascertainment, DNA profiling is not helpful at all.

Keywords: DNA Profiling, Evidence, Victim, Crime, Justice.

RESEARCH METHODOLOGY

This research paper is techno-legal in nature which involves an analysis of various national and international legal provisions with regard to statutory requirements of

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using DNA profiling as evidence in judicial proceedings, leading court judgments in this area, policies, etc. The research conducted for this paper is analytical in nature which has been done by using the doctrinal method.

INTRODUCTION

"*Satyamev Jayate*"[1] is the hallmark of our justice system, which has been taken from "*Mundaka Upanishad*" it means "Truth alone triumphs". Our judiciary works on the principle that the innocent person must not be punished and at the same time the guilty person must not be escaped. To punish the guilty person or to save the innocent person depends on the evidence which is used for the purpose of investigating a crime, proceedings of the crime, and adjudicating that crime.

Today, we are living in an era of technology. We are using smart phones, smart home appliances, smart vehicles, etc. everything is becoming smarter. Technology, at present, has sufficiently affected us in all the spheres of our life. So, the present technology-based era has also altered several facets of the judicial proceedings. Using DNA[2] profiling as evidence is one of the best examples of how modern technology has transformed the justice delivery system. It is, perhaps, the most significant advancement which is very useful to identify the criminals as well as to exonerate other persons as suspects at the investigation stage.

The use of DNA tests on skin tissue, saliva, semen, and hair is very helpful in identifying the suspects to be convicted for crimes. That is the reason why DNA technology has been getting increasing acceptance for the last thirty years and at present, it is extensively used by police, investigation agencies, prosecution, and defence advocates in courts across the globe. On the other hand, in criminal cases, identity is not a major issue than *mens rea* or consent, for which DNA profiling is not helpful.[3] Apart from this, it has also raised the questions of the reliability of methods applied for conducting DNA tests, interpretation of results of those tests, and the implications for human rights.[4] So, its acceptance in our justice delivery system keeping in mind these issues with necessary amendments in existing laws is the paramount need of the hour.

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1 Mundaka Upanishad, 3.1.6, "Satyameva Jayate Na-anrtham satyena panthaa vitato devayaanah | Yen-aakramanty-rsayo hyaapta-kaamaa – Yatra tat satyasya paramam nidhaanam ||6|| (Truth alone triumphs, not falsehood. By truth is laid out the divine path, which the seers who are free from desires, reach to the supreme adobe of truth)."

2 DNA is an abbreviation of Deoxyribonucleic acid also known as 'Genetic Material', establishes a unique genetic code for every person determining the unique characteristics of a person. It is much like an individual's own personal barcode or the blueprint of life.

3 Dr. A. K. Srivastva, *DNA Testing and Human Rights Implication in Civil and Criminal Investigation*, 6 Crim. L. J. 81 (2007).

4 Peter Alldridge et al., DNA Profiling and the Use of Expert Scientific Witnesses in Criminal Proceedings, Phil Fennell et al. (eds.), Criminal Justice in Europe: A Comparative Study 269-270 (Oxford: Clarendon Press, 1995).

MEANING OF DNA AND DNA PROFILING

Before analyzing the utility of DNA technology in the judicial system, we have to understand the meaning of DNA and DNA profiling. DNA or Deoxyribonucleic acid is also called the blueprint of life because it contains information about functional abilities and physical characteristics.[5] DNA is regarded as one of science's most significant discoveries, which was first discovered by a Swiss biochemist Johann Fredrich Miescher in 1868.[6] He successfully isolated 'Nuclein' which is a compound of nucleic acid. Adenine, thymine, cytosine, and guanine presence in thymus nucleic acid (presently known as DNA) was demonstrated by Ascoli in 1900 and Levene in 1903.[7] The theory of DNA was further developed and described by various scientists. In the year 1953, two scientists, James D. Watson and Francis H.C. crick discovered the Double-Helix DNA structure that appears like a twisted ladder. They also defined the function of DNA as the substance which forms the genetic code of a living organism.[8] Both the scientists were awarded the Novel prize in 1962 for their discovery. Alternating units of deoxyribose sugar and phosphate form the sides of the Double-helix structure of DNA, while the ladder connectors are made of bases such as Adenine (A), Cytosine (C), Guanine (G), and Thymine (T). Owing to their chemical composition, thymine is always combined with adenine, and guanine is always combined with cytosine.[9] Each rung on the ladder consists of two bases making a T-A, A-T, G-C, or C-G the only possible combinations.

DNA contains general information common to all humans, so it is also known as the blueprint of life. two randomly selected individuals, from anywhere in the world, are supposed to be 99.9 percent identical genetically[10] which is the reason the number of arms, legs, fingers, and toes remains the same from individual to individual. However, some parts of the stored information of DNA are unique and relate to only a specific person, which makes use of DNA profiling as evidence very valuable because there is no chance of someone else may have identical DNA to that person except in identical twins cases.[11] Only identical twins have identical DNA. DNA profiling was discovered

5 National Commission on the Future of DNA Evidence, National Institute of Justice, U.S. Dept. of Justice. *Post Conviction DNA testing: Recommendation for Handing Request* quoted by Allision Puri, *An International DNA Database: Balancing, hope, privacy and scientific error*, 24, Boston College Int'l C. L. R. 349 (2001).

6 Abhijeet Sharma, Guide to DNA Tests in Paternity Determination and Criminal Investigation 5 (Wadhwa & Co., 2007).

7 *Id.*

8 Dr. Nirpat Patel et al., *The role of DNA in criminal investigation- admissibility in Indian legal system and future perspectives*, 7 Int'l J. H. S. S. I. 15 (2013).

9 *Supra* note 6, at 3.

10 Roger Highfield, *DNA survey finds all humans are 99.9pc the same*, The Telegraph (Dec. 27, 2019, 11:15 PM), http://wwwtelegraph.co.uk/news/worldnews/northamerica/usa/1416706/DNA-survey-finds-all-humans-are-99.9pc-the-same.html.

11 R. Usha Rani, *DNA Evidence and the Courts*, 1 K. L. J. 2 (2008).

by Sir Alec John Jeffreys to identify individuals in 1984 at the University of Leicester.[12] The process of extracting a particular DNA sequence, also known as profile, from a person's body tissue sample is termed as DNA profiling. The DNA profile is very useful to determine the source of a DNA sample on a crime scene.[13] A DNA profile is not read in laboratories but made readable or comparable through the procedures performed on a bodily sample.

DNA IDENTIFICATION TECHNIQUES

With the development of science and technology, there are various techniques available in recent time to identify and analyze DNA samples, i.e. RFLP or Restriction Fragment Length Polymorphism,[14] PCR or Polymerase Chain Reaction,[15] Mt. DNA or Mitochondrial DNA analysis,[16] Amp. FLP or Amplified Fragment Length Polymorphism, etc. but among these all techniques, RFLP and PCR are mostly used to conduct DNA tests. The RFLP technique supports only a greater volume of DNA sample and, for proper testing, the sample must be uncontaminated. A small amount of DNA cannot be tested through the RFLP technique, whereas in the PCR technique, a smaller volume of DNA sample can also be tested.[17] However, the procedure of the PCR test is a particularly sensitive procedure and the findings may be compromised by slight contamination at the crime scene.

UTILITY OF DNA PROFILING FOR LEGAL PURPOSES

DNA profiling is a very useful tool in the cases where we have to identify the perpetrator(s), the suspect(s), or the victim(s) through the biological evidence traced from the body of the suspect(s), the victim(s), crime scene, or weapons used for committing the crime, etc. At the same time, DNA profiling is also useful to exonerate innocents from suspects. DNA profiling can be utilized in the following legal purposes:-

In Sexual Crimes

In crimes relating to sex, the history of incidents helps forensic experts to trace and obtain samples of forensic significance. In such cases, hair, saliva, semen, and blood

12 Alec J Jeffreys, *The man behind the DNA fingerprints: an interview with Professor Sir Alec Jeffreys* (Dec. 27, 2019, 11:40 PM), http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3831583/

13 *DNA profiling*, Science Learning Hub (Dec. 28, 2019, 10:16 PM), https://www.sciencelearn.org.nz/resources/1980-dna-profiling.

14 R. C. Lewontin, *The use of DNA profiles in forensic contexts*, 9 Statistical Sci., 18 (1991).

15 Gaurav Solanki, *Polymerase Chain Reaction*, 3 I. J. P. R. 98, 98-102, (2012).

16 Vikash C. Mishra et al, *mtDNA analysis: A valuable tool to establish relationship in live related organ transplant*, 1 I. J. N. 14, 14-20 (2020) (Apr. 29, 2019, 11:33 PM), https://www.indianjnephrol.org/text.asp?2020/30/1/14/266083.

17 Donald E. Riley, *DNA Testing: An Introduction for Non-Scientists*, Sci. Testimony (2005) (Dec. 27, 2019, 01:25 PM), http://www.scientific.org/tutorials/articles/riley/riley.html.

may get exchanged between perpetrators and victims during the sexual assault.[18] Perpetrators can be identified through DNA evidence traced and gathered from a number of sources, such as semen, saliva, hair, or tissue, etc. left on the apparel or the body of the victim or at the crime scene in sexual crimes or rape cases. Similarly, the presence of blood, vaginal smear, or tissue of the victim on the body of suspect is a potential tool to identify the perpetrator.

In Physical Assault or Murder Cases

Perpetrators can be identified by employing DNA tests with the help of his blood, or tissue present on the apparel, or body of the victim, or at the crime scene. Similarly, the presence of blood or tissue of the victim on the culprit's body, crime weapon, or at the crime scene also provides a link to prosecute the perpetrators through DNA technology. DNA profiling can be a game changer even in cold murder cases. If samples are degraded or affected by UV light, heat, or moisture, there are techniques that may be employed for DNA profiling in such situations. The innovative technology of DNA has made it easier for scientists to do more with less.[19]

In Cases of Accidents, Unidentified Bodies / Mass Disaster

In any of accidents, unidentified bodies, or mass disaster cases, disfigured, mutilated or burnt bodies can be identified by comparing DNA profile with close blood relatives, for instance, DNA profiling was used to identify the 2013 Kedarnath deluge victims.[20] Even late Prime Minister Rajiv Gandhi's alleged assassins Dhanu and Sivarasan were also identified through employing DNA profiling.[21]

In Paternity or Maternity Disputes

In any disputes pertaining to paternity or maternity which may arise in case of Adoption, Assisted reproductive technologies (ARTs), false paternity, Child swapping,[22] etc., the

18 Auroshree, *Management of DNA Sampling in Rape Incidents* [SCC Archives] (Dec. 27, 2019, 02:15 PM), http://www.scconline.com/blog/post/2018/11/29/management-of-dna-sampling-in-rape-incidents/amp/.

19 Jill Hilbrenner, *DNA evidence and cold murder cases: when hidden clues catch killers*, The Guardian, Mar. 09, 2016 (Dec. 28, 2019, 09:30 AM), http://www.theguardian.com/how-to-solve-a-murder/2016/mar/09/when-evidence-speaks-how-forensic-scientists-make-cold-case-breakthroughs.

20 *Identities of 18 Uttrakhand tragedy victims established*, The Hindu, July 07, 2014 (Dec. 28, 2019, 11:10 AM), http://www.thehindu.com/news/national/identities-of-18-uttarakhand-tragedy-victims-established/article6186583.ece.

21 L. Sanmiha & M. Yokesh, *A study on role of DNA technology in criminal investigation*, 5 Int'l J. P. A. M. 4435, 4433-4453 (2018).

22 A. K. Sharma, *DNA profiling: Social, legal, or biological parentage*, I. J. Hum. Genetics (Dec. 29, 2019, 10:15 AM), http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3168143/.

DNA profile of the child can be used by comparing it with that of mother and father in order to resolve such disputes. Even the first case of India, in which the DNA test was employed, was also a paternity dispute.[23]

In Organ Transplantation

Under section 2 (i) of the Transplantation of Human Organs Act, 1994 in accordance with Rule 4(c) of THOA[24], DNA test may be used to improve graft survival as well as to curb unethical and illegal commercial dealings in the human organs transplantation.

In Non-Human DNA Cases

Wildlife specimens used in trafficking like rhino horn, tiger skin & bones, bear bile, tortoise skin & shell, biological warfare agents, etc. can be identified with the help of DNA technology.[25]

Miscellaneous Cases

Cases for identifying sources of a threatening letter from licked stamps, fake blood donors, etc. can be solved by using DNA profiling.[26]

LEGAL RECOGNITION OF DNA PROFILING

The first conviction in any criminal justice system with the help of DNA profiling occurred in Britain in October 1987. A disabled woman was raped in her home near Bristol, England, but she was unable to identify her rapist due to her mental unsoundness. A suspect on providing a blood sample and subsequently being notified of a "match" with the sample found from the crime scene changed his plea to guilty.[27]

However, it was *Colin Pitchfork* case that launched the DNA technique in the public arena, teenage girl Lynda Mann was murdered in 1983 after being raped, and in 1986; another girl Dawn Ashworth was killed in a similar manner. Initially, police had a suspect, *Richard Buckland* whose DNA did not match with DNA samples found from both crime scenes when a DNA test was conducted by *Alec John Jeffreys*. Then the police undertook the world's first DNA dragnet in order to find the real culprit. After testing DNA profiling of more than 4000 men, the killer's profile didn't match until a man, *Ian Kelly*, was overheard boasting that he had provided his sample in DNA dragnet while masquerading as one of his friends, *Colin Pitchfork*. When the DNA sample of Colin Pitchfork was analyzed, it matched with the DNA samples

23 Kunhiraman v. Manoj, Ï [1991] D.M.C. 499 (India).

24 The Transplantation of Human Organs (Amendment) Rules, 2008.

25 *DNA profiling in justice delivery system*, Central Forensic Science Laboratory, Directorate of Forensic Science, Ministry of Home Affairs, Government of India, Kolkata, (2007).

26 *Id.*

27 Jane Maria Taupin, *Impact of DNA Profiling on the Criminal Justice System*, 16, (1994) (Unpublished thesis for M.A. of University of Melbourne, Australia).

recovered from the crime scenes. Later he confessed and sentenced to life in prison for both murders in 1988.[28]

In Florida, United States, in the case of *State* v. *Andrews*[29], Tommy Lee Andrews became the first culprit of the US who was convicted with the help of DNA evidence, for the charge of raping a woman. He was sentenced to 22 years imprisonment on November 6, 1987.

The first case in India to employ DNA test was of paternity dispute titled *Kunhiraman* v. *Manoj*[30] the DNA analysis by the Centre for Cellular and Molecular Biology (CCMB), Hyderabad proved that suspect Mr. Kunhiraman was the child's biological father. The chief judicial magistrate, Thalassery (telicherry), Kerala, announce the following verdict on April 24, 1990:

> "*Expert opinion is admissible under section 45 of the Indian Evidence Act, 1872. So also, the grounds on which the opinion is based are also relevant u/s 51 of the Act. The senior scientist attached to the CCMB is a molecular biology expert and the evidence, he has tendered, is quite convincing and there is no reason why it should be rejected. Just like the opinion of a chemical analyst or a fingerprint expert, the opinion of the senior scientist of the CCMB, who is also an expert on cellular and molecular biology, is also acceptable.*"[31]

The decision was challenged in the Kerala High Court which upheld the decision.

ADMISSIBILITY OF DNA PROFILING

United States

In the United States, DNA profiling plays a crucial role in the justice delivery system. Courts in the US use one of the following tests with respect to the admissibility of DNA profiling. The first test is the *Frye test*, pronounced by the US Circuit Court for the District of Columbia in the case of *Frye* v. *United States*.[32] As per the principles established by the Frye test, to be admissible in the court, the new scientific techniques must already have been widely accepted by the scientific community specialized in that subject.

The second test focuses on the basic relevancy standards of the Federal Rules of Evidence. The relevant evidence has been defined by the federal rule 401 as "evidence having any tendency to make the existence of any fact that is of consequence to the determination of the action more probable or less probable than it would be without the evidence." The federal rule 403 makes the evidence more reliable by "the exclusion

28 R v Pitchfork, E.W.C.A. Crim 963 (2009).

29 State v. Andrews, 533 SO 2d 841 (Fla. Dist. Ct. App. 1988).

30 Kunhiraman v. Manoj, Ï (1991) D.M.C. 499; (1991) 3 Crimes 860 (Ker.) (India).

31 *Id.*

32 Frye v. United States, 293 F. 1013, 1014 (D.C. Cir.1923).

of relevant evidence on grounds of prejudice, confusion, or wastage of time." The federal rule 702 provides for "testimony by expert witnesses."

In *Daubert* v. *Merrell Dow Pharmaceuticals,*[33] the Supreme Court of the United States held that the Frye test has been superseded by the federal rules of evidence in the trails of the federal court and thus the court laid down a new standard for assessing the admissibility of the novel scientific evidence.

So in the US, some states follow the Frye test and some follow the Daubert test whereas some states of the US have developed their own tests and legislatures regarding the admissibility of novel scientific evidence in which DNA profiling also comes within.

United Kingdom

In the United Kingdom, the usage of DNA evidence in the legal system is very common. In fact, the UK is known for the application of DNA profiling in criminal justice. English geneticist Dr. Alec Jeffery introduced the DNA technology in criminal identification first ever in the world in the very famous Colin Pitchfork's case.[34] DNA profiling and DNA database have been essential elements of the criminal investigation process in the UK. After establishing the National DNA Database (NDNAD) in the year 1995, England became a global leader in the development of innovative methods to use DNA profiling for identification of the suspects, protection of the innocents and to ensure the conviction of the guilty persons.[35]

India

Indian Constitution under articles 51A(h)[36] and 51A(j)[37] directs its citizens, "to develop the scientific temper, humanism and the spirit of inquiry and reform." and "to strive towards excellence in all spheres of individual and collective activity so that the nation constantly rises to higher levels of endeavour and achievement." So, our constitution promotes a scientific approach among Indians. At present, there is no specific legislation relating to DNA profiling in India. However, sections 53[38],

33 Daubert v. Merrell Dow Pharmaceuticals, 509 U.S. 579.

34 R v Pitchfork, (2009) E.W.C.A. Crim. 963.

35 Subhash Chandra Singh, *DNA profiling and the forensic use of DNA evidence in criminal proceedings*, 53 J. I. L. I. 207 (2011).

36 INDIA CONST. art. 51A, cl.(h).

37 INDIA CONST. art. 51A, cl. (j).

38 "Examination of accused: (1) when a person is arrested on a charge of committing an offence …. and … there are reasonable grounds …. that an examination ….. will afford evidence ..... a registered medical practitioner, acting at the request of a police officer, not below the rank of sub-inspector, ….. to make such an examination ….. which may afford such evidence, and to use such force as is reasonably necessary for that purpose. (2) Whenever the person of a female ……. the examination shall be made only by, or under the supervision of, a female registered medical practitioner."

53A[39], and 54[40] of the Code of Criminal Procedure, 1973[41] are used for the purpose of DNA evidence collection in order to investigate criminal cases. To ensure justice, the court has wider power to issue directions to the police for the collection of accused blood samples to conduct DNA tests for further investigation in criminal cases pursuant to sections 173 (8)[42] and 293 (4) (e) of the Cr. P. C., 1973.

Indian Evidence Act, 1872, under section 9, sets out the necessary facts to explain or establish the facts in issue or the relevant facts,[43] and section 45 of the act provides for the expert opinion[44] in case of scientific matters which also includes DNA profiling. Section 46 of the evidence act deals with the facts which support or oppose the opinion

39 "Examination of accused of rape: (1) When a person is arrested on a charge of committing … rape or an attempt to commit rape and there are reasonable grounds for believing that an examination of his person will afford evidence ……., it shall be lawful for a registered medical practitioner …….. at the request of a police officer not below the rank of sub-inspector, …….. to make such an examination of the arrested person ……. (2) The registered medical practitioner …….. shall, without delay, examine such person and prepare a report of his examination giving the following particulars, namely; (i) the name and address of the accused ……, (ii) age, (iii) marks of injury, if any, (iv) 'the description of material taken from the person of the accused for DNA profiling', and (v) other material particulars in reasonable detail."

40 "Examination of the arrested person at his request: When a person who is arrested, …... the examination of his body will afford evidence which will disprove the commission by him of any offence or which will establish the commission by any other person of any offence against his body, the Magistrate shall, if requested by the arrested person so to do direct the examination of the body of such person by a registered medical practitioner unless the Magistrate considers that the request is made for the purpose of vexation or delay or for defeating the ends of justice."

41 Hereinafter referred to as the Cr. P. C., 1973.

42 "Nothing in this section shall be deemed to preclude further investigation in respect of an offence after a report under sub-section (2) has been forwarded to the Magistrate and, where upon such investigation, the officer in charge of the police station obtains further evidence, oral or documentary, he shall forward to the Magistrate a further report or reports regarding such evidence in the form prescribed; and the provisions of sub-sections (2) to (6) shall, as far as may be, apply in relation to such report or reports as they apply in relation to a report forwarded under sub-section (2)."

43 "Facts necessary to explain or introduce a fact in issue or relevant facts, or which support or rebut an inference suggested by a fact in issues or relevant fact, or which establish the identity of anything or person whose identity is relevant, or fix the time or place at which any fact in issue or relevant fact happened, or which show the relation of parties by whom any such fact was transacted, are relevant in so far as they are necessary for that purpose."

44 "When the court has to form an opinion upon point of foreign law or of science or art, or as to identity of handwriting [or finger impressions], the opinions upon that point of persons specially skilled in such foreign law, science or art, [or in questions as to identity of handwriting] [or finger impressions] are relevant facts. Such persons are called experts."

of expert[45] and section 51 makes the grounds of the expert opinion also relevant.[46] These all provisions of the Indian Evidence Act are used in dealing with the DNA evidence in the court proceedings. Besides these provisions, section 293 of the Cr. P. C., 1973 takes into consideration the reports by certain Government scientific experts.

As per section 293 (2) of the Cr. P. C., the court, by using its power, may summon and examine the expert on the content of the report submitted by him. Under section 164A of the Cr. P. C., rape victims undergo a medical examination so that DNA evidence can be collected.

On the issue of admissibility of DNA evidence, the Andra Pradesh High Court observed in the case of *Patangi Balrama Venkata Ganesh* v. *State of Andhra Pradesh*[47] that if a person's DNA profile matches with a sample, it indicates that the sample belongs to that particular person only. The likelihood that two people, except in the case of identical twins, would have the same DNA profile is around one in 30 billion people in the world whereas the world's existing population is much less than it. Thus, as per the opinion of the court DNA profiling provides the perfect identity.

In the case of *Raghuvir Desai* v. *State,*[48] the High Court of Bombay ruled that the DNA test provides a clinching piece of evidence. If two samples match, it allows a virtually positive identification which helps to exonerate the innocents and to prosecute the guilty persons.

In a very important decision of *Gautam Kundu* v. *State of West Bengal,*[49] the Supreme Court of India decided that request for blood test cannot be approved without mentioning any reason whatever to have recourse to the test. The court further ruled that No person would be coerced to provide blood samples to be tested against his or her will and if he or she refuses for such a test, no adverse inference could be made against him or her. But the Apex Court in *Sharda* v. *Dharampal*[50] changed its stand and ruled that the court can order a person to undergo a test for the medical purpose. If the applicant has a clear prima facie case and also there is ample evidence before the court, in such cases, the court should issue such an order. If despite the court order, the respondent does not cooperate to be a part of that medical test, the court shall make an adverse inference against him or her.

In *Rohit Shekhar* v. *Shri Narayan Dutt Tiwari,*[51] the Apex Court declined to dismiss the decision of the High Court of Delhi ordering the Congress party leader Mr. Narayan

45 "Facts not otherwise relevant are relevant if they support or are inconsistent with the opinions of experts, when such opinions are relevant."

46 "Whenever the opinion of any living person is relevant, the grounds on which such opinion is based are also relevant."

47 Patangi Balrama Venkata Ganesh v. State of Andhra Pradesh, (2003) Cri. L. J. 4508 (India).

48 Raghuvir Desai v. State, (2007) Cri. L. J. 829 (India).

49 Gautam Kundu v. State of West Bengal, (1993) 3 S.C.C. 418 (India).

50 Sharda v. Dharampal, A.I.R. 2003 S.C. 1950(B) (India).

51 Rohit Shekhar v. Shri Narayan Dutt Tiwari, (2011) (121) D.R.J. 562 (Delhi), I.L.R. (2010) Supp. (3) Del. 573 (India).

Dutt Tiwari to give a sample for the DNA test. In this famous case, Mr. Rohit Shekhar claimed to be Mr. N.D. Tiwari's biological son, but the Congress leader was not ready for DNA test arguing that it would violate his right to privacy and would also trigger him to be publicly embarrassed. The Apex Court did not accept his arguments, stating that there was no point in being embarrassed if the report of the DNA test would not be disclosed to anybody and would be handed over only to the court inside a sealed envelope. The court further said that we want to ensure justice; this young man should be not left without any remedy. In this case, Delhi High Court also ordered to use appropriate force to take the blood sample.

The Supreme Court approved the importance of DNA profiling in the case of *Dharam Deo Yadav* v. *State of Uttar Pradesh*,[52] in this case, the court observed:

> *"Deoxyribonucleic acid or DNA is the biological blueprint of all life on this earth. DNA consists of a double-helix structure of phosphate black bone and deoxyribose sugar, cross-linked with two groups of nucleic acids known as Adenine & Thymine, and Cytosine & Guanine. The most significant function of the DNA profile is to classify individuals and their blood ties, such as father, mother, brother, and so on. Effective identification of skeleton remains can also be done through DNA profiling. The DNA profile can generally be extracted from biological materials such as hair, skin, saliva, semen, blood, bones, etc. The issue as to whether DNA tests are practically infallible may be a moot question, but the truth remains that such a test has come to stay and is commonly used for the purpose of the criminal investigation, and the court often takes into consideration the expert opinions, particularly where cases are focused on circumstantial evidence. More than half a century ago, human DNA samples started to be used in the criminal justice system. No doubt, there is an ongoing debate about the safeguards that should be needed during the samples testing process and while presenting the evidence before the court. However, the DNA profile is held to be accurate and reliable; but overall, it depends on the quality management and quality assurance techniques of the laboratory. Close relatives have more genes in common than in individuals and different techniques have been suggested to deal with the likelihood that the real source of forensic DNA is a close relative."*[53]

In *Vishal Yadav* v. *State of Uttar Pradesh*[54] (popularly known as "*Nitish Katara Murder Case"*) in this case, It was very difficult to identify the victim's dead body because the murderers had burnt his dead body and only a small portion of one un-burnt palm with fingers was available. Here too, DNA profile helped to locate the remains of the corpse by comparing the DNA profile with the deceased's parents which enabled the High Court of Delhi to uphold the conviction of the accused.

DNA PROFILING: SOME LEGAL ISSUES

India doesn't have any specific legislation to deal with DNA profiling. Provisions of existing laws are old enough and do not support the modern technology of DNA

52 Dharam Deo Yadav v. State of Uttar Pradesh, (2014) 5 S.C.C. 509 (India).
53 *Id.*

profiling due to which some legal confusions and controversies arise, for example, the Indian Evidence Act, 1872, under section 112, determines a child's parentage by stating that a child born from a legally valid marriage between his/her mother and a man, or within the period of 280 days from the dissolution of such a marriage when the child's mother does not remarry, legally confirms the man as the child's father, if it is not proved otherwise. This presumption of law is of conclusive nature and does not support scientific techniques like DNA profiling to determine the paternity of a child. The only exception to this section is when the husband proves that at the time of conception of the child, he had no access to his wife (child's mother). The foundation of this section is the Latin maxim "*Pater est quem nuptiae demonstrant*" which means the father is the one shown by the nuptials.

In the case of *Nandlal Wasudeo Badwaik* v. *Lata Nandlal Badwaik*[55] the Apex Court held that "Truth must triumph is the hallmark of justice." in this landmark case, a baby girl was born during the course of the legally valid marriage, and thus, pursuant to section 112 of the Indian Evidence Act, the appellant would be regarded the legitimate father of the girl. However, the result of the DNA test excluded him to be the biological father of that baby girl. The DNA test was re-conducted on the wife's request but the fresh report also confirmed the husband's exclusion. At that point, the wife requested the court to decide about the legitimacy as per the provision of section 112. The presumption of paternity under section 112 is conclusive and irrebuttable by DNA evidence, this approach has been recognized by the court in a number of cases, so in such circumstances, the justice is not arrived at in real sense but in this case, science prevailed upon the apex court and not the law. The court concluded:

> "*The plea of the husband that he did not have access to the wife when the baby was begotten stands proved by the result of DNA test, and in the face of it, we cannot force the appellant to accept the fatherhood of a baby if the scientific findings show otherwise. We are aware that an innocent baby may not be bastardized as the marriage between her mother and father was subsisting at the time of her birth, but in view of the result of the DNA test and what we have observed above, we cannot forestall the consequence. It is denying the truth. Truth must triumph is the hallmark of justice*."[56]

This revolutionary decision of the Supreme Court has made the background to change the existing provision of section 112 of the Indian evidence act and to make it supportable to DNA evidence.

Sometimes, the use of DNA profiling as evidence is criticized on the ground that it is a threat to "the right to privacy" recognized by "the right to life and personal liberty" under Article 21, and "the right against self-incrimination" under Article 20(3) of the Constitution of India, but it was decided by India's Supreme Court that the right to life and personal liberty is not an absolute fundamental right. In the case of *Govind*

54 Vishal Yadav v. State of Uttar Pradesh, (2014) S.C.C. online Del. 1373 (India).

55 Nandlal Wasudeo Badwaik v. Lata Nandlal Badwaik, (2014) 2 S.C.C. 576 (India).

56 *Id.*

Singh v. *State of Madhya Pradesh*,[57] the Apex court ruled that fundamental rights must be subject to limitations on the ground of legitimate public interest. Being not contrary to the right to life and personal liberty, the various courts of the country have permitted the use of DNA profiling in the investigation and in developing the evidence. In order to ensure the effective use of the modern technology of DNA profiling in the justice delivery system, there is an immediate need for the enactment of specific legislation to provide the regulating guidelines of DNA testing in India.

CONCLUSION

DNA profiling is more definitive than traditional techniques. In the present technology-oriented era, it is very useful in judicial proceedings to arrive at justice but it also has some issues such as, it is an expensive technique which could be afforded by the prosecution because of the state's financial assistance, on the other hand, for the defence, it is very difficult to afford. With the help of DNA evidence, a person can be identified due to his/her participation in the crime or a person may also become a suspect because of his/her DNA sample found at the crime scene due to his/her presence at the crime scene, but DNA evidence cannot prove *mens rea* which is one of the main elements of the crime. This technique is complex and may be difficult for judges and advocates to understand. It may increase the police power and may be a threat to civil liberties, for example, the provisions of sections 53 & 53A of the Cr. P.C., 1973, enable the taking of bodily samples by a medical practitioner on receiving a request from a police officer, who is not below the rank of sub-inspector, without the consent of the accused person. Apart from this, contamination at any stage of DNA profiling can change the result of the DNA test. Contamination typically occurs while touching the samples without gloves, coughing, sneezing, and a number of other mishaps. These all issues should be sorted out and it is possible only by enacting specific legislation to deal with the matters relating to DNA profiling. Moving on this direction, the government has introduced '*the DNA Technology (Use and Application) Regulation Bill, 2019*' in *Lok Sabha* in July 2019 for the purpose of regulating the usage of the DNA evidence for the identification of certain people.

57 Govind Singh v. State of Madhya Pradesh, A.I.R. 1975 S.C. 1358 (India).

The Role of Independent Director: Examining Legal Frameworks to Ensure Board Independence

*Mr. Vibhor Tewari**

ABSTRACT

This research paper delves into the role of independent directors and their role in modern corporate governance by focusing on the independence of the board. These directors play an important role in making sure the companies are fair and honest in their dealings. The papers try to analyze the national and international legal framework dealing with the appointment, responsibilities and performance of an independent director focusing on their need to safeguard the shareholder's interests. The paper also talks about the fiduciary duties of these directors along with the composition of the board and its effectiveness while addressing the modern challenges faced by the companies in ensuring the independence of the board. The paper will also suggest various recommendations that would be helpful in ensuring the independence of the board and enhancing the corporate governance practices and will try to show if or not independent directors are necessary in ensuring transparency and accountability within the company and towards the shareholders.

Keywords: Independent directors, corporate governance, legal frameworks, board independence, fiduciary duties, board composition, appointment process, director qualifications, board effectiveness, challenges, future directions, recommendations.

1. INTRODUCTION

It is the fundamental concept in corporate governance that an independent board stands as a foundation to maintain transparency, accountability and ethical decision-making within the organization.[1] To maintain transparency within the organizations we have the independent directors, these are the individuals who play an important role to balance the interest of various stakeholders and maintain the integrity in the

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1 Organization for Economic Cooperation and Development. Principles of Corporate Governance. 2022. https://www.oecd.org/daf/ca/corporate-governance-principles-eng.pdf. (Accessed on 23rd August 2023) corporate governance and also the debate on granting of additional rights to the minority.

functioning of the organization. This research work delves into the concept of independent directors, examining the legal framework that have been established to ensure their autonomy and effectiveness and their relevance in the independence of the board. These directors are introduced to serve as a balance to executive management and the shareholders in a corporation, neither are they affiliated with the day to day management of the company nor are they its major shareholders therefore they have the capacity to provide unique unbiased judgment. Their primary function is to act in the best interest of the company ensuring the long term sustainability in mind.

But the question arises is the board really autonomous and independent with an independent director over the head. Or is the independent director really independent and without any undue influence or pressure from the board? These questions must be addressed to find out the independence of board and the legal framework surrounding it to ensure a good corporate governance.

2. LITERATURE REVIEW

2.1. Independent Directors And Controlling Shareholders (Lucian A. Bebchuk and Assaf Hamdani)

This research paper talks about the independent directors and controlling shareholders in corporate governance. The primary area of focus of this research is to talk about the role of independent director in decision making process and the potential conflict of interest that may arise. The research paper focuses on the framework of European Union's corporate governance and also the debate on granting of additional rights to the minority shareholders. The paper provides some insights into the prevalence of concentrated ownership around the world and the benefits and perks of introducing the independent directors in various countries. The paper also deals with the potential conflict of interest that may arise and a clear guideline on such conflicted decisions. The authors have further tried to explore the European Union's corporate governance framework and the debates on granting additional rights to minority shareholders. The research paper argues for the need of introducing independent directors worldwide and the importance of an effective board environment that creates cooperation and trust between board members. Overall, the research paper focuses on to contribute to the understanding of corporate governance dynamics and the potential impact of different governance structures.

2.2. Should Independent Directors Have Term Limits? The Role of Experience in Corporate Governance (Ying Dou, Sidharth Sahgal and Emma Jincheng Zhang)

This research paper talks about the role of independent directors and their tenure on corporate boards. The paper delve on to explore the question of whether implementing the term limits for independent director is beneficial or if the experienced directors should be retained. The paper provides information about the composition of the board, committee membership and the benefits of an independent directors. The authors argues that there should not be a term limit and suggests that the experienced directors bring value to the table and should not be replaced by fresh blood. The paper primarily

argues that the term limit for firectors is not good as the experinced directors bring insights in the company while focusing on the importance of director heterogeneity and the benefits of independent directors with extra tenure.

2.3. Board Independence and Corporate Governance: Which Way Forward? (Jayati Sarkar and Subrata Sarkar)

This research paper focuses on the independence of the board and the corporate governance, the paper talks about the opinions regarding the minimum number of independent directors in a board, people who should be qualified to be an independent director and the role of financial institutions on corporate board. The research paper also examines the current regulations and the recommendations for a proper board composition and a proper board size. The paper talks about the need of identifying the good recommendations and implementing them for the independence of the board. The paper emphasizes on the need of implementing the newly introduced definition of independence and the importance of lowering down the requirement for independent director to give a company more flexibility. The author have taken an international approach and have talked about the importance of board independence and the corporate governance in the wake of corporate scandals. The paper also focuses on the need of independent directors on the board to ensure the best interest of the shareholders. The paper also deals with various committees and initiatives that have recommended measures to ensure the independence of the board. This research paper suggests implementing stricter criteria for independence and excluding nominee directors to ensure the true independence of directors. It also emphasizes on the need and importance of monitoring compliance and the need to balance the demand and supply of independent directors.

2.4. Board Independence & Corporate Governance in India: Recent Trends & Challenges Ahead (Jayati Sarkar)

This research paper focuses on corporate governance and board independence in India it focuses on the recent trends and challenges in the area and provide insights on the board governance by highlighting the importance of board quality rather than just the board independence for effective governance. It also deals with various policy issues regarding board independence and examines the impact of board composition on the performance of a company. This paper also focuses on the relationship between the board independence and governance by highlighting the gap between the policy prescriptions and the actual results. It talks about the absence of the statistical relationship between board independence and the performance of the company and suggests that it might be due to the selection of board and the mix of directors. The author emphasizes on the need of effective monitoring of the board and provides the data on the composition of the board in India, including the numbers of directors and the percentage of independent directors. The research paper also talks about the regulations and the reforms that are necessary to ensure the board independence and improving the quality of board governance in India, the author has raised various policy questions regarding the optimal proportion of independent directors and the criteria for their selection

and their role in corporate governance. To say this paper gives some important insights to the current state of board independence and corporate governance and highlights the future prospects available in this area.

2.5. Beyond "Independent" Directors: A Functional Approach to Board Independence (The Harvard Law Review Association)

This research paper deals with the concept of board independence in corporate governance. It discusses about the limitation of existing standards and suggests for a tripartite board structure to enhance independence. The paper highlights the need of balancing the role of various parties like the monitors, mediators and the managers in the board to achieve effective governance. It highlights various benefits of the tripartite approach as suggested. The paper critiques the present approach and also talks about the limitation of the approach and the potential risks to the investor confidence and suggests that a collaborative nature of board to be a better approach for avoiding conflicts in board decision making and also discusses the potential benefits of the proposed approach like increased accountability and the voice of shareholders in the governance of the company. To say this research paper acknowledges the challenges faced by the board and suggests a design to have a completely independent board.

3. HYPOTHESIS

The boards with a diverse composition of independent directors,including gender and ethinic diversity shows a better decision making and better governance and the enhanced legal protections for these directors reduces their liability risks and at the same time the legal framework that allows shareholders to have a direct say in the appointment or the removal of an independent director ensures a greater board accountability.

4. RESEARCH OBJECTIVE

The main objective of this research paper is to examine the legal frameworks that ensures the independence of the board and the role of the independent director in ensuring such independence and a good corporate governance. The following sub-objectives will help in achieving the primary objective.

- **4.1.** To understand the challenges and benefits that are associated with achieving a diverse board composition of independent directors.
- **4.2.** To analyze the legal regulation and framework on promoting diversity in independent director appointments.
- **4.3.** To examine the relationship between the legal safeguards for the independent directors and their decision making independence.
- **4.4.** To explore the extent of the involvement of the shareholders in the independence and the accountability of the board.

4.5. To understand the need of independent directors in the board and their relevance with regard to the independence of the board.

5. RESEARCH QUESTIONS

This research paper will delve into and try to answer the following research questions:

5.1. What are the main challenges and the benefits that are associated with having a diverse board composition of independent directors and how does such diversity impact the decision-making processes and overall governance performance of a company?

5.2. What are the legal regulations and frameworks available to promote diversity in the appointment of independent directors, and how do they vary across different jurisdictions?

5.3. What is the need for having independent directors in the board of the company, and how do they impact the independence of the board?

6. METHODOLOGY

This research paper is based on the doctrinal model of research and has tried to investigate the relationship between the legal frameworks, independent directors and the independence of the board in corporate governance. The research is primarily qualitative and is based on articles and research papers by different scholars This research seeks to provide a comprehensive understanding of the role of an independent director and various legal frameworks that are there to ensure the independence of the board. The paper seeks to answer all the research questions by being in consonance with the research objective. The scope of the research is limited to the understanding of the independent directors in the Indian context and this paper only deals with the Indian legal framework however the legal framework in the UK has also been analyzed to understand the same in the Indian context. This study, however, is not without limitations. The doctrinal research though provides for a comprehensive analysis, there are various books, commentaries and documents that have not been taken into consideration due to the lack of time and resources.

7. ANALYSIS

7.1. The History of Independent Directors

When we talk about the concept of independent directors, it has evolved over time due to the need for greater transparency and more accountability in corporate decision making i.e. to improve the overall corporate governance. This concept of independent directors could be traced back to the time when joint-stock companies were formed, as in those days the board of directors consisted of members of the company and the large shareholders due to which there were issues regarding the conflict of interest.[2]

[2] Berle, Adolph A., and Gardiner C. Means. The Modern Corporation and Private Property. Pg. no. 25, Macmillan Company, 1932.

However, the concept of independent directors got prominence after the publishing of the Cadbury report, which was published as a response to the ongoing corporate scandals in those days.[3] This report primarily focused on improving the corporate governance practise and recommended the inclusion of non-executive directors (independent directors) on the board to ensure a better corporate governance. Similarly, in the US, the Enron and WorldCom scandals in the early 2000s led to the passing of the Sarbanes-Oxley Act (SOX).[4] This SOX act mandated greater independence and paved way for the independent directors and let to the improvement of financial reporting. During the same time in India, the Kumar Mangalam Birla Committee report recommended the introduction of Independent directors which paved the way for independent directors in India.[5] Also, the committee created by SEBI and led by N.R. Narayana Murthy also suggested to make the appointment of Independent directors mandatory in the listed companies and keeping all these things in mind the Companies Act, 2013 introduced comprehensive provisions regarding the appointment, roles, responsibilities, and liabilities of independent directors and recently the government is trying to make the board more diverse by including provisions like mandatory appointment of one women independent director.

A large number of countries and regions have developed their laws in such a way that mandates the appointment of independent directors and also contains their roles and duties.[6] With the passage of time the independent directors have also been given various new tasks like the risk management, strategy development, and compliance with ethical and legal standards.

7.2. The Role and Impact of Independent Directors

The independent directors play a very important role when it comes to corporate governance like providing oversight and expertise to the board of the directors and at the same time enhancing transparency, accountability and an effective decision making.[7] These directors are appointed to protect the shareholder's rights and are expected to act impartially and without any conflict of interest. They are expected to provide a fresh perspective on company matters and keep an eye on its management. They also play an important role in forming strategies to shape the long term direction of the company by assessing financial and non financial risks and ensuring that the company moves in the right direction.[8] These directors often sit on the audit committees

[3] Committee on the Financial Aspects of Corporate Governance. Report of the Committee on the Financial Aspects of Corporate Governance. London Stock Exchange, 1992.

[4] Wikipedia, "Enron and WorldCom scandals lead to Sarbanes-Oxley Act", accessed 28th August 2023).

[5] National Foundation for Corporate Governance, "Kumar Mangalam Birla Committee report recommends introduction of Independent directors", accessed 28th August 2023

[6] OECD, OECD Principles of Corporate Governance, 2011 Ed. (Paris: OECD, 2011).

[7] G20/OECD Principles of Corporate Governance, G20/OECD Principles of Corporate Governance (Paris: OECD, 2015).

[8] National Association of Corporate Directors, Board Leadership: The Role of Independent Directors (Washington, DC: NACD, 2022).

to ensure the accuracy of financial reporting and also serve on various board committees like the compensation committee, the governance and nomination committee and serve to represent the interest of the shareholders and ensure the company is well aligned with the shareholder value and most importantly these directors play an important role in times of crisis of scandals by investigating and addressing the issues and restoring the trust of the share holders and the general public by implementing important changes.[9]

Having independent director in the board ensures that the members or the directors of the company does not have any conflict of interest and the company does not work in any unethical way and as these directors are from diverse background they bring a broader perspective to the board and help in taking well-informed decisions.[10] There presence increases the investors confidence as they make the management accountable for their actions and plays an important role in aligning the interest of the management with that of the shareholders and ensures transparency in reporting the finances of the company. However, their effectiveness can vary depending on a lot many factors such as their qualifications, independence and the commitment of the company in good governance. However, the biggest problem can be when these directors are not really independent due to factors like undue influence and coercion otherwise they are really very important to protect the shareholders interest and the smooth functioning of the company.[11]

7.3. The Impact of Board Composition on Corporate Governance

The composition of the board of director plays an important role in the governance of the company as the the entire fate of the company lies in the hands of the board.[12] The independence, qualification, diversity, expertise etc of the individuals who make up the board influences the effectiveness of the management of the company, its strategic behaviour and its corporate behaviour.[13] Sometimes, people are blinded by their own judgement and therefore it is very important to have sufficient numbers of the independent directors as these directors, being not affiliated with the management or the shareholding of the company, could provide with an objective perspective and their independence helps in ensuring the decision of the management is impartially scrutinized. Apart from that the diversity on the board and the expertise and skills of the board members can greatly impact the corporate governance as members from different backgrounds can effectively see the various aspects of the operation of the

[9] National Association of Corporate Directors, Board Leadership: The Role of Independent Directors (Washington, DC: NACD, 2022).

[10] OECD, OECD Principles of Corporate Governance, 2011 Ed. (Paris: OECD, 2011).

[11] Organization for Economic Cooperation and Development. Principles of Corporate Governance. 2022. https://www.oecd.org/daf/ca/corporate-governance-principles-eng.pdf.

[12] Cadbury, Adrian. The Cadbury Report: Report of the Committee on the Financial Aspects of Corporate Governance. London Stock Exchange, 1992.

[13] Fama, Eugene F., and Michael C. Jensen. “Separation of Ownership and Control.” The Journal of Law and Economics 26, no. 2 (1983): 301-325.

company and can lead to better decision-making.[14] The board members also need to be an expert in the risk management to mitigate any potential risk as well as be ethical in their values with a good ability to resolve any conflict within the company. The members of the board should be good at communication and should have the ability to engage with the shareholders to build trust and a positive relationship with the company and the investors.[15] Also, a good board will be able to have a good CSR plan that aligns with the values of the company and really brings a positive impact on the society and at the same time will be able to work and oversee all the statutory and legal compliances. To say, the composition of the board of directors has a profound impact on corporate governance. With a diverse board, the company can have an effective oversight and ethical and responsible corporate practices and a company with a good board composition seem to achieve long-term success and better trust with shareholders and stakeholders.[16]

7.4. Legal Regulations and Frameworks for Promoting Board Diversity

As we already talked about the importance of diversity in the board it is important to understand the legal provisions surrounding it. Many countries and regions have implemented various legal regulations and frameworks to promote diversity in the composition of the board in both public as well as private companies and these provisions aim to improve the representation of women, ethnic minorities and other under-represented groups on the board of directors.[17] Several countries have introduced gender quotas, which make it compulsory to have a certain percentage of the board to be represented by women. An example of this is Norway which makes it mandatory to have around 40 percent of board members to be women in public companies. There are certain countries like the UK which follow a "comply or explain" approach i.e. the companies must have a diverse board and if they do not they have to explain the reason for not having a diverse board and the steps they are taking to make their board diverse.[18] Also, some countries are required to disclose information regarding board diversity in their annual reports and this transparency sometimes encourages the company to have diversity as part of their governance practices.

Also, there are many voluntary initiatives by companies and individuals itself which voluntary commit to achieving board diversity like the 30% club, which is a global campaign that seeks to achieve 30 per cent of women on corporate boards and

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[14] Deloitte & Touche. Corporate Governance Handbook: A Guide to Best Practices for Public and Privately Held Companies. 89, 6th ed. Wiley, 2021.

[15] Organization for Economic Cooperation and Development. Principles of Corporate Governance. 2022. https://www.oecd.org/daf/ca/corporate-governance-principles-eng.pdf.

[16] Investor Relations Society of America. The Handbook of Investor Relations. 6th ed. Wiley, 2021.I [17] Margaret M. Blair, Diversity on Corporate Boards: A Critical Assessment 2, Routledge, 2016.

[18] Margaret M. Blair, Diversity on Corporate Boards: A Critical Assessment 130, Routledge, 2016.[19] International Labour Organization. "Women on Boards: A Global Review of Progress and Challenges." International Labour Review 158, no. 3 (2019): 411-432.

following the footsteps, some countries like France, have implemented gender quotas specifically for state-owned companies, which requires the government to have certain percentage of women in their boards.[19] Talking about India the Companies Act, 2013 has introduced several provisions related to board diversity one of which is the mandatory inclusion of at least one women director on the board of certain companies having a certain paid-up capital or turnover. Also, the "SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015" have mandated having one women director on the board of every listed company the failure of which might impose various penalties.[20]

Governments around the world can also run various initiatives to ensure diversity in the composition of the boards like having fixed targets and a proper timetable to ensure that every company includes under-represented members of society like women, ethnic minorities etc. in the board[21] and penalties for failure of not meeting the deadlines, also, the institutional investors could use their voting powers to create diversity in the board. Various educational and training programmes could be run to help people gather relevant skills and gain experience to serve on the board of the companies or there could be other types of regulatory framework that mandate having a diverse board.

7.5. Shareholder Involvement and Accountability

Shareholders play a very important role in the functioning of the company and their involvement and accountability are very essential for good corporate governance.[22]It is therefore very important that the companies maintain complete transparency with their shareholders and uphold ethical and responsible business practices. When we talk about the involvement of the shareholders the shareholders are typically given voting rights on important corporate matters like the appointment of the directors, the approval of mergers and acquisitions or changes in the bylaws of the company along with other important decisions and for that purpose an Annual General Meeting (AGM) is conducted where the shareholders are appraised about the important issues and are allowed to discuss and vote on the issues.[23] This is a platform where the shareholders can communicate with the board directors. Also, if a shareholder is unable to attend this meeting they can use a proxy to cast their votes.[24]

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[20] Kashif, Azhar. "SEBI's Mandate on Women Directors: A Step Towards Gender Diversity on Corporate Boards." National Law Journal 54, no. 4 (2016): 25-27.

[21] Organization for Economic Cooperation and Development. "Principles of Corporate Governance." 2022. https://www.oecd.org/daf/ca/corporate-governance-principles-eng.pdf.

[22] Blair, Margaret M. "The Role of Shareholders in Corporate Governance." The Business Lawyer 61, no. 4 (2006): 1457-1475.

[23] Margaret M. Blair, Corporate Governance: Theory, Practice, and Evidence, 150, Oxford University Press, 2005.

[24] Black, Bernard S. "The Role of Proxies in Corporate Governance." The Business Lawyer 61, no. 4 (2006): 1423-1455.

As the shareholders are the actual owners of the company they can also propose various resolutions on various different matters dealing with corporate governance or social responsibility matters and these resolutions are voted on during the AGMs. Apart from the resolution the institutional shareholders or other shareholders also engage with the management of the company or the board by way of letters, meetings or public statements. The shareholders can also hold the board of directors accountable for the performance of the company and for not working in the interest of the shareholders. The shareholders of the company do not have enough options to judge the functioning of the company and therefore they rely on the financial statements to make decisions and therefore they can hold the board responsible for not providing them with statements that comply with standards and regulations.[25] The directors and the officers owe fiduciary duties to the shareholders and the shareholders can hold them liable for any breach of these duties including for any ethical lapse or misconduct. The shareholders also have a say on the executive compensation packages and excessive or poorly structured compensation can be a source of shareholder concern. To say, the shareholders have an indirect say in the management of the company and they can hold the company accountable for not working as per their demands and independent directors play an important role in ensuring that the companies work as per their memorandum and the demands of the shareholders are not neglected by the management of the companies and therefore the independence of an independent director for long term success and sustainability of the company

8. CONCLUSIONS AND CONTRIBUTIONS

The independent directors play a very important role in the functioning of the company and these directors play the role of the guardians of the corporate governance. Governments across the world have worked a lot to implement various legal provisions to ensure the independence of the board and its accountability, transparency and ethical conduct in the corporate world. While conducting this research I realized that the presence of independent directors within the framework of the board is very important to ensure the proper governance of the company and to protect the rights of the shareholders as these directors bring impartiality that is important to mitigate the conflict of interest and uphold the interest of the shareholders. These directors play an important role in monitoring the functioning of the company and ensuring its adherence to regulations, ethical standards and good practices. These directors often possess diverse backgrounds and expertise and help in effective risk management by serving as ethical leaders within the organization by upholding the highest standards of integrity and ethical behaviour. It is because of them the shareholders have an increased sense of trust and commitment towards the company and a sense of security that the company will very vigilantly and ethically follow all the regulatory compliances and the investment of the shareholders will be safe and not be subjected to the irregularity of the directors of the company. However, there are certain lacunas in

[25] Blair, Margaret M. Corporate Governance: Theory, Practice, and Evidence. 152, Oxford University Press, 2005.

the legal frameworks and the board is not completely independent. Theoretically, it seems that these directors would ensure 100 per cent board independence and the companies and the investor's money are safe and secure, however, there still remain challenges of undue influence, corruption and coercion that might sway the independence of the directors and make the functioning of the company unethical. The government therefore need to ensure the independence of the board by making provisions to have a diverse board and extending the powers of independent directors and regulatory control over their activities as well.

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Depletion and Diminution: The Hurdles of the Eastern Coast

*Mr. Aparna Tripathy**

ABSTRACT

Waste cluttering is a fundamental problem in the eastern coast of India causing soil erosion at the beaches and diminution of wetlands. National-Bureau-Of-Soil-Survey-And-Land-Use-planning (NBSSLUP) and national-Pollutant-Discharge-removal-system (NPBES), pronounced on how the tourism in Puri has reduced the soil quality on the seashore leading to soil erosion and water pollution. WWF in its document has stated how cluttering of waste has resulted in diminishing-of-wetlands. Although waste cluttering is extensively regarded as an issue there has been little to no research performed at the policy component of it.

The authors emphasize and assess the impact of waste cluttering on the environment while focusing on the eastern coast, where it has led to issues such as soil erosion and water pollution, (as reported by NBSSLUP). The authors compare the policies-in-force in other parts of the world, like, the-waste-framework-directive (Europe), so as to examine its relevance and applicability to the eastern-coast.

The methodology used is empirical-research of qualitative and quantitative data, assessing the impact of waste cluttering on the inhabitants, and comparative analysis of laws and policies such as, The soil-conservation-and-domestic-allotment act by the US federal-law, evaluating its applicability in India.

The authors give suggestions as to how the soil depletion in the Puri seashores and the diminishing wetlands in the eastern-coast, can be tackled efficiently and simultaneously by targeting waste cluttering through policy ideas which can be adopted from other sovereigns and treaties.

This authors analyze, the issue of garbage cluttering through comparative study and, its various implications on health and wellbeing of the animals and humans through reports from WWF and WHO.

The authors address the policy issue pertaining to garbage cluttering which has not been analysed to a great extend through various reports from organisations like, IIRS, WWF, NPBES, etc, defining it as a source of many environmental hazards and through a comparative study understand provide policy solutions for the same.

Keywords: Climate Change, Diminishing wetlands, Environmental Policy, Pollution, Soil Depletion, Waste Cluttering.

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INTRODUCTION

Soil depletion is an issue which is on an ever-alarming rise. It is both because of the disturbances caused due to natural phenomenon and the human inflicted processes. It has huge impact on the biodiversity, agricultural productivity, wildlife and food security. According to a report on the climate change and land of the intergovernmental panel on climatic change, they have observed that about a quarter of the Earth's ice free land area is subject to human induced degradation[1].

Due to the chemical and physical degradation of the soil, it has long ranging implications on productivity and agricultural produce as said by a recent report of IFPRI[2]. Huge rampages of deforestation and unethical use of the land also contribute to the change in the soil's structural condition. Some amount of soil depletion has occurred naturally but a large portion is a result of anthropogenic activities.

The status of the World's soil resources[3], produced by, FAO'S intergovernmental technical panel on soils, conglomerates a number of soil scientists on "the world soil day", December 4, stating the importance of the soil and how it is depleting at an alarming rate. The director general Jose Graziano Da Silva implicated his concern by stating that further loss of productive soil would severely damage the food production and food security, increase food price volatility, and potentially plunge millions of people into hunger and poverty. Drenched with chemicals and high amount of waste cluttering, the eradication of soil fertility is not more than 30 years away[4].

The depletion of soil in wetlands comes on in a similar trend due to constant irresponsibility when it comes to accountability; forested wetlands are being subjected to erosion. They are one of the prominent sources of timber, flood water storage, wildlife habitat and recreational opportunities. According to environmental ministry of India, research suggests that one-third of Indian wetlands have already been wiped out or severely degraded. Wetlands are a method of sustainable livelihoods providing 62 million people their daily jobs. They replenish underground water and act as nature's sponges this demands for instant corrective steps before it is too late.

Even after various projects being introduced inorder to spread awareness about garbage disposal and environment protection, the failure of implementation has lead to serious environmental hazards. One such environmental issue affecting the people in the holy city of Puri is the cluttering of garbage on the seashores which has lead to issues such as soil depletion and water pollution. Such garbage cluttering is also seen as a problem not only at the Puri seashores but also in the rest of the country. Another major issue that such cluttering has lead to is the diminishing wetlands. Such pollution of natural resources has also lead to serious climatic consequences

1 UNEP. (1999). report on the climate change and land. intergovernmental panel on climatic change.

2 IFPRI. (2000). Report on Productivity and Agricultural Produce.

3 FAO. (1998, December). The status of the World's soil resources. FAO'S intergovernmental technical panel on soils.

4 The United Nations Framework Convention On Climate Change (UNFCCC), 1992.

and ecological imbalances which have become very difficult to cope up with and therefore pose a huge threat. All these are the reasons because of which it becomes important for a solution to be discovered and implemented inorder to save the society from eventual destruction.

REASONS FOR SOIL DEPLETION IN PURI

The soil depletion is a major problem that is currently being witnessed in the lands of Puri. The change in the soil's physical, biological and chemical the whole environment in general. The future productive capacity and fertility is in an all time low as said by UNEP[5] there are several physical as well as chemical factors affecting soil depletion. Loss of top soil due to waves and wind form the physical factors, while depletion of nutrients due to acidity or alkalinity, water logging, eutrophication as a result of the soil pollution form the chemical factors.

Recently due to the eco-retreat festival in the beaches of Puri, which is an annual festival organised to promote tourism organised by the state government of Odisha, the depletion of pure nutrients was inevitable as published by the national bureau of soil survey and land use planning[6]. The huge amounts of urban run-off, sewage overflow, and recreational events have lead to the depleting quality of soil. Apart from that, the melting glaciers cover more and more soil land, affecting the wildlife underneath the blue ocean to a fear of extinction.

Trash and litter like plastic bags, bottles, cigarette filters, bottle caps, etc; left at the soil of these beaches are non-biodegradable. They form a part of the high levels of cluttering near the seashore and reduce the quality of the soil as said by National Pollutant Discharge elimination system (NPBES) permit program[7]. It poses a frightening threat to the rich biodiversity beneath the ocean.

The tourism centred events conducted out by the government through "eco-retreat" is not effective in saving the beaches. Human and garbage clutter causes the soil to deplete in a much faster rate. Month long festivities with no control over the soil contamination through garbage has proved fatal to the already persisting conditions.

Being one of the four holy places for Hindu pilgrims, the land of Puri witnesses about 5-6 lakh tourists per week[8], and as the Puri sea-beach also poses itself as a great source of tourist attraction, it also experiences a huge footfall. Unfortunately, even after various number of steps been taken by the state government and the local authorities to make sure that there is no garbage cluttering at the seashore, these steps fail in implementation and therefore due to the huge number of people at the seashore, a large amount of garbage is generated which is dumped in the sand at the

5 United Nations Environment Program, 1993.

6 National Bureau Of Soil Survey And Land Use Planning

7 National Pollutant Discharge Elimination System (NPBES) Permit Program.

8 *Odisha Tourism : Visit Odisha | Travel & Tourism | Official Site*. (n.d.). Odisha Tourism. Retrieved December 20, 2021, from https://www.odishatourism.gov.in/content/tourism/en.html

beach. This has eventually lead to the cluttering of a large amount of waste at the seashore. Even though the use of plastic has been significantly reduced[9], the plastic that has trashed the seashores prior to such limitations being imposed finds itself in quantities large enough to make it difficult to eradicate as a whole. Even though a lot of local NGOs along with the government are taking various steps in order to remove all the garbage that has found its way to the cluttering at the seashores, it is this lacuna which is causing immense threat for such schemes to be successfully completed.

In the same way the future of Wetlands are also facing threatening challenges resulting to their rapid decline. Newly published articles show that 64% of the worlds' wetlands have disappeared since 1900. This also means a reduction to the fresh water supply while traditional wetland livelihood suffers. It has declined to a 76% between 1970 and 2010 according to WWF's living planet index.[10] The input of high amounts of pollutants reduces the wetlands' natural ability to absorb and causes degradation. The scenario of the sundarbans of West Bengal and other parts of the eastern coast show high amount of disturbances also affecting the surrounding landscape. The removal of vegetation, construction and filling directly impact these wetlands. The increased accumulation of sediments which alters the chemical and hydrologic characteristics of the ecosystem of wetlands is concerning.

Therefore, it can be said that human activities stand as a dominating factor in, the depletion of soil in the eastern coastal beaches of Puri, and the diminution of wetlands in the eastern coast Out of all the forms of ways in which the human civilization has affected the sustenance of the natural treasures of the East, Waste cluttering can be seen as the predominant factor.

PROBLEMS ARISING DUE TO THE GARBAGE CLUTTERING

Water Pollution

The garbage cluttered on the seashores enters the sea along with its tides thereby polluting it. Such pollution causes immense danger to the marine life and has led to the death of a lot of fishes and other aquatic animals. The death of olive ridley turtles that regularly enter the Odisha coast in order to lay their eggs has also been linked to the constant pollution witnessed in the sea. Olive Ridley turtles form a major portion of the problem that the state needs to look into, as thousands and thousands of turtles are found death on the Puri sea coast every other day. In the landmark case of R. S. Lal Mohan (Dr.) V. The Executive Engineer (WRO) Kanya Kumari[11] it was held that in environmental law the preservation of water bodies is important and therefore this undetected and uncontrolled pollution of the water bodies that is leading to this huge amount of destruction stands in violation of that.

9 Regulation by Odisha government, 2019. *Odisha Tourism : Visit Odisha | Travel & Tourism | Official Site*. (n.d.). Odisha Tourism. Retrieved December 20, 2021, from https://www.odishatourism.gov.in/content/tourism/en.html

10 WWF Living Planet Index

11 2010 (1) C.W.C. 193 (Mad.)

Soil Deplition

Due to the immense amount of garbage cluttering at the seashore the sand is becoming loose, which is leading to easy loss by way of sea tides. The amount of plastic on the sea beach has reduced the tightness and cohesiveness of the soil to hold itself which is leading to the rapid loss of the Odisha coast. Due to the loss in coast the state of Odisha has become more susceptible to natural calamities like tsunamis, cyclones and floods. In the past three years Odisha has faced three major cyclonic storms which have lead to a mass destruction and one of the many reasons behind such frequency of storms stands to be the loss of soil, as the sand that helped in reducing the vigor of such impact has been lost, due to which the intensity with which these cyclones fall on the coasts has subsequently increased to a very high level.

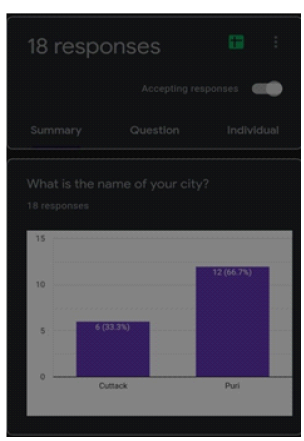
Other Impacts

A part from these two major issues the garbage cluttering also gives rise to unhygienic conditions which forms a major reason behind the spread of a lot of diseases. Such a situation gives rise to spread of major diseases and reduction in the immunity of the people living in and around such areas. This kind of an issue has also been seen in the case the areas in and around Puri where there has been a huge increase in the number of cases of diseases being witnessed.[12] This is something that has formed a major portion of the government's concern as this has lead to the loss of human life.

A part from that such clutters also lead to the loss of tourism which is definitely a hit on the state's economy. Therefore giving rise to the need for a solution.

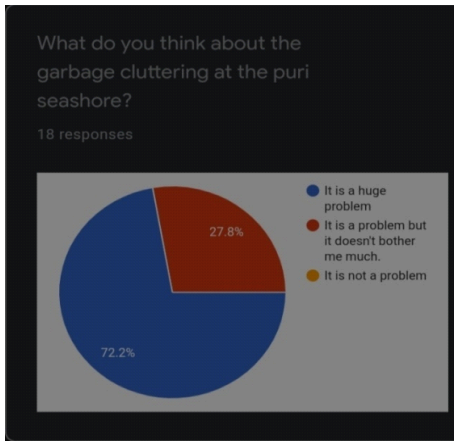
Empirical Research

In order to understand the awareness about this particular situation, a survey was conducted and results were derived. The survey was taken by 18 people out of which 6 are residents of Cuttack and 12 are residents of Puri.



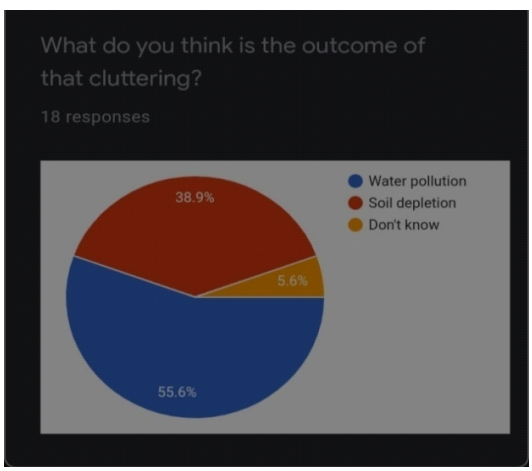
12 WHO report

The first question asked in the survey was about, their views on the garbage cluttering at the Puri sea beach and what they thought about it. In the survey, 72.2% people said that it was a huge problem for them where as the rest 27.8% people said that they consider it to be a problem but are not majorly affected by it.



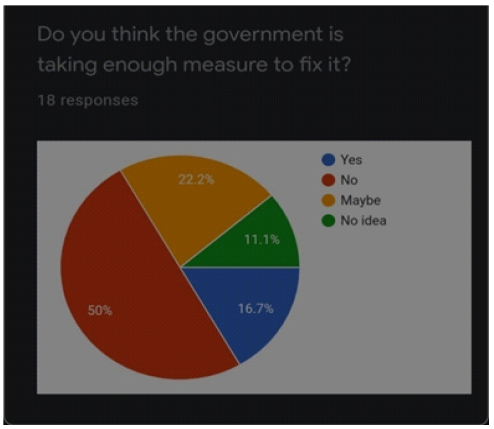
From this it can be deduced that irrespective of whether it bothers them or not, it is pretty clear that each one who took this survey considers it to be an issue.

The second question put forth in the survey was as to how the people thought this cluttering was affecting the environment to which the response was that, 55.6% people thought that it leads to water pollution, 38.9% people were of the view that it leads to soil depletion and the rest indicated ignorance about the subject.



From this it can be deduced that while a major portion of the survey takers are aware of the problems caused due to such cluttering while, even though small, a portion of the people still remain ignorant to the situation. This also draws attention to the fact that there is a need on the part of the government to spread awareness about this situation.

The last question which was presented to the survey takers was that whether they thought that the government was taking appropriate measures to tackle the situation, to which the survey takers had a response of, 50% people stating that no steps have been taken, 22.2% people responding with a maybe where as yes and no idea got 16.7% and 11.1% each.



From this we can deduce that a sizable portion of the survey takers think that the government has not taken enough steps to deal with the situation at hand and therefore a scope for improvement can be seen on the part of the government.

ANALYSIS

From this survey it can be analyzed that the garbage cluttering is actually a problem which needs to be paid attention to. Even though the government under various schemes, such as swachch bharat has taken steps to work towards the de-cluttering of these areas, it can be clearly seen that the people living in and around this region do not consider these efforts to be appropriate enough when it comes to the issue at hand. Therefore it becomes important for the government to take more acute steps towards finding an appropriate the solution in order to tackle the gist of this very pertinent issue.

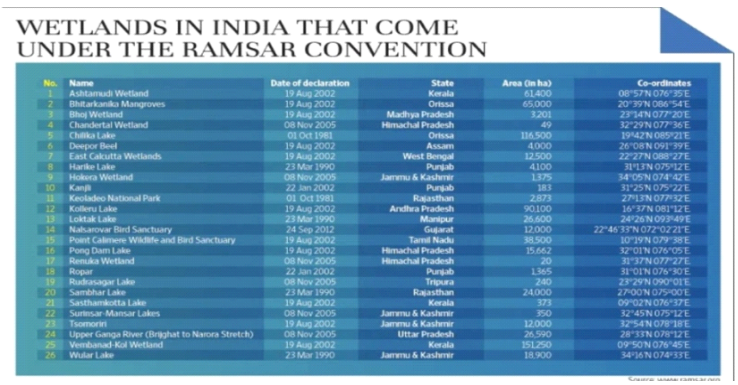
Diminution of Wetlands in the Eastern Coast

This issue that the state of Odisha is facing at present is an issue which has also been seen in various other parts of the country. Therefore in order to tackle this issue, it becomes necessary, to study such situations and thereby derive an appropriate solution to the issue.

Another environmental belle which has faced the consequences of such cluttering are the wetlands. It has been witnessed in various states of the Eastern coast that such as, Andhra Pradesh, west Bengal etc; which are the states that are known to possess the rich heritage of wetlands. They are facing similar issues with garbage cluttering in and around the wetland area, just as is being witnessed on the Puri seashore. One of the prominent sources of such cluttering can also be traced back to the factor of

tourism. This gradual cluttering of waste has lead to the subsequent diminution of this wonder of nature.

In order to save these wetlands, various steps have been taken by the government. Efforts to conserve wetlands in India began in 1987 and the main focus of governmental efforts was on biological methods of conservation rather than adopting engineering options. A national wetland-mapping project has also been initiated for an integrated approach on conservation. In certain wetland sites it is heartening to see the Government, NGOs and local community coming together to save our wetlands and thus realize the objectives of Ramsar Convention[13]. 37 wetlands in India have been categorized for protection under Ramsar Convention. Therefore, it can be said that various steps are being taken by the local, state and Union Authorities so as to tackle this issue in the most effective manner.



WETLANDS IN INDIA THAT COME UNDER THE RAMSAR CONVENTION

No.	Name	Date of declaration	State	Area (in ha)	Co-ordinates
1	Ashtamudi Wetland	19 Aug 2002	Kerala	61,400	08°57'N 076°35'E
2	Bhitarkanika Mangroves	19 Aug 2002	Orissa	65,000	20°39'N 086°54'E
3	Bhoj Wetland	19 Aug 2002	Madhya Pradesh	3,201	23°14'N 077°20'E
4	Chandertal Wetland	08 Nov 2005	Himachal Pradesh	49	32°29'N 077°36'E
5	Chilika Lake	01 Oct 1981	Orissa	116,500	19°42'N 085°21'E
6	Deepor Beel	19 Aug 2002	Assam	4,000	26°08'N 091°39'E
7	East Calcutta Wetlands	19 Aug 2002	West Bengal	12,500	22°27'N 088°27'E
8	Harike Lake	23 Mar 1990	Punjab	4,100	31°13'N 075°12'E
9	Hokera Wetland	08 Nov 2005	Jammu & Kashmir	1,375	34°05'N 074°42'E
10	Kanjli	22 Jan 2002	Punjab	183	31°25'N 075°22'E
11	Keoladeo National Park	01 Oct 1981	Rajasthan	2,873	27°13'N 077°32'E
12	Kolleru Lake	19 Aug 2002	Andhra Pradesh	90,100	16°37'N 081°12'E
13	Loktak Lake	23 Mar 1990	Manipur	26,600	24°26'N 093°49'E
14	Nalsarovar Bird Sanctuary	24 Sep 2012	Gujarat	12,000	22°46'33"N 072°02'21"E
15	Point Calimere Wildlife and Bird Sanctuary	19 Aug 2002	Tamil Nadu	38,500	10°19'N 079°38'E
16	Pong Dam Lake	19 Aug 2002	Himachal Pradesh	15,662	32°01'N 076°05'E
17	Renuka Wetland	08 Nov 2005	Himachal Pradesh	20	31°37'N 077°27'E
18	Ropar	22 Jan 2002	Punjab	1,365	31°01'N 076°30'E
19	Rudrasagar Lake	08 Nov 2005	Tripura	240	23°29'N 091°01'E
20	Sambhar Lake	23 Mar 1990	Rajasthan	24,000	27°00'N 075°00'E
21	Sasthamkotta Lake	19 Aug 2002	Kerala	373	09°02'N 076°37'E
22	Surinsar-Mansar Lakes	08 Nov 2005	Jammu & Kashmir	350	32°45'N 075°12'E
23	Tsomoriri	19 Aug 2002	Jammu & Kashmir	12,000	32°54'N 078°18'E
24	Upper Ganga River (Brighat to Narora Stretch)	08 Nov 2005	Uttar Pradesh	26,590	28°33'N 078°12'E
25	Vembanad-Kol Wetland	19 Aug 2002	Kerala	151,250	09°50'N 076°45'E
26	Wular Lake	23 Mar 1990	Jammu & Kashmir	18,900	34°16'N 074°33'E

Legislations Implemented in Various parts of the World for Soil Conservation:-

The soil conservation and domestic allotment act by the US federal law showcases an important method of paying attention to the pertinent problem. In this the government pays the farmers to reduce production so as to conserver the soil and prevent erosion. In Europe, directive on industrial emission, the waste framework directive and reach regulations in particular contribute to the provisions pertinent to soil protection. The EWU commission had submitted an official proposal for a soil framework directive on 22nd September 2006; it prevents detoriation of soil quality and preserves soil functions. Damage soils must be treated with a view to restore functionality and cost containment. Three main important international treaties which contain relevant provision on soil protection are the UN convention to combat desertification[14], the convention on biological diversity[15] and the climate framework convention. FAO's legislative principles renders the idea of stringent policy making to protect the depleting to soil as seen in the case of Beugel V. City of Grand Folks[16] the court established high compensation as exemplary damages for the misuse of land. In the case of Southeast cash water resource district V. Burlington Morgan Rail Road the court held that police and other governing bodies have a right to pay helping reforms in order to protect the depletion of soil.

13 Ramsar convention on Wetlands, 1971.

The soil and land use survey of India which is under the integrated Nutrient management division is a department under the government of India to look into soil depletion. This department is playing a leading role to the clarity of soil and water conservation requirements of the state and serves as the information hub for scientific and reliable information on soil and land resources and formulates the corrected implementation of various soils. It optimizes the natural resource utilization by adopting scientific land use as per as required. It has helped in the rejuvenation of the ecosystem then propagation of eco friendly and cost effective conservative mechanisms. Soil erosion and preventive premature siltation from various reservoirs is one of the ambitions under this scheme, it also helps to prevent silting up of natural water bodies. The river valley project of Kambini is an initiative by the government of India to help the soil depletion in its shores by various activities in order to mitigate agrarian distress in fragile ecosystems, this project forms to give a good structure to the upcoming conservative plans. According to a 2015 report of the Indian Institute of Remote Sensing (IIRS) the estimated amount of soil erosion that occurred in India was about 147 million hectors. In the year of 1962, an early initiative of soil conservation was seen in the catchments of river valley projects which were started in India then. The scheme promoted control of premature siltation of reservoirs which in turn enhances the productivity of the catchment areas.

Similarly, the Ramsar Convention is a historical convention in many aspects particularly as it is one of the oldest ecosystem specific conventions which speak the conservation as well as the wise use of Wetlands. It also enjoins the parties to the convention to formulate and implement their planning so as to protect the listed wetlands as far as possible. A preliminary draft of wetland policy and corresponding action plan for India within the mandate of central ministry of Environment and forest lays down the rules of wetland, 2017[17]. It prohibits a large range of activities like setting up and expansion of industries, waste dumping and discharge of effluents into these natural sponges, there are 115 identified wetlands which is, more than the 26 wetlands mentioned in the Ramsar convention. The National Green Tribunal also takes solid steps in preventing soil depletion as seen in the case of Mr. Alok Kumar V. Mr. Y. Suryanarayan who were held guilty for chromium dumping; the rule of solid waste management was laid.

CRITICAL ANALYSIS

The soil depletion in the coastal region of Odisha especially Puri is a problem of great concern, the local people and wildlife who have been staying in the area face grave problems. Most of the people consider the problems to be towering along the

14 *United Nations Convention to Combat Desertification*. (n.d.). United Nations Convention to Combat Desertification. https://www.unccd.int/

15 *The Convention on Biological Diversity*. (n.d.). The Convention on Biological Diversity. https://www.cbd.int/convention/

16 Beugel V. City Of Grand Folks; 475 N.W. 2d 133 (Nd 1991)

17 Wetland Rules, 2017.

shores of Puri. Due to rapid urbanization, expansion of slum, garbage cluttering, failed government projects, industrialization and water erosion the rate at which the top soil is depleting is sky-scraping.

The problem is considered to be a pertinent issue by the local people which showcases the huge impact it has on the surrounding environment. Similarly the soil depletion on the wetlands has an enormous effect on the life and environment surrounding it. The wetlands are considered to be a natural habitat to 1 lakh known fresh water species; it bursts with biodiversity and offers breeding and migration ground for many. Along with that it supports the livelihood of millions of people mainly consisting of fishing, timber, medicinal plants, animal fodder etc; Wetlands fight climate change by keeping in store more than twice as much carbon as world's forest, they reduce typhoons and tsunamis and resist erosion.

The steps taken by government to find a solution to this problem has never been enough which has also been voiced by the domestic people around, the governments' have hearted attempts have turned out to be huge failures as seen in the recent eco-retreat tourism stunt wherein the accumulation of garbage was a visible defeat. The cleanliness programs initiated by the government are often taken to be as public stunts rather than serious implications. The dire situation needs to be acknowledged and a concrete solution must be legislated. The afforestation campaigns fail to impugn the seriousness of soil depletion on the local people, the lack of awareness in people portrays the lack of effective legislation.

Similarly, the wetlands are detoriating in a rapid rate, land use changes and waste dumping are posing a major threat to the wetlands despite India having a national wetlands conservation program since 1985-86 that provide financial support for the protection of 115 wetlands in different states, there is nothing to show for this on the ground conversationalist blame state governments for not being proactive and letting the issue slide away with no working plans being drawn upon by the states the funds of the centre remain unused, the outlined threats by experts include habitat destruction, landfill, overexploitation of fish, discharge of waste water, weed infestation and pesticide runoff.

However there are various legislations and Conventions in the world that work towards the protection of the wetlands from any kind of soil depletion due to waste cluttering. The Authors believe that these legislations can be an effective source for the policy development so as to form appropriate legislations to ensure the protection of the Puri coast from soil depletion. In this way actions for soil conservation can be taken up on a rapid rate and subsequently the issue can be eradicated as a whole.

IMPACTS OF SOIL DEPLETION

Due to reducing level of soil along with climatic change presents a huge risk to Global Food security it contributes to climatic change with throngs of bacteria cascading the surfaces. Constant drainage of the top soil by wind and water carries away with it the soil nutrients leaving the land barren and infertile. The waste cluttering at the seashore gives rise the loosening of the soil strata because of which the soil

becomes susceptible to loss by erosion with tides. The seashore is therefore facing acute erosion which in turn get it into the risk zone of flood and other such natural calamities. The Odisha sea coast is therefore facing more and more of such natural disasters which are in turn leading to great loss of life and property. Wildlife destruction becomes an inevitable outcome due to the destruction of habitat and migration grounds for example; the Olive Ridley turtles that form their breeding grounds by the shores of Puri have raged into the line of extinction due to the unavailability of habitat and breeding ground.

The deficiency of moisture due to coagulation of metals and bacteria leaves the soil arid reducing its productivity and efficiency to a large extent, 40% of agricultural land is lost due to the depreciation of soil quality caused by agro-chemical measures and soil erosion. Lack of soil results in increased flooding due to the unavailability of clay to bind on the water molecules. Agriculture suffers the most due to the resultant infertility.

CONCLUSION

The depleting soil quality is not something that cannot be restored with corrective measures, good governance and stringent legislatures. Agenda 21[18] which emphasizes on the land degradation particularly through UN organizations has started to envelope the coastal region of Odisha and spread the awareness and help conserving the soil quality. A database on land degradation is being made available to enable the government make effective policies concerning the use and management of resources.

The National Green Tribunal has shown significant interventions in maintaining the soil quality as seen in the case of Central Pollution Control Board V. State of Andaman and Nicobar & Ors.[19] Wherein the tribunal voiced their concern about waste management and plastic destructing the quality of soil. Same was seen in the case of Himmat Singh Shekhawat V. State of Rajasthan and Ors.[20] Where the practice of illegal sand mining reducing the nutrients of top soil was shunned as it obtained environmental clearance.

The soil quality as well as Wetlands have been the most important assets in the preservation of sustainable resources, the mismanagement of land can lead to catastrophic results which maybe threatening to many parts of the region since environment and agriculture are intrinsically linked the value of the soil must be adhered to. The soil of the Wetlands often considered to be wastelands should not be converted for other purposes, these marshes hold 3% of the world's fresh water reserves, and the paddies there are a rich source of food and employment. Therefore the concern of its sustainability and preservation is something of optimum importance.

18 United Nations Conference on Environment and Development. (1992, June 13). *The Earth Summit* [Summit]. The Earth Summit, Rio De Janerio, Brazil.

19 Central Pollution Control Board V. State of Andaman And Nicobar & Ors. (O.A.247/2017)

20 Himmat Singh Shekhawat V. State of Rajasthan (O.A.No.671/2017)

In conclusion it can be said that the constant cluttering of garbage at the Puri seashore is a huge issue that poses threat to various sectors of the environment and the method which is being followed by the government is not strong enough to deal with the issue at hand. Odisha has already suffered a large amount of loss due to this situation and is moving towards more loss, therefore it becomes more necessary for the government, local NGOs and the people who subsist in that region to come together inorder to tackle the situation and come up with a concrete solution, in order to solve this issue, inspiration can be derived from how the diminishing wetlands are being saved and work be done in the same direction in order to save the coast. The government should come up with schemes to implement the same in a proper manner and thereby do its bit in order to achieve the ultimate goal of sustainable development.

RECOMMENDATIONS

Even though the situation at hand is of grave concern and danger that does not indicate to the fact that it is not possible to find a solution to this situation. Taking the situation about the wetlands for instance it can be said that there are ways to solve even this very pertinent issues. These are some suggestions that the Authors think can be helpful in achieving the same:

- It is important that the state as well as the central government understands the depth of the situation and works in collaboration with other nations of the world, which a view of mutual development and exchange of ideas, in order to tackle the base or gist of this issue.
- It is important that the government works with various NGOs and Local groups who possess more knowledge about the situation in order to target the issue at the very ground level.
- It is important to spread awareness about this problem among the people who live in and around the seashore, in order to ensure that there is no increase in the already present problem of garbage cluttering
- Help should be taken from the people present and living in such areas in order to clean the garbage clutters in a faster and more efficient way.
- Governments should set up policy frameworks with regulations to ensure the smooth functioning of the whole de-cluttering process of the already deposited garbage on the shores.
- Governments should take steps to encourage the scientific community to aid and implement programs, methods and standards monitoring soil depletion and resource identification.

Protecting Array of Indigenous Knowledge - A Comparative Study Between India and China

Ms. Urvi Shrivastava & Ms. Apurva Sharma***

ABSTRACT

Traditional knowledge is crucial to the identity of a culture. It is such skills, knowledge and practices which has been possessed by the indigenous communities since time immemorial and has been passed down from generation to generation within such communities. However, the lack of awareness of their rights amongst these communities often leads to their exploitation.

India is a hub of communities which boasts a rich culture, heritage and knowledge, however the obstruction of social evils such as illiteracy, untouchability etc. haunts its protection and preservation. Similarly, the traditional healthcare system in China is inspired by Traditional knowledge that is more than 3000 years old. A number of practices are included in traditional Chinese medicine, such as acupuncture, qigong, herbal medicine, and food therapy. However, obstacles to its preservation include public mistrust, language barriers, urbanisation, and technological intrusion. The authors through this paper will analyze the existing protection mechanism of traditional knowledge in India and China in the light of international instruments as well as local barriers. Also, the authors will draw a comparison between the existing machineries in both the countries and will attempt to suggest the changes required for safeguarding the traditional knowledge of indigenous communities in India.

INTRODUCTION & HISTORICAL DEVELOPMENT

The richness of cultural diversity in the world is undeniable. Be it about the ethnic minorities or marginalized populations, they are particularly significant. The life they live predominantly in frontier or geographically peripheral areas and rarely known greenwoods pledge them a strategic role as conservationist of culture, skill and know-hows unknown to others. This relationship between the knowledge organic to the existence of indigenous people and their survival is not new. It has no certain history either. It has been with the communities ever since they have been in existence. The social and cultural traditions are unique to communities holding them. As a component

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of kinship, cultural, and social traditions of passing down lived experiences of our habitat, humans have always passed on knowledge about life, living, livelihoods, lifestyles, nutrition, health care, and cleanliness throughout generations. As they live and follow these basics of knowledge, it is necessary to ensure continuity in such traditions.

India is rich in biogenetic resources and traditional knowledge, which are as valuable as its modern scientific advancements. Traditional Knowledge (TK) plays a vital role in achieving sustainable development. However, its accessibility makes it vulnerable to exploitation.[1]

India safeguards the traditional knowledge through its initiative of the Traditional Knowledge Digital Library (TKDL). Launched in 2001, it digitizes ancient texts, including Ayurveda, Unani, Siddha, and Yoga, into multiple languages. TKDL helps prevent biopiracy by providing evidence for patent authorities worldwide, ensuring India's heritage is protected.[2]

However, the TKDL is not publicly accessible which leads to patent filing of data technically protected by Traditional Knowledge, unlike China which has a publicly accessible database of TK on payment of fees which prevent biopiracy.

Because of free access agreement India has to provide the traditional knowledge data free of cost, thus improving the patent system in other countries. While China has a developed mechanism which charges hefty fees for the same, while the Indian Council of Scientific and Industrial Research is investing crores of rupees in data in making the TKDL, there is no financial or monetary benefit in return.[3]

TKDL is primarily acting as a preemptive defense mechanism instead of protecting the rights of indigenous communities in India. While China has prioritised ensuring the integration of its traditional knowledge with contemporary Western scientific understanding, India has centered its policies on preserving traditional knowledge in its original form and perspectives. This paper delves into the in-depth meaning and significance of traditional knowledge, as well as the international instruments that protect it. The authors will examine in detail the mechanisms for the protection of traditional knowledge in India and China, drawing a comparison between the two systems to offer recommendations for improvement.

MEANING AND DEFINITION OF TRADITIONAL KNOWLEDGE

Native, indigenous, and local communities have built a body of knowledge that has been passed down through the years to the point where it has become integral to their identity. Many notions, including time calculations, food items, plant characteristics, spice applications, yoga poses, etc., are rooted in traditional knowledge. Traditional

1 Chouhan and Vishwas Kumar, *Protection of Traditional Knowledge in India by Patent: Legal Aspect,* 3 IOSR Journal of Humanities and Social Science, Issue 1, 3-5 (2012).

2 Traditional Knowledge Digital Library Unit (TKDL), https://www.csir.res.in/documents/tkdl. (December 26th, 2024, 3:35 PM).

3 Damodaran, *Traditional Knowledge, Intellectual Property Rights and Biodiversity Conservation: Critical Issues and Key Challenges*, 13 Journal of Intellectual Property Rights, 17-19 (2008).

knowledge's most important characteristics are its long history and frequent oral transmission.[4] "*Vidya Dadati Vinayam, Vinaya Dadati Paatrataam* I *Paatratva Dhanamaapnoti, Dhanaat Dharmam Tatah Sukham* II" According to this shloka, true or complete knowledge bestows discipline, which in turn bestows worthiness, wealth, and from wealth one practices good deeds to attain joy. The strength and importance of knowledge are echoed in this age-old Sanskrit saying. Furthermore, it reiterates the necessity of safeguarding customary knowledge.[5]

Contrary to popular belief, traditional knowledge does not get its name from its antiquity. Within a community, it is a living body of knowledge that is created, maintained, and transmitted from generation to generation; it frequently contributes to the community's sense of cultural or spiritual identity. Because of this, it is difficult to protect under the current intellectual property laws, which normally only provide temporary protection to inventions and creations of individuals or businesses. Because of its dynamic nature, "traditional" knowledge is also difficult to define.[6] Essentially culturally oriented or based, traditional knowledge (TK) is fundamental to the cultural identity of the social group it operates within and is perpetuated. A broad definition of "traditional knowledge" includes any and all tradition-based innovations and creations arising from intellectual activity, including literary, artistic, or scientific works; performances; inventions; scientific discoveries; designs; marks, names, and symbols; undisclosed information; and all other tradition-based innovations and creations.[7]

There is no such specific definition of Traditional Knowledge which has been accepted widely, but the World Intellectual Property Organizations (WIPO) has defined the said term in two different senses-

- **In General Sense –** *"It embraces the content of knowledge itself as well as traditional cultural expressions, including distinctive signs and symbols associated with TK."*
- **In Narrow Sense - "***It refers to knowledge as such, in particular the knowledge resulting from intellectual activity in a traditional context, and includes know-how, practices, skills, and innovations."*[8]

UNESCO followed the concept of *Ejusdem Generis* and accordingly defined Traditional Knowledge as the "*the cumulative and dynamic body of knowledge, know-how and representations possessed by peoples with long histories of interaction with their natural milieu. It is intimately tied to language, social relations, spirituality and worldview, and is generally*

4 Vatsala Singh, *IPR Vis-à-vis Traditional Knowledge,* Mondaq, https://www.mondaq.com/india/patent/743482/ipr-vis—vis-traditional-knowledge (May 5th, 2024, 5:27 PM)

5 SCC Online, https://www.scconline.com/blog/post/2018/04/23/protecting-traditional-knowledge-the-india-story-till-date/ (May 5th, 2024, 6:35 PM).

6 Ibid.

7 Speech of Hon'ble Mr. Justice Vijender Jain, Chief Justice, Punjab And Haryana High Court, Chandigarh In A Seminar Of Asia Pacific Jurist Association (Apja) On *Safeguarding The Traditional Knowledge In India*, May 8th, 2024.

8 World Intellectual Property Organizations https://www.wipo.int/tk/en/tk/#:~:text=Traditional%20 knowledge%20 (TK)%20is%20 knowledge,its% 20 cultural%20 or%20 spiritual% 20 identity (May 8th, 2024, 4:42 PM).

held collectively."[9] The indigenous groups have been able to employ this precious traditional knowledge for sustainable life and survival, the knowledge pertaining to food crops, biologically significant and life-saving medicinal plants and herbs.[10]

Globally the indigenous and local groups' knowledge, inventions, and customs are collectively referred to as traditional knowledge. Oral transmission of traditional knowledge occurs between generations. It is derived from years of experience and customized to the local environment and culture. Cultural values, beliefs, traditions, proverbs, music, rituals, folklore and community, laws, local language, agricultural methods, emergence of new plant and animal species are examples of how it is typically bestowed.[11]

IMPORTANCE OF PROTECTING TRADITIONAL KNOWLEDGE

Traditional knowledge occupies a distinctive space between intellectual property and the public domain, sharing traits and limitations of both. Lacking elements like innovation or an identifiable owner, it cannot be protected by exclusive intellectual property rights (IPR). Consequently, it becomes part of the public domain, leaving it open to potential exploitation. Therefore, it has proven to be a challenge to protect traditional knowledge. Because of its unique nature, this information needs to be protected because it is integral to the communities' identity and might be exploited by businesses or individuals who could patent it without providing any benefits to the communities.[12]

Traditional knowledge is directly associated with ecology, because of their relationship with the environment and the experiences they have gained from personal formal education and interactions. It is possible to argue that traditions and personal experiences form the foundation of indigenous ecological knowledge. Controversial topics like bioprospecting are also part of traditional knowledge. The term was coined to characterize the tradition of indigenous and local groups to collect and screen plants and other biological material for use in the production of new seeds, cosmetics, medications, and other products. Bioprospecting may be justified as beneficial to biodiversity, but it is also sometimes accused of being biopiracy because it does not fairly compensate indigenous and local communities for giving access to their resources and because products and patents derived from traditional knowledge are so similar to traditional knowledge that they violate intellectual property rights and are therefore considered intellectual piracy. Misappropriation of indigenous communities have been taking place ideally because of the lack of knowledge of rights that these communities themselves hold, and hence, unfortunately have been taken advantage of blatantly at various stages of history.

9 Vrinda Singh & Vishal Singh Thakur, *Biopiracy and the Eclipse of Traditional Knowledge in India*, 6 Supremo Amicus 491 (2018).

10 Ibid.

11 Malgosia Fitzmaurice, *The Dilemma of Traditional Knowledge: Indigenous Peoples and Traditional Knowledge*, 10 INT'l COMM. L. REV. 255 (2008).

12 Abha Nadkarni & Shardha Rajam, *Capitalising the Benefits of Traditional Knowledge Digital Library (TKDL) in Favour of Indigenous Communities*, 9 NUJS L. REV. 183 (2016).

In emerging nations, corporate sectors are making every effort to industrialise their economies. A number of discussions have focused on how the commercialization of traditional knowledge and traditional economic experiences is robbing people of their identities and their cultural heritage. WIPO's Intergovernmental Committee (IGC) on Intellectual Property and Genetic Resources was formed in 2000 to handle concerns related to these sectors, and groups. The IGC was created with the goal of addressing intellectual property rights and the problems that surround them, as well as the benefit sharing framework as a discussion point for the preservation of traditional knowledge and technological innovations.[13] The intellectual property system has expanded to include new stakeholders in the global information society, such as indigenous and local communities. Their knowledge base, particularly their traditional knowledge, forms a body of prior art that is becoming more and more relevant, and its proper identification is becoming crucial to the system's operation. A traditional knowledge documentation data is a non-patent literature with specific characteristics and certain characteristics may require tailored measures to ensure that traditional knowledge data is properly integrated and recognised as relevant non-patent literature.[14]

INTERNATIONAL LEGAL INSTRUMENTS SAFEGUARDING TRADITIONAL KNOWLEDGE

Although traditional knowledge is protected by national and regional regulations, its effects are felt on a worldwide scale. Traditional knowledge has been discovered to be founded on specific moral and ethical precepts worldwide, regardless of its local applicability (often restricted to a clan or perhaps exclusively to a family or a community). The impact that TK's uniform behavior produces transcends national boundaries.[15]

The international law, intellectual property rights, and environment law all contain a number of legal documents, declarations, and rules that offer protections for indigenous knowledge. It is crucial to recognize, nonetheless, that these clauses occasionally diverge and contradict one another due to the existing disagreements regarding the purpose and subject matter. Some legal frameworks address the protection of the environment and the preservation of rights of indigenous peoples, while other legal frameworks deal with intellectual property rights, international trade, and other commercial matters where the primary goal is profit maximization. Time and again, the Corporation and the Indigenous communities have had a "clash of interest" as a result of the discrepancies in these laws.[16]

Not only is it economically unfair to these communities to use their cultural property without their consent, but it also violates their rights as people who have contributed

13 Ratula Datta, *Indigenous Communities in India and the Protection of Traditional Knowledge: An Inadequate Legal Initiative*, 25 Supremo Amicus 392, 2021.

14 Supra note 7.

15 Chakrabarty, S.P., Kaur, R. A Primer to Traditional Knowledge Protection in India: The Road Ahead. Liverpool Law Rev 42, 401–427 (2021). https://doi.org/10.1007/s10991-021-09281-4

16 Vrinda Singh & Vishal Singh Thakur, Biopiracy and the Eclipse of Traditional Knowledge in India, 6 Supremo Amicus 491 (2018).

for generations to the development of certain words, images, and patterns that have traditionally had spiritual and cultural significance for them. Thus, it is essential—and always has been—that actions be done to safeguard their rights to economic and cultural freedom.[17]

The International Frameworks Protecting Traditional Knowledge are Mentioned Below-

1. CONVENTION OF BIOLOGICAL DIVERSITY, 1992

In addition to acknowledging indigenous people's reliance on biodiversity, the Convention on Biological Diversity also highlights their special contribution to the preservation of life on Earth. The first international treaty to recognize the importance of local and indigenous populations in biodiversity protection and sustainable usage is the Convention on Biological Diversity.[18]

The Convention places general requirements on the preservation, sustainable use, information exchange, and fair distribution of biodiversity benefits. As per their specific national circumstances, each party is required to create national legislation as soon as feasible. This is done in ordere to respect, preserve, and uphold the knowledge, innovations, and practices of indigenous and local communities that represent traditional lifestyles relevant for the conservation and sustainable use of biological diversity. This further encourages their wider application with the consent and involvement of those who possess these knowledge, innovations, and practices and also promotes the equitable sharing of the benefits arising from their use.[19] Additionally, the convention acknowledges the notion of state sovereignty, which permits the state to exercise its sovereignty over its resources.[20]

The CBD Convention's Article 8J addresses traditional knowledge in a major way. It is also necessary to discuss Article 15, paragraphs 5 and 7, which establish the requirement for prior informed permission and sharing under conditions that are mutually agreeable. Articles 10(c), 17(2), and 18(4) also make reference to traditional knowledge. In addition to adopting many rulings and guidelines relating to traditional knowledge, CBD also offers a comprehensive institutional structure.[21]

2. THE NAGOYA PROTOCOL, 2010

The guidelines and procedures for implementing the Convention on Biological Diversity are outlined in the 2010-ratified Nagoya Protocol. Shared benefits and access are the main topics of this protocol. Better control over access to genetic or biological resources

17 Ratula Datta, *Indigenous Communities in India and the Protection of Traditional Knowledge: An Inadequate Legal Initiative*, 25 Supremo Amicus 392 (2021).

18 Supra note 15.

19 Supra note 7.

20 Vrinda Singh & Vishal Singh Thakur, *Biopiracy and the Eclipse of Traditional Knowledge in India*, 6 Supremo Amicus 491 (2018).

21 Malgosia Fitzmaurice, *The Dilemma of Traditional Knowledge: Indigenous Peoples and Traditional Knowledge*, 10 INT'l COMM. L. REV. 255 (2008).

is the goal of the Nagoya Protocol, which also urges the government to establish an institution where businesses and researchers can apply for operating licenses. The establishment and maintenance of a fair system for allocating gains resulting from resource utilization should also be guaranteed by states.[22]

In order to access and utilize a genetic resource, parties must first secure permission from the resource's traditional owners and come to an agreement on the parameters of resource extraction and benefit sharing. This was outlined in the Nagoya Protocol. A review of India's Traditional Knowledge Digital Library sheds light on how to preserve traditional knowledge internationally while balancing national and communal interests.[23]

3. DOCTRINE OF COMMON HERITAGE OF HUMANKIND, 1967

The International undertaking on Plant Genetic Resources for Food and Agriculture, 1983, established by the FAO, is outlined in Article 1(1). Its foundation is "the universally accepted principle that plant genetic resources are a common heritage of mankind and consequently should be available without restriction." That is to say, nobody can assert any kind of sovereignty over these resources.[24]

4. DECLARATION ON THE RIGHTS OF INDIGENOUS PEOPLE (UNDRIP), 2007

In terms of internal affairs, it upholds the rights of indigenous peoples to self-recognition and sovereignty. It also acknowledges their "right to maintain, control, protect, and develop their cultural heritage, traditional knowledge, and traditional cultural expressions.[25]

5. THE TRADE-RELATED ASPECT OF INTELLECTUAL PROPERTY RIGHTS (TRIPS) AGREEMENT, 1995

In 1955, the World Trade Organization developed the TRIPs Agreement as a global framework for the protection of intellectual property rights. albeit with limited success, the 1994 Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) of the World Trade Organization (WTO). TRIPS has not really protected the rights of indigenous people over traditional knowledge in fact it has served as a framework for enforcing international intellectual property laws that permit traditional knowledge to be commercialized worldwide rather than serving as a means of safeguarding it for the benefit of its traditional custodians.[26]

6. THE INTERNATIONAL TREATY ON PLANT GENETIC RESOURCES FOR FOOD AND AGRICULTURE, 2001

Concerning the genetics of agricultural plants, it safeguards the customary knowledge

22 Supra note 20.

23 Balancing community rights and national interests in international protection of traditional knowledge: a study of India's Traditional Knowledge Digital Library.

24 Supra note 20.

25 Supra note 23.

26 Ibid.

held by farmers. It additionally ensures that farmers receive an equal share of any profits made from their contributions.[27]

7. WIPO

World Intellectual Property Organization (WIPO) jumped into the world of protection of traditional knowledge back in the seventies through its folklore provisions with the UN. In the nineties, WIPO came up with its own idea of protection traditional knowledge in 28 countries. However, what can be summarized about the attempts of the World Intellectual Property Organization in protecting traditional knowledge is that they believe in understanding the requirements of the locals when it comes to the current manner of protecting traditional knowledge. This has led it into collecting massive amounts of information, a manner of collecting Traditional Knowledge, and the creation of an apparent system. It is also trying to widen its database so as to make it easier to find traditional knowledge to protect. It has also worked to find the rationale behind protecting traditional knowledge.[28]

The Inter-Governmental Committee on Intellectual Property and Genetic Resources assists WIPO in handling Traditional Knowledge as well. The IGC was created with the goal of addressing intellectual property rights and the problems that surround them, as well as the benefit sharing framework as a discussion point for the preservation of traditional knowledge and technological innovations. Its purpose is to resolve disputes over international legal agreements pertaining to the protection of indigenous populations and the knowledge that has been derived from them. It is necessary to make recommendations to Member States of the Paris Convention or those that follow WIPO's guidelines on the protection of these communities.[29]

LEGAL PROTECTION OF TRADITIONAL KNOWLEDGE IN INDIA & CHINA

Traditional knowledge by its very nature of being intrinsically developed through practical understanding has enriched itself into an asset that is widely threatened. Efforts to utilize traditional knowledge for business or industrial purposes directly attack the beneficiaries of the knowledge. TK holders' interests must be taken into consideration while creating strategies to safeguard and cultivate TK in the face of such threats. Especially for emerging nations, it is crucial to preserve, safeguard, and promote the innovative and rich practices rooted in traditional knowledge. Their abundance, biodiverse-attributes and sustainability is vital in all aspects as they consider environment, trade, development, identity, health care, and food security. But in many places across the world, this priceless asset is in danger.[30]

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27 Maitreyi Shishir, *Protection of Traditional Knowledge in India*, 1 LAW Essentials J. 74 (2021).

28 Ibid.

29 Supra note 17

30 WIPO,https://www.wipo.int/wipo_magazine/en/2011/03/article_0002. html#:~:text= India's%20 TKDL% 20 is%20 a% 20 unique, protecting%20 the%20 country's%20 traditional% 20 knowledge. & text= 1%20 Prior%20art% 20 constitutes% 20 all, claim%20 of%20 novelty% 20 and%20 inventiveness (May 20th, 2024, 8:20 AM).

MECHANISM IN INDIA

Concerns have been raised about the fact that third parties are using and patenting knowledge from indigenous communities without the traditional knowledge holders' prior informed agreement, and that very little, if any, of the benefits of this use are being shared back with the communities from whom the knowledge originated. A spirited discussion about how to maintain, safeguard, advance, and use traditional knowledge responsibly has resulted from these worries, which have elevated traditional knowledge to the top of the international agenda. It's working well to preserve traditional knowledge and keep outsiders from stealing it by digitizing and documenting TK-related information into a Traditional Knowledge Digital Library (TKDL). India is leading the way in this area. In an attempt to prevent patent offices worldwide from granting patents for applications based on India's abundant rich heritage, the Department of AYUSH and the Council of Scientific and Industrial Research (CSIR) collaborated on the TKDL initiative. The concept of creating a TKDL emerged from India's attempts to cancel the patents on the antifungal qualities of neem and turmeric issued by the European Patent Office (EPO) and the United States Patent and Trademark Office (USPTO). These efforts proved to be quite expensive and time-consuming, even though they were effective.[31]

The TKDL expert committee calculated that approximately 2,000 patents pertaining to Indian medicinal systems were mistakenly issued by patent offices worldwide each year around the time the TKDL was founded in 2001. National patent law specifies requirements that must be met in order for a patent application to be approved. Specifically, the applicant must demonstrate that the invention being sought is new and has never been used before. So why were there so many Indian medical system-related patents granted? The asserted inventions were not found in the previous art searches that were conducted when patent examiners evaluated these applications for patentability. As a result, they were declared patentable. However, a large portion of India's traditional medical knowledge was only available in Sanskrit, Tamil, Hindi, Urdu and Arabic at that time. The patent examiners in the major patent offices to whom the applications had been submitted were neither conversant in these languages nor able to access them. Much anguish was brought to the country because so many patents had been improperly obtained in the United States and Europe. India's citizens believed that their knowledge was being unfairly taken away from them. Furthermore, these patents that were deemed "incorrect" granted the sole authority to utilize the invention within the nation where patent protection was bestowed. This presented a serious risk to Indian producers' ability to make a living and their ability to enter international markets.[32]

The TKDL has organized and transformed ancient texts into a 34 million standard format of a patent application using information technology techniques and a brand-new Traditional Knowledge Resource Classification System (TKRC). With the help of

31 Ibid.

32 Supra note 30.

its TKDL, India may now protect around 0.226 million pharmaceutical formulations for free. Early identification of applications that blatantly fail to meet the novelty criteria is made easier for patent examiners with access to the database. Removing a patent can be an expensive and time-consuming procedure without a TKDL database. The typical time to dispute a patent granted by a patent office is five to seven years, and the cost can range from 0.2 to 0.6 million US dollars. This multiplied by the 0.226 million pharmaceutical formulations in India makes it evident that the expense of protection in the absence of a TKDL would be unaffordable. TKDL attempts to categorize and then translate the uses, traits, and reference materials of various plants establishing a capable and strict method to prove traditional knowledge's precedence in cases of biopiracy. This translates into the true goal of this digital library.[33]

One of the world's first and most comprehensive databases of its era established in 2001 to facilitate effortless patent search and being made accessible in five foreign languages: English, German, French, Japanese, and Spanish for easy access and prior art review made finding information regarding historical understanding of the Indian System of Medicine impressively systematic. Patent offices worldwide have access to this database including USPTO, EPO, German Patent and Trademark Office (DPMA), Canadian Intellectual Property Office (CIPO) *et al*. Nonetheless, if one complies with Traditional Knowledge Digital Library's requirements, access might be obtained outside the agreement too.[34] It is undoubtedly a significant step toward safeguarding the nation's traditional medical knowledge in particular as it has resulted in the application of traditional knowledge being established in up to 324 instances that have been rejected, withdrawn, cancelled, etc.[35]

The system however is clouded into mists since TKDL was created with the intention of assisting indigenous communities and receives substantial funding for its operation. Despite its promising nature, it now serves just as a protective measure as it lacks the other functions of an intellectual property regime. The primary purpose of an intellectual property rights (IPR) regime is to safeguard intellectual property while also generating financial gains for the creators. Instead of benefiting the information bearers, the current TKDL structure only serves one purpose—that of protecting the knowledge[36].

An analysis of TKDL's finances and economy reveals several areas of criticism. Firstly, there is no financial gain that can result from a contractual arrangement because TKDL does not provide access to third parties. Only the CSIR and Patent Offices, who sign the "Free Access Agreements," are parties to a contract. Secondly, it does not substantially benefit the indigenous population, who are the real beneficiaries and the original bearers of the traditional knowledge. Thirdly, traditional knowledge is

33 Supra note 20.

34 Supra note 27.

35 CSIR, Traditional Knowledge Digital Library Unit.

36 Wu L, Chen W, Wang Z. Traditional Indian medicine in China: The status quo of recognition, development and research. J Ethnopharmacol. 2021 Oct 28;279:114317. doi: 10.1016/j.jep.2021.114317. Epub 2021 Jun 8. PMID: 34111541.

not acknowledged by TKDL as a component of the public domain. Some argue that in order to avoid the frequently invoked defense of ignorance regarding a formulation's status as "prior art," the TKDL should be made publicly available and easily accessible to all. On several occasions, the lack to produce a source of the knowledge (which is many times passed on orally than being scripted), raised the defense's claim of non availability of the knowledge in the public domain in turn strengthened the request for grant of patent. This highlights the issue of non documentation of generational knowledge rising from ignorance of India's ancient knowledge systems. These indigenous knowledge systems need to be widely publicized so that patents cannot be claimed for the glaring lack of novelty, rather than fighting every single one of them.[37]

Another issue arising out of the current legal regime in India is lack of inventive-step. Mostly composed of products that are natural in nature, there is a challenge to prove an inventive step, a fundamental prerequisite for patent.[38]

Traditional Knowledge also has ownership complexities involving collective ownership against the patent regime granting patent only to individual or corporate. Also the entire IP system affects the intergenerational communication of knowledge, limiting the protection to a few years or decades while the knowledge continues to be used, difficulty in determining the first inventor to complex mechanisms for sharing benefits adds to the challenges still required to overcome by the Indian IP regime protecting traditional medical knowledge. For example, databases developed in China are made available to the general public for a cost, which deters biopiracy. In essence, this makes sure that the concept of this kind of usurpation never develops into a patent application in the first place. The biodiversity authority's registry, another significant resource, is not accessible online. According to the 2004 Act's regulations, one of the authority's primary responsibilities is to compile a Register following consultation with the various locals. The primary goal of this record is to gather all the comprehensive information about the biological resources in the area, their usage, and any other information that might be relevant to their protection from the local population. The secret to the register's effectiveness in assisting with the preservation of traditional knowledge is its comprehensiveness.[39]

MECHANISM IN CHINA:

China takes extremely careful steps towards achieving this goal, even if it has been said that the country is "highly concerned about TK protection." This is because the matter is highly complex. The traditional knowledge in China is categorized into

37 Hirwade, Mangala and Anil Hirwade, *Traditional Knowledge Protection: An Indian Prospective*, 32 DESIDOC Journal of Library & Information Technology, 3 (2021).

38 Intellectual Property and traditional medical knowledge, background brief no.6, WIPO, 2016, <https://www.google.com/url?sa=t & source=web & rct=j&opi=89978449 & url=https://www.wipo.int/edocs/pubdocs/en/wipo-pub-rn2023-5-6-en-intellectual-property-and-traditional- medical- knowledge.pdf & ved= 2 ahUK Ewiu7Oa O49GKAxVDy Tg GHeJGOXQQ Fno ECBkQAQ & usg= AOv Vaw0 RB orwLkcCU Nob Ar4 n5IEX> (December 30th, 2024, 11:25 AM).

39 Supra note 27.

traditional medical knowledge, traditional agricultural knowledge and traditional ecological knowledge identifying with its deeply rooted culture and history. It makes up almost 50% of the entire healthcare systems in china. However its background shrouded in myths and superstition has made it archaic, raw and in desperate need of modern commercial values. Highly affected by the allegations and in need of restoring the historical cultural significance and dignity, protection of the traditional medical knowledge was brought under the Patent Law in 1992 and 2000 which started to shape the protective measures in China. Legislation pertaining to genetic resources and associated technology that would allow for the use of Convention on Biological Diversity (CBD) was also created, as well as access and benefit-sharing agreements were accordingly being concretized. Furthermore China has consistently been making efforts to bring its Chinese traditional medicine updated with the contemporary Western scientific understanding. However, even though the call resonates with the international IP requirements they do not aptly fit the box since the nature of western practices and traditional knowledge do not go hand in hand.

All things considered, only recently invented TK is protected by the above laws and the public domain is thought to include all other types of Traditional Chinese Medicine known. To assist patent examiners, the Chinese State Intellectual Property Office created the Traditional Chinese Medicine Patent Database, which includes over 40,000 formulations that have been patented and are, therefore not in the public domain. However the traditional Chinese medicine knowledge is still not satisfactorily protected because it guarantees only the creation of achievements and not the source of resources that gives no scope of protection to development and innovation in TMK. As of right now, not much is done to preserve traditional medical knowledge in china, and it is largely a vicious circle of unfulfilled promises where numerous policies, suggestions and committees and strategic plans were organized but not to much avail.[40]

A COMPARISON OF TRADITIONAL KNOWLEDGE IN INDIA & CHINA

India and China are richly diverse in their traditional Knowledge and ancient wisdom shaping their healthcare systems before the advent of western cures but both face the challenges of a developing country trying to strengthen their ancient knowledge through a modern intellectual property regime.

Below are the highlights of a comparative study on the ip regime protecting TK in India and China.

• BROADER AREA OF LAW:

Chinese regulations on the protection of Chinese traditional medicine varieties and the People's Republic of China's 2000 Patent Law with regulation on protection of varieties of Chinese traditional medicine are examples of what China has as legislation protecting TK, while India has its Biological Diversity Act, 2002, Patent Act, 1970 with rules and Traditional Knowledge Digital Library.

40 Nair, *TRIPS, WTO and IPR: Protection of Bioresources and Traditional Knowledge*, 16 Journal of Intellectual Property Rights, (2009

• **ACCESSIBILITY (PAID V. FREE)**

Indian TKDL is not publicly accessible which causes patent filing of data technically protected by Traditional Knowledge unlike China which has a publicly accessible database of TK on payment of fees which prevent biopiracy. Because of free access agreement India has to provide the traditional knowledge data free of cost, thus improving the patent system in other countries. While China has a developed mechanism which charges hefty fees for the same. 'The free tree will stay free.' TKDL is primarily acting as a pre emptive defense mechanism instead of protecting the rights of indigenous communities. China has prioritized ensuring the integration of its traditional knowledge with contemporary western scientific understanding, but India has concentrated its policies on safeguarding traditional knowledge in its original form and perspectives.

The scriptures of India were composed in numerous languages, most of which are no longer in use. In contrast to the understanding of Traditional Chinese Medicine. Because patent examiners were unable to screen Indian traditional knowledge in their searches for prior art, the information became susceptible to exploitation by corporations. It should be noted that revocation of a patent once granted is difficult and costly. Given that India is a multiethnic nation, all indigenous communities' rights are respected, and the Traditional Knowledge of various ethnic groups is acknowledged. Consequently, a culturally heterogeneous TK network has been developed. However although china being an ethnically diverse country is particularly dominated by one single ethnic group the han chinese which has influenced their TK protection strategy also that has largely neglected the TK of ethnic minorities and has been too focused on PCM.

• **LEGAL AND POLICY FRAMEWORK**

China- Intellectual property regime in China is broad including legislations but no access and benefit sharing frameworks, indigenous rights and repression of unfair competition.

India- India has legislations but none specific to Traditional knowledge but still provides for Access and benefit sharing framework.

• **POLICY TOOLS UTILIZED**

China- Exclusive Rights are granted to right holders though there is no acess regulation or customary laws.

India- India has Access Regulation but no customary laws or exclusive rights.

• **SCOPE OF SUBJECT MATTER**

China- Sectoral in nature only granted to Traditional Medicine

India- India has Biological Resources held by local people only

• **POLICY OBJECTIVE**

China- it is limited to Innovation and Promotion

India- It goes to + biological resources- Conservation of TK and elements and Fair and Equitable benefit Sharing.

India, jointly with Brazil and other Latin American countries has taken a leadership role in this arena by making proposals in several IGOs to include obligatory benefit sharing mechanisms and disclosure of source and origin requirements into the TRIPS agreement. Although China has sometimes joined these groups, its political leaders have not appeared to be very convinced of these proposals. They seem to prefer the status quo to any "immature rule that would surprise interested industries"[41]

CONCLUSION AND SUGGESTIONS

The Researchers has Suggested Some Suggestions which are Mentioned Below-

- Commercial access to traditional knowledge should be allowed because it will eventually benefit the indigenous communities.
- Legislation that oversees these local or indigenous populations' entire environment and their traditional knowledge is still lacking.
- Inculcating more information to indigenous people the information related to the protection of their traditional knowledge using various international or national laws.
- Because TK is so widely used and susceptible to transboundary misuse, it cannot be protected solely by domestic means. For all kinds of TK to be better protected, the International Legal Instrument is consequently necessary.
- Commercial access to traditional knowledge should be allowed because it will eventually benefit the indigenous communities.
- Unlike the expertise of Traditional Chinese Medicine, the texts of TK in India were written in a multitude of languages, of which only a small number are still in use today. Because patent examiners could not check Indian traditional knowledge (TK) in their prior art searches, it became open to corporate exploitation.
- It should be mentioned that it is difficult and expensive to revoke a patent after it has been issued.

India is a multi ethnic country and respects the rights of all indigenous communities and recognition is given to TK of several ethnic groups. Thus an ethnically diverse TK mechanism has been established. However, although China being an ethnically diverse country is particularly dominated by one single ethnic group the Han Chinese which has influenced their TK protection strategy also that has largely neglected the TK of ethnic minorities and has been too focused on PCM. Knowledge has emerged as one of the most vital resources for both social and economic advancement with

41 Comparative Summary of Existing National Sui Generis Measures and Laws for the Protection of Traditional Knowledge, https://www.wipo.int/edocs/mdocs/tk/en/wipo_grtkf_ic_7/wipo_ grtkf_ic_7_6- annex1. pdf (December 30th, 2024, 9:25 AM).

the growth of the knowledge economy. A few nations have put up plans to safeguard their own ancient knowledge. Chinese customs-based knowledge on health and cleanliness is referred to as traditional knowledge of Chinese medicine. It is passed down from one generation to the next, yet it is always changing. All inventions and innovations arising from intellectual work in this subject are included, and it has real or potential commercial worth.

Religious Fundamentalism in India

*Ms. Soma Gupta**

ABSTRACT

Fundamentalism basically means adhering to one own pre conceived notions largely based on religious texts having their own rigid meaning and interpretation . *It* is a term that typically refers to," *a strict adherence to certain foundational or core principles, often in the context of religion, but also in politics and other ideologies.*he growth of religious fundamentalism in India highlights the urgent need for dialogue, greater interfaith understanding, and a reaffirmation of the country's commitment to religious tolerance and national unity. Only through such efforts can India hope to preserve its tradition of coexistence while navigating the complexities of modern identity politics.

INTRODUCTION

It can be broadly explained, "as a tendency which is largely prejudice on pre-conceived philosophies and ideologies amongst certain groups – mostly, but not being exclusively – in religious following a specific ideology, when they stringently and precisely follow convinced unambiguous scriptures, dogmas or ideologies with a strong importance of maintaining ingroup and outgroup distinctions.

Fundamentalism is a term drawn from Protestant Christianity. It is an American coinage that refers to a group of early twentieth-century Protestant activists who organised against Darwinian evolution and who championed the literal reading of the Bible. However, today the western analysts describe religious revivals around the world in terms of the growth of fundamentalism. But not all revivals are fundamentalist. There is an uprising of religion all over the globe, except in Europe, where secularism has taken root.[1]

It is characterized by the belief in the absolute, literal truth of foundational texts, doctrines, or traditions, and a rejection of modern interpretations or reforms that challenge these core beliefs,it is often associated with confrontation to pluralism and tolerance, and sometimes with extremism or conflict with other faiths and believes.

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To have a further understanding it refers to," when individual's comings together in a group who have unyielding firmacceptance and unwavering belief in the soundness of the religious/philosophical scriptures in all matters of faith, religion and philosophy. The belief is at time so strong that they at times disapprove the law of the land if it is inconsistent with theirbeliefs and faiths astheir main purpose is to have the dominance of their religious practices It is generally understood to have religious connotation but it can be non-religious also which can be based on geographical, political or a newpoliticalapproach. They detect the idea of unity of in diversity and want their ideologies to be followed monopolistically.

Fundamentalism can be seen in many different religions, such as Christianity, Islam, Judaism, Hinduism, and others, each with their own specific characteristics. It can also extend to political or ideological movements, where it signifies a rigid, purist stance on issues like nationalism, capitalism, or socialism.Refusal of multiplicity of practise as applied to these established "fundamentals" and their accepted interpretation within the group often results from this tendency.

RELIGIOUS FUNDAMENTALISM: MEANING AND ORIGIN

Religious fundamentalism denotes to a stern, precise, and often unyielding interpretation of religious texts and doctrines, following the traditions beliefs faiths practise and customs.With the belief that these traditions are the absolute, static truth needed for the maintenance of the society even though the beliefs are inconsistent with the sovereignty or integrity. They denounce the principle of liberalism and excessive secularism.[2]

It encompasses a commitment to preserving and returning to what adherents believe are the original, pure practices and beliefs of their faith, often rejecting modern interpretations, reforms, or external influences that challenge traditional understandings. Literal interpretation of sacred texts, rejection of modernity and secularism, moral and social conservatism, exclusivism, intolerance of dissentare some Og the key features of religious fundamentalism.

RELIGIOUS FUNDAMENTALISM: IN INDIA

In the Indian context, fundamentalism fundamentally means that, a particular group of people belongingly from the same group based on region, religion or ethnicity particularly have their own rigid ideologies have given there rigid understanding and explanation of their religious texts, there customs and traditions, and lay emphasizes either monopolistically practising or inveterately following to what is perceived as the "core" or "pure" values of a religion. It is stereotypicallyconnected with the resurrection of religious individualities and the desire to execute those principles in political and social domains.

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Today the initiative in defining communalism in India has been seized by fundamentalists in the majority community, which is projecting communalism as true nationalism; the nation belongs to the majority and is formed by their history, culture and struggles.[3]

Nationalism and communalism are made synonymous, and Indian nationalism is imputed a Hindu religious character.[4] And so fundamentalism re-enters the picture, as the focus is now on the religious consciousness in society and its mobilization for political ends.[5]

HINDU FUNDAMENTALISM:

This term refers, "to a form of religious and political philosophy that supporters, promotes and based on encouraging the reign of Hinduism as both a religious and cultural distinctiveness, regularlyemphasizingon reappearance to what is apparent as the "fundamental" or "traditional" values of Hindu society based on religious texts.

It encompasses a stern interpretation of Hindu religious texts, customs, and practices, and tends to resist modernity, secularism, and pluralism. This movement is closely associated with the rise of Hindutva (Hindu nationalism), ,Hindutva was coined by Vinayak Damodar Savarkar in his 1923 book, *Hindutva: Who is a Hindu?*.

It focuses on the idea that India is primarily a Hindu nation, and that Hindu culture, civilization, and religion should define the nation's identity, it should be practiced and adhered in socio legal practices This dogmaat times in certain geographical areas by certain groups goes beyond religious practice specially in legal and social conditions particularly when someone either from their own ethnicity or other deject and denounce there ideas and philosophy, therby emphasises on promoting a integrated uniform cultural identity rooted in Hindu traditions, and the idea that India's political and cultural heritage.

Hindu fundamentalism often involves a strict adherence to Vedic texts (like the Vedas, Upanishads, Puranas) and Hindu epics (like the Mahabharata and Ramayana), with an emphasis on traditional practices and rituals. This rejection of modern interpretations of Hinduism can lead to conflicts with secularism, modern education, and scientific advancements. It also emphasizes ritual purity and the preservation of traditional ways of life, often resisting social reforms like women's rights, caste-based discrimination, and interfaith marriage.

This often comes in conflict with secularism and realism as it might invariably and vicarious result in *Religious Exclusivism* ,this belief in the superiority of Hinduism can lead to calls for religious conversion back to Hinduism, and efforts to "protect" Hindu practices from what is seen as foreign influence. As indirectky it denounces the idea

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and is the Opposition to Secularism:, Hindu fundamentalism is often critical of India's secular constitution, which guarantees freedom of religion and promotes the idea that the state should not favor any one religion. Say for example the idea of "uniform civil code"—a single set of laws governing personal matters for all Indians—has also been advocated by these groups, as they often argue that the current system allows Muslim personal laws, which they view as incompatible with Hindu laws.

In the recent years Political Involvement in Hindu fundamentalism has increasingly become a prominent part of Indian politics, political figures and leaders have promoted policies that reflect Hindu nationalist values, such as the Citizenship Amendment Act (CAA), which provides a path to citizenship for non-Muslim refugees from neighbouring countries. This law has been criticized by many as discriminatory toward Muslims.

All of this collectively leads to Exclusivismas Hindu fundamentalism stresses the importance of Hinduism as the core identity of the nation and often opposes the influence of other religions, especially Islam and Christianity. It can manifest in intolerance toward minority religious practices and calls for policies that favor Hindu religious practices, like the promotion of cow protection or the construction of temples at disputed sites.

ISLAMIC FUNDAMENTALISM

Islamic fundamentalism in modern India refers to a movement within the Muslim community that seeks to strictly adhere to the core principles of Islam, often advocating for a more conservative lifestyle and interpretation of religious law, sometimes manifesting as social and political activism, and in extreme cases, violence, fuelled by perceived threats to their identity and cultural practices within a predominantly Hindu society; this can include concerns about the dilution of Muslim traditions, the influence of Western culture, and political marginalization.

It refers to a political and religious ideology that advocates for a strict and literal interpretation of Islamic teachings, often in opposition to modernity and secularism. It emphasizes returning to what adherent's view as the original practices of Islam, seeking to implement the religion in all aspects of life, including law, governance, and social norms.

Islamic fundamentalism in India is connected to groups and individuals who advocate for a strict, literal interpretation of the Quran and Hadith. Some groups aim to create a society governed by Islamic law (Sharia) and oppose secularism, modernity, or pluralism.

Vital characteristics of Islamic fundamentalism include: Literal Interpretation of Religious Texts: Desire for Sharia Law, Opposition to Secularism, Anti-Western Sentiment and Revival of Islamic Identity. Fundamentalists often interpret the Quran and Hadith (sayings and actions of the Prophet Muhammad) in a very literal and conservative way, rejecting more flexible or modern interpretations. They believe that the answers to social, political, and personal issues are found directly within these texts.? Islamic fundamentalists generally oppose the separation of religion from politics, which is a

hallmark of secularism. They believe that Islam should guide both the spiritual and temporal aspects of society, rejecting the notion of secular governance.

THE IMPACT OF RELIGIOUS FUNDAMENTALISM ON INDIAN SOCIETY

Religious fundamentalists normally have a political agenda and the media are used to further this agenda.[6]

The religious fundamentalism at times leads to disputes and tension specifically where there are cosmopolitical groups as India is a very diverse country where its basic is Unity in diversity

Few incident of conflicts where people try to over owe the religious practices it often results in *Sectarian Tensions and Violence at several* indene's Religious fundamentalism in India has been a significant source of communal violence and division, with flare-ups of violence between Hindu-Muslim, Hindu-Sikh, or other religious groups. High-profile events like the Babri Masjid demolition in 1992 and the Gujarat riots in 2002 have deepened religious fault lines in the country.

It often leads to,*Political Exploitation a***s** Fundamentalist ideologies are often used for political gain, with parties and leaders exploiting religious sentiments to garner votes and strengthen their position. This can lead to policies that favor one religion over others, further polarizing communities.

This all have led to *Secularism Under Strain* , India's Constitution enshrines secularism, the idea that the state should not favour any religion. However, the rise of fundamentalism, especially in political discourse, challenges this ideal, as there are calls for laws or policies that align with the beliefs of particular religious groups.

Hindu and Islamic fundamentalism in India has significantly impacted the country's social, political, and cultural fabric, contributing to religious polarization, communal tensions, and a shift away from its pluralistic traditions.

Hindu fundamentalism, advocates for a "Hindu Rashtra" (Hindu nation) and the primacy of Hindu cultural and religious values in the public sphere. This movement has fuelled identity-based politics, influencing elections and policy decisions. Hindu nationalist groups often frame their rhetoric around the protection of Hindu interests, which sometimes leads to communal violence and clashes, particularly between Hindus and Muslims. Incidents like the Babri Masjid demolition (1992) and the Gujarat riots (2002) have deepened mistrust between religious communities, contributing to ongoing communal strife. Hindu fundamentalism has also led to the marginalization of Muslims and other religious minorities, with policies such as the Citizenship Amendment Act (CAA) raising concerns about religious discrimination and threatening India's secular fabric. Additionally, the promotion of Hindu symbols, festivals, and cultural practices in public life has further alienated religious minorities and undermined the country's multicultural identity.

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On the other hand, Islamic fundamentalism in India has emerged as a response to perceived political and social marginalization, particularly among the Muslim community. While not as widespread or politically influential as Hindu nationalism, Islamic fundamentalism has found expression in groups like Jamaat-e-Islami and the Students Islamic Movement of India (SIMI), which challenge the secular state and advocate for a stronger role of Islam in public life. Islamic fundamentalist ideologies often stem from feelings of alienation, economic disparity, and a history of communal violence, which have led some Muslims to seek more radical paths. While Islamic fundamentalism in India has not led to widespread terrorist attacks like in some other countries, terrorist incidents linked to groups like the Indian Mujahideen have occasionally stirred tensions, especially in regions like Kashmir. The Kashmir conflict, in particular, has been a flashpoint for Islamic fundamentalism, where calls for autonomy or independence from India have been fueled by both religious and political grievances.

Both Hindu and Islamic fundamentalism have eroded India's secular foundations, creating a more polarized society where religious identity often trumps national unity. Interfaith relations have become strained, and incidents of religious violence have intensified, undermining the spirit of coexistence that historically characterized India. These movements have also pushed for the inclusion of religious laws, whether Sharia for Muslims or Hindu religious laws for Hindus, in public policy, challenging the separation of religion and politics. The growing prominence of both religious ideologies has deepened the sense of division between communities, making it harder to bridge gaps and promote social harmony. Ultimately, the rise of Hindu and Islamic fundamentalism poses a serious challenge to India's pluralistic, secular identity and its vision of unity in diversity.

CONCLUSION

Fundamentalism in India is not confined to one religious group but is a broader phenomenon that affects multiple communities. It is often a response to perceived threats—whether political, cultural, or social—against a community's identity and values. While some individuals and groups use fundamentalist ideologies to promote social cohesion and political power, it frequently leads to social fragmentation, communal violence, and a decline in tolerance for religious and cultural plural.

The rise of religious fundamentalism in India, both Hindu and Islamic, has had profound and far-reaching effects on the nation's social, political, and cultural landscape.This ideology has fueled communal violence, deepened interreligious divisions, and reshaped political discourse, emphasizing identity-based politics over inclusive governance. On the other hand, Islamic fundamentalism, though less politically dominant, has emerged as a response to the perceived marginalization of Muslims in Indian society. It has fostered a sense of alienation and sometimes radicalized segments of the Muslim community, contributing to sporadic acts of violence and reinforcing a sense of division between religious groups.

The intersection of these two forms of religious fundamentalism has further polarized India, complicating efforts to uphold its constitutional values of secularism, pluralism,

and social harmony. As religious identity increasingly dominates political and social discourse, India faces the challenge of reconciling its diverse communities within the framework of democracy and secularism. The growth of religious fundamentalism in India highlights the urgent need for dialogue, greater interfaith understanding, and a reaffirmation of the country's commitment to religious tolerance and national unity. Only through such efforts can India hope to preserve its tradition of coexistence while navigating the complexities of modern identity politics.

A Jurisprudential and Contemporary Analysis of Law and Order with Special Reference to Manipur

Mr. Ujjwal Ray Rajbangshi & Ms. Mona Sehgal***

ABSTRACT

Though the rule of law and order is considered a backbone to regulate society, unfortunately there are other various anti-social elements for which the rule of law and order is not fully utilized. The contravention of the rule of law in the state is not a new concept in India. Crimes like deterioration of public property and ethnic clashes are not new instances of violating the rule of law in the state. Breakdown of law and order, human rights violence, and many other instances can be seen in contemporary India, and it also shows how society itself ignores the mechanisms of the rule of law. Northeastern states of India like Manipur also highlight the political and social turmoil that resulted in disturbance of law and order in the state. The political mayhem are also the reasons that result in social atrocities and tensions. The need of accountability of the state and judiciary are both necessary to regulate rule of law and order in the state. The purpose of the study is twofold: *first*, to highlight the jurisprudential notion of rule of law; *second*, to highlight the critical scenarios of law and order in Manipur.

Keywords: Rule of Law, Equality, Human rights, Violation, Northeast India.

INTRODUCTION

The rule of law and order is a governance approach and principle that ensures accountability to laws enforced, equally and equitably enforced, and independently adjudicated, in line with international human rights norms and prerequisites. It requires measures to uphold principles like supremacy and preeminence of law,equality, obligation and accountability, fairness and transparency, separation of powers, active participation in legitimate decision-making, legal-certainty, procedural & legal transparency and, avoidance of arbitrariness. The rule of law is crucial for national as well as international peace, security, political stability, economic growth and stability, and safeguard the

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people's rights. It is indispensable for access to public services, combating bribery and corruption, constraining exploitation of power, and maintaining social compacts. The 2030 Agenda and SDGs aim for a stronger and equitable rule of law and order-based society, ensuring more just and equitable world.[1]

Inclusive justice systems and rule of law changes enhance government legitimacy, prevent human rights violation, and enable individuals to use judicial processes and mechanisms to preserve paramount human rights. These changes ensure genuine responsibility and quality services for citizens. Solidifying the rule of law and order involves respecting international legal standards and states' duty and responsibility to protect populations from genocide and atrocity, brutal acts against humanity, war related crimes and, ethnic violence & racism. And it is crucial for humanitarian and human rights, addressing displacement and statelessness.[2] Law, order and violence have minimal connection. Individual prioritise the moral meaning over safety and prosperity, leading to a higher value for moral meaning than the law. Some people find violence-suffering more appealing than peace-prosperity in certain places. This is due to the thrust for power and wealth as well as the perceived significance of killing or dying for a moral cause. These preferences are stronger than the rule of law.[3]

The scenario of rule of law in Northeast India is different. Northeast India faces a long history of ethnic group autonomy struggles; however, it is now experiencing stability. Northeastern states strife stems from local rivalries, resource disputes, and inhabitant conflict between tribal areas, hills, and plains.[4] The state of Manipur has been experienced a political instability due to armed insurgency and ethnic violence. The state's history reveals issues related to hills-valleys, social elements, and ethnic identity, with ongoing disputes stemming from long-standing ethnic group rivalries. The prevailing disturbances is the result of a complex interaction of social and political variables affecting equitable distribution.[5] Maintaining the approach of rule of law and order in Manipur is still challenging, unfortunately.

JURISPRUDENTIAL ASPECT OF THE RULE OF LAW AND ITS APPROACHES

Any advancement in society, the insights of jurisprudential philosophy are regarded as quite vital. The rule of law may be successful in the state if it is supported by a philosophy of legal value system. Constructive approaches in states through rule of

1 What is the Rule of Law - United Nations and the Rule of Law, *available at*: https://www.un.org/ruleoflaw/what-is-the-rule-of-law/#:~:text=It % 20 requires % 20 measures % 20 to % 20 ensure, and % 20 procedural % 20 and%20legal % 20 transparency. (Last visited on August 7, 2024).

2 *Ibid.*

3 R. E. Brooks, The New Imperialism: Violence, Norms and the Rule of Law 101(7) *Michigan Law Review* 2305 (2003).

4 B. Lacina, The Problem of Political Stability in Northeast India: Local Ethnic Autocracy and the Rule of Law 49(6) *Asian Survey* 998–1002 (2009).

5 Leishipem Khamrang, "Manipur Mayhem: A Latent Enmity, Generalized Violence and State's Apathy" 15 Journal of Management & Public Policy 5 (2023).

law is not that easy. It is to be understood by various social & jurisprudential factors and constructive interpretation.

Rule of law and democratic values are desirable political features. Democratic revolutions aim to create democracy and rule of law simultaneously, aiming to achieve both under authoritarian control. The rule of law aims for government to enforce its agenda through general laws and regulations, subject to governors' jurisdiction. Democratic values and the rule of law are reflected in separate institutional structures, with electoral institutions, governments, and legislatures, while courts and police enforce rules and regulations. Legal institutions have broad authority to regulate and mould social interaction, but democratic rule appears to be relatively limited.[6] The spirit of democracy is heavily influenced by political insights which may create a havoc towards the rule of law of the state. The courts and police in India have broad authority under the laws to uphold law and order, but in order to do so, rule of law too be and must be backed by a jurisprudential philosophy. Otherwise, it may appear that the rule of law is being imposed via totalitarianism. Hence, the rule of law and democracy are both supplementary and complimentary with each other.

For instances, Hong Kong's constitutional jurisprudence incorporates comparative law, offering benefits and drawbacks. Hong Kong Bill of Rights reflects global standards, offering numerous advantages. Hong Kong's position differs from those of jurisdictions like the USA and Australia, which drafted constitutions before the advent of the concept of human rights and basic freedoms law.[7]Hence, it can be seen how an insight into comparative jurisprudence is so important for making a law. Because in all countries around the world, different notions, aspects, and interpretations of rule of law are applied.

Hans Kelsen advocates for positive law, stating that moral discourse and ideals are comprehensive and final. Pure Legal Theory does not replicate transcendental notions but also not view law same as legacy of justice. Other eminent jurist like Rahardjo's Progressive Law is based on norms and behaviour. Regulations will contribute to the development of positive & enthusiastic legitimate legal system. The behavioural attitude human factors will guide the development of norms & procedures.[8] Hans Kelsen's views law as a set of standards based on what it is reasonable to be. Law, a product of jurisprudential-philosophical thinking & research, relies on ethical morals and philosophical principles to establish written standards in law. The foundation for identifying norms as a legal decision category is inherent in legislation's methodological character. These standards basically are unavoidable in social life but lack coercive strength. To become an efficient law, written legislation must be enforced by official agency authorized to carry out instructions and legitimate coercion. Argument for

6 A. Przeworski and J.M. Maravall (eds.), *Democracy and the Rule of Law* 242-243 (Cambridge University Press, New York, 2003).

7 Anthony Mason, "The Place of Comparative Law in the Developing Jurisprudence on the Rule of Law and Human Rights in Hong Kong" 37 *Hong Kong Law Journal* (2007).

8 Muhammad Harun, "Philosophical Study of Hans Kelsen's Thoughts on Law and Satjipto Rahardjo's Ideas on Progressive Law" 1(2) *Walisongo Law Review (Walrev)* (2019).

the separation of law and moral suggest that the credibility of positive law norms does not depend on compliance with the moral order. So, a positive law norm is valid regardless of adherence with moral order. Law is not just legalised rules but is inherent in human behaviour, which is dynamic in nature. Understanding and communicating accepted standards and values are closely connected to the dynamic instincts of human behaviour.[9] So, this can be seen how the jurisprudence of morality and rule of law can be two sides of the same coin to regulate the society. Morality and rule of law both are supplementary and complimentary with each other to understand the needs and emotions of the society. Jurisprudence philosophy is the key to interpret the morality so that so that it can regulate with law of the state for the better implementation of rule of law policy.

HYPOTHETICAL PERSPECTIVE OF RULE OF LAW

Rule of law is more seems to be a hypothesis than a general law of the state. It is more like a complicated theory when it comes to a practical implementation. Every circumstances of the state is not equal in nature and it may vary from one place to another place. In some places full implementation of the rule of law is possible, but in other places this scenario is not that much seen to be effective. The rule of law sometimes has the political influence which constitute the state monopoly and consequently affect the democratic vibe of the society. Hence, it is to be seen how the authorities and courts of the state implements rule of law policy, and how responsible citizen of the state accept such policy to uphold the rule of law which subsequently leads to justice.

Indeed, we can see that democracies have the greater potentiality than authoritarian regimes to produce independent courts as well as the rule of law. But there are instability of the legitimate institutions particularly in the developing country which focuses that democracy not only sufficient to foster rule of law. In any country, the spirit of constitutionalism is very much vital to enforce rule of law in democratic way. The approach of constitutionalism is also important to maintain the independent of the judiciary, if the judiciary is independent than only it can check whether the compliance & execution of rule of law is authoritative or in a tyrant way. Judicial independence, sometimes, it very hard to achieve in non-democratic countries. In any country, if an unchecked law bill is passed by the legislature than it could be considered as tyranny of the majority. Thus, independence and neutrality of the court is very much important to review such unchecked law bill which may have a bad consequences on rule of law.[10] Hence it is proved that independence of the court is far more important than the strict compliance of rule of law. It is the only court who have the power to interpret any circumstances and to uphold the effective law and the justice.

Politicians, who always for the craving of power, always wants to maintain their autonomy particularly in various decision-making policy. It is the citizen who do not want any abuses or partiality in the form of rule of law. However, the citizen has

9 *Ibid.*

10 Gretchen Helmke and Frances Rosenbluth, "Regimes and the Rule of Law: Judicial Independence in Comparative Perspective" 12 *Annual Review of Political Science* 345-347 (2009).

the instrument to overthrow such any tyranny government in two ways: *first,* by the way of election method; *second,* to enforce the legal limitation i.e., rule of law through the statutory institution to the political discretion. Basically, the citizen do not like or interested in those politicians/ministers who implements rule of law in a partial and abusive manner which is not so democratic in nature.[11] So we can see that how the independence of the court is very important for uphold the true spirit of rule of law, its interpretation. If rule of law becomes a political weaponto abuse the citizen, then the principles of rule of law will be considered as dead.

RULE OF LAW AND HUMANITARIAN CRISIS: THE MANIPUR CHAPTER

Manipur, a state in India, located at eastern part of the country. It is bordered by the Indian states of Nagaland to the north, Assam to the west, Mizoram to the southwest and Myanmar to the south and east. Like other northeastern states, it is largely isolated from the rest of India geographically.[12] Manipur, also known as the land of jewels, surrounded by mountain ranges and is blessed with diverse nature. The sensitive geopolitical status, as well as the presence of numerous ethnic groups with varied historical origins, differentiates these states from the rest of the country. Manipur as the remaining of the six other states of the North-Eastern region is multi lingual, or multi ethnic. Most of the communities and people inhabiting Manipur are tribal and indigenous.[13] That is why the Constitution has granted many provisions and rights relating to the tribals and indigenous for their betterment and upliftment, which is essential as they are also part of our India and our nation must take utmost care to protect them. When the components of multi linguistics, multi ethnic & cultures are there, then the role of rule of law and accountability of the state and judiciary is very crucial. But there has been a lot of tension and conflicts in the northeastern state of Manipur. It is evident these days how state machinery and the rule of law have collapsed, and because of that lots of residents have migrated to other places to protect themselves. Through this paper, we will highlight the incidents of conflicts, and how it can be dealt with because whatever may be the reason the local people including women and children are suffering in terms of their education and daily life.

The violence and disturbances are not new in Manipur and other parts of India as well, historically the Manipur state has witnessed high levels of violence for example when there was a protest against the 'AFSPA' (Armed forces). There has been a continuous engagement on the part of the state to address issues and crises in the northeast but it has remained unresolved to date due to its complexities and cross-cutting issues prevailing in the region, particularly in the northeastern state of Manipur.

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11 José María Maravall, "The Rule of Law as a Political Weapon" *Instituto Juan March De Estudios E Investigaciones* 1 (2001).

12 Lodrick, Deryck O. and Standley, Barbara A. "Manipur". Encyclopedia Britannica, available at https://www.britannica.com/place/Manipur. (Last visited on 16 August 2024).

13 Dr. Lucy Zehol, Ethnicity in Manipur - Experience, Issues and Perspectives 1-2 (Daya Books, New Delhi, 1998).

It is true that given the multifaceted issues, it is extremely difficult on the part of the state to come up with a solution that is acceptable to all ethnic groups.[14]

Scheduled tribes were previously among the most socioeconomically disadvantaged communities in India, denied access to school and employment prospects, forcing the government to legally recognise select groups in an attempt to right years of injustices. Other ethnic groups in Manipur said that they were worry that they would not have an equal chance for jobs and other advantages if the Meitei community is granted scheduled tribal status. Conflicts and a perceived sense of neglect and hardship are inextricably linked, which might lead to a fertile environment for conflict. Its repercussions limit people's growth and well-being, which eventually leads to societal instability.[15] We can also see the same tense of Meitei community that if the government will not fulfil the ST status to Meiteis then may be there will be a tense of not getting equitable opportunity of the Meitei community.

Several studies also demonstrated that economic-social disparities, conflict andcompetition for few resources, lack of equitable opportunityand, exclusion from revenue generation are the major factors of long term contradiction and conflict.[16] That is why there should not be any kind of discrimination against any people as they are also part of our country and if proper means are given to them like education, proper infrastructure and reservations in jobs, etc then they can also contribute to development the state as well as the nation. For example, in northeastern state literacy and women empowerment is very good there if we compare to northern states, the thing is youth and women require access to high-quality education that promotes critical thinking, civic involvement, intercultural communication, and conflict resolution abilities. Youth and women's organisations play an important role at the grassroots level in mobilising, organising, promoting, and implementing peacebuilding efforts. They require money, training, mentorship, coaching, and technical help to improve their abilities, knowledge, and confidence. They also require access to platforms, forums, coalitions, and networks where they may share their experiences, difficulties, best practices, and lessons gained with other youth and women's peacebuilding organisations. So, from this perspective a proper mechanism of rule of law is a must to check and review in all sectors.

Also in 2023, there has been a lot of tension and violence have been created resulting in death displacement, destruction, and trauma in the northeast region of Manipur. Many have lost their homes, properties, and loved ones as a result of the clashes. Over 70,000 people are currently displaced from their homes in this dangerous and dynamic scenario, with 142 documented casualties and over 6,000 wounded. According to Sphere India, a national alliance of humanitarian organisations, these displaced

14 Raile Rocky, "Issues, Responses, and Consequences: An Analysis of Persistent Imbroglio in Manipur" 2 Journal *of North East India Studies* 49-63 (2012).

15 Uttam Kr Pegu, "Media Coverage on Ethnic Conflict in North-East India: An Analysis on the Issues and Challenges in Conflict Communication." 6 *Global Journal of Finance and Management,* 3 (2014).

16 Ashild Kolas, "Framing the Tribal: Ethnic Violence in Northeast India" 18 *Asian Ethnicity* 5 (2017).

people are seeking refuge in 253 relief camps spread across 10 districts of Manipur. The Inter-Agency Coordination Committee meetings and the mapping of responses from over 100 local groups using the United Response Strategy (URS) matrix are the basis for these reports.[17] They are facing acute shortages of food, water, medicine, and other essentials; as well as facing trauma and insecurity. The violence has also disrupted the education, health, and transport services in the state, affecting the normal life of the people. Some have been living in temporary relief camps for months, awaiting the government's provision of prefabricated housing. But the question is, is it enough for these people, will they get justice in the true sense? Why the breakdown of rule of law has been happened?

A better understanding of civics and government is needed, with citizens represented and communities consulted. Current regimes often use the sympathy as a tool for violence and apathy, perpetuating electoral politics. Manipur may struggle to recover from this state of apathy, stereotypes, and violence, highlighting the lack of significance of democracy.[18] Legislation is a crucial tool for social transformation and balancing the state-citizen relationship, promoting well-being and pleasure. It should reflect public desires and be just, fair, and reasonable, safeguarding citizens' rights and freedoms. It plays a vital role in every human civilization. The harmony between rulers and subjects, maintaining a friendly atmosphere between the state and its citizens, and respecting the principles of rule of law and constitutionalism, is crucial for peace, harmony, and development in the northeastern state of Manipur.[19]

The solution to the Manipur violence lies in dialogue,reconciliation and development. The state and central governments must engage with all stakeholders, including civil society groups, ethnic leaders, religious organisations, and insurgent groups, to find a political solution that respects the rights and aspirations of all communities. They must be very ensured so that the justice shall be done to the sufferer of human rights violations. They also have to ensure that sufficient and appropriate relief and rehabilitation measures are provided to those who are suffered from unfortunate violence events and also provide long term adequate development and solution initiatives to ethnic issues and socio-economic problems in Manipur.It asks for a united front from all segments of society to stand up for India's constitutional fundamentals and values. It also calls on all levels of government to reassert their commitment to ensuring that every person in India has equal rights, dignity, and opportunity.

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17 Anand Zachariah and Ramani Atkuri, "Manipur 'S Medical and Humanitarian Crisis," *Deccan Herald*, Aug. 16, 2023, *available at*: https://www.deccanherald.com/opinion/manipur-s-medical-and-humanitarian-crisis-2648857#:~:text=The%20 humanitarian%20and%20public% 20 health, and% 20 long % 2 Dterm % 20 health % 20 consequences. (Last visited on Aug. 16, 2024).

18 Shiv Visvanathan, "Manipur May Not Recover from This Indifference" Deccan Herald (2023).

19 N. Pramod Singh, "Overwhelming Legislative Intervention and its Impact on NE State of Manipur" 6 International Journal of Social Science and Human Research (2023).

CONCLUSION

Rule of law and order can be possible and effective if there is arationalunderstanding between the authority and the citizens. Value and equitable oriented decisions of the state and the society to counter many issues and challenges which disturb the spirit & values of rule of law. It is not the only obligation of the state to uphold the spirit of rule of law but it is also the responsibility of every members of the society to understand the spirit of rule of law and to uphold equitable justice in every sphere.

Globalization, shifting Indian economy and politics have led to governance difficulties, particularly in rule of law. The criminal & civil judicial systems are under strain, making law schools crucial for providing appropriate legal education and training law students as rational & legitimate thinkers and social engineers. This is very essential for future of legal education and the progression of a knowledge economy in India. Law universities must recruit bright attorneys to teach, study, and research, fostering rule of law society in India. This will encourage future generations to strive for this goal.[20]

Further to stop the conflict and violence which deteriorate the law and order in the civilized society, some proposed initiatives are to be followed to improve law and order in such conflict states. The suggestions are based on experiences and own perspectives: -

I. Meaningful discourse and settlement to be done because it is very vital to understand the emotions and legitimate needs of the people in conflicted state.
II. Strict Accountability Policy of the state to be followed.
III. The judiciary approach onSuo motoregarding any such grievous social conflict situation in the state.
IV. Foster development of tourism culture and peace centric culture.

20 C. Raj Kumar, Legal Education, Globalization, and Institutional Excellence: Challenges for the Rule of Law and Access to Justice in India 20(1) *Indiana Journal of Global Legal Studies* 221 (2013).

Imposing State Responsibility for Climate Change with the Help of Duty of Care Principle

*Christopher Thomas**

ABSTRACT

Duty of Care principle is potent weapon at the hands of the judiciary to enforce the climate goals of each member countries who have pledged to combat climate change. The main aim of this work is to establish that there is a liability imposed on the state actors to take necessary measures to combat climate change. In the absence of taking such necessary steps, there are no enforcement mechanisms at present as we only have climate change conventions and certain laws at state levels; even then, it is not enough to attribute an element of liability towards state actors. The principle of duty of care can be employed in imposing liability for states for not taking necessary measures to combat climate change. The liability can be the individual liability of the ministers and the collective liability of the state. This work is focused on the shared responsibility of the countries and the obligation of the state towards future generations and Indigenous communities who are much affected by climate change. The balance between development and mitigating climate change impacts is also an area to be looked into and addressed in this work.

Keywords: Duty of Care, Climate Change, State Liability, Individual Responsibility, Collective Responsibility.

INTRODUCTION

State responsibility for climate change includes various complex issues such as international law, human rights being affected by climate change, damages for climate disasters and adaptation and mitigation for climate change in accordance with international and national obligations. The states have a wider duty to protect the interests of their citizens, as the world we now live in is a welfare state. The concept of welfare states mandates that states take necessary care and protection of the citizens. These involve developing social welfare policies with a view to protecting them from old

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age, unemployment, accident and sickness.[1] The welfare theories and policies of each state differ from one to another depending on the structure of the government and the mode of administration.[2] These models include conservative models and social democratic models.[3] The conservative model focuses on the traditional family to promote well-being; we can see the example from countries such as Germany, Austria, France, and Italy. The social democratic model is based on universalism, and therefore, benefits are equally shared; this model is seen in Scandinavian countries.[4] It should be noted that all the countries follow a multimodal approach to ensuring the welfare of their people. There have been disagreements in the early theories of welfare states since the 1980s; there is a growing recognition of the importance of understanding how different market, government, and social arrangements impact well-being. This broader focus on social protection extends beyond traditional welfare state studies and encompasses a wide range of policies and interventions aimed at promoting social inclusion and reducing poverty and inequality. The welfare principles change with the changing times, and as of today, climate change is a growing concern. Protecting the people from the effects of climate change should also be a part of the larger welfare policy of the state because of the health impacts[5], displacement and migration of people, economic stability[6], poverty and intergenerational justice. Thus, welfare state principles now incorporate the climate change aspects as it can directly affect the global food supply as climate change affects food production and increases health hazards, leading the states to take more measures to prevent these and also provide for those already affected by climate change.

The duty imposed on the State is quite large as it involves protecting the human rights of individuals who can be affected by climate change; these rights include the right to life, the right to livelihood, the right to a safer environment, the right to safe and drinkable water, right to pollution free air, right to secure the future of their children etc.[7]

1 M Weir, 'Welfare State' in Neil J Smelser and Paul B Baltes (eds), International Encyclopedia of the Social & Behavioral Sciences (Pergamon 2001) <https://www.sciencedirect.com/science/article/pii/B0080430767010949> accessed 10 May 2024.

2 Ibid.,

3 Ibid.,

4 Ibid.,

5 'Climate Change: A Threat to Human Wellbeing and Health of the Planet. Taking Action Now Can Secure Our Future — IPCC' <https://www.ipcc.ch/2022/02/28/pr-wgii-ar6/> accessed 10 May 2024; 'Review of IPCC Evidence 2022: Climate Change, Health, and Well-Being' <https://www.who.int/publications/m/item/review-of-ipcc-evidence-2022—climate-change—health—and-well-being> accessed 10 May 2024.

6 Emmanuel Skoufias, The Poverty and Welfare Impacts of Climate Change: Quantifying the Effects, Identifying the Adaptation Strategies (The World Bank 2012) <http://elibrary.worldbank.org/doi/book/10.1596/978-0-8213-9611-7> accessed 10 May 2024; Andries F Hof, 'Welfare Impacts of Climate Change' 5 Nature Climate Change 99(2015).

7 International Covenant on Civil and Political Rights (adopted 16 December 1966, entered into force 23 March 1976) 999 UNTS 171 (ICCPR) Article 6; UNHRC, 'General Comment

1. Shared Responsibility of States towards Climate Change

Climate Change is an area of 'diabolical policy challenge' and a 'super wicked problem' that often creates a legal problem to redress.[8] There are many actors who are involved in climate change, which makes it a nasty business to formulate public policies. The emitters in each state contribute to the accumulation of GHG in the atmosphere, and we cannot pin it down on a state because there is no particular reason to suggest that only because of their GHG emission climate change occur and because of that flood or sea level has risen. Thus, the effects of climate change will be experienced by even those countries which have net zero emissions.[9] These actions of the multi-state actors call for the need for shared responsibility in mitigating climate change.[10] The shared responsibility for climate change finds its foundation in UNFCCC under Article 2.[11] The Kyoto Protocol, which supplements the UNFCCC, focuses on the principle of CBDR, thereby putting the Annex I countries on a higher pedestal when it comes to climate change mitigation, because of the historical responsibility they have, as the industrial development of those countries had resulted in the present accumulation of GHG in the atmosphere of Earth.[12] The Paris Agreement, which was the result of COP 21 held in Paris, France, had the goal of holding the global rise in temperature well below 2 degrees Celcius and preferably below 1.5 degrees Celcius.[13] The regime had made provisions which indicate that there is a shared responsibility.

The customary law obligation also points to the state's obligation to limit the activities within its jurisdiction so as not to cause harm to the environment of other states. The no-harm rule established in *Trail Smelter* arbitration is providing the groundwork for

No. 17' (Thirty-fifth session, 1989) Compilation of General Comments and Recommendations Adopted by Human Rights Treaty Bodies, U.N. Doc. HRI/GEN/1/Rev.1 at 23 (1994); Ibid 'General Comment No.36'.

8 Ross Garnaut, 'The Garnaut Climate Change Review' (Cambridge: Cambridge University Press 2008) Cambridge Books <https://econpapers.repec.org/bookchap/cupcbooks/9780521744447.htm> accessed 10 May 2024; Richard Lazarus, 'Super Wicked Problems and Climate Change: Restraining the Present to Liberate the Future' [2009] Georgetown Law Faculty Publications and OtherWorks<https://scholarship.law.georgetown.edu/facpub/159>.

9 Michelle Mycoo and others, 'Small Islands' in Hans-Otto Pörtner and others (eds), Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change (Cambridge : Cambridge University Press 2022).

10 Jacqueline Peel, 'Climate Change' in André Nollkaemper and Ilias Plakokefalos (eds), The Practice of Shared Responsibility in International Law (Cambridge: Cambridge University Press 2017) at 1010 <https://www.cambridge.org/core/product/277EAF168E248EF1DE8E772552AB35CA>.

11 United Nations Framework Convention on Climate Change (9 May 1992, in force 21 March 1994) 1771 UNTS 107 art.2.

12 Kyoto Protocol to the United Nations Framework Convention on Climate Change (11 December 1997, in force 16 February 2005) 2303 UNTS 162).

13 Paris Agreement (12 December 2015, in force 4 November 2016) (2016) 55 ILM 740.art.2(a).

establishing the state's responsibility claims for climate change.[14] While extending the no-harm rule to climate change, one of the arguments is that the emission of CO2 is not considered a harmful substance because it does not have a direct effect on the planet; the increased concentration can lead to global warming, although it makes it harmful; each state specifically emits CO2.[15] Even though such arguments are raised most of the authors do not contest its applicability in climate change.[16] The application of the no-harm rule can be assessed by the principle of due diligence and prevention principle. The due diligence taken by states in assessing the harm and taking preventive action for the harm to be averted also forms a part of the shared responsibility of the states as they are obliged by customary practices to do so.

1.1 Duty of Care Principle and State Action Plans

The need for positive action by the State was always one aspect of the negotiations under the climate change regime. The Kyoto Protocol was the first instrument directly aimed at mitigating climate change, and the underlying principle of Kyoto was to make states take prompt actions to mitigate the effects of climate change.Even though Kyoto was not effective in its entirety, it was able to harness the spirit of nations in combating climate change. After Kyoto, the coming negotiations also paved the way for action. Such a decision taken at COP held in Bali in 2007 paved the way for the formation of a National Action Plan on Climate Change in States. The Bali Action Plan aimed at increased national and international actions for mitigating the effects of climate change with a view to achieving the objective of the convention. [17]The Bali Action Plan calls for urgent actionswith long-term vision.[18] The adaptation and mitigation strategies were also a point of discussion.[19] The Bali Action Plan focused on the need for enhanced action on technology development and financial resources to support mitigation, adaptation, and technology cooperation.[20] The result of the Bali COP was the formulation of a 'Road Map for Climate Action'; as a result,parties to the convention adopted several National and Sub-national level action plans. Many countries, such as Germany, France[21], India, the United States, and the UK, have formulated their own

14 Trail Smelter Arbitration (United States of America/ Canada) (1938 and 1941), Award 3 RIAA 1905.

15 Roda Verheyen, 'Climate Change Damage and International Law: Prevention Duties and State Responsibility', Climate Change Damage and International Law (Brill Nijhoff 2005) at 166-167 <https://brill.com/display/title/12139> accessed 11 May 2024.

16 Peel, Supra note 10, at 1031.

17 Conference of Parties, Bali Action Plan https://unfccc.int/files/meetings/cop_13/application/pdf/cp_bali_action.pdf accessed on 11th May 2024

18 Ibid.

19 Ibid.

20 Ibid., at para 1(e).

21 Ministry for the Economy, and Finance and the Recovery, 'CLIMATE ACTION PLAN OF THE MINISTRY FOR THE ECONOMY, FINANCE AND THE RECOVERY' <https://www.economie.gouv.fr/files/files/2021/Plan_Action_Climat_EN.pdf?v=1662539696> accessed 10 May 2024. Accessed on 11th May 2024

climate action plans and revised them in accordance with their ambitious goals through NDCs. The European Union has also advised each of its member states to create National and State level action plans for the period 2012- 2030 and has made them binding through the EU's climate and energy legislation.[22]

The duty of care principle can be applied to make the state more responsible in formulating an action plan to effectively mitigate climate change and its effects. The main aim is to make the goals laid down in the action plan to be achieved, and for that, duty of care can play a very significant role. The duty of care should be used in climate litigations to make the states comply with their own action plan. A strong criticism against climate change policies and laws is that there is no efficient compliance mechanism. Employing the principle of duty of care can make states take reasonable steps to achieve their own action plans, as there is a chance of backlash if it reaches court.

1.1.1. National Action Plan

The States have followed the roadmap for action in the Bali Action Plan and come up with their own action plans to combat climate change. National Action Plans are effective ways to communicate the goals and ambitions and the scientific ways to achieve these targets, the approach in each State differs accordingly. In India, after COP 13 in 2007, which was held in Bali, The Prime Minister of India, Dr Manmohan Singh, released the National Action Plan on Climate Change (NAPCC) in the year 2008. The NAPCC portrayed the climate action plan of India over the years and had 8 missions focusing on agriculture, water, solar, energy efficiency, sustainable habitat, sustaining the Himalayan ecosystem, green India, and strategic knowledge for climate change.[23] The NAPCC called for the creation of State Action Plans in India and Sub-State level Action Plans. The goal of NAPCC was to make India adapt to climate change and also, on the other hand, to take measures to mitigate climate change. But the Action Plan has certain short comings mainly because of the absence of any specific target for emission reduction.

The United States of America has adopted 'The Long-Term Strategy of the United States: Pathways to Net-Zero Greenhouse Gas Emissions by 2050', which aims to make the US a zero country in GHG emissions.[24] The Climate strategy has outlined the 2030 Target, which is to reduce net greenhouse gas emissions by 50-52% below 2005

22 'Climate Action in France: Latest State of Play | Think Tank | European Parliament' <https://www.europarl.europa.eu/thinktank/en/document/EPRS_BRI(2021)690686> accessed 11 May 2024.

23 'National Action Plan on Climate Change (NAPCC)' <https://static.pib.gov.in/WriteReadData/specificdocs/documents/2021/dec/doc202112101.pdf> accessed 10 May 2024.

24 'The Long-Term Strategy of the United States: Pathways to Net-Zero Greenhouse Gas Emissions by 2050.' (United States Department of State and the United States Executive Office of the President) <https://www.whitehouse.gov/wp-content/uploads/2021/10/US-Long-Term-Strategy.pdf> accessed 10 May 2024.

levels.[25] It has a 2035 goal to achieve 100% clean electricity[26]. The ultimate goal is to reach net-zero emissions economy-wide, not including international aviation or shipping emissions, by 2050.[27] The Strategy also highlights the importance of federal leadership in achieving the climate goals.[28]

France had also formulated National Climate Change Adaption Plan (PNAPCC), the first one covered the period from 2011 to 2015 and the second one from 2018 to 2022.[29] The adaptation plan aims to improve the knowledge of the impacts of climate change on water resources and the effects of various adaptation scenarios.[30] The plan has focused on 20 core areas which include cross-cutting actions, health, water, biodiversity, natural hazards, agriculture, forests, fisheries and aquaculture, energy and industry, transport infrastructures, urban planning and the built environment, tourism, information, education and training, research, funding and insurance, coastlines, mountains, European and international actions and governance.[31]The plan is based on national consultations and recommendations from the assessment of the previous plan (PNACC 2011-2015), ensuring a comprehensive approach to adaptation.[32]

The National Action Plans are adopted by each state those are party to the Convention and have longer and shorter goals to be achieved by those plans. These plans also show the vulnerability of each sector to climate and the effect the climate change can cause, even after outlining the action plan; if the governments are lethargic in achieving the goals, then the only recourse is to make them liable for non-compliance and duty of care principle can be used in doing so.

1.1.2. Sub-National level Action Plan

National Action Plans alone can not achieve anything, the countries have different states and districts, and action should be reflected at the grass root level to ensure that the National Action Plan is achieved, for Sub-national level entities play a crucial role, and local governments and State governments should adopt State level action plans and local action plans in conformity with the national objectives. The bottom-up approach is rightly applied in such a situation, thereby aligning with the needs of the particular locality. In India, there are various State-level action plans adopted by

25 Ibid., at 13.

26 Ibid., at 4, 11.

27 Ibid.

28 Ibid.

29 'National Climate Change Adaptation Plan 2018-2022 - Climate Change Laws of the World' <https://climate-laws.org/document/national-climate-change-adaptation-plan-2018-2022_248a> accessed 12 May 2024.

30 'French National Climate Change Impact Adaptation Plan 2011 2015 (PNACC) | UNEP Law and Environment Assistance Platform' <https://leap.unep.org/en/countries/fr/national-legislation/french-national-climate-change-impact-adaptation-plan-2011-2015> accessed 12 May 2024.

31 Ibid.

32 Ibid.

individual states such as Kerala[33], Tamil Nadu[34], Andhra Pradesh[35], Uttar Pradesh[36], etc. In India, Delhi became the first state to adopt a climate action plan.[37] There are also climate action plans adopted at municipal and panchayat levels. The Meenamgadi Panchayat in the District of Wayanad in Kerala had made plans to make the Panchayat Carbon-neutral.[38] The Mumbai Action Plan envisions a climate-resilient Mumbai by 2050.[39]

Germany's decentralisation in the policy aspect of climate change is also noteworthy. The federal states of Germany have their own adaptation and mitigation strategies.[40] German states exhibit a range of adaptation strategies, from non-committal recommendations to more institutionalised guidance.[41] The federal government's absence of mandates allows for flexibility but also results in varying degrees of state commitment to adaptation.[42] The strategies are assessed based on indicators like vulnerability assessments, policy goals, and institutional organisation.[43]

Sub-national Action Plans on Climate Change are an effective way of combating climate change if properly implemented. Mainly because of the amount of emphasis these state plans can put on the sectors which are identified. And another because of the bottom-top approach envisaged under the state plans. Even though it was a reality that Sun-National Action Plans on Climate Change were a product of a top-bottom

33 Directorate of Environment and Climate Change, Government of Kerala, 'State Action Plan on Climate Change for 2023-2030, <https://moef.gov.in/en/division/environment-divisions/climate-changecc-2/state-action-plan-on-climate-change/> accessed 12 May 2024.

34 Department of Environment and Climate Change, Government of Tamil Nadu, 'Tamil Nadu State Action Plan on Climate Change', 2019, <https://moef.gov.in/en/division/environment-divisions/climate-changecc-2/state-action-plan-on-climate-change/> accessed 12 May 2024.

35 Government of Andhra Pradesh, 'State Action Plan on Climate Change 2012', <https://moef.gov.in/en/division/environment-divisions/climate-changecc-2/state-action-plan-on-climate-change/> accessed 12 May 2024.

36 Department of Environment and Climate Change, Government of Uttar Pradesh, 'UP State Action Plan on Climate Change', 2014,<https://moef.gov.in/en/division/environment-divisions/climate-changecc-2/state-action-plan-on-climate-change/> accessed 12 May 2024.

37 'State Action Plan on Climate Change' (The Official Website of Ministry of Environment, Forest and Climate Change, Government of India) <https://moef.gov.in/en/division/environment-divisions/climate-changecc-2/state-action-plan-on-climate-change/> accessed 12 May 2024.

38 'Vikaspedia Domains' <https://vikaspedia.in/aspirational-districts/kerala/wayanad/best-practices/meenamgadi-gram-panchayat> accessed 12 May 2024.

39 Priyali Prakash, 'Explained | What Is the Mumbai Climate Action Plan?' The Hindu (18 March 2022) <https://www.thehindu.com/news/cities/mumbai/explained-what-is-the-mumbai-climate-action-plan/article65231102.ece> accessed 12 May 2024.

40 Julie P King, 'Sixteen Ways to Adapt: A Comparison of State-Level Climate Change Adaptation Strategies in the Federal States of Germany' (2022) 22 Regional Environmental Change 40.

41 Ibid.

42 Ibid.

43 Ibid.

approach, in the end, after the formulation of the Sun-National Action Plans on Climate Change, the plate has changed, providing scope for improving and setting targets within the grassroots level, which can contribute to the nation at large when taken in toto. Thus, the targets and goals in the action plan should be brought under the duty of care principle so as to ensure proper compliance.

2. Obligation of State towards future generations

There is a general notion that the present generation has an obligation towards future generations.[44] As Annet Baier has said, we are obliged not to injure or harm the common interests they have, like the rest of us, for the use of good earth and traditions without destroying the hospitability of human life.[45] The basis for these obligations is founded for some on justice while others on rights. Intergenerational equity, if enforced as a right, will have more command and force as it will act as a strong basis for the obligation.[46] The rights of future generations are always complex as we will have to look into the moral and constitutional scheme. Therefore, justice for the future generation seems apt in deciding whether States have obligations for future generations. John Rawl's argument in his influential *Theory of Justice* (1972) about the concept of "justice as fairness" provides the way for intergenerational fairness as, according to Rawl, there should not be only preservation of culture and institution in each generation, rather it should also put a suitable amount of real capital accumulation.[47]

Therefore, there is an obligation owed by the present generation towards the future generation. That does not mean that the present generation should be deprived of their basic rights and other amenities to make way for future generations. The principle of intergenerational justice requires that the present generation should make sure that they pass on the resources which they have used for themselves to future generations.

2.1. Climate Justice

Justice is quite a complex word to decipher. Its true meaning is multifaceted and has evolved over time with various philosophical perspectives and scholarly interpretations. From Aristotle's notions of distributive justice to Rawls' theory of justice as fairness and Sen's capabilities approach, there's a rich tapestry of thought on what constitutes justice in society. From the point of view of climate change, it is the effect the climate change can have on generations and states. The aspects of human rights, sharing the

44 Bayard L Catron, 'Sustainability and Intergenerational Equity: An Expanded Stewardship Role for Public Administration' (1996) 18 Administrative Theory & Praxis 2 p.3.

45 Annette Baier, Responsibilities to Future Generations/ : Environmental Ethics (Buffalo, NY/ : Prometheus Books 1981) <http://archive.org/details/responsibilities0000unse_j3d5> accessed 12 May 2024 p.243.

46 Edith Brown Weiss and Francis Cabell Brown Professor of International Law Edith Brown Weiss, In Fairness to Future Generations: International Law, Common Patrimony, and Intergenerational Equity (Hotei Publishing 1988) p.204.

47 John Rawls, A Theory of Justice: Original Edition (Harvard University Press 2005) <http://www.jstor.org/stable/10.2307/j.ctvjf9z6v> accessed 12 May 2024 p.285.

burden of climate mitigation and international development can also be part of climate justice. In other words, it means ensuring equitable outcomes for different places and persons. The notion of climate justice in the UK is to ensure the individual and collective ability to prepare, respond and recover from the effects of climate change with policies to mitigate them or to adapt to them by considering the existing vulnerabilities, resources and capabilities.[48] The notion of climate justice intersects with broader issues of human rights, as access to clean air, water, food security, and shelter are fundamental rights that are increasingly threatened by climate change. Ensuring equitable outcomes for all, regardless of geographical location or socio-economic status, is central to achieving climate justice.

Injustice with regard to climate is in many aspects. It relates to the highest polluters of GHGs, intergenerational equity, etc. Climate justice underscores the interconnectedness of social, economic, and environmental issues and calls for a holistic approach to addressing the inequities and injustices exacerbated by climate change.[49]

2.2. Preserving for Future Generations

The dangerous impacts of climate change will surely have deteriorating effects in the near future. The climate change effects which we now face today are not the ones caused by our emissions; rather, it is the continued emissions from the industrial age. Therefore, one cannot say that, as J.M Keynes said in his work '*A Tract on Monetary Reform*', 'in the longer run, we all will be dead'[50], as it impacts the survival of humanity. The preservation for future generations is also a part of sustainable development, because 'sustainable development is the development which meets the needs of the present generation without compromising the ability of the future generations to meet their own needs'[51]. The definition consists of intergenerational equity and intragenerational equity. There is a need to satisfy the needs of the present generation based on the principle of equity, i.e. intragenerational equity and making sure that at the same time, future generations are not deprived of their needs, i.e. intergenerational equity.

In the legal sense, there is no right accrued to unborn persons, and creating any kind of such right creates complex legal problems.[52] The preservation aspect for the future

48 'What Is Climate Justice? | Climate Just' <https://www.climatejust.org.uk/what-climate-justice> accessed 12 May 2024.

49 Edward Alexander Page, Climate Change, Justice and Future Generations (Edward Elgar 2006) <https://www.e-elgar.com/shop/gbp/climate-change-justice-and-future-generations-9781843761846.html> accessed 12 May 2024.

50 John Maynard Keynes, A Tract on Monetary Reform (Macmillan 1923) at 209.

51 Justice Mensah, 'Sustainable Development: Meaning, History, Principles, Pillars, and Implications for Human Action: Literature Review' (2019) 5 Cogent Social Sciences <https://doi.org/10.1080/23311886.2019.1653531> accessed 13 May 2024.

52 Wilfred Beckerman and Joanna Pasek, Justice, Posterity, and the Environment (1st edn, Oxford University Press 2001) <https://academic.oup.com/book/10497> accessed 12 May 2024.

generation can only be seen as a moral right and also from the point of view of justice.[53] The zero draft of the pact for a common future provides for the rights of the future generation.[54] The Maastricht principles on the Human Rights of Future Generations provide for the development of the rights of future generations.[55] It recognises future generations as holders of human rights as opposed to the UN instruments, which refer to the interests of future generations. These principles aim to clarify the state of international human rights law concerning future generations and guide decision-makers in incorporating the rights of future generations into concrete laws, charters, and declarations. They emphasise that human rights, including the right to a clean, healthy, and sustainable environment, do not have temporal limitations and apply fully to future generations.[56]

2.2.1. Adverse impact of climate change on children and state liability

Climate Change and its effects are borne by vulnerable members of our community, and these include children. The Child Rights Committee in 2021 made a historic ruling that state parties can be held responsible for the negative impacts of carbon emissions, which can affect the rights of children within and outside the territory of the state. The complaint was made by children who were below 18 years of age and were against countries such as Argentina[57], Brazil[58], France[59], Germany[60], Türkiye[61] and

53 Ibid.

54 United Nations, Pact for the Future: Zero Draft (New York, UN, 26 Jan. 2024)

55 Maastricht Principles on the Human Rights of Future Generations (adopted at Maastricht, 3 February 2023)

56 Ibid. See also 'Maastricht Principles and Guidelines - Research - Maastricht University' <https://www.maastrichtuniversity.nl/research/maastricht-centre-human-rights/maastricht-principles-and-guidelines> accessed 13 May 2024.

57 Committee on the Rights of the Child, Decision adopted by the Committee under the Optional Protocol to the Convention on the Rights of the Child on a communications procedure, concerning communication No. 104/2019,(Chiara Sacchi et.al v. Argentina) CRC/C/88/D/104/2019

58 Committee on the Rights of the Child, Decision adopted by the Committee under the Optional Protocol to the Convention on the Rights of the Child on a communications procedure, concerning communication No. 105/2019,(Chiara Sacchi et.al v. Brazil) CRC/C/88/D/105/2019

59 Committee on the Rights of the Child, Decision adopted by the Committee under the Optional Protocol to the Convention on the Rights of the Child on a communications procedure, concerning communication No. 106/2019,(Chiara Sacchi et.al v. France) CRC/C/88/D/106/2019

60 Committee on the Rights of the Child, Decision adopted by the Committee under the Optional Protocol to the Convention on the Rights of the Child on a communications procedure, concerning communication No. 107/2019,(Chiara Sacchi et.al v.Germany) CRC/C/88/D/107/2019

61 Committee on the Rights of the Child, Decision adopted by the Committee under the Optional Protocol to the Convention on the Rights of the Child on a communications procedure, concerning communication No. 108/2019,(Chiara Sacchi et.al v. Turkiye) CRC/C/88/D/108/2019

Switzerland[62]. Even though the committee established responsibility for the adverse impact on children, the complaint was found to be inadmissible on the ground that the complainants did not exhaust the remedies available at the national courts. The complainants stated that climate change is not an abstract future threat. The effect of climate change has already caused many heatwaves, floods and sea level rise.[63] The children are the most vulnerable because it affects them physiologically and mentally, and they are affected more on a larger scale than the adults.[64] The complaints allege that the rights of the children are at peril, and the state is required to comply with CRC obligations to protect the rights of the children. Also, international human rights obligations are to be fulfilled by the State parties. There are four violations claimed by the complainants; 1. there is an obligation to prevent foreseeable violations of international and domestic human rights, which are the result of climate change, 2. cooperation to combat climate change, 3. preventing harm to protect life, and 4. ensuring intergenerational equity.[65] The committee made several commendable observations, such as the individual responsibility of the State parties for the harm caused by climate change and the foreseeability of climate change effects.[66] The state party can also be held liable for negative impacts if their emissions are significant.[67] The committee's decision on admissibility was that it was inadmissible under Article 7(e) of the Optional Protocol.[68] But that does not absolve the states from taking necessary care for the protection of the rights of the children who are affected by climate change.

The Council of Europe is also of the opinion that the inaction for climate change, which affects children, will amount to a violation of their rights.[69] The parliamentary assembly also made a decision to include children in the policy-making so as to hear their voices.[70] The main concerns of the children are the violation of their rights in the Convention on the Rights of the Child, which includes the right to life, development, health and medical care, education, the standard of living and protection.[71]

62 Committee on the Rights of the Child, Decision adopted by the Committee under the Optional Protocol to the Convention on the Rights of the Child on a communications procedure, concerning communication No. 95/2019,(Chiara Sacchi et.al v. Switzerland) CRC/C/88/D/95/2019

63 Committee on the Rights of the Child (n 329) para 2.

64 Ibid.

65 Ibid., at para 3.2

66 Ibid., at para 10.10,10.11

67 Ibid., at para 10.12

68 Ibid., at para 11.

69 Council of Europe, Committee on Social Affairs, Health and Sustainable Development, Strasburg, 21 December 2021, Report on inaction on climate change- a violation of children's right at the Parliamentary Assembly<https://assembly.coe.int/LifeRay/SOC/Pdf/TextesProvisoires/2021/20211201-ChildClimate-EN.pdf>accessed on 12th May 2024.

70 Ibid at para 9.

71 Ibid at para 2.

The decision in *Sharma v. Minister for Environment*[72] was also concerning the protection of the rights of children who will be affected by climate change. The concerns of the children regarding their future and the harm related to carbon emissions. The decision rendered by Bloomberg poised his reasons for finding a duty of care. But the decision was overturned on the ground that recognising such a duty would open a floodgate of litigation. Children are the most affected by the impacts of climate change; as they get older, the harshness of the climate events will be of severe magnitude. But the present system is so ill-equipped and slow in finding the existence of a duty of care.

3. Protection of Indigenous people from climate change

Protecting the indigenous people from the impact is also the responsibility of the state. There are various complex legal issues which are connected with indigenous people in comparison with the rest of the population in a country. The lifestyle, the community living, the culture and practices of these indigenous people are very different and therefore making sure that they cope with climate change is a huge task. The main problem associated with the indigenous people is their living habitat; these people have living in their lands for hundreds of generations, and the displacement, which can be caused by the impact of climate change, makes them shift their natural living habitat, thereby affecting their rights.

The UN General Assembly declared that people on the planet are entitled to the right to a clean and healthy environment. These rights are also extended to indigenous people. The right to life, the right to preserve the culture and family, and the right to practice their traditions are in peril for the indigenous people around the world. The indigenous people from artic to the Kalahari Desert are being affected by climate change.[73]

The threat faced by Wet'suwet'en people in Canada is of great concern and they have taken the matter to the Canadian courts to force the State authorities to take compelling actions to take adaptation and mitigation measures.[74] The temperature rise in Canada is exponentially high due to its emissions, even though the State had set a goal to reduce its emissions by 45% by 2050.[75] The Wet'suwet'en lands have seen a rise in the number of wildfires and expect a reduction in fish stock if the temperature rise is not brought down, and mammals like moose will decline in number due to pollution from wildfires. The issues faced by indigenous people due to climate change are genuine, and they are in fear of losing their habitat. many have already been displaced due to climate change.[76]

72 [2022] FCAFC 65

73 'As Climate Crisis Alters Their Lands, Indigenous Peoples Turn to the Courts' (UNEP, 8 August 2023)<http://www.unep.org/news-and-stories/story/climate-crisis-alters-their-lands-indigenous-peoples-turn-courts> accessed 14 May 2024.

74 Ibid.

75 Ibid.

76 'Why Indigenous Communities Face Climate Displacement Challenges' (World Economic Forum, 9 February (2024)<https://www.weforum.org/agenda/2024/02/indigenous-challenges-displacement-climate-change/> accessed 14 May 2024.

The environmental hardship faced by Torres Strait islanders in Australia was brought by communication to the Human Rights Committee, which is a treaty body under the ICCPR.The main issue in the petition before the Human Rights Committee was the adverse environmental impacts faced by the community.[77] The Human Rights Committee decided in favour of the indigenous people of the Torres Strait Islands and directed the government to give effective remedies for the violation of Articles 7 and 27 of the ICCPR.[78] The decision includes giving reparations to the islanders for the damage suffered by them, and the state party should ensure the continued existence of the indigenous people on the island.[79] The state party is bound to follow the decision of the committee as they have accepted the authority of the committee to decide on matters by ratifying the optional protocol.[80]

The international community has protected the interest of indigenous people in reference to climate change. The Columbian example of the Wayúu community is a recent example wherein the community was successful in bringing a climate change litigation against the Government of Columbia and private companies as the Bruno River was diverted for coal mining activities.[81] The constitutional court had held that climate change had impacted the water availability in the region and the State has failed in its duty to consider the matters before their decision.[82] The court also held that the Wayúu community has the right to a healthy environment and water.[83] Moreover, waterbodies are essential in the practices and rituals of the community.[84] The court also orders the private company to take mitigating actions and preventive and precautionary actions in relation to the project.[85]

The impact climate change has on the indigenous people should be addressed by the states with more vigour, and they should also be provided with a space in the policy formulation; there is various traditional knowledge these communities possess, and these can be effectively utilised in climate change adaptation and mitigation.[86]

77 Human Rights Committee, Views adopted by the Committee under article 5 (4) of the Optional Protocol, concerning communication No. 3624/2019 (Daniel Billy and others v. Australia) CCPR/C/135/D/3624/2019; Climate change is having an adverse impact on the community, rise in sea level even by a small percent threatens their viability. There were recent floods and inundation; in recent storms, their ancestral graveyard was destroyed, making the bodily remains to be scattered all around.

78 Ibid., at para 9,11.

79 Ibid.

80 Ibid., at para 12.

81 *Decision SU-698/17 of November 28, 2017*. The decision is rendered in Spanish and is available at https://climatecasechart.com/non-us-case/decision-su-698-17-of-november-28-2017/

82 Ibid.

83 Ibid.

84 Ibid.

85 Ibid.

86 Linda Etchart, 'The Role of Indigenous Peoples in Combating Climate Change' (2017) 3 Palgrave Communications 1.

The principle of duty of care is used by courts in climate litigations wherein the indigenous communities are affected by climate change. This will ensure that they are properly compensated, and the state will take necessary adaptation and mitigation strategies for reducing the effect of climate change among indigenous people.

3.1. Human Rights, Indigenous People and Climate Change

The human rights of Indigenous people are affected by adverse climate change impacts. There are specific international declarations with regard to the rights of indigenous people, and the ICCPR and ICESCR will extend to indigenous people across the world. The Universal Declaration on Human Rights also extends to indigenous people, and Article 27 of the UDHR has particular implications when it comes to indigenous people. In 2007, the United Nations Declaration on the Rights of Indigenous People was adopted by the UN General Assembly, marking the recognition of the rights of an indigenous community in line with UDHR and other human rights documents. The rights under the declaration includes right to self-determination[87], right to own, use, develop, and control lands, territories, and resources based on traditional ownership or occupation[88],the right to maintain, protect and develop the past, present and futuremanifestations of their cultures,[89] the right to practice their languages, ceremonies, and cultural expressions,[90]the right to participate in decisions affecting their rights, including matters related to land, resources, and development,[91] right to remain distinct and pursue their own priorities in economic, social, and cultural development[92]. Climate change can interfere with these rights and deny them the opportunity to exercise their rights.

The rights enshrined under ICCPR can be violated due to climate change. There can be violations of Article 6, the right to life; Article 17, the right to private life and family life; Article 24(1), the right of the children from protection; and Article 27, the right to protect and preserve cultural and traditional life.[93] The right to life of these people is violated when the State fails to take necessary measures to protect them from the foreseeable harms of climate change, climate change can make the indigenous people leave their homes and ancestral places, leading to the violation of Articles 27 and 17.

The State has a positive obligation to ensure that these rights of the indigenous people are protected. As the indigenous community has its own culture and the effects of

87 United Nations General Assembly, United Nations Declaration on the Rights of Indigenous Peoples, A/RES/61/295 (13 September 2007) https://www.refworld.org/legal/resolution/unga/2007/en/49353 [accessed 14 May 2024].

88 Ibid., atart 26.

89 Ibid., at art 11.

90 Ibid., atart 34.

91 Ibid., atart 18.

92 Ibid., atart 33.

93 UN General Assembly, International Covenant on Civil and Political Rights, United Nations, Treaty Series, vol. 999, p. 171, 16 December 1966, https://www.refworld.org/legal/agreements/unga/1966/en/17703 [accessed 14 May 2024]

climate change are forcing them to go away from their ancestral lands, which are sacred to them, these lands, architectures, and monuments will also be affected due to extreme weather events caused by climate change. An action by a single state will not change the scenario overnight, but it should be the responsibility of each state to take measures in their capacity to make sure that these communities' danger posed by climate change can be averted.

4. Obligation of Ministers for Adverse Impact of Policy Decisions on Climate

The obligation of ministers towards climate change differs from country to country as there can be direct responsibility under the specific statutes for the minister to oblige with, and in some, there can be a general obligation which arises as a result of moral and ethical considerations. Ministerial liability for climate change has gained unprecedented importance following the verdict in *Sharma v. Minister for Environment*.[94] In Sharma, the question was the liability of the minister for the environment for approving the extension of the Vickery coal mine; the extension of the coal mine project can increase fossil fuel production on a drastic scale and thereby increase the GHG emission of Australia, which can have an adverse impact on the life of children as they are the most vulnerable groups who face the adverse impact of climate change. The court evolved the novel duty of care in the particular case and strengthened the argument that the minister owed a duty of care towards the children.[95] Therefore, for the first time, a climate change litigation had imposed liability on individual ministers for policy decisions that could impact climate change. But the decision was short-lived as a three-judge bench on appeal reversed the so-called duty of care imposed on ministers on the ground that such a duty can open floodgates of litigations.[96]

Imposing liability on the part of ministers will have more of a greater check on policy-related aspects of climate change. The ministers, especially environment ministers, should be aware of the GHG emissions of their countries and the particular impact they can have on the climatic system. Even though we cannot attribute particular GHG emissions as the only ground of a climate-related event, GHG emissions can be crucial in mitigating climate events in the future. Scientific advancement has made remarkable achievements, and there are reports of climate change vulnerabilities, impacts, and adaptations needed to achieve climate resilience. These are available to ministers and it is with this consideration that they should adopt policy measures for the State. One avenue for holding ministers liable is through tort law, where a case can be made for negligence. If a minister fails to act on known risks of climate change or to implement policies that mitigate its effects, they could be held liable for any resulting harm. The challenge, however, lies in establishing causation and foreseeability, which are essential elements of negligence.[97] The duty of care principle, as devolved and

94 Sharma, Supra note 72.

95 Ibid.

96 Sharma, Supra note 72.

97 Stevie Martin, 'Tortious Liability of Government Ministers For Climate Change: Aristotelian Potential and the Limits of Negligence' 81 The Cambridge Law Journal 456(2022).

used in *Sharma v. Minister for Environment*, can be of greater help; even though the decision was overturned in an appeal, the analogies used by Justice Bromberg in finding out the existence of a duty of care owed by the minister can help in fixing liability, thereby ensuring compliance with the national, international climate change laws.[98] The reasoning provided by the appeals court as to why such a duty should not be imposed. Justice Allsop was of the opinion that it was non-justiciable because duty of care cannot be applied to policy decisions.[99] The core policy decisions are unsuited for judicial review on their breach.[100] Justice Beach was of the opinion that harm had not yet been caused.[101] Therefore, it cannot apply. The duty of care was also incoherent with the provisions of the EPBC Act as per the opinions of Justice Allsop and Wheelahan. The court also deviated from the foreseeability, control, and vulnerability established by Justice Bromberg in the initial case. However, the initial case would have been instrumental in controlling the GHG emissions; the findings of the court with regard to climate change as a policy matter alone are irrelevant, as the rights of children and vulnerable groups are at stake because of climate change.

4.1. Individual Responsibility

Individual responsibility of the minister refers to the ministerial responsibility of a minister in his official capacity as minister towards the parliament. In other words, individual responsibility implies that individual ministers are running their departments and their policies.[102] Ministers are also held accountable and accountable for their policies and decisions in the parliament; they are answerable to questions put forth by the other members of the parliament. The commonwealth countries usually follow a Westminster style of government wherein the ministers are responsible for the actions of their departments and are answerable to the court. Many countries such as Australia, Canada, and New Zealand follow similar practices of individual responsibility of the minister to be accountable to parliament for the functioning of his department. However, these individual responsibilities do not extend to making a liability on the minister for the adverse impact of climate change. To employ individual responsibility for climate change, we need to bring in the duty of care principle as it was done in *Sharma v. Minister for Environment; the* imposition of a duty of care requires a close examination in each case brought before the court as the facts of each case tend to vary. The court has not into the elements of foreseeability of the climate change impact, the harm the climate change had caused or can cause, the extent of control the minister has in taking mitigating action and proximity factor also plays a crucial role in establishing an individual responsibility of the minister for adverse impact on climate change.

98 Sharma, Supra note 72

99 Ibid., at Para 7.

100 Ibid.

101 Ibid., atpara 888.

102 'The Politics Shed - What Are Ministerial and Collective Responsibility?' <https://sites.google.com/site/thepoliticsteacherorg/what-are-ministerial-and-collective-responsibility> accessed 13 May 2024.

The creation of such liability based on the principle of duty of care will make sure that ministers take reasonable care while implementing policy decisions and developmental decisions which cause severe climate change consequences.

4.2. Collective Responsibility

The collective responsibility for climate change and its effects has two levels, one being the responsibility of states, and governments from an international perspective and another from the climate mitigation action from the domestic perspective wherein policy decisions on climate change are taken by ministers who run the government, thereby whole council of ministers are having a collective responsibility and are accountable before the constitutional bodies where there is parliamentary democracy.

Our focus is on the collective responsibility of ministers from a domestic perspective. In particular, from an Indian perspective, Article 75 of the constitution of India establishes the collective responsibility of the ministers towards the parliament.[103] The Australian take on collective responsibility is that the cabinet is responsible for the actions of the government.[104] A similar kind of collective responsibility can be seen in systems where there is a parliamentary democracy. Thus, having such a collective responsibility would mean that the council of ministers are accountable to state what mitigating and adaptive measures are taken by them in the parliament. The Paris Agreement and its allied mechanisms, such as NDCs, are to be formed by each country, and they should be communicated.[105] The responsibility of formulating NDC falls on the governments of each country; the departments should consult with each other in order to discuss the country's nationally determined contributions so as to make it achievable. The inaction of the government does not have any negative effect; the principle of duty of care, if employed, could enable the minister to be liable as it was their job to formulate NDC in the world's fight against climate change.

The States have a duty of care to mitigate the effects of climate change so as to protect their citizens from the worse impact of climate change[106]; this decision in *Urgenda* points towards the collective responsibility of the ministers because the governments of the country represent a State in practice. The governments and ministers can change but they have a collective responsibility towards the citizens of their country, as they are acting on behalf of the state. Thus, foreseeability of climate harms and not taking reasonable care to prevent such harms can make the State liable by employing duty of care, but at most, care should be given when employing such a duty.

103 The Constitution of India 1950 art 75(3).

104 'The Ministry – Parliament of Australia' <https://www.aph.gov.au/About_Parliament/House_of_Representatives/Powers_practice_and_procedure/Practice7/HTML/Chapter2/The_Ministry> accessed 13 May 2024.

105 Paris Agreement (n 171) Art 4. ; See also 'Nationally Determined Contributions (NDCs) | UNFCCC' <https://unfccc.int/process-and-meetings/the-paris-agreement/nationally-determined-contributions-ndcs#Communications-received-from-Parties-in-relation-to-other-Parties-NDCs> accessed 13 May 2024.

106 ECLI:NL:HR:2019:2007

Another aspect of the fight against climate change is climate finance; ministers are responsible for securing adequate climate finance to support adaptation and mitigation efforts. The unified goals should be presented to the ministers, and they must agree on new collective quantified goals for climate finance. This involves finding innovative sources of funding and ensuring investment in resilience and adaptation.

5. Development and Climate Change

Climate change can negatively impact the development of every economy. Development means the upward movement of a social system, which includes economic and non-economic factors, according to Myrdal.[107] Development has multitudes of definitions, and in general parlance, it refers to the process of growth of a nation. Climate Change is the result of human activities, and industrial development of the nineteenth century has contributed to climate change. The United Nations' sustainable goals are important as it tries to balance climate change and development. There are two arguments regarding climate change and development; one is that to mitigate climate change, then, there is a need to unravel the development, and the other argument is that both are complimentary to each other.[108]

Climate Change can affect the Gross Domestic Production of countries in a negative way, and there is a need for adaptation to cope with this also; adaptation alone would suffice; mitigation action should be taken to ensure accelerated development and poverty reduction.[109] The long-term developmental goals are hindered by climate change, but with adaptation strategies, they can be tackled for a short period. It requires significant control of GHG emissions by High-Income Countries and middle-income countries to achieve long-term developmental goals; lower-income countries have only a small amount of GHG emissions compared to them.[110]

The climate goals can be achieved along with development when the key action parameters are met; these include'well-designed climate actions, strong participation of the private sector, adequate international support, and appropriate complementary measures to manage unavoidable trade-offs, protect poor people's consumption, and facilitate a just transition'. The World Bank has initiated a new programme called the CCDR (Country Climate and Development Report), which is a diagnostic tool which tries to integrate climate change and development in countries. They use a sector-wise approach for each country, which is jointly conducted by the World Bank, the International Finance Corporation (IFC) and the Multilateral Investment Guarantee

107 Gunnar Myrdal, 'What Is Development?' 8 Journal of Economic Issues 729(1974).

108 Laurence Chandy, 'Economic Development in an Era of Climate Change' <https://carnegieendowment.org/research/2023/01/economic-development-in-an-era-of-climate-change?lang=en> accessed 10 April 2024. See also Giorgos Kallis, 'In Defense of Degrowth' 70 Ecological Economics 873 (2011).

109 'Climate and Development/ : An Agenda for Action - Emerging Insights from World Bank Group 2021-22 Country Climate and Development Reports' (World Bank 2022) <https://hdl.handle.net/10986/38220> accessed 14 May 2024.

110 Ibid.

Agency (MIGA)with the International Monetary Fund (IMF). They provide for three policy areas to achieve climate resilience and development. Firstly, macroeconomic policies create a balance between short-term and medium-term developmental objectives; secondly, they examine the trade-off between climate change and development; and thirdly, the private sector is being used through reforms and providing opportunities and policy instruments to give solutions for climate change and development through adaptation and mitigation, thereby employing a people-centric approach.[111]

The GHG reduction pathways, as per the CCDR, are more ambitious than most of the NDCs and try to reduce GHGs by 70%.Even then, the emissions will only increase if taken together, and there should be more participation from HICs with efforts of negative carbon.[112]

CCDR employs climate-resilient pathways to ensure that climate change and development go hand in hand. These include implementing mitigation and adaptation strategies which can provide for sustainable development and managing trade-offs between various goals.[113] For example, clean energy generation, sustainable food production, and appropriate urban planning can generate substantial health and well-being co-benefits while reducing vulnerability to climate impacts. The integration of climate change adaptation into development programming extends beyond environmental impact assessments, aiming to make development investments more climate-resilient. This comprehensive approach ensures that development efforts are not only sustainable but also contribute to the global effort to combat climate change.

The concept of 'duty of care' in the context of climate change and development is a legal and ethical principle that requires individuals, corporations, and governments to act with caution and foresight to avoid causing harm to others, particularly in relation to environmental impacts. This duty is becoming increasingly significant as the effects of climate change become more apparent and as development continues to exert pressure on the environment. In legal terms, duty of care has been explored in climate change litigation, where courts have been asked to consider whether entities have failed to take reasonable steps to prevent foreseeable harm caused by climate change.[114]

The landmark case of *Urgenda Foundation v. Government of the Netherlands* established that the Dutch government had a legal duty to protect its citizens from the dangers of climate change, leading to a ruling that mandated the government to take more robust action to reduce greenhouse gas emissions.[115] This case has set a precedent for how governments might be held accountable for their role in mitigating climate change and has implications for development policies that must now consider the duty of care towards current and future generations.

111 Ibid., at p.7

112 Ibid.

113 'Climate and Development/ : An Agenda for Action - Emerging Insights from World Bank Group 2021-22 Country Climate and Development Reports' Supra note 109.

114 Sharma, Supra note 72.

115 Urgenda, Supra note 106.

The integration of duty of care into development practices can lead to more sustainable outcomes. For example, when planning infrastructure projects, developers should be required to assess and mitigate potential environmental impacts, thereby ensuring that such projects are resilient to climate change and do not contribute to its exacerbation. This approach can be said to be with the Sustainable Development Goals, which call for responsible consumption and production patterns, as well as urgent action to combat climate change and its impacts.

5.1. Duty of Care: does it bar economic development?

One of the primary concerns associated with employing duty of care in climate change is whether it will have a negative effect on the economic development of a state. Duty of Care is taking the necessary and reasonable care so as to avoid causing harm to others. It comprises of foreseeability, proximity, and causation. These elements are to be considered before imposing such a duty, and climate change is a global phenomenon; one state alone cannot do anything, and it requires the cooperation of other states. But that should not absolve a state of taking necessary care for mitigating the effects of climate change. There are two aspects of duty of care in climate change; one is regarding taking necessary care in development, as the amount of GHG emissions that new developmental activity can bring in and how far its effect can be seen in climate change. The developmental activity should take all the necessary care in the possible manner to balance between bringing the GHG emissions to a possible low level and thereby achieving the development of the State. The Environmental Impact Assessment can be seen as a measure to achieve this balance. The second aspect is using the duty of care to impose liability for not taking necessary care in bringing out new developmental projects.

The principle of duty of care does not bar economic development. Rather, it boosts economic development and resilience.[116] The effects of climate change are far-reaching, and development without seeing the near future will lead to more chaos rather than prosperity for everyone.[117] Therefore, taking necessary care now will ensure that we adapt to climate change and become more resilient.

CONCLUSION

The State's responsibility for climate change involves making necessary adaptation and mitigation efforts to prevent the adverse impacts of climate change. There are many considerations when it comes to states' responsibilities, including obligations towards children, indigenous people, etc. The climate regime has specifically pointed out the state-specific obligations under the UNFCCC, Kyoto Protocol and Paris Agreement. Apart from international agreements and conventions, the state has obligations under

106 'Toward a Clean, Green, Resilient World for All' (*World Bank*) <https://www.worldbank.org/en/topic/environment/publication/environment-strategy-toward-clean-green-resilient-world> accessed 14 May 2024.

117 Ibid.

customary international law, which includes the no-harm rule, preventive principle, due diligence, precautionary principle etc. The principle of duty of care, although used in domestic law as a component of negligence, is being recognised at the international level as a principle and is on the way to becoming a customary practice. The decision in *Urgenda* has paved the way for that. Even though the Australian case of *Sharma v. Minister for Environment* on appeal reversed the earlier founded principle of duty of care, it will become a practice, and the state will have to ensure that they have taken proper care to mitigate climate change. The aspects of individual responsibility towards the minister are quite complex and will require a case-to-case analysis. To employ the liability of the minister for adverse impact on climate change, there is a requirement to employ the principle of duty of care. Greater accountability on the part of the minister will make sure that climate mitigation and adaptation measures are taken at the right time.

Ghibli-Inspired Art: Legal Analysis of Copyright and Trademark Implications in the Age of Generative AI

*Niyati**

ABSTRACT

The rise of generative artificial intelligence has profoundly transformed the creation of visual art, challenging conventional notions of authorship, originality, and ownership[1]. This paper undertakes a doctrinal and comparative legal analysis of AI-generated artworks inspired by the distinctive Ghibli animation style, focusing on the intellectual property implications across Indian, American, and Japanese jurisdictions.[2] By interrogating existing copyright and trademark frameworks, the study highlights the ambiguity surrounding authorship in machine-assisted creativity,[3] the limits of fair use,[4] and the legal vacuum surrounding aesthetic mimicry and style replication.[5] The research further explores platform liability, ethical concerns, and the challenges of enforcing IP rights in virtual and metaverse contexts.[6] Drawing on statutory developments, court precedents, and doctrinal theories, this work advocates for adaptive legal models

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1 Annemarie Bridy, *AI and the Copyright Crisis*, 92 Notre Dame L. Rev. 1101, 1105 (2017), (April 07, 2025, 12:00 PM), https://digitalcommons.law.uidaho.edu/faculty_scholarship/159/.

2 generally Indian Copyright Act, 1957; Copyright Act of 1976, 17 U.S.C. § 101; Copyright Act of Japan (Act No. 48 of 1970), https://www.federalregister.gov/documents/2023/03/16/2023-05321/copyright-registration-guidance-works-containing-material-generated-by-artificial-intelligence.

3 U.S. Copyright Office, *Copyright Registration Guidance: Works Containing Material Generated by Artificial Intelligence* (Mar. 2023), https://supreme.justia.com/cases/federal/us/510/569/.

4 Campbell v. Acuff-Rose Music, Inc., 510 U.S. 569, 577–78 (1994),https://supreme.justia.com/cases/federal/us/510/569/.

5 Christopher Buccafusco, *Making Sense of Intellectual Property Law and the Aesthetics of Imitation*, 36 Colum. J.L. & Arts 203, 204–06 (2013).https://journals.library.columbia.edu/index.php/lawandarts/article/view/2130

6 Mark A. Lemley & Bryan Casey, *Fair Learning*, 99 Tex. L. Rev. 743 (2021),https://texaslawreview.org/fair-learning/

that safeguard artistic integrity while fostering innovation in an increasingly algorithm-driven creative economy.[7]

INTRODUCTION

Generative AI has revolutionized art creation, enabling users to produce stunning visuals using prompts. Among the most popular inspirations is the iconic Japanese animation studio—Studio Ghibli. Prompts like "a forest in Ghibli style" or "Ghibli-inspired girl with glowing pendant" flood platforms such as Midjourney, DALL·E, and Stable Diffusion. While the results are often aesthetically remarkable, they raise pressing legal questions concerning copyright, trademark infringement, and the ethical limits of creative freedom.[8]

This article investigates the intellectual property implications of Ghibli-inspired AI art within Indian and international frameworks. It explores whether such outputs constitute infringement, how far doctrines like fair use or fair dealing extend, and who bears liability—users, platforms, or developers.

RESEARCH DESIGN[9]

This research adopts a **qualitative doctrinal methodology** supported by comparative analysis to interpret statutory law, judicial precedents, and ethical doctrines.

Scope of Study

The inquiry examines how Indian, American, and Japanese IP laws regulate generative AI, particularly when prompts reference stylistic or brand-specific inspirations such as Studio Ghibli. These jurisdictions offer distinct insights into copyright authorship, trademark dilution, and intermediary responsibility.

Research Questions

- Does Ghibli-style AI art constitute copyright or trademark infringement?
- Can brand-specific prompts using the word "Ghibli" violate trademark laws?
- What is the liability of platforms like Midjourney or OpenAI under intermediary doctrines?
- What reforms are necessary to align AI innovation with legal and ethical standards?

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7 World Intellectual Property Organization [WIPO], *WIPO Conversation on Intellectual Property and Frontier Technologies*, Third Session Report (Nov. 2022),https://www.wipo.int/meetings/en/details.jsp?meeting_id=67450

8 Mark A. Lemley & Bryan Casey, *Fair Learning: AI Training and Copyright*, 1 J.L. & INNOVATION 1, 12–14 (2020). https://repository.law.umich.edu/jli/vol1/iss1/1/

9 Lemley & Casey, *Fair Learning: AI Training and Copyright*, 1 J.L. & Innovation 1, 12–14 (2020),https://repository.law.umich.edu/jli/vol1/iss1/1/.

Data Collection

Sources include:

- **Primary Data**: Indian Copyright Act, 1957; Trade Marks Act, 1999; U.S. Copyright Act, 17 U.S.C. §§ 101 et seq.; Japanese Copyright Law; case laws; government notifications.
- **Secondary Data**: Legal commentaries, scholarly articles, WIPO reports, blogs by IP lawyers, and user behavior studies on Reddit, Etsy, and DeviantArt.

Analytical Framework

The following tools guide analysis:

- **Doctrinal Analysis** to interpret statutes and judicial opinions.
- **Comparative Jurisprudence** to contrast Indian IP law with U.S. and Japanese regimes.
- **Legal-Ethical Evaluation** for understanding gaps in current regulations and proposing ethical frameworks.

REVIEW OF LITERATURE

Scholarly discourse around generative AI and intellectual property (IP) has grown exponentially in recent years. Mark Lemley and Bryan Casey argue that AI's reliance on vast datasets for training models may fall under fair use in certain jurisdictions, but this remains unsettled globally.[10] Courts in the United States have shown hesitance to grant copyright to AI-generated works, citing lack of human authorship.[11] In contrast, Japan's IP framework has adopted a more flexible stance, focusing on the economic impact and expressive originality of derivative works.[12]

In India, the debate pivots around Section 2(d) of the Copyright Act, 1957, which defines an author as a human creator, excluding non-human actors.[13] However, no Indian court has definitively ruled on whether an AI-assisted creation infringes copyright when it mimics a known visual style, such as that of Studio Ghibli.

Further, legal scholars have emphasized the dilemma of "style mimicry" in trademark law. While style is not trademarked per se, combining it with protected names or

10 *Thaler v. Perlmutter*, No. 1:22-cv-01564 (D.D.C. 2023); see also *U.S. Copyright Office*, Policy Statement on Registration of Works Containing AI-Generated Content, 88 Fed. Reg. 16190 (2023), https://www.federalregister.gov/documents/2023/03/16/2023-05321/copyright-registration-guidance-works-containing-material-generated-by-artificial-intelligence

11 Noriyuki Shimizu, *Japan's AI Guidelines and the Future of Copyright*, 41 Waseda Bull. Comp. L. (2022),https://www.waseda.jp/folaw/clrc/assets/uploads/2022/10/vol41_Shimizu.pdf

12 The Copyright Act, No. 14 of 1957, § 2(d), INDIA CODE (1957), https://www.indiacode.nic.in/bitstream/123456789/1791/1/A1957-14.pdf.

13 Lisa Ramsey, *Protectable Trademarks and Artistic Style: A Legal Conundrum*, 73 Vand. L. Rev. 1, 47 (2020), https://scholarship.law.vanderbilt.edu/vlr/vol73/iss1/1/

visual identities—like using the word "Ghibli" or Totoro's likeness—may lead to consumer confusion and potential trademark dilution.[14]

On intermediary liability, platforms like OpenAI or Midjourney often claim safe harbor protections. Yet, legal analysis suggests that such protections could weaken when these platforms actively curate or encourage the use of branded prompts like "Ghibli-inspired art."[15]

Several researchers have also highlighted the ethical ramifications of using culturally embedded art forms without credit or collaboration.[16] Scholars argue for incorporating moral rights or indigenous art protection into AI regulation frameworks to ensure ethical AI generation.[17]

DOCTRINAL ANALYSIS: COPYRIGHT PROTECTS EXPRESSION, NOT IDEA

The foundational principle that **copyright protects expression but not idea** is enshrined in most copyright statutes and reinforced through judicial precedent across jurisdictions. This doctrine becomes particularly significant in evaluating AI-generated works mimicking the **"Ghibli style"**, where the line between protected expression and unprotected idea becomes blurred.

Legal Foundation

In India, Section 13 of the Copyright Act, 1957, accords protection to **original works** including artistic creations. However, originality pertains to the **expression** of an idea—not the idea itself.[18] This aligns with Article 9(2) of the TRIPS Agreement, to which India is a signatory, which expressly excludes ideas, procedures, and concepts from protection.[19]

Similarly, U.S. copyright law under 17 U.S.C. § 102(b) states, "In no case does copyright protection for an original work of authorship extend to any idea, procedure, process, system, method of operation..."[20] The courts have emphasized that expression must

14 Abbott, *The Reasonable Robot*, supra note v , at 98–100,https://www.cambridge.org/core/books/reasonable-robot/5FCEB5E7AB299805066B85B89E4A41B2

15 Angela Daly, *Private Power and Public Ethics in AI Creativity*, in *Artificial Intelligence and the Arts* 129, 135 (Edward Elgar ed., 2021),https://www.e-elgar.com/shop/gbp/artificial-intelligence-and-the-arts-9781788979325.html.

16 WIPO, *IP and AI: Policy Considerations*, supra note w , at 33–36, https://www.wipo.int/edocs/pubdocs/en/wipo_pub_450_2020.pdf

17 The Copyright Act, No. 14 of 1957, § 13, INDIA CODE (1957),https://www.indiacode.nic.in/bitstream/123456789/1791/1/A1957-14.pdf

18 Agreement on Trade-Related Aspects of Intellectual Property Rights art. 9(2), Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, 1869 U.N.T.S. 299,https://www.wto.org/english/docs_e/legal_e/27-trips_01_e.htm

19 17 U.S.C. § 102(b) (2018),https://www.law.cornell.edu/uscode/text/17/102

20 *Feist Publ'ns, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340, 345 (1991),https://supreme.justia.com/cases/federal/us/499/340/

exhibit a modicum of creativity, as confirmed in *Feist Publications, Inc. v. Rural Telephone Service Co.[21]

Studio Ghibli's Distinctive Style: Expression or Idea?

Studio Ghibli's animation style is marked by whimsical realism, pastel color palettes, fantastical creatures, and emotional storytelling. These elements, while iconic, may not individually constitute copyrightable expressions. However, when compiled in a particular visual arrangement, they qualify as **original artistic expression**.

Therefore, using the term "Ghibli-inspired" might not violate copyright **if** the output doesn't substantially copy actual visual elements from Studio Ghibli's characters, storyboards, or trademarks.[22] But if a generative AI creates an image resembling Totoro or Princess Mononoke, the resultant work may be infringing, since those are protectable expressions.[23]

Expression in Different Types of Copyright

Type of Work	Protected Expression	Examples Related to Ghibli-Inspired AI
Literary Works	Dialogues, screenplays, novelizations	Scripts resembling *Spirited Away*
Artistic Works	Character design, layout, background art, color styles	Totoro lookalikes in AI illustrations
Cinematograph Films	Overall visual + sound arrangement of animation	Short AI films in "Ghibli style"
Musical Works	Melody, lyrics, composition	Soundtracks similar to Joe Hisaishi's
Sound Recordings	Specific recorded performance	AI audio mimicking Ghibli soundtracks

Courts have held that where inspiration crosses into imitation with substantial similarity, infringement may be inferred.[24]

Key Indian and International Case Laws

- **Eastern Book Company v. D.B. Modak**, (2008) 1 SCC 1 (India): The Supreme Court held that **originality requires creativity**, and mere labor or idea does not merit copyright.
- **R.G. Anand v. Deluxe Films**, AIR 1978 SC 1613 (India): The court ruled that two works based on the same idea are not infringing **unless** one is a slavish copy of the other's **expression**.

21 Lemley & Casey, *Fair Learning*, supra note 10.

22 Lisa Ramsey, *Protectable Trademarks and Artistic Style*, supra note 22.

23 *Eastern Book Co. v. D.B. Modak*, (2008) 1 SCC 1 (India);https://indiankanoon.org/doc/1120633/ *R.G. Anand v. Deluxe Films*, AIR 1978 SC 1613 (India), https://indiankanoon.org/doc/1822042/.

24 The Trade Marks Act, No. 47 of 1999, § 29, INDIA CODE (1999), https://www.indiacode.nic.in/bitstream/123456789/1996/1/A1999-47.pdf

- **Feist Publications v. Rural Telephone**, 499 U.S. 340 (1991) (U.S.): Reiterated that facts are not copyrightable, only the creative selection or arrangement thereof.
- **Atari, Inc. v. North American Philips Consumer Electronics Corp.**, 672 F.2d 607 (7th Cir. 1982): Found substantial similarity between video game audiovisual displays—establishing how visual **expression** can be protected.
- **Thaler v. Perlmutter**, No. 22-1564 (D.D.C. 2023): Affirmed that AI-generated works without human authorship are not eligible for copyright.

TRADEMARK CONCERNS: USE OF "GHIBLI" IN PROMPTS, TITLES, AND TAGS

Studio Ghibli is not only a holder of valuable copyrights but also of **registered trademarks** worldwide, including its name, logos, and character marks. The unauthorized use of the word "Ghibli" in AI prompts, commercial listings, or social media hashtags raises **trademark infringement** and **dilution** concerns, particularly when such uses imply an association with the studio.

Trademark Protection of Studio Ghibli

Under Indian law, the **Trade Marks Act, 1999**, protects registered marks against unauthorized commercial use that may cause confusion or deception.[25] Studio Ghibli, a globally known brand, holds registrations in various jurisdictions including Japan, the U.S., and EU.[26]

Use of "Ghibli" by AI art platforms or end users, especially when used to **market, monetize, or label** the generated outputs (e.g., "Ghibli AI Girl NFT"), can amount to:

- **Passing off** in common law (India and UK)
- **Trademark infringement** (Sec. 29, Indian Act; Lanham Act § 32 in the U.S.)
- **Dilution of well-known marks** without likelihood of confusion[27]

Misrepresentation & Consumer Confusion

When users tag AI art as "Ghibli-style" on Etsy or DeviantArt, they create **aesthetic association**, but when the tag is "Ghibli Character Poster" or "Ghibli NFT drop," it crosses into **misrepresentation**. Courts consider such **false association** as infringing use, especially when the original brand's reputation is leveraged to sell goods.[28]

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25 Studio Ghibli Co., Ltd., Trademark Registration Nos. 77231347 (U.S.), https://tsdr.uspto.gov/#caseNumber=77231347&caseType=SERIAL_NO&searchType=statusSearch; 010670173 (EUIPO), https://euipo.europa.eu/eSearch/#details/trademarks/010670173; 5486906 (Japan), https://www.j-platpat.inpit.go.jp/c1800/TR/JP-5486906/4C66A6AC31D1D4A7F07F01B83AC0BB7D84B26F1527CD372DA21A9A91E94B9A1C/40/en.

26 15 U.S.C. § 1125(c) (2020) (Lanham Act); Trade Marks Act § 29(4), INDIA CODE (1999), https://www.indiacode.nic.in/bitstream/123456789/1996/1/A1999-47.pdf

27 *Toyota Jidosha Kabushiki Kaisha v. Prius Auto Industries Ltd.*, (2018) 2 SCC 1 (India); *Matal v. Tam*, 582 U.S. 218 (2017), https://indiankanoon.org/doc/146872688/.

Platform & User Liability

AI platforms like OpenAI, DALL·E, or Midjourney that allow prompts such as "Ghibli forest" or "Totoro-style cat" walk a thin legal line. They may invoke **safe harbor provisions** (e.g., Sec. 79 of India's IT Act, or DMCA § 512 in the U.S.), but the moment such platforms **promote**, **curate**, or **monetize** these artworks using brand names, their intermediary status may weaken.[29]

Courts have noted that platforms encouraging infringement (knowingly or negligently) may lose safe harbor and be held **vicariously liable**.

ETHICAL AND COMMERCIAL MISUSE OF GHIBLI-INSPIRED AI ART

While many users generate "Ghibli-style" AI visuals out of admiration, the unregulated use of such content—especially for commercial gain—poses significant ethical and legal challenges. This includes **unauthorized monetization**, **brand dilution**, and **cultural appropriation**, all of which require careful analysis.

Monetization Without Authorization

Selling Ghibli-style AI art on platforms like Etsy, Redbubble, or as NFTs often lacks permission from Studio Ghibli. Even when the works are "original" AI outputs, they are **stylistically derivative**, leveraging the **artistic identity** of Ghibli. Under Indian law and international standards, monetizing such outputs may violate:

- The **right of publicity**, where artistic identity is commercialized without consent.[30]
- **Copyright-adjacent moral rights**, as recognized under Section 57 of the Indian Copyright Act.[31]
- Ethical standards of **attribution and originality**, often overlooked in AI generation tools.[32]

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28 Information Technology Act, No. 21 of 2000, § 79, INDIA CODE (2000); Digital Millennium Copyright Act, 17 U.S.C. § 512 (2018), https://www.indiacode.nic.in/bitstream/123456789/1999/1/A2000-21.pdf#page=28.

29 *Carson v. Here's Johnny Portable Toilets, Inc.*, 698 F.2d 831 (6th Cir. 1983); See also K. Sridhar, *Publicity Rights in India*, 2 NUJS L. Rev. 149 (2009), https://casetext.com/case/carson-v-heres-johnny.

30 The Copyright Act, No. 14 of 1957, § 57, INDIA CODE (1957), https://www.indiacode.nic.in/bitstream/123456789/1791/1/A1957-14.pdf#page=31.

31 N.S. Gopalakrishnan, *Scope of Copyright Protection of Non-Human Creators in India*, Indian J.L. & Tech. (2021).

32 Susan Scafidi, *Who Owns Culture? Appropriation and Authenticity in American Law* (Rutgers Univ. Press 2005), https://www.rutgersuniversitypress.org/who-owns-culture/9780813535934.

Cultural Misappropriation

Studio Ghibli's works are deeply rooted in **Japanese folklore, aesthetics, and storytelling philosophies**. Replicating its style through Western-trained models or distorting elements (e.g., using Totoro in horror aesthetics) can be argued as **cultural appropriation**, which although not illegal per se, attracts growing academic and public concern.[33]

Platform Responsibility

AI providers must establish **clear ethical guidelines**. While disclaimers exist, many platforms do not **proactively prevent or flag brand-invoking prompts**. Midjourney recently banned words like "Disney" or "Pokemon," but "Ghibli" remains unmoderated in many tools.[34] This inconsistent enforcement leaves gaps for misuse.

LEGAL REFORMS AND POLICY PROPOSALS

As Ghibli-inspired AI art blurs the boundary between homage and infringement, legal reforms must address emerging gaps in existing IP frameworks—particularly in jurisdictions like India, where AI regulation is still nascent.

Strengthening Copyright Frameworks for AI

While current copyright laws in India (and many countries) do not recognize AI as an author, there is a pressing need for amendments that:

- **Assign liability to human contributors** (prompt engineers, developers, or publishers) for infringing AI-generated content.[35]
- **Include derivative style protections**, especially when works replicate the recognizable aesthetics of specific artists or studios.[36]
- Define the **scope of 'substantial similarity'** in stylistic imitation and provide fair dealing exceptions for parody, education, or criticism.[37]

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33 Midjourney Banned Word List, *Reddit Discussion on Ethical Prompting*, r/AIArt (2024), https://www.reddit.com/r/aiArt/comments/10r8e2f/midjourney_banned_words_list_and_prompt_ethics/.

34 Tanya Aplin & Lionel Bently, *Gower and Davies' Principles of Modern Copyright Law* 142–144 (Sweet & Maxwell, 2020).

35 N.S. Gopalakrishnan & T.G. Agitha, *Intellectual Property Rights: Text and Cases* 189–194 (Eastern Book Company, 2022).

36 Copyright Act, No. 14 of 1957, § 52, INDIA CODE (1957); See also *Campbell v. Acuff-Rose Music*, 510 U.S. 569 (1994), https://supreme.justia.com/cases/federal/us/510/569/.

37 IT (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021, Rule 3(d), https://www.meity.gov.in/content/intermediary-guidelines-and-digital-media-ethics-code-rules-2021.

Trademark Law Reform

Trademark dilution via AI-generated outputs using keywords like "Ghibli" is hard to regulate. Policymakers may consider:

- Creating **blacklists for registered brands and styles** on AI platforms to prevent deceptive prompting.t [38]
- Introducing **digital watermarking or tagging mechanisms** to flag outputs referencing protected artistic styles.
- Clarifying **intermediary liability** under the Indian IT Rules and safe harbor doctrines in the U.S. and EU for AI service providers.[39]

International IP Harmonization

Since generative AI and digital art transcend borders, international IP frameworks must adapt through:

- Updates to **TRIPS Agreement** under WTO and guidance from **WIPO** to include style-based misappropriation.[40]
- Bilateral and multilateral agreements that enforce **ethical AI practices** and preserve indigenous or cultural expressions.
- Regional collaborations between **India, Japan, and the U.S.** to exchange best practices and case precedents in AI regulation.[41]

CONCLUSION AND RECOMMENDATIONS

The rise of Ghibli-inspired AI art represents both the beauty and legal complexity of the generative age. While these tools empower creativity at an unprecedented scale, they also blur the legal lines between homage, imitation, and infringement. The stylistic mimicry of brands like Studio Ghibli—whether by direct prompt usage or visual approximation—raises critical questions for copyright, trademark, and moral rights law.

This paper concludes that current Indian IP laws are ill-equipped to address the nuances of generative AI, especially in the absence of defined authorship, liability structures,

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38 *Viacom Int'l Inc. v. YouTube, Inc.*, https://casetext.com/case/viacom-intl-inc-v-youtube-inc-2;676 F.3d 19 (2d Cir. 2012); Shreya Singhal v. Union of India, (2015) 5 SCC 1, https://indiankanoon.org/doc/110813550/

39 WTO TRIPS Agreement, art. 10, 11, 13; WIPO IP, https://www.wto.org/english/docs_e/legal_e/27-trips_01_e.htm;& AI Policy Paper (2020), https://www.wipo.int/meetings/en/doc_details.jsp?doc_id=499504.

40 WIPO, *AI and Intellectual Property: Mapping AI Policy Frameworks Across Jurisdictions*, WIPO/PUB/1055/2021, https://www.wipo.int/publications/en/details.jsp?id=4569.

41 Tanya Aplin & Lionel Bently, *Gower and Davies' Principles of Modern Copyright Law* 241 (Sweet & Maxwell, 2020).

or artistic attribution mechanisms. The U.S. and Japanese frameworks, while comparatively evolved, also grapple with style-based infringement and platform accountability.

Key Recommendations

1. Amend Indian Copyright Law

   Introduce a provision for **style-based protection** in derivative works where imitation of iconic art styles (like Ghibli) amounts to economic harm or public confusion.[42]

2. **ClarifyTrademark Dilution via Prompting**

   Guidelines should restrict AI platforms from accepting **commercial prompts using brand names**, unless licensed or in clearly permissible contexts (e.g., parody, education).[43]

3. **Establish AI Attribution and Licensing Systems**

   Encourage AI platforms to integrate **attribution tracking and ethical watermarking**, especially for widely replicated visual styles.[44]

4. **Intermediary Accountability Framework**

   Amend intermediary liability clauses under India's IT Rules and propose shared responsibility between prompt users, AI developers, and commercial redistributors.[45]

5. **Promote International IP Dialogue**

   Collaborate with bodies like **WIPO and WTO** to address cross-border generative art disputes, define 'AI originality,' and harmonize safe harbor policies.[46]

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42 IT (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021, Rule 3(d), https://www.meity.gov.in/content/intermediary-guidelines-and-digital-media-ethics-code-rules-2021.

43 Ryan Abbott, *The Reasonable Robot: Artificial Intelligence and the Law* 88–91 (Cambridge Univ. Press 2020), https://www.cambridge.org/core/books/reasonable-robot/55D8B5BC1BE67255A8E3545BB8DE33F9.

44 Shreya Singhal v. Union of India, (2015) 5 SCC 1, https://indiankanoon.org/doc/110813550/

45 WIPO, *AI and Intellectual Property: Mapping AI Policy Frameworks Across Jurisdictions*, WIPO/PUB/1055/2021, https://www.wipo.int/publications/en/details.jsp?id=4569.

46 Tanya Aplin & Lionel Bently, *Gower and Davies' Principles of Modern Copyright Law* 241 (Sweet & Maxwell, 2020).

47 IT (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021, Rule 3(d), https://www.meity.gov.in/content/intermediary-guidelines-and-digital-media-ethics-code-rules-2021.

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48 Ryan Abbott, *The Reasonable Robot: Artificial Intelligence and the Law* 88–91 (Cambridge Univ. Press 2020).

49 Shreya Singhal v. Union of India, (2015) 5 SCC 1.

50 WIPO, *AI and Intellectual Property: Mapping AI Policy Frameworks Across Jurisdictions*, WIPO/PUB/1055/2021. https://www.wipo.int/publications/en/details.jsp?id=4569.

Meme Culture and Copyright Law: Fair Use or Infringement?[1]

Ms. Pankaj Nagar & Ms. Neerja Gautam***

ABSTRACT

The rise of meme culture as a dominant form of online expression has created complex legal challenges in the realm of copyright law. Memes often rely on the unauthorized use of copyrighted images, videos, or text, raising the critical question of whether such use constitutes copyright infringement or falls under the doctrine of fair use. This paper examines the legal status of memes through the lens of fair use jurisprudence, focusing on key factors such as purpose, transformation, and market impact. It also explores relevant case law, comparative legal frameworks, and enforcement difficulties in the digital ecosystem. By analysing the interplay between creativity and copyright, the paper argues for a nuanced, balanced legal approach that upholds both intellectual property rights and the evolving norms of digital expression.

Keywords: Meme Culture, Copyright Law, Intellectual Property, User-Generated Content Social Media Law.

INTRODUCTION

In the digital age, the internet has given rise to various forms of creative expression, but none have gained as much prominence and cultural influence as memes. Memes, often characterized as humorous, satirical, or poignant images, videos, and texts, are shared virally across social media platforms, creating a massive, often anonymous, global communication network. What was once a niche form of entertainment has now transcended into a ubiquitous and powerful tool for communication, social commentary, and political activism. Memes have become a primary mode of digital communication, often used to express opinions, criticize societal norms, and respond to current events in real-time. However, memes are not created in a vacuum—they frequently rely on the remixing, transformation, and re-contextualization of existing copyrighted works, such as images, videos, and text, that are often taken without permission from the original creators. This gives rise to significant legal concerns, particularly surrounding the issue of copyright infringement. The rapid growth and

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accessibility of meme creation have brought into sharp focus the question of whether such creative activities fall within the bounds of copyright law, or if they can be justified under the doctrine of fair use. In many cases, memes borrow heavily from copyrighted works whether it be a snippet from a famous movie, an image from a television show, or a clip of a song. The transformative use of these original works raises important legal questions about how copyright law, which was designed to protect the rights of original creators, applies in a digital world where remixing and creative reuse are common practices. Should creators of memes be held liable for infringement, or can their use of these copyrighted materials be defended under the fair use doctrine? At its core, this issue centres on whether the practice of meme creation should be treated as an act of creative expression or as a violation of copyright law. While memes may appear to be a relatively harmless form of entertainment, they often involve the use of highly recognizable copyrighted works, which, under traditional copyright rules, are protected by exclusive rights granted to the original creators. This raises an important question: can a meme that uses, alters, or appropriates someone else's work be justified as a fair use of copyrighted material, or does it amount to infringement? This paper explores this question, examining both the fair use provisions under copyright law and the way in which they interact with the digital phenomenon of memes.

THE RISE OF MEME CULTURE AND THE DIGITAL TRANSFORMATION OF CREATIVE EXPRESSION

To understand the legal implications of meme culture, it is important to first explore the cultural and technological evolution that has led to its proliferation. A meme, in its most basic form, can be defined as a unit of cultural information or behavior that spreads rapidly among individuals, often evolving in the process. While memes have existed in various forms throughout human history, the modern digital meme has emerged with the rise of social media and digital communication platforms. Memes often involve the remix culture, a practice of taking pre-existing material and adding new meaning, context, or humor. This approach has become the foundation of digital creativity, allowing users to participate in a shared culture of creativity, satire, and parody.The rise of meme culture has been closely intertwined with the advent of social media platforms such as Facebook, Twitter, Instagram, and Reddit, which have provided an unprecedented ability for individuals to create, share, and distribute content with a wide audience. Memes are often created by ordinary users who engage in remixing and transforming existing content, making them a form of participatory culture that breaks down traditional boundaries between creators and consumers. Unlike traditional forms of media, which are created by professionals or institutions, meme culture encourages user-generated content, where anyone with an internet connection can participate in the creation and dissemination of cultural expressions.This democratization of content creation has led to an explosion of memes across the internet, with billions of memes shared daily. As a result, memes have transcended from mere entertainment to a significant cultural phenomenon that plays a crucial role in shaping public discourse, political debates, and social movements. From political memes that

challenge authority and comment on governance, to memes that act as an escape from the pressures of everyday life, the diversity and versatility of memes have cemented their place as a dominant form of expression in the digital age.

COPYRIGHT LAW AND THE ORIGINS OF LEGAL CONCERNS

With the rapid rise of meme culture, legal concerns surrounding copyright infringement have become more pressing. Copyright law is designed to protect the creative works of authors, providing them with exclusive rights to use and distribute their work. The basic premise of copyright is to incentivize creators by allowing them to control the use of their intellectual property. However, in the context of meme creation, the balance between protecting the rights of original creators and fostering a creative, participatory culture becomes increasingly difficult to maintain.

The traditional view of copyright law revolves around the idea of the exclusive rights of creators. These rights include the right to reproduce, distribute, display, perform, and create derivative works based on the original creation. Copyright infringement occurs when a person uses a copyrighted work without permission from the copyright holder and does so in a way that violates the exclusive rights granted under copyright law.

For the creators of memes, the problem arises when they use someone else's copyrighted material be it a clip from a movie, an image from a video game, or a famous quote from a television show in order to create new content. While these memes may be transformative in nature sometimes altering the original material significantly by adding new context, humor, or meaning this transformation does not automatically exempt them from copyright protection. If the use of copyrighted material does not fall under one of the exceptions or limitations in copyright law, it may be deemed as an infringement.This issue has led to an ongoing debate about the **fair use doctrine**a legal provision that permits certain uses of copyrighted works without permission from the copyright holder, under specific circumstances. Fair use is designed to allow for **critical commentary**, **education**, **parody**, **news reporting**, and **creative expression**, among other uses. The question becomes whether the creation of a meme can be justified as fair use, or whether it crosses the line into infringement.

THE DOCTRINE OF FAIR USE: A DOUBLE-EDGED SWORD

The doctrine of fair use is a critical element in understanding how memes can interact with copyright law. Fair use provides a **limited** exception to the exclusive rights of copyright holders, allowing others to use copyrighted material under certain conditions without permission. This doctrine is particularly important in the digital realm, where remixes, parodies, and transformative uses are a common part of online culture.In the United States, the **four-factor test** is used to determine whether a specific use of copyrighted material constitutes fair use. These factors include:

1. **The purpose and character of the use** – Whether the use is for commercial purposes or is non-commercial and transformative in nature.

2. **The nature of the copyrighted work** – Whether the original work is factual or creative.
3. **The amount and substantiality of the portion used** – How much of the original work is used and whether the use of that portion is essential to the new work.
4. **The effect of the use on the potential market for the original work** – Whether the use competes with the original work and harms its market value.

Memes, in many cases, meet the criteria for transformative use, which is a key factor in determining fair use. For example, a meme that takes a famous image from a movie and adds humorous text or a political message significantly alters the original work. This transformation may be considered as falling under fair use, particularly if the use is non-commercial and is intended to create new meaning or commentary. However, in some cases, memes may use large portions of copyrighted works or may not provide sufficient transformation, leading to concerns about potential infringement.The **fair use doctrine** is not a blanket protection and requires careful analysis of the four factors. Memes often fall into a gray area, where their use may seem to be transformative and fall under fair use, but they may also pose a threat to the original market for the copyrighted work, particularly when they are used in commercial contexts or go viral across the internet.

LEGAL PERSPECTIVE UNDER INDIAN COPYRIGHT LAW

In India, the legal status of memes is governed primarily by the **Copyright Act, 1957**, which outlines the rights of creators and the limitations on those rights. Memes often involve the use of copyrighted images, film stills, dialogues, or audio clips—materials typically protected under the Act. The growing popularity of memes raises critical legal questions about **infringement**, **fair dealing**, and **transformative use**, especially as these humorous creations are widely shared on digital platforms without seeking the permission of original rights holders.

• Copyright Protection in India

Under **Section 14 of the Copyright Act, 1957**, the copyright holder is given the exclusive right to reproduce, adapt, distribute, and communicate the work to the public. Any reproduction of a copyrighted work be it in whole or substantial part—without permission constitutes **infringement**, unless it falls within a statutory exception.In the case of memes, using a copyrighted image (like a frame from a Bollywood film or a celebrity photograph) may prima facie amount to infringement, especially when the original work is used **without significant transformation** or **proper attribution**.

• The Fair Dealing Exception

India does not follow the broad **fair use** doctrine like the United States but instead recognizes a narrower concept called **"fair dealing"** under **Section 52 of the Copyright Act**. The provision lists specific situations where the use of copyrighted material does not amount to infringement, such as:

- Private or personal use, including research;
- Criticism or review, whether of that work or any other work;
- Reporting of current events and affairs;
- Judicial proceedings or proceedings before a legislative or statutory authority.

The challenge lies in determining whether memes fall under any of these permissible uses. If a meme is clearly satirical, political, or used to criticize or comment on a social event, it might be protected under the fair dealing provision. However, the law does not explicitly mention **parody** or **satire** as exceptions, which creates ambiguity and makes enforcement highly subjective.

JUDICIAL INTERPRETATION AND CASE LAW

Indian courts have addressed the scope of fair dealing in several decisions, though not specifically in the context of memes. In **Civic Chandran v. AmminiAmma (1996)**, the Kerala High Court held that fair dealing must be assessed based on the purpose of the use and the degree of transformation. The court emphasized that if the new work comments on or critiques the original, it is more likely to be considered fair dealing.

In **Super Cassettes Industries Ltd. v. Hamar Television Network Pvt. Ltd. (2010)**, the Delhi High Court clarified that mere reproduction, even for entertainment, does not automatically qualify for fair dealing. The court held that transformative use is crucial, and if the intent is purely commercial, the defense of fair dealing may not succeed.

These judgments suggest that meme creators in India must ensure that their works are not mere reproductions but are **transformative** and **commentative** in nature. Memes that simply replicate copyrighted material for humor or entertainment—without any critical commentary—are less likely to be protected.

PLATFORM LIABILITY AND SAFE HARBOUR

Under the **Information Technology Act, 2000**, intermediaries like Instagram, Facebook, and Twitter enjoy a degree of immunity under **Section 79**, provided they act as neutral platforms and take down infringing content upon receiving notice. However, this safe harbour is conditional on due diligence, and platforms are increasingly pressured to implement **automated content moderation**.

While copyright holders can send takedown notices to platforms under Section 51 of the Copyright Act or use the IT Act, meme creators often lack the legal awareness or resources to challenge wrongful takedowns. Additionally, the **absence of a mechanism** to assess whether a meme is "fair dealing" before removal often results in **over-censorship**, chilling online creativity.

THE NEED FOR LEGAL REFORM

Given the rise of user-generated content and evolving digital culture, Indian copyright

law is arguably **ill-equipped** to handle the complexities of meme culture. The current statutory framework does not provide a clear exception for **transformative parody**, leading to legal uncertainty. There is a growing call from scholars and digital rights activists for reforms that recognize memes as a distinct form of **digital expression**, deserving protection under a broadened interpretation of fair dealing.

Until such reforms are introduced, meme creators must tread carefully, especially in commercial contexts or when using content owned by well-resourced rights holders. Legal literacy, clearer guidelines, and possibly judicial recognition of memes as **modern-day parody or critique** are essential steps forward.

THE CHALLENGES OF ENFORCEMENT IN THE AGE OF DIGITAL MEDIA

The proliferation of meme culture in the digital age presents unique and formidable challenges to the enforcement of copyright law. As memes are shared, reshaped, and re-posted across global platforms at lightning speed, the ability of copyright holders to monitor and control the use of their protected works becomes increasingly difficult, if not impossible in practical terms. Traditional enforcement mechanisms, designed for slower and more traceable forms of media distribution, struggle to cope with the decentralized, anonymous, and viral nature of digital communication.Memes are inherently viral; their very purpose is to be replicated, modified, and circulated within online communities. Platforms like **Facebook**, **Instagram**, **Twitter**, **Reddit**, and **TikTok** function as high-speed conduits for this flow of content, enabling memes to reach vast audiences within minutes. Often, the creators of these memes are anonymous or use pseudonyms, and once a meme gains traction, it can be copied and re-shared by thousands or even millions of users across different platforms, regions, and jurisdictions. This reality renders the enforcement of copyright law exceedingly complex. A rights holder who identifies one instance of infringement may find it already replicated across countless sites and accounts, making comprehensive enforcement akin to a game of digital "whack-a-mole."

Adding to the difficulty is the role that **social media platforms** play as intermediaries in the sharing of memes. These platforms are governed, in jurisdictions like the United States, by frameworks such as the **Digital Millennium Copyright Act (DMCA)**, which provides a notice-and-takedown system to address claims of copyright infringement. Under the DMCA, copyright holders can submit takedown notices to platforms, requesting that infringing content be removed. In response, platforms are typically obligated to act promptly to remove the content and avoid liability. While this mechanism offers a formal legal avenue for addressing unauthorized uses, it is inherently **reactive**intervention only begins after an infringement is reported. Given the speed with which memes spread, the content may have already gone viral or been reposted by the time a takedown notice is processed.Moreover, the DMCA and similar processes often fail to address the more nuanced issue of **fair use**. Many memes are potentially **transformative**they comment on, parody, or criticize the original work, thus raising a valid legal defense under fair use doctrine. However, automated systems and even human moderators reviewing takedown requests may lack the legal sophistication to

assess the context and intent behind a particular meme. As a result, content that should be protected under fair use may be wrongly taken down, raising concerns about over-enforcement and the chilling effect on free expression.

To manage the overwhelming volume of content, many platforms have turned to automated content identification systems such as YouTube's Content ID, Facebook's Rights Manager, or TikTok's automated filters which scan uploads against databases of known copyrighted works to detect potential matches. While these tools have improved the efficiency of enforcement, they are far from perfect. They may flag and remove content that merely resembles copyrighted material, even if it is legally permissible under fair use, satire, or parody. Conversely, they may fail to detect subtle uses of copyrighted elements that are cleverly integrated or altered. This creates a paradox: while rights holders demand better enforcement, users demand fairer treatment of their expressive works.

Another major challenge lies in the anonymity and ephemerality of online content. Many meme creators use anonymous accounts or temporary usernames that leave little to no trail. Even when a copyright holder wishes to pursue legal action, identifying the actual person behind an infringing meme is often difficult, requiring cooperation from platforms and, in some cases, court orders. Additionally, content on platforms like Instagram Stories or Snapchat may disappear within 24 hours, erasing the evidence of infringement before action can be taken. In such cases, even the most vigilant rights holder may be unable to enforce their rights effectively.

The global nature of digital media also complicates enforcement. A meme may originate in one country, use copyrighted material from another, and be viewed by users in dozens more. Copyright laws vary widely across jurisdictions what qualifies as fair use in the United States may not be considered fair dealing in countries like the UK, Canada, or India. Cross-border enforcement of intellectual property rights is fraught with legal, procedural, and diplomatic hurdles. International treaties like the Berne Convention and TRIPS Agreement attempt to harmonize copyright standards, but enforcement mechanisms remain largely national and difficult to coordinate on a global scale.

Finally, there is an increasing recognition of the cultural value of memes and the need for balance between copyright enforcement and the protection of digital expression. Overzealous enforcement risks stifling legitimate creativity, social critique, and commentary core purposes that copyright law itself was meant to foster. Memes often serve as a form of political speech, satire, or communal storytelling, and their value cannot be reduced solely to whether they infringe on a copyright. Courts and policymakers are increasingly being called upon to consider these broader social contexts when interpreting copyright law in the digital sphere.

The enforcement of copyright law in the age of digital media is facing unprecedented challenges. The speed, anonymity, and global reach of meme culture have outpaced traditional legal frameworks and enforcement tools. While mechanisms like the DMCA provide a foundational structure for responding to infringement, they are ill-equipped

to handle the scale and complexity of online meme dissemination. Automated systems offer some assistance but are prone to errors and legal misjudgements. The future of copyright enforcement in the meme era will likely require a combination of technological innovation, legal reform, and a deeper understanding of the balance between intellectual property rights and digital creativity. It is clear that a rigid enforcement approach may no longer be viable what is needed is a nuanced, adaptive legal framework that respects both the rights of creators and the evolving dynamics of digital expression.

CONCLUSION: NAVIGATING THE TENSION BETWEEN COPYRIGHT PROTECTION AND DIGITAL CREATIVITY

As meme culture cements its role as a defining mode of communication and expression in the digital age, the law must grapple with unprecedented challenges in balancing the rights of creators with the freedoms of users. The rapid evolution of internet culture has blurred the traditional boundaries between authorship, ownership, and audience engagement. In this context, the legal frameworks that were developed in an era of analog media are increasingly being tested by the participatory, decentralized, and remix-based nature of digital content. Copyright law, at its core, is designed to incentivize creation by protecting the rights of original authors. However, in the case of memes where humor, satire, commentary, and cultural critique are often built on pre-existing works rigid enforcement of copyright can unintentionally stifle the very creativity and dialogue it seeks to promote.The doctrine of fair use emerges as a key mediator in this legal tension, offering a mechanism through which transformative and socially valuable uses of copyrighted works can be shielded from claims of infringement. Nevertheless, the application of fair use is far from automatic or universal. It requires a nuanced, fact-specific analysis of several factors, including the purpose and character of the use, the nature of the copyrighted work, the amount and substantiality of the portion used, and the effect on the market for the original. In the context of memes, where content is frequently modified, recontextualized, and used for commentary or humor, the potential for fair use is significant—but not guaranteed. Courts must tread carefully, recognizing both the rights of original creators and the evolving norms of digital creativity that value transformation and communal engagement.Moreover, the legal system must consider the broader social and cultural implications of meme creation and sharing. Memes often serve as vehicles for political expression, social critique, and collective identity. Overzealous copyright enforcement, particularly when deployed through automated content takedown systems, may disproportionately impact marginalized voices who rely on memes as a low-barrier tool for expression. As such, a more flexible and context-sensitive approach is necessary—one that prioritizes balance over rigidity and acknowledges that digital creativity often builds upon the past to comment on the present.Looking ahead, a forward-thinking legal response to meme culture will require not only judicial clarity but also legislative innovation, platform accountability, and public education. Legislators may need to refine existing copyright statutes to better accommodate the realities of digital media. Online platforms, as intermediaries, should adopt transparent policies and improved mechanisms for resolving fair use disputes. Educators and creators alike

should be equipped with a better understanding of copyright rights and exceptions, empowering users to make informed decisions while respecting original works.

In conclusion, the evolution of meme culture underscores the urgent need for copyright law to adapt to the digital era. Rather than viewing copyright protection and digital creativity as inherently conflicting goals, the law must evolve to support both encouraging original creation while also allowing room for remixing, parody, and commentary that enrich the cultural commons. Only by adopting a balanced, adaptive, and inclusive approach can we ensure that copyright law continues to serve its dual purpose: protecting authors and promoting the progress of creativity in a world increasingly shaped by the dynamics of digital expression.

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E-Waste: A Burgeoning Human Rights Solicitude

Ms. Reenu Rana & Prof. (Dr.) Namrata Luhar***

ABSTRACT

With the hasty boom in the technological innovations, the demand for novel and improvised electronic goods has increased multifariously resulting in thunderous escalation in the obsolete electrical and electronic goods that have not even reached their end of life. The WHO has also considered E-Waste as a biggest global challenge and has raised concerns about its effects on human health.[1] The paper aims to spotlight the way human rights are violated due to perilious e-waste dumping and disposal techniques. The researchers have highlighted the major concerns and the hazardous implications of e-waste on human rights.

Keywords: E-waste, Human Rights, Electrical and Electronic Equipment, Hazardous, Environment, Informal Sector.

INTRODUCTION

Technological boom has led to the outburst of electrical and electronic gadgets making life of people more comfortable and serene. Novel and innovative electrical equipments are being introduced in the market on quotidian basis resulting in shortened life span of electrical and electronic equipments (EEE) thereby making them obsolete much before they reached end of their life. Electronic gadgets are not always propitious due to the embodiment of highly toxic and hazardous components. These hazardous components in turn affect the environment and health of the living beings on earth in a catastrophic manner.

The enormous generation of e-waste is a matter of real solicitude not only for the developing nations but also for the developed countries. In the contemporary society one cannot think of existence without EEE making it really important to dispose e-waste in an environment friendly manner as more reliance on electronic components

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1 https://www.who.int/news/item/15-06-2021-soaring-e-waste-affects-the-health-of-millions-of-children-who-warns ((last visited on October 10, 2022).

would result in huge pile of e-waste that would pose a serious threat for the environment and human health.The problem would accelerate manifolds in the near future due to the excessive dependence on computers, mobile phones and other electrical gadgets.

E-Waste comprises of hazardous as well as valuable and precious components mandating its treatment and disposal in an environment friendly manner. Due to the inclusion of toxic components, e-waste is not always benevolent for mankind as well as flora and fauna. Some of the hazardous components of e-waste are arsenic, beryllium. Barium, mercury, lead, brominated flame retardants, polyvinyl chloride, Phthalate esters, hexavalent chromium, cadmium, brominated flame retardants and many more.[2] These components have the tendency of causing life threatening impact on the living beings. E-Waste includes electronic equipments that lights out or is discarded by the ultimate user. E-Waste (Management) Rules, 2016 defines E-waste as "Any electrical and electronic equipment, whole or in part discarded as waste by the consumer or bulk consumer as well as rejects from manufacturing, refurbishment and repair processes".[3] This definition seems to be exhaustive as it imbibes all the components of electronic equipment. As per UN, "E-Waste is any discarded product with a battery or plug, and features toxic and hazardous substances such as mercury, that can pose severe risk to human and environmental health".[4] This definition provides a comprehensive overview of the austere nature of e-waste components. It seems to provide that e-waste is a serious source for disquietude in the modern times.

MAGNITUDE OF THE E-WASTE PROBLEM

According to Global E-Waste Monitor 2020, nearly 53.6 million metric tonnes of e-waste was generated worldwide in the year 2019 which has increased up to 21 per cent in just five years which would reach 74 million metric tonnes (MT) by 2030.[5] Out of total worldwide generated e-waste in the year 2019, only 9.3 MT amounting to about 17.4 per cent of the total e-waste generation was collected and recycled.[6] Apart from this 17.4 per cent, remaining is illegally dumped in the developing nations where it is treated by the informal sector in a very unscientific method by making use of primitive techniques.[7] As per Global E-waste Monitor 2020, the world's fastest growing domestic waste stream is the e-waste because of its ephemeral life span. Asia is the tempestuous generator of e-waste in the year 2019 to nearly about 24.9 MT followed

2 Human Rights Impacts of E-Waste, Available at: https://www.ciel.org/wp-content/uploads/2015/10/HR_EWaste.pdf (Last visited on April 10, 2023).

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5 The Global E-waste Monitor 2020 – Quantities, flows, and the circular economy potential, Available at: https://ewastemonitor.info/gem-2020/ (last visited on July 10, 2022).

6 Ibid.

7 Growing Threat of E-waste Affecting Millions of Children Worldwide, WHO Warns, Available at: https://sdg.iisd.org/news/growing-threat-of-e-waste-affecting-millions-of-children-worldwide-who-warns/ (Last visited on November 1, 2022)

by America and Europe generating nearly 13.1 MT and 12 MT respectively.[8]As per the report, the e-waste generated in 2019 weighs more than all the adults in Europe and is equivalent to 350 cruise ships of the size of Queen Mary 2 that is copious to form 125 Km long line.[9]E-Waste is stipulated as one of the major quagmire by the International Telecommunication Union.[10] In one of the report of 2015, by the United Nations Environment Programme, titled as 'Waste Crimes, Waste Risks: Gaps and Challenges in the Waste Sector', it was reckoned that nearly 60 per cent to 90 per cent of e-waste having worth of about USD 19 billion is dumped or traded illegitimately each year.[11] Retired Justice Arun Kumar Mishra, the chairperson of National Human Rights Commission had shown dismay regarding illegal dumping and trading of e-waste by the developed nations in the developing and under developed countries.[12]

Director General of WHO, DrTedrosAdhanomGhebreyesus, has expressed his deep concern over e-waste by asseverating it as "With mounting volumes of production and disposal, the world faces what one recent international forum described as a mounting 'Tsunami of E-Waste', putting lives and health at risk".[13] The WHO has manifested perturbation for protecting the health of the most vulnerable group – the children from the clutches of the ever-growing e-waste menace.

Hazardous Components of E-Waste and their occurrence in Electrical and Electronic equipment with their relative effect on Human Health[14]

Components	Effect on Human Health	Occurrence in Electrical and Electronic Equipment
Lead (Pb)	It affects brain development, damages the central and peripheral nervous system, harmful for human reproductive system, DNS dent, affects metabolism and neuropsychological functions, skin lesions, headache, nausea, gas, malfunction of kidneys, learning disability in kids, affects the circulatory system and the endocrine	Plastic stabilizer, Printed Circuit Boards, Rechargeable Ni-Cd batteries, Printer ink, Toners, Cathode Ray Tube (CRT) screens, Semiconductor chips
Arsenic (As)	It causes nausea, allergic reactions, dermatitis, vomiting, abnormal heart rate, decreases production of red blood cell and white blood cell	LED
Beryllium (Be)	Potential human carcinogen, lung damage and allergic reaction	CRT and Circuit Boards

8 Supra Note 3.

9 Ibid.

10 Supra Note 2.

11 Ibid.

12 NHRC chairperson expresses concern over dumping of e-waste by developed countries, Available at: https://www.thehindu.com/sci-tech/energy-and-environment/nhrc-chairperson-expresses-concern-over-dumping-of-e-waste-by-developed-countries/article65890308.ece (Last visited on April 1, 2023).

13 Soaring e-waste affects the health of millions of children, WHO warns, Available at: https://www.who.int/news/item/15-06-2021-soaring-e-waste-affects-the-health-of-millions-of-children-who-warns (Last visited on April 1, 2023).

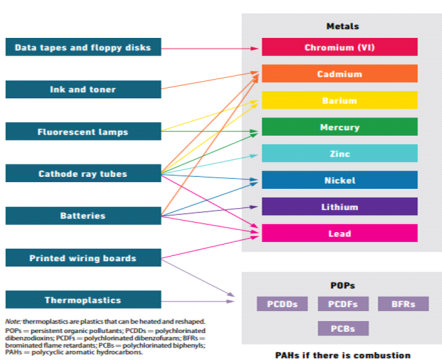
14 Dr.Navtika Singh Nautiyal and Shuchita Agarwal, "Future of E-Waste Management Challenges and Opportunities"109, (Thomas Reuters, Legal 2021).

Copper (Co)	Irritation in Intestine and Stomach, Anaemia, Kidney damage and Liver damage	Electrical Wirings, CRT
Cadmium (Cd)	Bone fragility and damage of Kidney and lungs, DNA damage, Neurological and Respiratory disorders in kids	Light sensitive resistors, Rechargeable Nickel Cadmium Batteries, Phosphor Emitters in CRT Screens, Printed Circuit Boards (PCB) and Semiconductors
Mercury (Hg)	High Blood Pressure, Kidney and Lung Damage, Increased Heart Rate, Chronic Brain Related Disorders, DNA damage, Behavioural Disorder, Impair Foetus Enlargement, Effects Human Food Chain, Damages Central and Peripheral Nervous System, Ataxia,	Alkaline Batteries, LCD backlights, Monitor Thermostats
Zinc (Zn)	It causes Skin Damage, Cytotoxicity, Ischemia and Trauma	Anticorrosion coating in CRT
Chromium (Cr)	Causes Liver and Kidney Damage	Floppy discs, Metal housing and plates in the Computer
Nickel (Ni)	Causes Allergic Reactions, Asthma, skin Allergy, Malfunctioning of Lungs	Electron Gun in CRT Screens Rechargeable Nickel Cadmium Batteries, PCB, CRT Tubes
Rare Earth Elements	It causes Irritation in the Skin and Eyes	Fluorescent Layer
Plastics	It causes Cancer, Immunology of Humans and affects the Reproductive System	Electronic Equipment

Source: Future of E-Waste Management Challenges and Opportunities"109, (Thomas Reuters, Legal 2021).

Apart from these components e-waste also contains other hazardous substances such as polychlorinated biphenyls (PCBs), polybrominated biphenyls (PBBs), polybrominated diphenyl ethers (PBDEs), brominated flame retardants (BFRs), and valuable substances such as iron, steel, copper, aluminium, gold, silver, platinum and palladium.[15]

COMMON TOXICANTS RELEASED IN THE ATMOSPHERE DUE TO PRIMITIVE WASTE MANAGEMENT TECHNIQUES



Source: Children and digital dumpsites: e-waste exposure and child health.

15 G. Gaidajis, K. Angelakoglou and D. Aktsoglou, "*E-waste: Environmental Problems and Current Management*", 3 JESTR 193-199 (2010), available at: http://www.jestr.org/downloads/volume3/fulltext342010.pdf (last visited on June 2, 2022).

RIGHT TO LIFE AND HEALTHY ENVIRONMENT

Article 21 provides "No person shall be deprived of his life or personal liberty except according to procedure established by law".[16] Initially Article 21 provided a restricted view and Right to Personal Liberty was not considered to imbibe 'Right to pure environment'. But in Rural Litigation and Entitlement Kendra, Dehradun Vs. State of U.P.[17], Right to Wholesome Environment was incorporated in Article 21 to give it a wider scope thereby making Right to Pollution Free Environment as a Fundamental Right.[18] Judiciary acts a guardian of fundamental rights of the people. The judiciary through the activist approach has taken commendable steps for ensuring the people with pollution free environment. Through judicial activism, judiciary has kept a very vigilant eye for protecting the environment. The Supreme Court has ensured the Right to Pollution Free Environment as a fundamental right under Article 21 through the approach of Judicial Activism.

Right to life, as per Supreme Court, includes the right to live in a pollution free and healthy environment.[19] The Supreme Court has made the Right to Pollution Free Environment as justiciable and enforceable. The Supreme Court made it clear that the material resources like forests, ponds, lakes, mountains, tanks are the rewards of nature as they help in maintain ecological balances so, they need to be protected for enabling people of the country in enjoying a quality life free from pollution which is the very essence of Article 21 of the Indian Constitution.[20]

But E-Waste has emerged as one of the major pollutant of our environment and has been considered as the pre-eminent violator of the Right to Pollution Free and Healthy Environment. E-Waste contains extremely hazardous substances that require a specific treatment for its disposal and cannot be dumped in landfills. Because of the presence of toxic components present inside the e-waste, the trade related to e-waste is restricted by the United Nations Basel Convention.[21] The objective of Basel action Network is to ensure the proposal for disposal of e-waste rather than dumping it into less developed nations.[22]

Despite Basel Convention regulation regarding e-waste trade, e-waste is exported to developing nations because of the availability of low cost labour and imperfect

16 The Constitution of India, Article 21.

17 Available at: https://indianlawportal.co.in/rural-litigation-and-entitlement-kendra-dehradun-others-v-state-of-uttar-pradesh-others/ (Last visited on April 8, 2023).

18 Dr. H.N. Tiwari, Environmental Law 89 (Allahabad Law Agency, 6thedn., 2019).

19 M.C. Mehta Vs. Union of India, AIR 1987, SC 965, M.C. Mehta Vs. Union of India, AIR 1988, SC 2217, Vellore Citizens Welfare Association Vs. Union of India, AIR 1996, SC 2715, Indian Council of Enviro Legal Action Vs. Union of India, AIR 1996, SC 1446.

20 Hinch Lal Tiwari Vs. Kamala Devi, 2001, Available at: https://indiankanoon.org/doc/147864248/ (Last visited on April 8, 2023).

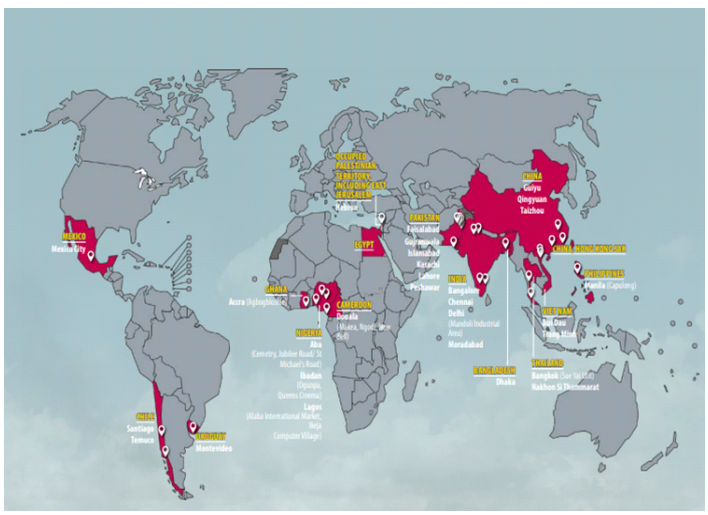
21 Global E-Waste Monitor 2020.

22 Ibid.

environmental regulations.[23] The informal sector dealing with e-waste is not vigilant about the health and environmental hazards associated with the unscientific handling of e-waste.[24]

Recycling in informal sector means burning of circuit boards, soaking of microchips in acid and burning of plastics which in turn proves very harmful for the health of the workers and the environment.[25] The workers are exposed to great risk as soon as they start disassembling of the old electrical equipment.

LOCATIONS OF INFORMAL E-WASTE DISMANTLING AND RECYCLING SITES[26]



Source: Children and digital dumpsites: e-waste exposure and child health.

HUMAN RIGHTS TRANSGRESSION DUE TO E-WASTE

Right to Food:

Right to food has been recognised by several international conventions and Human Rights Treaties as one of the important Human Right. Right to Food, is further connected and interlinked with other Human Rights. Hence, non-realisation of any Human Right would have a direct impact on Right to Food.Right to Food is guaranteed to everyone through Article 25(1) of Universal Declaration of Human Rights divulging that "Everyone

23 Decent work in the management of electrical and electronic waste (e-waste), Available at: https://www.ilo.org/wcmsp5/groups/public/—ed_dialogue/—sector/documents/publication/wcms_673662.pdf (Last visited on: April 8, 2023).

24 Ibid.

25 Ibid.

26 Children and digital dumpsites: e-waste exposure and child health, Available at: https://www.who.int/publications/i/item/9789240023901 (Last visited on June 2, 2022).

has the right to a standard of living adequate for the health and well-being of himself and of his family, including food".[27]

Article 11 of International Covenant on Economic, Social and Cultural Rights stipulates that the "States Parties "recognize the right of everyone to an adequate standard of living for himself and his family, including adequate food, clothing and housing...".[28] Paragraph 2 of Article 11 of the Covenant recognizes that it is the fundamental right of everyone to be free from hunger and it also provided for the measures by the States individually and through international cooperation for bringing an end to the hunger.[29]

Article 27(1) of the United Nations Convention on the Rights of a Child (UNCRC) provides that "children and young people should be able to live in a way that helps them reach their full physical, mental, spiritual, moral and social potential".[30] The Article further stipulates that for giving effect to said provision, the children should have access to adequate food and clothing. The UNCRC stipulates that "all children up to 18 years of age are human beings in their own right, and are entitled to inalienable rights – inherent to human dignity – including the right to healthy food and adequate nutrition, the right to non-discrimination, and the right to consider their best interests in all mattersthat affect them".[31]

Principle 4 of the Declaration of the Rights of the Child provides that, "The Child shall be entitled to grow and develop in health; to this end, special care and protection shall be provided both to child and the mother, including adequate pre-natal and post-natal care and the child shall have the right to adequate nutrition, housing, recreation and medical services".[32]

Article 12(2) of The Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) incorporates that, "The States Parties shall ensure to women appropriate services in connection with pregnancy, confinement and the post-natal period, granting free services where necessary, as well as adequate nutrition during pregnancy and lactation".[33]

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27 The human right to adequate food and freedom from hunger, Available at: https://www.fao.org/3/w9990e/w9990e03.htm (Last visited on: May 5, 2023).

28 Ibid.

29 Ibid.

30 Convention on the Rights of the Child, Available at: https://www.ohchr.org/en/instruments-mechanisms/instruments/convention-rights-child (Last visited on: May 5, 2023).

31 Protecting Children's Right to a Healthy Food Environment, Available at: https://www.unicef.org/media/96101/file/Protecting-Childrens-Right-Healthy-Food-Environment.pdf (Last visited on: April 5, 2023).

32United Nations Declaration of the Rights of the Child (1959), Available at: https://www.humanium.org/en/text-5/#:~:text=Principle%204,natal%20and%20post%2Dnatal%20care. (Last visited on: April 5, 2023).

33 Convention on the Elimination of All Forms of Discrimination against Women, Available at: https://www.ohchr.org/sites/default/files/Documents/ProfessionalInterest/cedaw.pdf (Last visited on: March 5, 2023).

Article 6 of the Declaration on the Protection of Women and Children in Emergency and Armed Conflict stipulated that, "the Women and children belonging to the civilian population and finding themselves in circumstances of emergency and armed conflict in the struggle for peace, self-determination, national liberation and independence, or who live in occupied territories, shall not be deprived of shelter, food, medical aid or other inalienable rights, in accordance with the provisions of the Universal Declaration of Human Rights, the International Covenant on Civil and Political Rights, the International Covenant on Economic, Social and Cultural Rights, the Declaration of the Rights of the Child or other instruments of international law".[34]

Article 1 of the Universal Declaration on the Eradication of Hunger and Malnutrition stipulates that' "Every man, woman and child has the inalienable right to be free from hunger and malnutrition in order to develop fully and maintain their physical and mental faculties".[35]Right to adequate food is also stipulated in 'Voluntary Guidelines to support the progressive realization of the right to adequate food in the context of national food security'.[36]

E-Waste entails extremely deleterious components that perambulate into sources of our food through the soil that possesses toxic qualities due to landfills. The primitive e-waste recycling activities lead to the generation of Polyaromatic Hydrocarbons (PAH) into the soil resulting in detrimental effects on human health and environment.[37] The food articles grown near the dismantling sites contain high value of PAH making it dreadful for the life of living creatures. Such contaminants in the tissues of livestock and are excreted in the form of eggs and milk.[38] E-Waste violates with the provisions of Right to Food ensured by various international conventions.

***Right to Life*:**

Article 3 of UDHR ensures that "Everyone has the right to life, liberty and security of person".[39] Article 6 of ICESCR provides that "Every human being has the inherent

34 Declaration on the Protection of Women and Children in Emergency and Armed Conflict, Available at: https://www.ohchr.org/en/instruments-mechanisms/instruments/declaration-protection-women-and-children-emergency-and-armed (Last visited on: April 5, 2023).

35 Universal Declaration on the Eradication of Hunger and Malnutrition, Available at: https://www.ohchr.org/en/instruments-mechanisms/instruments/universal-declaration-eradication-hunger-and-malnutrition#:~:text=1.,competence%20to%20achieve%20this%20objective. (Last visited on: April 5, 2023).

36 VOLUNTARY GUIDELINES to support the progressive realization of the right to adequate food in the context of national food security, Available at: https://www.fao.org/3/y7937e/y7937e.pdf (Last visited on April 2, 2023).

37 Supra Note 18.

38 Ibid.

39 Universal Declaration of Human Rights, Available at: https://www.un.org/en/about-us/universal-declaration-of-human-rights#:~:text=Article%203,liberty%20and%20security%20of%20person. (Last visited on: April 5, 2023).

right to life. This right shall be protected by law. No one shall be arbitrarily deprived of his life."[40]

Article 6 of the UNCRC entails that, "States Parties recognize that every child has the inherent right to life. States Parties shall ensure to the maximum extent possible the survival and development of the child."[41]

ILO Declaration on Fundamental Principles and Rights at Work has also given recognition to safe and healthy working environment.[42]

Apart from these, almost every Human Right Treaty recognizes Right to Life. E-waste is immensely precarious for the right to life guaranteed by these international covenants due to the potential of releasing extremely toxic substances in the soil and the environment because of the unscientific and uncontrolled methods of treatment disposal and dismantling activities causing headaches, vertigo, skin diseases, neurological disorders, still birth, chronic gastritis, duodenal ulcers, psychological disorders, kidney failures, cancer and many more disorders in the humans.

Right to Highest Attainable Standard of Health:

Article 25(1) of UDHR incorporates that "Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control".[43]

Article 12(1) of the ICESCR recognizes "the right of everyone to the enjoyment of the highest attainable standard of physical and mental health."44 The rights of workers to healthy working conditions are also recognized under this covenant.

Article 24 of the UNCRC recognizes, "the right of the child to the enjoyment of the highest attainable standard of health".[45] Article 24 also takes into consideration the dangers and risks related to environmental pollution affecting the child's health.[46]

Article 12 of CEDAW also recognizes the human right to health. "The treaty obligates all State parties to take all appropriate measures to eliminate discrimination against

40 International Covenant on Civil and Political Rights, Available at: https://www.ohchr.org/en/instruments-mechanisms/instruments/international-covenant-civil-and-political-rights (Last visited on: November 5, 2022).

41 Convention on the Rights of the Child, Available at: https://www.ohchr.org/en/instruments-mechanisms/instruments/convention-rights-child (Last visited on March 5, 2023).

42 ILO Declaration on Fundamental Principles and Rights at Work, Available at: https://www.ilo.org/declaration/lang—en/index.htm (Last visited on: April 5, 2023).

43 Universal Declaration of Human Rights, Available at: https://www.un.org/en/udhrbook/pdf/udhr_booklet_en_web.pdf (Last visited on: April 5, 2023).

44 The Right to Health, Available at: https://www.ohchr.org/sites/default/files/Documents/Publications/Factsheet31.pdf (Last visited on April 5, 2023).

45 Available at: https://www.ohchr.org/sites/default/files/Documents/Publications/Factsheet31.pdf (Last visited on April 5, 2023).

46 Ibid.

women in the field of health care in order to ensure, on a basis of equality of men and women, access to health care services".[47] Article 12(2) ensures "States Parties shall ensure to women appropriate services in connection with pregnancy, confinement and the post-natal period, granting free services where necessary, as well as adequate nutrition during pregnancy and lactation".[48]

"The ILO Constitution sets forth the principle that workers must be protected from sickness, disease and injury arising from their employment."[49]The enjoyment of the highest attainable standard of health as a fundamental human right is also affirmed by the WHO Constitution.[50]

The behavioural and developmental status of children makes them vulnerable to the exposure of e-waste. The e-waste constituents can impact the function and structural development of the lungs and neurological development.[51] The vulnerability of children to infection and injury is quite high. The bodies of children react differently to toxic substances than adults and are not able to break down hazardous substances and thereby eliminate them.[52] The outmoded techniques of e-waste recycling and dismantling have resulted in contaminating the soil and water to an enormously different level. As a result, divergent health problems gets associated with our skin, respiratory tract, brain, lungs, kidney, liver and other organs of the body. Further, even for adults E-waste can cause similar health problems.

Human Rights of the Vulnerable Workers:

Article 23 of UDHR affirms that "Everyone has the right to work, to free choice of employment, to just and favourable conditions of work and to protection against unemployment".[53]Article 7(2)(ii) of ICESCR ensures that "the States Parties must recognize the right of everyone to the enjoyment of just and favourable conditions of work which ensure a decent living for themselves and their families and safe and healthy working conditions".[54]

Article 32(1) of the UNCRC provides that "States Parties recognize the right of the child to be protected from economic exploitation and from performing any work that

47 Ibid.

48 Ibid.

49 Available at: https://www.ilo.org/global/standards/subjects-covered-by-international-labour-standards/occupational-safety-and-health/lang—en/index.htm#:~:text=safety%20and%20health-,International%20Labour%20Standards%20on%20Occupational%20Safety%20and%20Health,injury%20arising%20from%20their%20employment. (Last visited on April 6, 2023).

50 Ibid.

51 Supra Note 21.

52 Ibid.

53 Available at: https://www.humanrights.com/course/lesson/articles-19-25/read-article-23.html (Last visited on: April 6, 2023).

54 Available at: https://www.ohchr.org/en/instruments-mechanisms/instruments/international-covenant-economic-social-and-cultural-rights#:~:text=Article%206-,1.,2. (Last visited on April 6, 2023).

is likely to be hazardous or to interfere with the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral or social development".[55] Article 36 of the said Convention provides that "States Parties shall protect the child against all other forms of exploitation prejudicial to any aspects of the child's welfare".[56]

Article 18 of International Labour Organization states that "Workers shall have the right to remove themselves from danger resulting from the use of chemicals when they have reasonable justification to believe there is an imminent and serious risk to their safety or health".[57]

Recycling in the informal sector includes burning of circuit boards, soaking of microchips in acid and burning of plastics that prove very harmful for the health of the workers and the environment.[58]

The workers are exposed to great risk as soon as they start disassembling the old electrical equipment. The hazardous substances are also released in the environment due to manual dismantling techniques. Due to acid leaching techniques and open burning of the e-waste containing hazardous components, many toxic substances like arsenic, chromium, lead, nickel and beryllium seep into the soil resulting in landfills.[59]

The workers in the informal sector are often unskilled and lack adequate training required for e-waste disposal and handling making them vulnerable to the dreadful health hazards. These workers do not use the protective equipment required at the time of processing of e-waste.[60] Women and children work for about 12 to 14 hours in the informal sector exposing their health at a great peril. As per the documents of International LabourOrganisation, the workers in this sector carries out dismantling processes through bare hands without using any masks in the unventilated and dark rooms with inadequate lighting facilities.[61] These workers do not have the awareness about the perilous aftermath of the techniques they are undergoing for e-waste treatment. The occupational conditions of these workers are not at all workers friendly.[62]

A number of health hazards are associated with the unscientific and primitive method used by the informal section in e-waste dismantling and recycling. Despite the serious environmental and health perils, the informal sector often engage in such activities without paying much heed to the use of personal protective equipment. The informal

55 Available at: https://www.ohchr.org/en/instruments-mechanisms/instruments/convention-rights-child (Last visited on: April 6, 2023).

56 Ibid.

57 C170 - Chemicals Convention, 1990 (No. 170), Available at: https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_INSTRUMENT_ID:312315 (Last visited on April 3, 2023).

58 Ibid.

59 Human Rights Impacts of E-Waste, Available at: https://www.ciel.org/wp-content/uploads/2015/10/HR_EWaste.pdf (Last visited on April 3, 2023)

60 Ibid.

61 Ibid.

62 Ibid.

sector generally consists of women and children who work for about 12-14 hours a day.[63]

The workers in the informal sector carry out the processing of e-waste with bare hands. They often complain about breathing problems, skin allergies, headaches, eye infections and many more.[64] The informal sector lacks awareness about the harmful effects of e-waste and quite often exposes themselves to the certain risk to their health due to improper handling of e-waste and thereby polluting the environment.

Right to Receive and Access Information:

Article 19 of UDHR provides "Everyone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers".[65]

ICESCR stipulates that "everyone has the freedom to seek, receive and impart information and ideas of all kinds".[66]

Article 13 of UNCRC incorporates that "The child shall have the right to freedom of expression; this right shall include freedom to seek, receive and impart information and ideas of all kinds, regardless of frontiers, either orally, in writing or in print, in the form of art, or through any other media of the child's choice".[67]Article 17 of the said Convention incorporates that "States Parties shall ensure that the child has access to information and material from a diversity of national and international sources, especially those aimed at the promotion of his or her social, spiritual and moral well-being and physical and mental health."[68]

The ILO Chemicals Convention incorporates the right of the workers to receive information pertaining to hazards related to chemicals used at the workplace and also make the employers duty-bound to intimate workers about it.[69]

But despite of these international stipulations, the human rights pertaining to access to information is often violated. The workers in informal sector have very little awareness

63 Ibid.

64 Ibid.

65 Available at: https://www.un.org/en/about-us/universal-declaration-of-human-rights#:~:text=Article%2019,media%20and%20regardless%20of%20frontiers. (Last visited on: April 6, 2023).

66 International Covenant on Civil and Political Rights, Article 19.

67 Available at: https://www.ohchr.org/en/instruments-mechanisms/instruments/convention-rights-child (Last visited on April 6, 2023).

68 Convention on the Rights of the Child, Available at: https://www.ohchr.org/en/instruments-mechanisms/instruments/convention-rights-child (Last visited on April 4, 2023).

69 ILO CHEMICALS CONVENTION No. 170 & ITS RECOMMENDATION No. 177, Available at: https://www.ilo.org/wcmsp5/groups/public/—ed_protect/—protrav/—safework/documents/publication/wcms_731982.pdf (Last visited on April 3, 2023).

and comprehension about the perilous activities they are engaged in ultimately exposing them to heightened threat to their lives.

E-Waste management in India is still in its nascent stage mandating a lot of endeavors at all front. It is now well established that the individual chemicals located in the e-waste have deleterious health impact. Exposure to some highly toxic chemicals not only hampers the immediate growth, development and health of a child but also causes certain chronic ailments after attaining adulthood.

E-Waste certainly causes human rights violation. The dismantling of e-waste is done in a crude manner by large number of unskilled workers mandating a proper strategical planning for preventing the health hazards to those involved in the dismantling procedure. These workers should be provided with the relevant information for facilitating cautious e-waste management. Operational research and evaluative studies must be done for ensuring human rights to those whose lives might be affected by the e-waste disposal and handling.

CONCLUSION

India emerged to be one of the major producers of e-waste. E-Waste is posing a real threat for the entire world. This entire world is engulfed with theproblemofe-waste.Effortsarebeingtakenattheinternationalaswellasnationallevelto curb the e-waste peril. India is the only country in South Asia having E-Waste legislation inthe form of E-Waste Rules right from 2011 for the efficient handling of the e-waste probleminthecountry.The Rules have been amended in 2016 and 2018.

But Despite of the E-Waste Rules, thee-waste menaceisbecominguncontrollable day by day due to ineffectiveness of the e-waste legislation. The Rules are not sufficient for dealing with the unorganized informal sector. The government has not streamlined the informal sector where maximum dismantling and recycling of e- waste isdone.[70]

E-Waste management in India is still in its nascent stage mandating a lot of endeavors at all front. It is now well established that the individual chemicals located in the e-waste have deleterious health impact. Exposure to some highly toxic chemicals not only hampers the immediate growth, development and health of a child but also causes certain chronic ailments after attaining adulthood.

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70 Supra Note 13.

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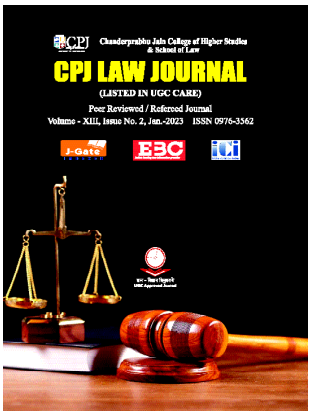
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Integrating HR Management, Entrepreneurial Strategies, and Information Technology for Enhanced Organizational Performance

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Abstract— It helps improve efficiency at an organizational level with the integration of HRM, entrepreneurial skills, and IT efficiency. In this sense, the efficient management of the human capital of the organization by the HRM and the entrepreneurial strategies of the search for opportunities for the realization of real-time data, communication, and collaboration, and the automation of the trivial are essential to give strength in these attempts and to develop a competitive IT of the organization. By incorporating these three factors, an organization will have an edge by tactfully associating its human capital, business goals, and technological competencies. Such practices are necessary to support HRM practices aimed at sourcing and creating talent for entrepreneurial growth and innovative strategies. IT can also help out HRM processes in the company and make entrepreneurial strategies work in place. Over time, this type of integration can enhance overall organizational performance, maintain an innovation culture, become talent magnets, and improve the processes and supply of cheaper organic changes.

Keywords—Human Resource, Entrepreneurial Strategies, Information Technology, Organizational Performance.

I. INTRODUCTION

Human resources management (HRM) is how organizations manage their work force by management process to fulfill organizational needs. This includes recruiting, training, performance appraisal, and development activities, all designed to ensure an organization has the right people with the proper skill set in the correct number of jobs [1]. In organizations, entrepreneurial strategies are what organizations do to find and capitalize on growth opportunities. They are typically creative and risk-focused approaches to change, designed to own the continuous adaptation to new business environments. Information Technology (IT) is the scientific method of obtaining and analyzing information for the structures and strategies of human resource management (HRM) and entrepreneurial organizations. The New HRM Software will enable an organization to be able to track specific things such as employee performance, performance measurement, and the tracking of benefits to see where improvements need to be made and help in planning their budgets around their employee performance and keeping employees that do not perform well in their job. Entrepreneurial strategies and HRM, specifically personas within the HR team, are crucial in their relationship to HRM and entrepreneurial strategy. Innovation and Adoption of HRM systems can provide the skilled labor required to innovate and take on new challenges if, finally, when, in the company that supports entrepreneurship. Entrepreneurial strategies can have similar implications for driving HRM efforts by stimulating innovative thinking and grounding the dynamics of an organization in an evolving mindset. It cements this bond by offering seamless Human Resources Management Solutions and entrepreneurship strategy or planning [3]. In this way, IT can automate seemingly manual HR, giving HR managers time to do real strategic work and use their heads better, as they say. IT can help create more connections and collaboration throughout the organization, which can help employees share new ideas/inventions [4]. HRM can be integrated with entrepreneurial strategies and IT to improve organizational performance by empowering the workforce to innovate and grow the business. However, organizations must remember that there can also be downsides, like skyrocketing employee burnout or a distraction from the organization's bottom line [5]. The main drivers of organizational performance are essential for success. These elements can build a solid base for improved performance and survival in the current turbulent enterprise climate. This is something that companies will need to reevaluate and adjust as what is competitive will change every year, and only the best will be here for long [6].

Three primary antecedents of organizational performance are HRM, Entrepreneurial Strategies, and IT. Therefore, merging any two of them or even all three would affect the unalterable growth of an institution anywhere on earth. In the subsequent paragraph, we will elaborate on these parts and what they mean for organizational performance at stunning speed. A strategic and viable approach to recruitment, advancement, and rewarding of utmost conveniently— proposed of joining the traditional HRM into the groundwork of politics, HRM is a strategic and coherent approach to the management of the most outstanding beings, the employees whoever separately with an equal sample to the realization of the objective of the association. This even involves recruiting, selecting, etc., employees with the skillset and knowledge to perform their jobs effectively [7]. HRM is also rooted in a work environment that can motivate the employees to promote maximum productivity and encourage them to put effort and dedication into the work. A sound HRM system leads to having highly committed and talented employees, which is the ultimate success of an organization. Sound HRM practices can increase job satisfaction, organizational commitment, and employee loyalty, further advancing organizational performance [8]. Maintaining competitiveness and adapting to change is more complex than ever — but just as crucial for any organization, large or small, that competes in the marketplace. It has been heard

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that innovating their current offerings and providing a new position would be a gamble. However, to stay relevant in the market, any organization needs an entrepreneurial spirit that encourages new thinking, gain-risking, and adaptability [9]. In organizations, fostering an entrepreneurial spirit can stimulate novel ideas in the workforce, which may motivate them to create new products or services, solutions, and customer touchpoints. These also help organizations surface new business opportunities and achieve new markets to enhance their customer base and revenue streams. In the present era of business, IT has completely redefined the modus operandi of organizations. As technology evolves, so has process automation; organizations can optimize their performance and scale their business to base data-driven decision-making [10].

II. Related Works

Organizations have been gathering humungous amounts of data with the help of IT, which, when analyzed, gives insights into customer behavior, market anomalies, and overall organizational performance [11]. It has also made it easy for people to communicate and collaborate to achieve common goals. Automating tasks, especially using various software and tools, helps the organization manage things more smoothly and productively, eventually improving the entire output. These critical components are inextricably linked and mutually support higher organizational performance [12]. With a rightly managed pool of human resources, the right entrepreneurial spirit, and optimal use of technology, an organization may gain an edge over its competitors in the market, and they may even grow so much in both size and success. Organizations must invest in this area and keep improving and adapting to changes in the business environment to maintain the lead in the market [13]. Managing and developing employees to achieve the best out of them and bring them experts into the organization. On the other hand, entrepreneur strategies are focused on innovation and creativity and are willing to take risks to grow the business. This means setting up an employment panel that hires on entrepreneurship, accommodating training and development programs to reinforce creativity and innovation, and building remuneration and reward systems that allow risk-taking and initiative [14]. When blended with a robust HRM function, entrepreneurial strategies can make the organization as agile and flexible as possible! Enable employees to take risks, which can translate to new product or service introduction, increased productivity, and market distinction [15]. By offering the essential resources and incentives for employees to start their new businesses, HRM can help in these efforts. It is critical in connecting HRM and Business strategies since it provides the communication channels and systems for information sharing and collaboration [16]. HRM can take that and build employee development programs, performance tracking, and data gathering for HR strategy decision-making through IT. It also makes it easier for employees to innovate and take controlled risks and ensures that entrepreneurial strategies can be incorporated into the entire organization on one platform [17].

III. Proposed Model

The proposed model combines the principles of high-quality human resource management, entrepreneurial strategies, and information technology to maximize organizational performance. This model works in the light of dynamic relationships between these three factors, which, if strategically interrelated, can fuel organizational performance.

A. HR Management

Human Resource Management is an integral part of any organization, and it deals with managing the organization's most valuable asset, its employees. This is what is meant by effective HRM practices, which include acquiring, training, motivating, and retaining employees to achieve high performance and commitment to the goals and objectives of the firm. The functional blocks of HR management have shown in the following fig.1

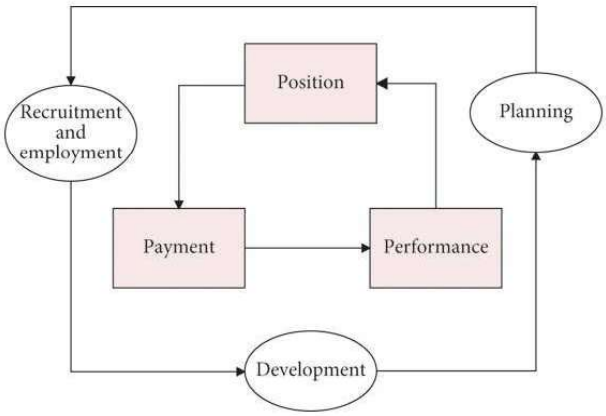


Fig.1: Functional blocks of HR management

This model focuses on the need to integrate HRM practices with the strategic aims and needs of the business. This added alignment ensures that the workforce can support the organization's direction and contribute to success. Different business strategies are actions that a company takes to become competitive and gain more revenues.

B. Entrepreneurial strategies

Taking intelligent risks, thinking outside the box, and having an entrepreneurial mindset can push the organization forward. So, the model accepts that a more entrepreneurial, strategic culture can influence differences in performance between organizations. The functional blocks of entrepreneurship management have shown in the following fig.2

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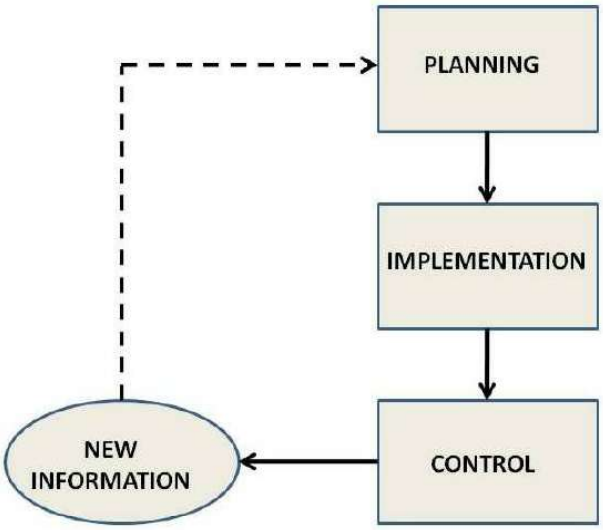


Fig.2: Entrepreneurship management

This highlights the critical importance of leadership in fostering entrepreneurial approaches and building a culture of innovation and risk-taking within the organization. They also suggest consolidating these elements to improve organizational performance. This creates an environment for corporations to develop a competitive edge, improve efficiencies, and incubate innovation.

C. Information technology

Information technology (IT) in business is now well established and can improve an organization's overall productivity and performance if creatively and correctly employed. This model stresses the importance of IT as a strategic enabler of HRM and entrepreneurial strategies. HRM processes like recruitment, training, and performance management are easily automated with technological advancement, easing the administrative burden and helping enhance efficiency. Second, IT grants organizations access to real-time data and analytics to make informed decisions and build actionable business models. It underscores the need to have current vital IT systems and upgrade them as necessary to fit the organization best.

D. Proposed Model

A robust HRM framework that centers on laborers' improvement just as maintenance can assist with driving an entrepreneurial just as an inventive society. Equally, applying IT effectively can also automate HR processes and host data to provide advice on strategic HR decision-making. The proposed model integrates human resource management, entrepreneurial strategies, and information technology, thereby illustrating the interdependent relationships between them to delineate the alignment of these facets. As a result, it helps to add to an engaged and motivated workforce, a culture of innovation and entrepreneurship, and the effective use of technology to drive organizational performance. The proposed framework have shown in the following fig.3

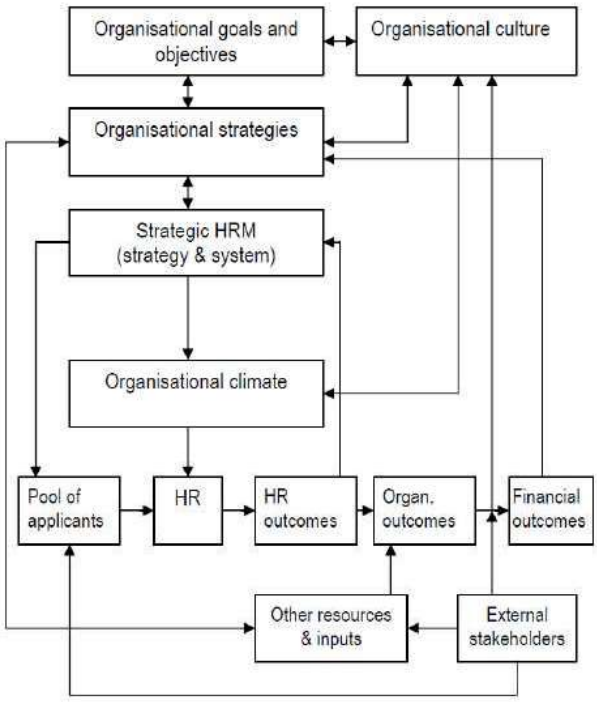


Fig.3: Proposed framework

Integrating HRM with entrepreneurial strategies and information technology results in a dynamic and flexible organization that can quickly respond to market changes and pursue swift growth. It saves human resource time to be more efficient and effective, innovation culture, and achieve strategic goals through technology. This connection is near-critical in today's rapidly changing business world, where organizational performance improvement and long-term success are essential

IV. Results and Discussion

The implementation of these HRM strategies is driven in part by the contribution of IT to the promotion and support of both HRM and entrepreneurial strategic moves. The synergy of these three organizations is what improves their performance on the whole. HRM plays a role in discovering and skill grooming the finest employees according to the organizational and entrepreneurial requirements.

A. System Integration Testing:

A step up quality control is System Integration Testing (SIT), where individual systems and modules are tested as a group to verify that they work together. Regarding Human Resource Management, Entrepreneurial Strategies, and Information Technology for Enhanced Organizational Performance, such deals with how well SIT Works will test the integration and communication between human resource management, entrepreneurial strategies, and information technology systems. In reality, SIT involves checking for any conflicts that may arise as a result of the interoperation of these systems and trying to resolve those conflicts before implementation to avoid any problems that can result in disrupting the regular operation of all components of the network to lead to better organizational performance as a result. SIT would also assist in verifying the flow of data

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between systems and checking on the correctness and reliability of the integrated system. Table.1 shows the performance of system integration testing,

Table.1: Performance of system integration testing (in %)

Employees	Accuracy	Precision	Recall	F1-Score
100	87.19	84.05	88.69	91.57
200	87.32	84.15	88.74	91.63
300	87.40	84.26	88.78	91.70
400	87.59	84.38	88.90	91.83
500	87.74	84.54	88.98	91.89

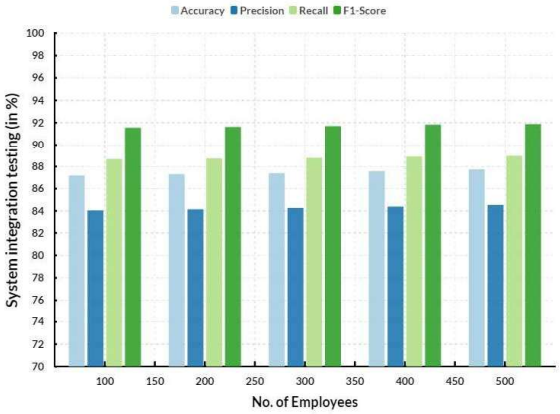


Fig.4: Performance of system integration testing

Fig.4 shows the performance of system integration testing. The still-to-be-applied test is intended to check whether the HRM, entrepreneurial strategies and IT systems are compatible with and will function as intended when combined in an organization. The intent is to provide an orchestrated approach to maximize the effectiveness of each element collectively to drive organizational performance.

B. Load Testing:

Definition Load testing puts demand on a system or device and measures its response. In the context of Human Resource Management, it can be used to evaluate whether the system can manage a massive volume of employee data such as personal data, employment history, and performance review. Example: Entrepreneurial Strategies want to ensure that if the business explodes or thousands of players come online- the system can handle it. For information technology, this tests how well the system performs under heavy data processing and heavy network traffic. Load testing serves the purpose of finding possible performance bottlenecks. It ensures that the system can handle the expected workload (in the case of big data, the volume of data) without performance degradation. Table.2 shows the performance of load testing,

Table.2: Performance of load testing (in %)

Employees	Accuracy	Precision	Recall	F1-Score
100	81.79	86.49	93.06	94.20
200	81.92	86.59	93.11	94.26
300	82.00	86.70	93.15	94.34
400	82.19	86.83	93.27	94.49
500	82.34	86.99	93.35	94.55

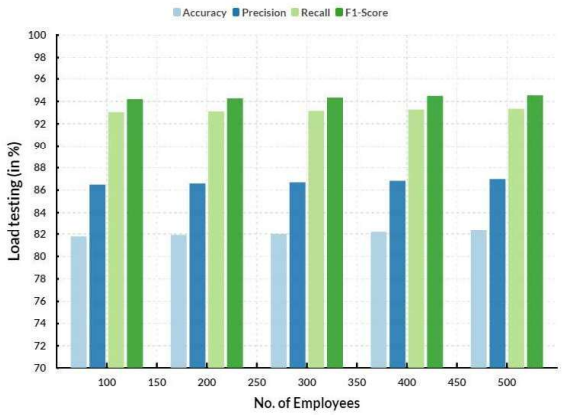


Fig.5: Performance of load testing

Fig.5 shows the performance of load testing. This is vital to improve organizational performance and provide a good user experience. This testing tests the system's load, like how many users and transactions it handles. HRM and IT systems, for example, can have peaks in usage around hiring new employees or during performance review time, so it is crucial to make sure you have enough power for those times of the year.

C. Security Testing:

Security Testing is used to check the system's security and each component of a system to protect data from hackers. One of the variables to detect is the safety test; this test checks the system's access control, how the user can log in, data encryption, and other safety mechanisms. Ensures the confidentiality and accuracy of HR info. Staff appraisals or assessments will contain employee personal and financial records so information about staff is protected from authorized access or cyber-attacks. Comprehensive security testing is essential to preserve the integrity, confidentiality, and availability of information for organizations and continue building trust among employees and stakeholders. Table.3 shows the performance of security testing,

Table.3: Performance of security testing (in %)

Employees	Accuracy	Precision	Recall	F1-Score
100	89.83	90.23	88.63	90.32
200	89.97	90.34	88.67	90.38
300	90.06	90.45	88.71	90.45
400	90.27	90.58	88.83	90.59
500	90.43	90.75	88.90	90.65

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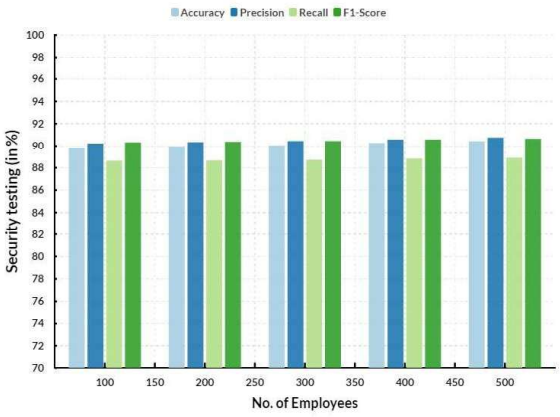


Fig.6: Performance of security testing

Fig.6 shows the performance of security testing. As technology is increasingly used in HRM and entrepreneurship strategies, it is important to conduct security testing to find and fix security vulnerabilities. That might involve, for example, checking if some data is encrypted, if the login flow is secure, or if there is no way to access sensitive information without multiple authentication factors.

D. Usability Testing:

The usability testing process checks how easy it is to use and functions in your human resource management, entrepreneurial strategies, or information technology system. This means getting users to do tasks on the system and recording feedback. This helps measure usability problems or improvements that could be made to the system to make it more usable and practical for the organization's performance. Usability testing will help understand user needs and identify specific user preferences so one can design a system tailored to their particular needs and preferences. And that is how organizations can enjoy maximum user experience, high productivity, and improved organizational performance. Table.4 shows the performance of usability testing,

Table.4: Performance of usability testing (in %)

Employees	Accuracy	Precision	Recall	F1-Score
100	72.12	71.64	76.49	77.53
200	72.23	71.73	76.52	77.58
300	72.30	71.81	76.56	77.64
400	72.47	71.92	76.66	77.76
500	72.60	72.05	76.72	77.81

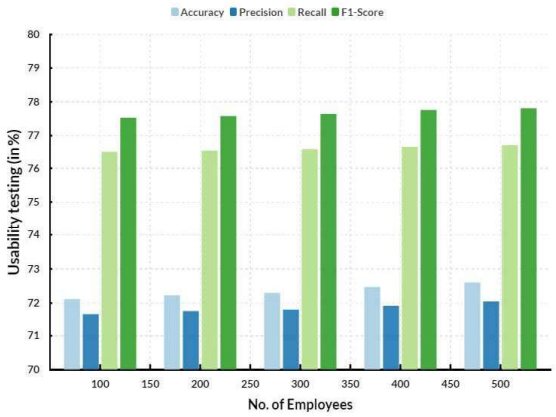


Fig.7: Performance of usability testing

Fig.7 shows the performance of usability testing. This testing is assessed for HRM, entrepreneur strategies, and IT systems' usability of HRM. The Test step should be a precise test step (with full definition and start and end points). The vision is that by executing the solution, the organization's employees will have no problem finding a way to complete the task the solution was designed for, which will help increase operational performance.

V. CONCLUSION

At other times of the event, it was mentioned that for advanced organizational performance, human resources management has a crucial position, along with the inaction of entrepreneurship strategies and the exploitation of information technology. By aligning human resource practices with the organization's strategic goals, promoting an entrepreneurial workforce, and leveraging technology to streamline processes and foster effective communication, organizations are in a better position to realize a higher level of productivity and achieve success. Leaders are responsible for thoughtfully perceiving and nurturing these interconnected elements to fuel growth and innovation within their organizations reliably. Organizations that can continually adapt and refine these strategies can remain competitive in the dynamic business world of the present times.

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Experimental investigation of Homogeneous Charge Compression Ignition (HCCI) engine with vaporized fuel injection

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ABSTRACT

Homogeneous Charge Compression Ignition (HCCI) has recently been a promising option for meeting stringent emissions norms. HCCI engine results in higher thermal efficiency and simultaneous reduction in NOx emissions. The present study aimed to investigate the various performance and emission characteristics of HCCI engines and compare them with baseline data. Port fuel injection and external fuel vaporizer have been used to achieve HCCI combustion for Diesel, Ethanol, and Compressed Natural Gas (CNG) at various loads in the present work. The NO_X and CO_2 emissions were decreased by 16% and 17%, respectively, at maximum load using HCCI mode operation. The results obtained from this exhaustive trial provide new dimensions to compare the HCCI combustion with different kinds of fuels at varying loads and open new pathways of optimizing the combustion stages and comprehending the intricate relationships throughout different operating situations to exploit HCCI technology's advantages fully.

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CNG; emission; engine performance; ethanol; HCCI diesel engine

Introduction

Homogeneous Charge Compression Ignition (HCCI) technology is an innovative internal combustion engine design approach that marries the best features of gasoline and diesel engines to enhance fuel efficiency and reduce harmful emissions (Mogra and Gupta 2020). In HCCI engines, a well-mixed air-fuel mixture is compressed until it auto-ignites without needing a spark plug or direct injection at the point of combustion, as in a diesel engine's operation, but with a homogeneous mixture similar to that of a gasoline engine. This method allows for more efficient combustion and significantly lower emissions of nitrogen oxides (NO_X) and particulate matter (PM), as it operates at lower temperatures and pressures, ensuring a more uniform temperature distribution across the combustion chamber. Despite its advantages, challenges such as controlling ignition timing across various conditions and extending the operational range remain (Zhao et al. 2019). Nonetheless, HCCI represents a promising advancement toward achieving more sustainable and environmentally friendly internal combustion engines (Pandey et al. 2018).

The promise of HCCI technology in improving fuel economy and engine performance is well recognized. However, the cost-effective pathway to achieving these benefits remains a challenge. The intrinsic advantages of HCCI enhanced fuel efficiency and reduced emissions are offset by technical hurdles that need to be addressed to make this technology viable for widespread adoption in vehicle production (Nishi, Kanehara, and Iida 2016). These challenges include mastering the precise control of ignition timing across varying operational conditions and expanding the technology's limited operational range to suit a more comprehensive array of driving scenarios.

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PREFACE

The financial world has undergone a paradigm shift in recent years, driven by the transformative power of technology. The fusion of finance and technology, or fintech, has not only redefined how financial services are delivered but also opened up unprecedented opportunities for innovation, efficiency, and inclusivity. However, along with these opportunities come complex challenges, particularly in the realm of ethics, data privacy, and regulatory compliance.

This book, authored by Dr. Sangeeta and Dr. Sahab Singh, delves into the dynamic landscape of fintech, exploring its potential to revolutionize the financial ecosystem while highlighting the ethical considerations that must guide its evolution. It is our belief that understanding the interplay between technological advancements and ethical imperatives is critical for the sustainable growth of this industry.

In today's rapidly changing financial landscape, this book serves as a valuable resource for students, professionals, policymakers, and anyone interested in the future of finance. It addresses the critical question of how fintech can achieve its promise while maintaining a strong commitment to ethical practices and inclusivity.

We would like to express our heartfelt gratitude to all those who contributed to the realization of this book. Our special thanks go to industry experts, academicians, and researchers whose insights have greatly enriched our work.

It is our hope that this book not only educates but also inspires a forward-thinking and ethically grounded approach to the future of fintech.

DR. SANGEETA
DR. SAHAB SINGH

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UNIT 1: INTRODUCTION TO FINTECH

1.1 EVOLUTION OF FINANCIAL TECHNOLOGY

Financial technology, or FinTech, represents one of the most transformative trends in modern financial services. Its evolution is deeply rooted in the advancements of technology, societal needs, and global economic changes. The journey of FinTech is marked by significant milestones that have reshaped how financial services are delivered and consumed.

Early Beginnings: The Foundation of Financial Systems

The origins of FinTech can be traced back to the 19th and early 20th centuries, when financial systems began leveraging technology to enhance operations. The introduction of telegraph services and Morse code was among the first steps toward real-time financial communication. By the mid-20th century, banks adopted mainframe computers to automate back-office processes such as accounting and record-keeping, paving the way for modern banking systems.

The Rise of Digital Banking

The 1970s and 1980s saw the emergence of digital banking. The advent of Automated Teller Machines (ATMs) transformed the way customers accessed cash, reducing dependency on physical branches. During this era, electronic payment systems began to gain traction, with credit and debit cards becoming widely adopted. These innovations laid the groundwork for a more digitized approach to financial services.

The Internet Revolution and Online Finance

The 1990s marked a significant leap in FinTech with the widespread adoption of the internet. Financial institutions began offering online banking services, allowing customers to conduct transactions, check account balances, and transfer funds remotely. This period also witnessed the rise of electronic stock trading

platforms, enabling retail investors to participate in the financial markets without intermediaries.

The Mobile Revolution and FinTech 2.0

The introduction of smartphones in the early 2000s brought about FinTech 2.0, characterized by mobile banking and app-based financial services. Consumers could now access financial products and services anytime and anywhere. Mobile wallets, such as PayPal and Apple Pay, emerged, providing a seamless and cashless way to make payments. Simultaneously, peer-to-peer (P2P) lending platforms disrupted traditional lending models, offering individuals and small businesses more accessible funding options.

Blockchain and the Era of Cryptocurrencies

The late 2000s ushered in a new era of FinTech with the introduction of blockchain technology and cryptocurrencies. Bitcoin, launched in 2009, became the first decentralized digital currency, challenging traditional financial systems. Blockchain's distributed ledger technology promised transparency, security, and efficiency in financial transactions. This innovation has since expanded into various applications, including smart contracts and decentralized finance (DeFi).

Artificial Intelligence and Big Data in Finance

The 2010s saw the integration of artificial intelligence (AI) and big data analytics into financial services. AI-driven algorithms enabled more accurate credit scoring, fraud detection, and personalized financial advice. Big data provided insights into consumer behavior, helping institutions design tailored products and services. Robo-advisors, leveraging AI, democratized investment management, making it accessible to retail investors.

Post-Pandemic Acceleration of FinTech

The COVID-19 pandemic further accelerated the adoption of FinTech as digital financial services became essential for both consumers and businesses. Contactless payments, digital lending, and remote financial advisory services gained prominence. The period also saw rapid advancements in RegTech, which automates

compliance processes, ensuring businesses adhere to regulatory standards more efficiently.

Current Trends and Future Prospects

Today, FinTech continues to evolve with innovations in areas such as biometric authentication, open banking, and embedded finance. The integration of technologies like 5G, the Internet of Things (IoT), and quantum computing promises to further revolutionize the industry. FinTech is no longer just a niche sector but a global phenomenon, bridging financial gaps and promoting inclusion.

1.2 DEFINITION AND SCOPE OF FINTECH

The term **FinTech**, short for **Financial Technology**, refers to the integration of technology into financial services to enhance their delivery, efficiency, and accessibility. FinTech is not just about digitizing traditional financial systems but also about introducing innovative solutions that address gaps in the existing financial ecosystem. It encompasses a wide range of technological applications, from mobile banking and digital payments to blockchain and artificial intelligence.

Defining FinTech

FinTech can be defined as the use of modern technology to innovate and improve financial services, processes, and products. It bridges the gap between traditional finance and emerging digital tools, creating a more seamless and user-friendly experience for businesses and consumers. The core idea is to make financial transactions faster, safer, and more accessible while minimizing costs.

For instance, mobile banking apps allow customers to manage their finances from anywhere, while digital wallets enable cashless transactions with just a smartphone. This shift has revolutionized the way individuals and businesses interact with financial systems, fostering convenience and inclusivity.

Scope of FinTech

The scope of FinTech is vast and continually evolving as technology advances. It covers a diverse range of sectors and applications:

1. **Digital Payments and Wallets**
   - ✓ Encompasses mobile payment systems, peer-to-peer (P2P) payment platforms, and contactless payment solutions.
   - ✓ Examples include PayPal, Google Pay, and Apple Pay.
2. **Banking and Financial Services**
   - ✓ Includes digital-only banks, mobile banking, and virtual account management tools.
   - ✓ Services like personal loans, savings accounts, and credit cards are now available online.
3. **Blockchain and Cryptocurrency**
   - ✓ Blockchain technology is used for secure and transparent transactions.
   - ✓ Cryptocurrencies, such as Bitcoin and Ethereum, have emerged as digital alternatives to traditional currencies.
4. **Lending and Credit Platforms**
   - ✓ FinTech has simplified lending through peer-to-peer platforms and digital credit assessment systems.
   - ✓ Startups and small businesses benefit from quick, hassle-free access to funding.
5. **Wealth and Investment Management**
   - ✓ Robo-advisors and AI-driven platforms help individuals and businesses manage investments efficiently.
   - ✓ Tokenization of assets has broadened investment opportunities.
6. **Insurance Technology (InsurTech)**
   - ✓ Modernized insurance processes through AI-driven risk assessments, digital claims processing, and customer-tailored insurance products.
7. **Regulatory Technology (RegTech)**
   - ✓ Focuses on automating compliance processes for financial institutions.

- ✓ Examples include anti-money laundering tools and real-time reporting systems.

8. **Financial Inclusion**
   - ✓ FinTech plays a critical role in bringing financial services to underbanked and unbanked populations.
   - ✓ Mobile banking and microfinance platforms are contributors to financial inclusivity.

1.3 DRIVERS OF FINTECH GROWTH

The rapid evolution of financial technology, or FinTech, has been one of the most transformative developments in the global financial sector. Several factors have contributed to the growth of FinTech, enabling it to disrupt traditional financial services and offer innovative solutions. Below is an exploration of the main drivers fueling this dynamic sector.

1. Technological Advancements

The unprecedented growth in technology has been a cornerstone of FinTech innovation. Advancements in cloud computing, big data analytics, artificial intelligence (AI), and blockchain technology have opened new possibilities for financial services. These technologies enable faster processing, improved decision-making, and enhanced security, paving the way for efficient and scalable solutions.

- **AI and Machine Learning**: Help analyze consumer behavior and improve risk assessment.
- **Blockchain**: Provides secure, transparent, and tamper-proof transactions.
- **Mobile Technology**: Expands access to financial services through smartphones.

2. Changing Consumer Expectations

Modern consumers demand fast, convenient, and personalized financial services. FinTech companies have successfully adapted to these expectations by offering user-friendly platforms and 24/7 access to services.

- **Ease of Use**: Mobile apps and digital wallets make transactions simple and accessible.
- **Personalization**: Algorithms analyze individual preferences to offer tailored financial advice.
- **Real-Time Services**: Instant payment processing and quick loan approvals enhance customer satisfaction.

3. Increased Smartphone Penetration

Smartphones have become a critical tool for accessing financial services, especially in emerging markets. With internet connectivity reaching even remote areas, more individuals are using mobile applications for banking, payments, and investments.

- **Financial Inclusion**: Smartphones empower previously unbanked populations to participate in the financial ecosystem.
- **Payment Solutions**: Mobile wallets and contactless payments have gained widespread acceptance.

4. Regulatory Support and Initiatives

Governments and regulatory bodies around the world are recognizing the importance of FinTech in driving financial inclusion and innovation. Supportive policies, regulatory sandboxes, and initiatives for open banking have encouraged the growth of the sector.

- **Open Banking**: Promotes data-sharing between financial institutions to enable innovation.
- **Sandboxes**: Provide a controlled environment for FinTech firms to test new products without stringent regulations.
- **Tax Incentives**: Encourage investments in FinTech startups.

5. Need for Financial Inclusion

One of the primary drivers of FinTech is its ability to bring financial services to underserved populations. Traditional banking systems often exclude rural and low-income individuals due to high costs or infrastructure limitations.

- **Microfinance Solutions**: Digital platforms offer small loans to those without access to traditional credit systems.
- **Remittance Services**: Low-cost international money transfer platforms help migrant workers send money home efficiently.

6. Cost-Effectiveness and Efficiency

FinTech solutions often provide a more affordable and efficient alternative to traditional financial services. By leveraging technology, companies can reduce operational costs and pass on these savings to customers.

- **Automation**: Reduces the need for manual processes, enhancing efficiency.
- **Lower Fees**: Digital transactions often come with minimal or no fees, making them more attractive.

7. Rise of Digital Payments and E-Commerce

The exponential growth of e-commerce platforms has been a significant factor driving the adoption of digital payment systems. FinTech solutions provide seamless integration with online shopping platforms, enabling hassle-free payments.

- **Contactless Payments**: Increased adoption during the COVID-19 pandemic accelerated the shift to cashless transactions.
- **Global Reach**: Cross-border payment solutions make international trade more accessible.

8. Growing Investor Interest

FinTech's potential for high growth and profitability has attracted significant interest from venture capitalists, private equity firms, and institutional investors. This funding has enabled startups to expand operations and scale rapidly.

- **Startups**: Funding supports innovation and market penetration.
- **Mergers and Acquisitions**: Established financial institutions are acquiring FinTech firms to integrate innovative solutions.

9. Globalization and Market Expansion

FinTech solutions are breaking down geographical barriers, enabling companies to serve a global audience. Cross-border collaborations and partnerships are allowing FinTech firms to access new markets and diversify their offerings.

- **Global Platforms**: Companies like PayPal and Stripe offer services in multiple countries.
- **Localization**: Customizing services for regional markets helps drive adoption.

10. Impact of the COVID-19 Pandemic

The global pandemic significantly accelerated the adoption of digital financial services. Lockdowns and social distancing measures forced businesses and consumers to shift to online transactions, making FinTech solutions indispensable.

- **Remote Work**: Increased reliance on digital tools and platforms.
- **Health and Safety**: Boosted demand for contactless payment systems.

1.4 TRADITIONAL FINANCE VS. FINTECH

The financial services industry has undergone a significant transformation with the advent of FinTech. While traditional finance has been the backbone of the global economy for decades, FinTech has introduced innovative approaches to delivering financial services.

Insights

1. **Efficiency and Speed:** FinTech leverages cutting-edge technologies to streamline processes, significantly reducing time and effort compared to traditional methods.
2. **Customer-Centric Approach:** By using big data and AI, FinTech focuses on understanding and meeting individual customer needs, whereas traditional finance often employs a one-size-fits-all approach.

3. **Financial Inclusion:** FinTech has bridged the gap for unbanked and underbanked populations, offering services in remote areas where traditional banks cannot reach.
4. **Cost-Effectiveness:** With fewer overhead costs, FinTech solutions are often more affordable for both providers and consumers.
5. **Challenges:** Despite its advantages, FinTech faces challenges such as cybersecurity threats, lack of trust in digital platforms, and regulatory hurdles, which are less prominent in traditional finance.

1.5 GLOBAL OVERVIEW OF THE FINTECH INDUSTRY

The Financial Technology (FinTech) industry has emerged as a transformative force, redefining the global financial ecosystem. Combining technology with traditional financial services, FinTech has revolutionized banking, payments, lending, investment, and insurance, creating unprecedented opportunities and challenges worldwide. This chapter explores the global landscape of the FinTech industry, highlighting its growth, regional dynamics, and drivers.

1. Growth of the FinTech Industry

The FinTech sector has experienced exponential growth over the last decade, fueled by rapid advancements in technology and evolving consumer preferences. According to industry reports, global investments in FinTech exceeded billions of dollars annually, with startups and established players innovating to address inefficiencies in traditional financial systems. developments such as mobile banking, blockchain, and artificial intelligence (AI) have further accelerated this transformation.

The COVID-19 pandemic also played a significant role in driving FinTech adoption, as it increased demand for contactless payments, remote banking, and digital financial solutions. This surge in demand highlighted the resilience and adaptability of the FinTech industry in addressing global financial needs during crises.

2. Regional Dynamics in the FinTech Industry

The global FinTech ecosystem is highly dynamic, with significant regional variations in growth and focus areas:

- **North America:** As a pioneer in FinTech innovation, North America is home to leading startups, investment hubs, and technology-driven solutions. The region has witnessed strong adoption of digital payments, robo-advisors, and blockchain technology.
- **Europe:** Europe's FinTech sector has grown rapidly, driven by regulatory support such as the European Union's Revised Payment Services Directive (PSD2). markets like the UK, Germany, and Sweden have emerged as leaders in digital banking and insurtech solutions.
- **Asia-Pacific:** The Asia-Pacific region leads in terms of consumer adoption rates, with countries like China and India spearheading growth. Mobile payment platforms such as Alipay and Paytm, as well as digital lending solutions, dominate this vibrant ecosystem.
- **Africa and the Middle East:** FinTech in Africa and the Middle East focuses on financial inclusion. Mobile-based solutions like M-Pesa in Kenya have transformed access to banking services for the unbanked population.
- **Latin America:** Latin America's FinTech industry has grown rapidly, with an emphasis on payment solutions and credit innovations. Markets like Brazil and Mexico are attracting substantial investments.

3. Drivers of FinTech Growth Globally

Several factors have contributed to the global rise of FinTech, including:

1. **Technological Advancements:** Innovations in blockchain, AI, and cloud computing have enabled the creation of efficient and secure financial solutions.
2. **Changing Consumer Behavior:** Consumers increasingly demand seamless, fast, and user-friendly financial services, driving the adoption of digital platforms.

3. **Regulatory Support:** Governments and regulators worldwide are fostering FinTech innovation by implementing policies that encourage competition and innovation while ensuring security.
4. **Globalization and Cross-Border Transactions:** FinTech solutions have simplified international trade and remittances, promoting global connectivity.
5. **Financial Inclusion:** FinTech has emerged as a tool for bridging the gap between the banked and unbanked populations, especially in developing economies.

4. Challenges and Opportunities

While FinTech offers immense potential, it also faces challenges that vary across regions:

- **Challenges:** Regulatory complexities, cybersecurity threats, and resistance from traditional financial institutions can hinder growth.
- **Opportunities:** Collaboration with legacy systems, expansion into underserved markets, and the development of ethical frameworks can unlock new possibilities for the industry.

Long Questions

1. Discuss the evolution of financial technology (FinTech) and its impact on traditional banking systems.
2. Explain the role of blockchain technology in FinTech and its implications for financial transactions.
3. Analyze the challenges faced by FinTech companies in terms of regulation and compliance.
4. How has FinTech transformed the payment industry? Provide examples of innovative payment solutions.
5. Compare and contrast FinTech startups with traditional financial institutions in terms of innovation and customer experience.
6. Discuss the ethical and security concerns associated with the use of artificial intelligence in FinTech.
7. Explain the concept of peer-to-peer (P2P) lending platforms. How do they differ from traditional lending systems?
8. Evaluate the role of FinTech in promoting financial inclusion. Provide examples of its application in underserved regions.
9. How do open banking and APIs (Application Programming Interfaces) enable FinTech innovations? Discuss their benefits and risks.
10. Assess the future of FinTech in the insurance sector (InsurTech) and the potential disruption it could cause.

Short Questions

1. Define FinTech and its key components.
2. What is the significance of mobile wallets in FinTech?
3. Mention two examples of blockchain applications in FinTech.
4. How does FinTech contribute to financial inclusion?
5. What are the key benefits of using AI in FinTech solutions?
6. Name two major challenges faced by FinTech companies.
7. What is RegTech, and how does it relate to FinTech?
8. Mention any two FinTech innovations in the payment industry.

UNIT 2: DIGITAL PAYMENTS AND MOBILE WALLETS

2.1 GROWTH OF CASHLESS TRANSACTIONS

The global financial landscape is undergoing a significant transformation with the rapid shift towards cashless transactions. The adoption of digital payment systems has revolutionized the way individuals and businesses conduct financial transactions, enabling faster, more secure, and convenient payment methods. This chapter delves into the factors driving the growth of cashless transactions, the role of technology, and the challenges and opportunities associated with this shift.

The Shift Towards a Cashless Economy

The movement toward cashless transactions is a direct result of technological advancements and changing consumer behavior. Several factors contribute to this shift:

1. **Technology Integration:** Innovations like smartphones, high-speed internet, and advanced payment gateways have made digital payments more accessible.
2. **Government Initiatives:** Policies promoting financial inclusion and digital payments, such as subsidies and tax benefits for electronic transactions, have played a critical role.
3. **Consumer Convenience:** The ease of use, speed, and transparency associated with cashless transactions encourage widespread adoption.

Major Drivers of Growth

The exponential growth of cashless transactions can be attributed to the following factors:

1. **Mobile Wallets and Apps:** Platforms such as Google Pay, Paytm, and Apple Pay have simplified digital transactions, enabling users to make payments with a few clicks.
2. **E-Commerce Expansion:** Online shopping platforms have integrated seamless payment systems, boosting digital payment adoption.

3. **Secure Payment Technologies:** Advancements like biometric authentication and tokenization ensure the security of transactions, building user trust.
4. **Globalization and Urbanization:** Increasing cross-border trade and urban lifestyles demand fast, cashless payment solutions.

Advantages of Cashless Transactions

1. **Efficiency and Speed:** Transactions can be completed in seconds, eliminating the need for physical currency handling.
2. **Transparency:** Every transaction is recorded digitally, reducing the scope for fraudulent activities.
3. **Financial Inclusion:** Cashless systems offer banking and payment services to individuals in remote areas through mobile technology.
4. **Cost-Effectiveness:** Reduces costs associated with printing and handling physical currency.

Challenges in Adopting Cashless Transactions

Despite its many benefits, the transition to cashless systems faces hurdles, including:

1. **Digital Literacy:** A significant portion of the population lacks the skills to use digital payment systems.
2. **Infrastructure Gaps:** Limited internet access and inadequate payment infrastructure hinder adoption in rural areas.
3. **Cybersecurity Risks:** Digital payments are vulnerable to hacking, data breaches, and fraud.
4. **Resistance to Change:** Cultural and psychological barriers make some individuals hesitant to move away from cash-based transactions.

Future of Cashless Transactions

The future of cashless transactions looks promising as technology continues to evolve. Artificial intelligence, blockchain, and quantum computing are expected to enhance the speed, security, and accessibility of digital payments. With governments, financial institutions, and technology companies working collaboratively, a fully cashless global economy might not be far off.

2.2 MOBILE WALLETS AND PEER-TO-PEER PAYMENTS

The advent of digital technology has revolutionized the way financial transactions are conducted, with mobile wallets and peer-to-peer (P2P) payments emerging as two innovations driving the transformation of the payments landscape. These tools have made transactions faster, more secure, and convenient, catering to the demands of a tech-savvy generation.

1. Introduction to Mobile Wallets

A mobile wallet is a digital application that allows users to store and manage their financial information, such as debit or credit card details, in one secure location. These wallets can be accessed through smartphones, enabling users to make seamless payments without carrying physical cash or cards.

Features of Mobile Wallets

- **Convenience**: Payments can be made with a few taps on a smartphone.
- **Security**: Many wallets use encryption, biometrics, and tokenization to protect user data.
- **Integration**: Mobile wallets often integrate with loyalty programs, offering rewards or cashback.

Popular Mobile Wallet Examples

- Google Pay, Apple Pay, and Samsung Pay in global markets.
- Regional players like Paytm, PhonePe, and MobiKwik in India.

2. Peer-to-Peer Payments: Redefining Transactions

Peer-to-peer (P2P) payment platforms allow individuals to transfer money directly to one another without the need for intermediaries like banks. These systems have simplified the process of sending and receiving money, making them ideal for personal use, such as splitting bills, repaying loans, or gifting.

How P2P Payments Work

- Users link their bank accounts or cards to the P2P platform.
- Transactions are initiated through the app, using the recipient's phone number, email, or unique user ID.
- Funds are transferred instantly or within a short period, depending on the platform's policies.

Popular P2P Payment Platforms

- Venmo, Zelle, and Cash App in the United States.
- Unified Payments Interface (UPI)-based apps like Google Pay and Paytm in India.

3. Advantages of Mobile Wallets and P2P Payments

1. **Speed and Efficiency**: Transactions are completed in real-time or within seconds.
2. **Cost-Effective**: Lower transaction fees compared to traditional banking methods.
3. **Global Reach**: Cross-border payments are becoming easier with integrated solutions.
4. **User-Friendly**: Intuitive interfaces make these platforms accessible to all age groups.

4. Challenges and Concerns

Despite their benefits, mobile wallets and P2P payments face several challenges:

- **Security Risks**: Vulnerability to hacking and phishing attacks.

- **Digital Literacy**: Lack of awareness and technical knowledge in certain demographics.
- **Regulatory Issues**: Compliance with financial regulations can vary across countries.

5. Future Trends in Mobile Wallets and P2P Payments

1. **Integration with Emerging Technologies**: The use of blockchain and artificial intelligence to enhance security and efficiency.
2. **Expansion of Cross-Border Payments**: Simplifying international transactions with minimal fees.
3. **Contactless Payments**: Greater adoption due to hygiene concerns post-pandemic.
4. **Personalized Services**: AI-driven insights to provide tailored offers and spending patterns.

2.3 NEAR FIELD COMMUNICATION (NFC) AND QR CODE TECHNOLOGY

In the age of digital transformation, payment systems have evolved significantly to provide seamless and secure methods for transactions. Two technologies that have gained prominence in the domain of digital payments and mobile wallets are Near Field Communication (NFC) and QR Code Technology. These innovations have revolutionized how consumers and businesses engage in financial transactions, offering convenience, speed, and security.

Near Field Communication (NFC) Technology

Introduction to NFC

NFC is a short-range wireless communication technology that allows devices to exchange data when placed in close proximity, typically within a few centimeters. It operates on the principle of electromagnetic induction, enabling a contactless exchange of information between an NFC-enabled device and a terminal.

Applications in Digital Payments

NFC technology is widely used in contactless payment systems, such as those offered by mobile wallets like Google Pay, Apple Pay, and Samsung Pay. Users can link their bank accounts or credit cards to these wallets and make payments simply by tapping their smartphones or NFC-enabled cards on a compatible payment terminal.

benefits include:

- **Speed**: Transactions are processed almost instantly.
- **Convenience**: Eliminates the need to carry physical cash or cards.
- **Security**: Advanced encryption protocols ensure secure data transfer.

How NFC Works

1. **Device Detection**: The NFC-enabled device and terminal detect each other through electromagnetic fields.
2. **Data Exchange**: A secure communication channel is established for data transfer.
3. **Transaction Authentication**: The system uses tokenization to protect sensitive information.

Challenges of NFC Adoption

- Limited availability of NFC-enabled devices in some regions.
- Higher costs of implementing NFC infrastructure for businesses.
- Security concerns related to device theft or unauthorized access.

QR Code Technology

Introduction to QR Codes

Quick Response (QR) Codes are two-dimensional barcodes that store information in the form of black and white squares. These codes can be scanned using a smartphone or a QR code reader to retrieve stored data, such as payment details or URLs.

Applications in Digital Payments

QR codes have become a popular method for facilitating payments, especially in markets with limited access to NFC technology. Platforms like Paytm, WeChat Pay, and PayPal utilize QR codes to enable seamless transactions.

benefits include:

- **Affordability**: QR code payment systems are inexpensive to implement.
- **Accessibility**: Suitable for use with basic smartphones without NFC capability.
- **Versatility**: Can be used for in-store, online, and peer-to-peer payments.

How QR Code Payments Work

1. **Code Generation**: The merchant generates a QR code containing payment details.
2. **Scanning**: The customer scans the code using a mobile app linked to their digital wallet.
3. **Payment Confirmation**: The transaction is completed securely through the app.

Types of QR Codes

- **Static QR Codes**: Contain fixed information and are often used for small businesses or individual vendors.
- **Dynamic QR Codes**: Allow real-time updates and are used for larger-scale operations requiring advanced features like tracking and analytics.

Challenges of QR Code Payments

- Dependence on internet connectivity for transactions.
- Risk of fraud due to fake or tampered QR codes.
- Limited adoption in areas with low digital literacy.

Future Trends and Opportunities

1. **Integration of NFC and QR Codes**: Businesses are exploring hybrid solutions to leverage the strengths of both technologies.
2. **Enhanced Security Features**: Innovations like biometric authentication and AI-driven fraud detection aim to make these payment methods even more secure.
3. **Wider Adoption in Emerging Markets**: As digital infrastructure improves, both NFC and QR codes are expected to see greater adoption globally.

2.4 SECURITY CHALLENGES IN DIGITAL PAYMENTS

Digital payments and mobile wallets have revolutionized the financial landscape, making transactions faster, more convenient, and accessible. However, this growing reliance on digital platforms brings several security challenges that need to be addressed to ensure the safety of users and the integrity of the financial ecosystem. This chapter explores the security risks associated with digital payments, their implications, and strategies to mitigate them.

1. Introduction to Security Concerns in Digital Payments

As digital payment systems gain widespread adoption, they also attract cybercriminals looking to exploit vulnerabilities. These platforms handle sensitive financial information, making them lucrative targets for fraud, hacking, and other malicious activities. Ensuring robust security measures is essential to maintain trust and encourage continued adoption.

2. Common Security Challenges in Digital Payments

a. Data Breaches and Hacking

Unauthorized access to sensitive user information, such as payment details and personal identification, can result in significant financial and reputational damage. Data breaches often occur due to inadequate encryption or weak security protocols.

b. Phishing Attacks

Cybercriminals frequently use phishing schemes to trick users into revealing login credentials, passwords, or payment information by posing as legitimate entities. Phishing is one of the most prevalent threats in the digital payment landscape.

c. Malware and Ransomware

Malware can infiltrate user devices or payment systems, compromising sensitive information or disrupting transactions. In some cases, ransomware is used to lock access to payment systems until a ransom is paid.

d. Unauthorized Transactions

Fraudsters may exploit vulnerabilities in payment systems to conduct unauthorized transactions. This is particularly common in cases of weak authentication or stolen credentials.

e. Identity Theft

With access to personal information, cybercriminals can impersonate users to make fraudulent transactions, apply for loans, or even open new accounts.

f. Lack of User Awareness

Many security breaches occur due to users' lack of understanding about safe digital practices, such as using strong passwords or avoiding suspicious links.

3. Implications of Security Challenges

a. Financial Losses

Individuals and businesses can suffer significant financial losses due to fraud and unauthorized transactions.

b. Loss of Trust

Consumers lose trust in digital payment platforms if they perceive them as insecure, potentially slowing down the growth of cashless ecosystems.

c. Legal and Regulatory Consequences

Data breaches and security lapses may lead to penalties under data protection laws and compliance requirements.

d. Operational Disruptions

Cyberattacks on digital payment infrastructure can disrupt services, impacting businesses and consumers alike.

4. Strategies to Mitigate Security Challenges

a. Strong Authentication Mechanisms

Implementing multi-factor authentication (MFA) ensures that users provide multiple forms of verification, making it harder for unauthorized individuals to access accounts.

b. Advanced Encryption Techniques

Encrypting data during storage and transmission protects sensitive information from unauthorized access.

c. Regular Security Audits

Periodic assessments of payment systems help identify and address vulnerabilities before they can be exploited.

d. Educating Users

Raising awareness about secure online practices, such as recognizing phishing attempts and creating strong passwords, empowers users to protect themselves.

e. Implementation of AI-Based Fraud Detection

Artificial intelligence can analyze transaction patterns to identify and prevent suspicious activities in real time.

f. Adherence to Compliance Standards

Compliance with international security standards, such as PCI DSS (Payment Card Industry Data Security Standard), ensures a baseline level of protection for payment systems.

5. Highlighting Security Challenges

Mobile Wallet Breach

A popular mobile wallet provider suffered a data breach due to weak encryption, exposing millions of users' payment details. The incident highlighted the importance of encryption and regular vulnerability assessments.

Phishing Scam Targeting Digital Payments

Cybercriminals targeted users of a digital payment app with fake login pages, resulting in financial losses. The case emphasized the need for user education on phishing schemes.

2.5 LEADING PAYMENT PLATFORMS

The digital payment ecosystem has transformed significantly in recent years, driven by advancements in technology, changing consumer preferences, and the push toward cashless economies. Mobile wallets and payment platforms have emerged as players in this transformation. This chapter explores some leading payment platforms, showcasing their innovation, challenges, and contributions to the digital payment landscape.

1. PayPal: Pioneering Global Online Payments

Overview

PayPal, established in 1998, is one of the first companies to revolutionize online payments. It provides a secure and user-friendly platform for peer-to-peer (P2P) transactions, business payments, and cross-border transactions.

Features

- Seamless integration with e-commerce platforms.
- Multi-currency support enabling international transactions.
- Advanced fraud detection and security measures.

Achievements

- Over 400 million active users globally as of recent years.

- Strategic acquisitions like Venmo and Braintree, expanding its offerings.

Challenges

- Intense competition from emerging platforms.
- Regulatory compliance in multiple jurisdictions.

2. Google Pay: Redefining Contactless Payments

Overview

Google Pay is a mobile payment solution designed for fast and secure contactless transactions. Initially launched as Google Wallet, it rebranded in 2018 to unify its payment services.

Features

- Integration with the Android ecosystem, providing a seamless experience.
- Tokenization technology for enhanced security.
- Rewards and cashback programs for user engagement.

Achievements

- Rapid adoption in India, leveraging the Unified Payments Interface (UPI).
- Partnerships with banks and retailers for expanded usability.

Challenges

- Data privacy concerns due to its integration with Google services.
- Dependence on smartphone penetration in developing markets.

3. Alipay: Dominating China's Payment Landscape

Overview

Launched by Alibaba Group in 2004, Alipay is the largest digital payment platform in China. It supports a wide range of financial services, including bill payments, money transfers, and investments.

Features

- QR code-based payments, eliminating the need for POS terminals.
- Integration with e-commerce, lifestyle apps, and investment platforms.
- Social features such as red packet gifting.

Achievements

- Over one billion active users globally.
- A critical player in China's cashless economy.

Challenges

- Geopolitical tensions affecting its global expansion.
- Regulatory scrutiny from Chinese authorities.

4. PhonePe: Leading India's UPI Revolution

Overview

PhonePe, launched in 2015, is one of India's leading mobile payment platforms, leveraging the UPI framework for seamless transactions.

Features

- Instant money transfers via UPI with no transaction fees.
- Utility bill payments, recharges, and e-commerce integrations.
- Support for multiple Indian languages, enhancing accessibility.

Achievements

- Over 400 million registered users in India.
- High transaction volumes, driven by UPI adoption.

Challenges

- Increasing competition from other UPI-based platforms.
- User retention amid a highly competitive market.

Long Questions

1. Discuss the evolution of digital payments in the global economy and analyze their impact on traditional banking systems.
2. Explain the working mechanism of mobile wallets. How do they ensure security during transactions?
3. Critically examine the advantages and challenges of adopting digital payment systems in developing countries.
4. Compare and contrast various digital payment methods, including mobile wallets, UPI, and cryptocurrency.
5. Analyze the role of government policies in promoting digital payments and their impact on cashless economies. Provide examples.
6. Describe the technology stack and infrastructure required to implement a secure and scalable mobile wallet application.
7. Evaluate the impact of digital payments on consumer behavior and the retail industry. Provide relevant case studies.
8. What is the role of data analytics and artificial intelligence in enhancing the functionality of digital payments and mobile wallets?
9. Discuss the regulatory challenges faced by digital payment providers and mobile wallet operators in different regions.
10. Investigate the future of digital payments with the rise of blockchain technology and decentralized finance systems.

Short Questions

1. What are the primary features of a mobile wallet?
2. Define digital payments and give two examples.
3. List the key benefits of using mobile wallets over traditional payment methods.
4. What is the difference between NFC and QR code-based digital payment systems?
5. Name three popular mobile wallet applications used worldwide.
6. Explain the term 'Two-factor Authentication' in the context of digital payments.

UNIT 3: BLOCKCHAIN AND CRYPTOCURRENCIES

3.1 INTRODUCTION TO BLOCKCHAIN TECHNOLOGY

Blockchain technology is a revolutionary innovation that has transformed the way digital information is stored, shared, and secured. It is a decentralized, distributed ledger system designed to record transactions across multiple nodes, ensuring transparency, security, and immutability. Originally introduced as the underlying technology for Bitcoin, blockchain has since evolved to become a foundational element in numerous industries beyond cryptocurrencies.

Features of Blockchain Technology

1. **Decentralization**
   Traditional databases are managed by a central authority, but blockchain operates on a peer-to-peer network, eliminating the need for intermediaries. Each participant (node) has access to a copy of the entire ledger, ensuring transparency and reducing dependency on a central entity.

2. **Immutability**
   Once a transaction is recorded on the blockchain, it cannot be altered or deleted. This feature ensures data integrity and makes blockchain a reliable system for maintaining accurate records.

3. **Transparency**
   Transactions on a public blockchain are visible to all participants, fostering trust and accountability. Even in private blockchains, transparency is maintained among authorized participants.

4. **Security**
   Blockchain employs advanced cryptographic techniques to secure transactions. Each block in the chain is linked to the previous one through a cryptographic hash, making unauthorized alterations nearly impossible.

5. **Consensus Mechanisms**

   Blockchain relies on consensus algorithms, such as Proof of Work (PoW) or Proof of Stake (PoS), to validate transactions and add

them to the ledger. These mechanisms ensure that all participants agree on the validity of transactions.

How Blockchain Works

1. **Transaction Initiation**

   A user initiates a transaction, which is broadcast to the network.

2. **Validation**
   The network's nodes validate the transaction using consensus mechanisms.

3. **Block Creation**

   Validated transactions are grouped into a block, which is then added to the existing chain of blocks.

4. **Cryptographic Link**

   Each block contains a cryptographic hash of the previous block, ensuring continuity and security.

5. **Distributed Ledger Update**

   The updated ledger is distributed across all nodes, ensuring uniformity and transparency.

Applications of Blockchain Technology

1. **Cryptocurrencies**
   Blockchain serves as the foundation for cryptocurrencies like Bitcoin, Ethereum, and others. It ensures secure and transparent digital transactions.

2. **Supply Chain Management**

   By providing a transparent and tamper-proof record of goods, blockchain improves traceability and efficiency in supply chains.

3. **Smart Contracts**

   Blockchain enables self-executing contracts with predefined rules, automating complex processes and reducing reliance on intermediaries.

4. **Healthcare**
   Blockchain ensures secure storage and sharing of medical records, enhancing patient privacy and healthcare efficiency.
5. **Financial Services**

   Blockchain technology streamlines processes like cross-border payments, fraud detection, and trade settlements.

Advantages of Blockchain Technology

1. Enhanced security and data protection.
2. Increased transparency and trust among participants.
3. Reduced costs by eliminating intermediaries.
4. Faster transaction processing.
5. Scalability for various applications beyond cryptocurrencies.

Challenges in Blockchain Adoption

1. **Scalability Issues**

   Blockchain networks often struggle to process large volumes of transactions efficiently.
2. **Energy Consumption**

   Consensus mechanisms like Proof of Work require significant computational power and energy.
3. **Regulatory Uncertainty**

   The legal status of blockchain applications, especially cryptocurrencies, varies across jurisdictions.
4. **Integration with Legacy Systems**

   Integrating blockchain with existing infrastructure can be complex and costly.
5. **Technical Expertise**

   The adoption of blockchain requires specialized knowledge and skills, which may be a barrier for many organizations.

3.2 ROLE OF BLOCKCHAIN IN FINANCIAL SERVICES

Blockchain technology has emerged as a transformative force in the financial services industry, promising enhanced security, transparency, and efficiency. By leveraging a decentralized and immutable ledger, blockchain addresses several challenges inherent in traditional financial systems. Below is an exploration of the critical roles that blockchain plays in financial services.

1. Enhancing Transaction Security and Transparency

Blockchain ensures a high level of security by using cryptographic algorithms to verify and secure transactions. Each transaction is recorded in a distributed ledger, making it tamper-resistant and transparent. This feature reduces the risk of fraud and enhances trust among stakeholders.

- **Real-Time Audit Trails**: Blockchain's transparency allows for real-time access to transaction histories, facilitating audits and compliance.
- **Immutable Records**: Data once recorded on the blockchain cannot be altered, ensuring the integrity of financial records.

2. Streamlining Cross-Border Payments

Cross-border transactions in traditional systems often involve high costs and delays due to intermediaries and currency exchange processes. Blockchain eliminates these inefficiencies by enabling peer-to-peer transfers through cryptocurrencies or tokenized fiat currencies.

- **Faster Settlements**: Transactions are processed within minutes, compared to the days required by conventional banking systems.
- **Reduced Costs**: The absence of intermediaries lowers transaction fees, making remittances more affordable.

3. Enabling Smart Contracts

Smart contracts are self-executing agreements encoded on the blockchain. They automate processes by executing predefined conditions without requiring third-party involvement.

- **Applications**: Smart contracts are widely used in loan disbursements, insurance claims, and trade finance.
- **Benefits**: They reduce administrative costs, minimize disputes, and enhance operational efficiency.

4. Revolutionizing Asset Management

Blockchain facilitates the tokenization of assets, allowing physical and digital assets to be represented as tokens on a blockchain. This process enhances liquidity and broadens investment opportunities.

- **Fractional Ownership**: Investors can own fractions of high-value assets, such as real estate or art, making investments more accessible.
- **Streamlined Trading**: Tokenized assets can be traded seamlessly across blockchain platforms, reducing settlement times.

5. Improving Fraud Prevention and Risk Management

Financial institutions face constant threats of fraud and cyberattacks. Blockchain mitigates these risks by offering a tamper-proof and traceable ledger system.

- **Fraud Detection**: Blockchain's transparency allows anomalies in transactions to be identified quickly.
- **Risk Mitigation**: The decentralized nature of blockchain minimizes the risk of single points of failure.

6. Revolutionizing Trade Finance

Trade finance involves multiple parties and extensive documentation, often leading to delays and inefficiencies. Blockchain simplifies this process by digitizing documents and automating workflows.

- **Digital Letters of Credit**: Blockchain enables the creation of digital equivalents of traditional trade finance documents, enhancing accuracy and speed.

- **Global Collaboration**: Blockchain fosters seamless collaboration between buyers, sellers, and financial institutions.

7. Enhancing Regulatory Compliance and Reporting

Blockchain offers solutions to streamline compliance and reporting processes, helping financial institutions meet regulatory requirements more efficiently.

- **Real-Time Monitoring**: Regulators can access blockchain data in real time, ensuring compliance with anti-money laundering (AML) and know-your-customer (KYC) standards.
- **Audit Efficiency**: Blockchain reduces the time and cost of audits by providing direct access to verified transaction records.

Challenges and Future Potential

While blockchain offers immense potential, its adoption in financial services is not without challenges. Issues such as scalability, energy consumption, and regulatory uncertainty need to be addressed.

- **Scalability**: Current blockchain networks face limitations in handling high transaction volumes.
- **Regulatory Landscape**: The lack of global regulatory standards creates uncertainty for blockchain adoption.

Despite these challenges, the integration of blockchain in financial services continues to grow, driven by advancements in technology and increasing awareness of its benefits.

3.3 CRYPTOCURRENCIES AND THEIR IMPACT ON FINANCE

Cryptocurrencies have emerged as a transformative force in the financial world, driven by the decentralized and transparent nature of blockchain technology. This chapter explores the concept of cryptocurrencies, their advantages, challenges, and the profound impact they have had on global finance.

1. Understanding Cryptocurrencies

Cryptocurrencies are digital or virtual currencies secured through cryptographic techniques. Unlike traditional currencies issued by central banks, cryptocurrencies operate on decentralized networks based on blockchain technology. The first and most well-known cryptocurrency, Bitcoin, was introduced in 2009 by an anonymous entity known as Satoshi Nakamoto.

features of cryptocurrencies include:

- **Decentralization:** No single entity controls the system.
- **Transparency:** Transactions are recorded on public ledgers.
- **Security:** Cryptographic algorithms ensure data integrity.
- **Global Accessibility:** Transactions can be conducted across borders without intermediaries.

Popular cryptocurrencies include Bitcoin (BTC), Ethereum (ETH), Binance Coin (BNB), and Ripple (XRP).

2. Advantages of Cryptocurrencies in Finance

Cryptocurrencies have revolutionized finance in several ways:

- **Faster Transactions:** Unlike traditional banking systems, which often require days to settle payments, cryptocurrency transactions are processed quickly, sometimes within minutes.
- **Lower Costs:** The elimination of intermediaries, such as banks, reduces transaction fees significantly.
- **Financial Inclusion:** Cryptocurrencies provide access to financial services for individuals in remote or underbanked regions.
- **Investment Opportunities:** The cryptocurrency market has created new avenues for investment, including trading, staking, and holding digital assets.
- **Programmable Money:** Smart contracts on blockchain platforms like Ethereum enable automated transactions and innovative financial products.

3. Challenges and Risks

Despite their benefits, cryptocurrencies face several challenges:

- **Volatility:** Cryptocurrencies are highly volatile, making them risky as an investment or store of value.
- **Regulatory Uncertainty:** Governments worldwide have differing stances on cryptocurrencies, leading to a lack of uniformity in regulations.
- **Security Concerns:** Although blockchain technology is secure, exchanges and wallets have been targeted by hackers.
- **Environmental Impact:** Mining cryptocurrencies, particularly Bitcoin, requires significant energy, raising concerns about sustainability.
- **Limited Acceptance:** Although growing, cryptocurrencies are not universally accepted as a means of payment.

4. Impact on Global Finance

Cryptocurrencies have disrupted traditional finance in the following ways:

- **Redefining Money:** Cryptocurrencies challenge the concept of government-issued fiat money by offering an alternative that is not reliant on centralized authorities.
- **Cross-Border Transactions:** Cryptocurrencies enable faster and cheaper international payments, bypassing traditional banking systems.
- **New Financial Instruments:** Innovations like tokenized assets and decentralized finance (DeFi) platforms have expanded financial markets.
- **Empowering Retail Investors:** The accessibility of cryptocurrencies has democratized investing, allowing individuals to participate in financial markets without traditional barriers.
- **Competition for Banks:** Traditional financial institutions are exploring blockchain and digital currencies to stay competitive,

with central banks experimenting with Central Bank Digital Currencies (CBDCs).

5. Future Trends in Cryptocurrencies

As the cryptocurrency ecosystem evolves, several trends are shaping its future:

- **Wider Adoption:** Businesses, institutions, and governments are increasingly adopting cryptocurrencies.
- **Integration with Traditional Finance:** Hybrid systems combining blockchain and conventional finance are emerging.
- **Improved Scalability:** Advancements in blockchain technology aim to address scalability and transaction speed issues.
- **Focus on Sustainability:** Efforts are underway to reduce the environmental impact of cryptocurrency mining.
- **Enhanced Regulations:** Clearer legal frameworks will likely encourage broader acceptance and reduce risks.

3.4 SMART CONTRACTS AND DECENTRALIZED FINANCE (DEFI)

Blockchain technology has revolutionized the financial landscape by introducing decentralized systems that operate without intermediaries. Among its most impactful innovations are **smart contracts** and **Decentralized Finance (DeFi)** platforms, which are transforming traditional financial services into open, transparent, and automated systems.

Understanding Smart Contracts

Smart contracts are self-executing contracts with the terms of the agreement directly written into lines of code. These digital contracts automatically execute, enforce, or verify actions based on predefined conditions.

Features of Smart Contracts:

1. **Automation**: Transactions are executed automatically once conditions are met.

2. **Transparency**: The contract terms are visible and immutable on the blockchain.
3. **Security**: Blockchain technology ensures data integrity and protection against tampering.
4. **Efficiency**: Eliminates the need for intermediaries, reducing time and cost.

Applications of Smart Contracts:

- Peer-to-peer payments and lending.
- Supply chain management.
- Insurance claim processing.
- Tokenization of assets.

Example: In Ethereum, smart contracts are implemented using Solidity, a programming language designed for blockchain applications.

Decentralized Finance (DeFi)

DeFi refers to a suite of financial applications built on blockchain technology that aims to democratize financial systems. Unlike traditional finance, DeFi operates without central authorities, offering open access to anyone with an internet connection.

Core Principles of DeFi:

1. **Decentralization**: Operates on public blockchains, reducing reliance on centralized entities.
2. **Interoperability**: DeFi protocols can interact seamlessly with one another.
3. **Transparency**: All transactions are recorded on the blockchain and accessible for audit.
4. **Inclusivity**: Provides financial services to underserved populations globally.

Major Components of DeFi:

- **Decentralized Exchanges (DEXs)**: Platforms for peer-to-peer trading of cryptocurrencies (e.g., Uniswap, PancakeSwap).
- **Lending and Borrowing Protocols**: Enables users to lend or borrow assets without intermediaries (e.g., Aave, Compound).
- **Stablecoins**: Cryptocurrencies pegged to stable assets like fiat currencies to reduce volatility (e.g., USDC, DAI).
- **Yield Farming and Liquidity Pools**: Users earn rewards by providing liquidity to DeFi platforms.

Advantages of DeFi:

- Increased accessibility and inclusivity.
- Lower transaction costs.
- Greater control over financial assets.

Challenges and Risks

Despite its promise, DeFi and smart contracts face several challenges:

1. **Security Vulnerabilities**: Smart contracts are prone to bugs and exploits.
2. **Regulatory Uncertainty**: Governments are still formulating rules for decentralized systems.
3. **Volatility**: Cryptocurrencies, which underpin DeFi, are inherently volatile.
4. **Complexity**: Users need technical knowledge to navigate DeFi platforms effectively.

Future of Smart Contracts and DeFi

The future of smart contracts and DeFi looks promising with advancements in blockchain scalability and cross-chain interoperability. As regulations become clearer, institutional adoption is expected to rise, bringing more stability and trust to the ecosystem. Innovations like Layer-2 solutions and sharding are

addressing current scalability issues, paving the way for widespread adoption.

3.5 REGULATORY CHALLENGES FOR BLOCKCHAIN AND CRYPTO

Blockchain technology and cryptocurrencies have gained significant attention in the global financial landscape due to their potential to transform traditional systems. However, their widespread adoption has introduced various regulatory challenges that must be addressed to ensure sustainability, transparency, and compliance.

1. Lack of Uniform Global Regulations

One of the most significant challenges is the absence of a cohesive regulatory framework across nations. While some countries embrace cryptocurrencies and blockchain, others impose strict bans or severe restrictions. This disparity creates uncertainties for businesses and individuals operating across borders.

Examples:

- ✓ Nations like El Salvador have adopted Bitcoin as legal tender.
- ✓ Contrastingly, countries like China have imposed outright bans on cryptocurrency transactions.

The lack of harmonized regulations hampers innovation and creates obstacles for global trade.

2. Defining Legal Status and Taxation

Another issue is the unclear legal status of cryptocurrencies in many jurisdictions. Are cryptocurrencies assets, commodities, or currencies? Different nations classify them differently, leading to confusion in their usage and taxation.

Points:

- ✓ Some countries tax cryptocurrencies as capital gains.
- ✓ Others consider them as goods or services subject to VAT or GST.

This inconsistency increases the complexity for businesses and investors managing cross-border transactions.

3. Anti-Money Laundering (AML) and Know Your Customer (KYC) Compliance

Cryptocurrencies' pseudonymous nature makes them susceptible to misuse in illegal activities, such as money laundering and terrorist financing. Regulatory authorities often demand strict AML and KYC compliance from cryptocurrency exchanges and blockchain-based businesses.

Challenges:

- ✓ Identifying parties in decentralized systems.
- ✓ Implementing AML/KYC protocols without compromising privacy.

Balancing transparency with user confidentiality remains a significant hurdle.

4. Security and Consumer Protection

Blockchain's security is robust, but vulnerabilities in crypto wallets, exchanges, and smart contracts can expose users to risks. Regulatory bodies face difficulties in creating frameworks to protect consumers without stifling innovation.

Issues Include:

- ✓ Loss of funds due to exchange hacks or forgotten private keys.
- ✓ Fraudulent Initial Coin Offerings (ICOs).

Consumers need regulatory assurances against these risks while enabling innovation in blockchain technology.

5. Environmental Concerns and Sustainability

Mining cryptocurrencies, especially those like Bitcoin, consumes massive amounts of energy. Regulatory authorities in some countries, particularly those with high environmental standards, struggle with integrating blockchain technology into sustainable development goals.

Examples:

- ✓ Ban on cryptocurrency mining in regions with limited energy resources.
- ✓ Promotion of eco-friendly alternatives like Proof of Stake (PoS) over Proof of Work (PoW).

Addressing environmental concerns without impeding the growth of the blockchain sector is critical.

6. Intellectual Property and Legal Jurisdiction

Blockchain's decentralized nature challenges traditional legal frameworks regarding intellectual property and jurisdiction. With no central authority, determining liability for disputes or intellectual property violations becomes complex.

Scenarios Include:

- ✓ Smart contracts without clear accountability.
- ✓ Intellectual property disputes over blockchain applications.

Governments must adapt their legal systems to accommodate these novel issues.

Long Questions

1. Explain the fundamental concepts of blockchain technology. How does it ensure security and transparency in data transactions?
2. Discuss the differences between public, private, and consortium blockchains, providing examples of their real-world applications.
3. Analyze the role of consensus mechanisms in blockchain networks. Compare Proof of Work (PoW) with Proof of Stake (PoS).
4. What are the major challenges associated with blockchain adoption in industries? Suggest possible solutions.
5. Discuss the concept of smart contracts. How do they function within blockchain ecosystems, and what are their potential benefits?
6. Explain the evolution of cryptocurrencies, focusing on Bitcoin and Ethereum. How have they shaped the digital economy?
7. Explore the impact of blockchain and cryptocurrencies on traditional banking and financial systems.
8. Describe the concept of tokenization in blockchain technology. How is it transforming various sectors like real estate and supply chain management?
9. Evaluate the legal and regulatory challenges of cryptocurrencies. How do different countries approach cryptocurrency regulations?

Short Questions

1. Define blockchain technology in simple terms.
2. What is a decentralized ledger, and how does it differ from a centralized database?
3. Name two commonly used consensus mechanisms in blockchain networks.
4. What is the primary purpose of a hash function in blockchain?
5. Differentiate between Bitcoin and altcoins.
6. What are smart contracts, and which blockchain introduced them?

UNIT 4: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING IN FINTECH

4.1 ROLE OF AI IN FINANCIAL SERVICES

Role of AI in Financial Services

Artificial Intelligence (AI) has emerged as a transformative force in the financial sector, reshaping the way financial services are delivered, analyzed, and consumed. By leveraging advanced algorithms and data analytics, AI enhances efficiency, reduces risks, and improves customer experiences. Below is an exploration of the critical roles AI plays in financial services.

1. Enhancing Fraud Detection and Prevention

Financial fraud has been a significant challenge for institutions worldwide. AI-powered systems are instrumental in identifying and mitigating fraudulent activities by:

- **Analyzing Transaction Patterns:** AI can detect unusual or suspicious activities in real-time by studying customer transaction behaviors.
- **Flagging Anomalies:** Machine learning models help in identifying deviations from normal patterns that may indicate potential fraud.
- **Improving Response Times:** Automated systems enable swift action to prevent further losses once a fraudulent transaction is detected.

2. Revolutionizing Customer Service

AI has transformed customer interactions through chatbots and virtual assistants. These tools offer:

- **24/7 Availability:** AI-driven systems provide round-the-clock assistance to customers.
- **Personalized Experiences:** Based on user history and preferences, AI tailors its responses to suit individual needs.

- **Efficient Query Resolution:** By automating repetitive queries, AI reduces response times and enhances customer satisfaction.

3. Optimizing Risk Management

Risk assessment is a cornerstone of financial operations, and AI significantly improves this process by:

- **Predictive Analytics:** AI models analyze historical data to predict potential risks, such as loan defaults or market downturns.
- **Real-Time Monitoring:** Continuous monitoring of market trends and customer behaviors helps in proactive decision-making.
- **Dynamic Adjustments:** Risk models can be updated dynamically to reflect changing financial conditions.

4. Streamlining Loan and Credit Approvals

AI has revolutionized the lending and credit process by enabling:

- **Automated Credit Scoring:** AI assesses an applicant's creditworthiness by analyzing multiple data points, including social and financial behaviors.
- **Faster Approvals:** Traditional loan processes that took days are now completed in minutes with AI-powered systems.
- **Inclusivity:** AI opens avenues for credit to individuals without formal credit histories by utilizing alternative data sources.

5. Improving Investment Decisions

AI plays a pivotal role in investment and portfolio management by:

- **Robo-Advisors:** These AI-driven platforms offer automated investment advice based on an individual’s financial goals and risk appetite.
- **Market Predictions:** By analyzing massive datasets, AI predicts market trends, helping investors make informed decisions.
- **Portfolio Optimization:** AI identifies the ideal asset allocation to maximize returns while minimizing risks.

6. Advancing Anti-Money Laundering Efforts

Money laundering poses significant risks to global financial systems. AI contributes to combating this issue by:

- **Monitoring Transactions:** AI tracks and analyzes transactions for patterns indicative of money laundering.
- **Identifying Shell Companies:** Machine learning models help uncover hidden connections between entities.
- **Reducing False Positives:** AI minimizes the number of incorrect alerts, saving time and resources.

7. Elevating Personal Financial Management

AI empowers individuals to take control of their finances through:

- **Budgeting Tools:** AI applications provide insights into spending patterns and suggest budgeting strategies.
- **Smart Alerts:** Notifications about bill payments, potential overspending, or investment opportunities are tailored to the user.
- **Goal-Oriented Planning:** AI assists in creating and tracking financial goals, such as saving for a house or retirement.

Challenges and Ethical Considerations

While AI offers immense potential, its adoption in financial services comes with challenges:

- **Data Privacy:** Financial institutions must ensure that sensitive customer data is protected.
- **Algorithmic Bias:** Unintentional biases in AI models can lead to discriminatory practices.
- **Transparency:** Ensuring that AI-driven decisions are explainable and transparent is essential to maintain trust.

4.2 FRAUD DETECTION AND RISK MANAGEMENT USING AI

The financial sector is constantly exposed to risks and fraud, which can lead to significant losses and reputational damage. With the

advent of Artificial Intelligence (AI), detecting and managing fraudulent activities has become more efficient and accurate. This chapter delves into how AI is revolutionizing fraud detection and risk management, replacing traditional methods with faster and more reliable solutions.

1. Understanding Financial Fraud

1.1 Types of Financial Fraud

- **Credit Card Fraud**: Unauthorized use of credit card details.
- **Identity Theft**: Using someone's personal information for financial gain.
- **Money Laundering**: Concealing illegal financial activities.
- **Cybersecurity Attacks**: Hacking systems to steal financial data.
- **Internal Fraud**: Misconduct by employees within organizations.

1.2 Challenges in Conventional Fraud Detection

- Delayed identification of fraudulent activities.
- High rates of false positives, leading to inefficiencies.
- Difficulty in adapting to new and evolving fraud tactics.

1.3 The Case for AI in Fraud Detection

AI offers a proactive approach to identifying and preventing fraudulent activities by analyzing vast datasets and uncovering patterns that may go unnoticed with traditional methods.

2. AI in Fraud Detection

2.1 Machine Learning for Fraud Detection

- **Supervised Learning**: Uses labeled data to detect known fraud patterns.
- **Unsupervised Learning**: Identifies anomalies in data to spot suspicious activities.
- **Hybrid Models**: Combines supervised and unsupervised techniques for greater accuracy.

2.2 AI Techniques in Combating Fraud

- **Pattern Recognition**: Identifies irregularities in transactional data.
- **Natural Language Processing (NLP)**: Analyzes text or communications for potential fraud.
- **Behavioral Analytics**: Tracks user behavior to detect unusual actions.

2.3 Benefits of AI in Fraud Detection

- **Speed and Efficiency**: Processes large volumes of data in real-time.
- **Improved Accuracy**: Reduces false positives and negatives.
- **Adaptability**: Quickly adjusts to new fraud trends and tactics.

3. AI's Role in Risk Management

3.1 Identifying and Evaluating Risks

- **Credit Risk**: Evaluating a borrower's ability to repay loans.
- **Market Risk**: Anticipating fluctuations in market conditions.
- **Operational Risk**: Monitoring internal processes and external events.

3.2 AI Tools for Risk Mitigation

- Risk scoring systems for credit and financial transactions.
- Portfolio analysis for optimizing investment strategies.
- Predictive analytics to foresee and prevent potential risks.

3.3 Real-Time Risk Monitoring

AI enables continuous risk assessment by analyzing real-time data, improving decision-making capabilities, and helping institutions stay ahead of potential threats.

4. Building AI-Powered Fraud Detection Systems

4.1 Developing Effective AI Models

- Collecting and preprocessing high-quality data.
- Training AI models using historical fraud data.
- Updating models to ensure they evolve with new fraud techniques.

4.2 **Technologies Supporting AI Systems**

- **Big Data Analytics**: Processes massive datasets to uncover fraud patterns.
- **Cloud Computing**: Offers scalability for AI applications.
- **Blockchain**: Enhances data security and transparency in financial transactions.

5. Ethical and Practical Challenges

5.1 **Balancing Security and Privacy**

- Ensuring AI systems comply with data protection laws.
- Preventing bias in AI algorithms to avoid unfair outcomes.

5.2 **Barriers to AI Implementation**

- High initial costs for developing AI systems.
- Regulatory challenges and compliance requirements.
- The need for skilled professionals to design and manage AI solutions.

5.3 **Best Practices for Ethical AI**

Promoting transparency, fairness, and accountability in AI-driven financial systems.

6. Future Trends in AI for Fraud and Risk Management

6.1 **Technological Advancements**

- Use of explainable AI to make AI decisions more understandable.
- Integration of quantum computing to enhance computational capabilities.

6.2 **AI Adoption in Emerging Markets**

Expanding AI solutions in underdeveloped financial sectors.

6.3 **Collaboration Between Industry and Regulators** Strengthening partnerships to improve fraud detection and risk management frameworks.

4.3 CUSTOMER EXPERIENCE ENHANCEMENT WITH AI

In today's competitive FinTech landscape, customer experience has become a differentiator. Financial institutions are leveraging Artificial Intelligence (AI) to deliver personalized, efficient, and seamless services that cater to the evolving expectations of tech-savvy consumers. This chapter explores how AI-driven technologies are transforming customer experience in the financial sector, enabling companies to enhance engagement, optimize processes, and build long-term customer loyalty.

1. Understanding the Role of AI in Customer Experience

AI in FinTech is reshaping the way financial institutions interact with their customers. By analyzing vast amounts of customer data, AI systems can identify patterns, preferences, and behaviors that enable organizations to deliver tailored solutions. These insights allow for predictive services, personalized recommendations, and proactive problem-solving, all of which contribute to an improved customer journey.

benefits include:

- Real-time responsiveness to customer inquiries.
- Reduction in operational errors and delays.
- Enhanced decision-making capabilities for both customers and providers.

2. Chatbots and Virtual Assistants

AI-powered chatbots and virtual assistants are now central to many customer service strategies. These tools provide 24/7 support, answering frequently asked questions, guiding users through transactions, and offering product suggestions.

Advantages of Chatbots in FinTech:

- Instant resolution of common customer issues.
- Cost savings compared to traditional customer service models.
- Scalability to handle high volumes of interactions.

Case Example: Many banks and payment platforms deploy AI-driven chatbots like Erica by Bank of America and Eva by HDFC Bank to streamline customer support.

3. Personalization Through AI

AI enables hyper-personalization by analyzing customer data such as transaction history, spending patterns, and life events. This information is used to offer tailored financial advice, product recommendations, and promotional offers.

Examples of Personalization in FinTech:

- **Targeted Marketing Campaigns:** Delivering relevant offers based on customer preferences.
- **Customized Investment Portfolios:** Robo-advisors use AI to create portfolios aligned with individual goals.
- **Adaptive Credit Limits:** Adjusting credit availability based on real-time income and expenditure.

Personalization not only enhances customer satisfaction but also fosters trust and loyalty.

4. Predictive Analytics for Customer Engagement

Predictive analytics, driven by AI and machine learning, allows companies to anticipate customer needs and behaviors. By identifying trends and anomalies, financial institutions can proactively offer solutions before customers realize they need them.

Applications of Predictive Analytics:

- Detecting and preventing churn by identifying dissatisfied customers.

- Suggesting savings plans or loan products based on life-stage analysis.
- Recommending financial products during life events, such as buying a home or starting a business.

Predictive insights help companies stay ahead of customer expectations, ensuring long-term engagement.

5. Fraud Detection and Security Enhancements

AI not only improves customer experience through convenience but also by ensuring security. Real-time fraud detection systems powered by AI analyze transactional data to identify suspicious activities, protecting customers from unauthorized access and financial losses.

Features of AI in Fraud Detection:

- Monitoring user behavior for anomalies.
- Multi-factor authentication powered by biometric recognition.
- Real-time alerts for suspicious transactions.

By providing secure services, FinTech companies can build customer confidence in their platforms.

6. Challenges and Ethical Considerations

While AI offers numerous advantages, its use in customer experience comes with challenges. These include:

- **Data Privacy Concerns:** Customers may feel apprehensive about sharing personal data for AI analysis.
- **Algorithm Bias:** Unintended biases in AI models can lead to unfair treatment of customers.
- **Over-reliance on Technology:** Excessive automation may alienate customers who prefer human interactions.

To address these challenges, companies must prioritize ethical AI practices, transparency, and robust data protection measures.

7. The Future of AI in Customer Experience

AI continues to evolve, opening new possibilities for enhancing customer experience. Innovations such as emotion recognition, voice-based interactions, and augmented reality in financial services promise to create more engaging and immersive customer journeys.

trends include:

- Greater integration of AI with the Internet of Things (IoT).
- Expansion of AI-driven financial literacy tools.
- Seamless omnichannel experiences across digital and physical platforms.

The future of AI in FinTech lies in its ability to humanize digital interactions while maintaining efficiency and scalability.

4.4 PREDICTIVE ANALYTICS AND INVESTMENT STRATEGIES

Predictive analytics is a transformative aspect of financial technology (FinTech) that leverages artificial intelligence (AI) and machine learning (ML) to forecast market trends, evaluate risks, and optimize investment strategies. By analyzing historical data and identifying patterns, predictive models empower financial institutions, investors, and portfolio managers to make data-driven decisions. This chapter explores the integration of predictive analytics into investment strategies and its impact on the FinTech landscape.

Understanding Predictive Analytics in FinTech

Predictive analytics uses statistical algorithms and AI-driven models to interpret data and predict future outcomes. In FinTech, this technology is particularly valuable for its ability to:

1. **Analyze Market Trends:** Identify recurring patterns and anticipate market shifts.
2. **Evaluate Risks:** Predict creditworthiness and financial stability for investments.

3. **Personalize Recommendations:** Offer tailored advice to individual investors based on their financial goals.

Role of Artificial Intelligence and Machine Learning

AI and ML amplify the capabilities of predictive analytics through continuous learning and adaptation. Some critical applications include:

1. **Data Mining:** ML algorithms extract meaningful insights from vast amounts of structured and unstructured data.
2. **Pattern Recognition:** AI identifies correlations that may not be visible through traditional analysis.
3. **Automation:** Predictive tools automate complex calculations, reducing time and human error in decision-making.

Applications in Investment Strategies

Predictive analytics has revolutionized the investment process by enabling smarter and faster decisions. applications include:

1. **Portfolio Optimization:**

   AI-powered models analyze historical performance and forecast potential returns to construct an ideal asset allocation. This reduces risks while maximizing returns.

2. **Algorithmic Trading:**

   Predictive models fuel algorithmic trading by analyzing real-time data, predicting price movements, and executing trades within milliseconds to capitalize on market opportunities.

3. **Risk Management:**

   Predictive tools assess potential risks associated with specific assets or market conditions, helping investors minimize losses.

4. **Robo-Advisors:**
   These AI-driven platforms use predictive analytics to create customized investment portfolios for clients, aligning with their financial objectives and risk appetite.

5. **Sentiment Analysis:**

   Predictive models analyze social media, news, and other unstructured data sources to gauge market sentiment and predict its impact on asset prices.

Advantages of Predictive Analytics in Investments

1. **Enhanced Accuracy:** Predictive analytics provides highly accurate forecasts based on vast datasets.
2. **Real-Time Insights:** Investors can act swiftly on real-time predictions to seize opportunities.
3. **Personalization:** Tailored investment strategies cater to individual needs and goals.
4. **Risk Reduction:** Advanced risk assessment minimizes the chances of financial losses.

Challenges and Limitations

Despite its transformative potential, predictive analytics faces several challenges:

1. **Data Quality:** The accuracy of predictions heavily depends on the quality of input data.
2. **Market Volatility:** Sudden and unpredictable market changes may render models ineffective.
3. **Bias in Algorithms:** Poorly designed models may incorporate biases that skew predictions.
4. **Regulatory Concerns:** Compliance with data privacy regulations is critical, especially when handling sensitive financial data.

Future of Predictive Analytics in FinTech

As AI and ML technologies advance, predictive analytics will become even more integral to investment strategies. Developments such as explainable AI (XAI) and real-time data integration will further enhance the transparency and reliability of predictive models. Additionally, the adoption of blockchain for

secure data sharing and quantum computing for faster processing will redefine the capabilities of predictive analytics in FinTech.

4.5 FUTURE TRENDS IN AI FOR FINTECH

Artificial Intelligence (AI) and Machine Learning (ML) have emerged as transformative forces in the financial technology (FinTech) sector, revolutionizing how financial services are delivered, consumed, and managed. As technology continues to evolve, AI is poised to redefine the future of FinTech in remarkable ways. Below are some trends that highlight the future of AI in FinTech:

1. Advanced Fraud Detection and Prevention

Fraud detection remains one of the most critical applications of AI in FinTech. Future advancements will see AI systems becoming more adept at identifying sophisticated fraud schemes through real-time data analysis. Machine learning algorithms will process vast amounts of transactional data to detect anomalies and suspicious patterns with greater precision. Predictive models will enhance the ability to preempt fraudulent activities before they occur, ensuring a more secure financial ecosystem.

2. Personalized Financial Services

AI will continue to drive hyper-personalization in financial services. Through deep learning and behavioral analysis, AI systems will tailor financial products and recommendations to individual user needs. From investment advice to spending insights, personalized services will improve customer engagement and satisfaction. Virtual assistants and chatbots, powered by natural language processing (NLP), will further enhance user interactions, making financial management more accessible and intuitive.

3. Robo-Advisors and Automated Portfolio Management

Robo-advisors are becoming increasingly sophisticated, leveraging AI to provide advanced investment strategies. The future will see these systems using predictive analytics to anticipate market trends, optimize portfolios, and manage risks more effectively. AI-driven portfolio management will become more accessible to retail

investors, democratizing wealth management and breaking down traditional barriers to entry.

4. Real-Time Risk Assessment

Risk management is a cornerstone of the financial industry, and AI is set to transform this domain. By analyzing market data, geopolitical events, and financial trends in real time, AI will enable institutions to assess risks with unprecedented accuracy. Dynamic risk models will help organizations respond swiftly to changing conditions, ensuring stability and resilience in volatile markets.

5. Enhanced Credit Scoring Models

Traditional credit scoring models often rely on limited data points, leading to inaccuracies and exclusions. AI will revolutionize credit scoring by incorporating alternative data sources, such as social media activity, mobile phone usage, and transaction histories. This approach will provide a more comprehensive and fair assessment of creditworthiness, enabling broader access to financial services.

6. Predictive Analytics for Market Trends

AI-powered predictive analytics will become essential for understanding and forecasting market movements. By processing historical data and identifying trends, AI systems will provide valuable insights for traders, investors, and financial institutions. These tools will not only improve decision-making but also help mitigate risks associated with market fluctuations.

7. Integration of Explainable AI (XAI)

As AI systems become more complex, the demand for transparency and accountability will grow. Explainable AI (XAI) will play a pivotal role in the future of FinTech, ensuring that AI-driven decisions are understandable to regulators, institutions, and customers. This transparency will build trust and facilitate the adoption of AI in highly regulated environments.

8. AI-Driven Regulatory Compliance

Compliance with financial regulations is a challenging and resource-intensive process. AI and ML will simplify compliance by automating regulatory reporting, monitoring transactions for

anomalies, and identifying potential breaches. RegTech solutions powered by AI will become integral to ensuring adherence to evolving regulatory frameworks.

9. Blockchain and AI Synergy

The integration of AI with blockchain technology will unlock new opportunities in FinTech. AI can enhance the efficiency and security of blockchain networks by optimizing processes such as smart contract execution and fraud detection

Long Questions

1. Explain the role of Artificial Intelligence in transforming the traditional financial sector. Provide examples of its application in FinTech.
2. Discuss how Machine Learning algorithms improve fraud detection and prevention in financial transactions.
3. Elaborate on the role of AI in personalized financial planning and advisory services.
4. How does Machine Learning enable predictive analytics in FinTech? Discuss with suitable examples.
5. Compare and contrast the application of supervised and unsupervised learning techniques in FinTech use cases.
6. What are the ethical and regulatory challenges associated with using AI in the financial sector?
7. Analyze the impact of AI-driven chatbots on customer service and user experience in financial institutions.
8. How is Machine Learning used to assess credit risk in FinTech companies? Discuss its advantages and limitations.
9. Explore the use of AI and ML in algorithmic trading. How has it changed the dynamics of stock markets?
10. Discuss the future trends of AI and ML in FinTech. How can these technologies further revolutionize the industry?

Short Questions

1. What is the significance of AI in the FinTech industry?
2. Define the role of Machine Learning in loan approval processes.

3. List three examples of AI applications in financial fraud detection.
4. What is the difference between rule-based systems and AI-driven solutions in finance?
5. How does AI contribute to improving customer engagement in FinTech?
6. What is predictive analytics, and how is it applied in financial forecasting?
7. Name two Machine Learning algorithms commonly used in credit risk assessment.
8. How do robo-advisors leverage AI to provide investment advice?
9. What are the main limitations of AI adoption in FinTech?
10. Briefly explain how sentiment analysis is applied in financial market predictions.

UNIT 5: LENDING AND CREDIT INNOVATIONS

5.1 PEER-TO-PEER LENDING PLATFORMS

Peer-to-Peer (P2P) lending platforms have emerged as one of the most transformative innovations in the financial technology landscape. By leveraging digital platforms to connect borrowers directly with lenders, P2P lending has disrupted traditional lending models, offering an alternative to banks and other financial institutions.

Introduction to P2P Lending

P2P lending is a digital mechanism that facilitates loans without the need for an intermediary like a bank. These platforms use technology to match individuals or businesses seeking loans with investors willing to lend, often at competitive interest rates. By eliminating the traditional banking structure, P2P platforms provide more accessibility, efficiency, and cost-effectiveness.

How P2P Lending Platforms Work

1. **Registration and Profiling**: Borrowers and lenders register on a P2P platform, creating profiles that include financial details, credit scores, and funding preferences.
2. **Loan Listing**: Borrowers list their loan requirements, including the amount, purpose, and repayment terms.
3. **Matching Process**: The platform uses algorithms to match borrowers with lenders based on criteria such as risk tolerance, interest rates, and loan amounts.
4. **Loan Agreement and Disbursement**: Once both parties agree on terms, the loan agreement is finalized, and the funds are disbursed.
5. **Repayment and Monitoring**: Borrowers repay the loan in installments, while the platform handles monitoring and collections.

Benefits of P2P Lending Platforms

1. **For Borrowers**:
   - ✓ **Lower Interest Rates**: P2P lending often offers better rates than traditional banks, especially for individuals with strong credit profiles.
   - ✓ **Quick Access to Funds**: The digital nature of the platform speeds up the loan approval process.
   - ✓ **Flexible Terms**: Borrowers can negotiate terms that suit their needs.
2. **For Lenders**:
   - ✓ **Higher Returns**: P2P platforms provide an opportunity to earn higher interest compared to savings accounts or fixed deposits.
   - ✓ **Diversification**: Investors can spread their funds across multiple loans to mitigate risk.

Challenges in P2P Lending

1. **Risk of Default**: Since many borrowers are not subject to traditional banking scrutiny, there is a higher risk of loan defaults.
2. **Regulatory Concerns**: P2P platforms often operate in a grey area, leading to inconsistent regulations across regions.
3. **Limited Liquidity**: Investments in P2P loans are not easily convertible to cash before maturity.
4. **Data Privacy Issues**: Handling sensitive borrower and lender data requires robust cybersecurity measures.

Global and Indian Perspectives

Globally, countries like the United States, China, and the United Kingdom have seen significant growth in P2P lending. In India, platforms such as Faircent, LenDenClub, and i2iFunding have emerged as leading players in the sector. The Reserve Bank of India (RBI) has recognized the importance of P2P lending and introduced guidelines to regulate these platforms, ensuring transparency and accountability.

Technological Advancements in P2P Lending

1. **AI and Machine Learning**: Advanced algorithms assess creditworthiness and match borrowers with lenders more efficiently.
2. **Blockchain Technology**: Blockchain ensures secure transactions and enhances transparency.
3. **Mobile Integration**: Mobile applications have made P2P lending more accessible, especially in emerging markets.

Future of P2P Lending

The future of P2P lending is bright, with increasing adoption due to its ability to fill gaps left by traditional financial institutions. However, platforms must address challenges like regulatory compliance, fraud prevention, and enhanced user experiences to sustain growth.

5.2 DIGITAL LENDING AND CREDIT SCORING MODELS

The rapid advancements in financial technology (FinTech) have brought significant innovations in lending and credit evaluation. Traditional lending systems often involved lengthy processes, extensive documentation, and a lack of inclusivity. Digital lending and credit scoring models, powered by FinTech, have revolutionized this landscape by offering faster, more efficient, and inclusive solutions for individuals and businesses alike.

Introduction to Digital Lending

Digital lending refers to the process of providing loans through online platforms and mobile applications, eliminating the need for physical interactions. This technology-driven approach allows financial institutions, startups, and even non-banking entities to reach a wider audience, particularly underserved populations.

Features of digital lending include:

1. **Instant Loan Approvals**: Streamlined processes enable borrowers to receive loan decisions within minutes.
2. **Accessibility**: Digital platforms make credit available to individuals without access to traditional banking systems.

3. **Customization**: Loan products can be tailored to individual needs using advanced analytics and AI-driven insights.

Emergence of Credit Scoring Models in FinTech

Traditional credit scoring systems, such as FICO or CIBIL, rely on historical financial data, such as repayment history and outstanding debts, to evaluate creditworthiness. While effective, these systems often exclude individuals without formal credit histories. FinTech has introduced innovative credit scoring models that address these limitations.

Alternative Credit Scoring Models

1. **Behavioral Data Analysis**:
   - ✓ Analyzes customer behavior, such as utility payments, online shopping habits, and social media activity.
   - ✓ Provides insights into financial discipline and repayment capacity.
2. **AI and Machine Learning Algorithms**:
   - ✓ Identifies patterns in data to predict credit risk more accurately.
   - ✓ Continuously updates and improves through machine learning models.
3. **Digital Footprint Evaluation**:
   - ✓ Leverages digital activities, such as email transactions, smartphone usage, and geolocation data.
   - ✓ Creates a comprehensive profile for individuals with limited financial histories.
4. **Transactional Data Usage**:
   - ✓ Considers real-time bank account transactions and cash flow patterns.
   - ✓ Assesses financial stability beyond conventional credit reports.

Benefits of Digital Lending and Advanced Credit Scoring

1. **Financial Inclusion**:

   Digital lending platforms help bring unbanked and underbanked populations into the formal credit ecosystem. By using alternative data sources, even individuals with no credit history can access loans.

2. **Efficiency and Speed**:

   Automated processes reduce the time and cost involved in loan origination and disbursal. Borrowers can access funds almost instantly in emergency situations.

3. **Personalized Offerings**:

   Data-driven insights enable lenders to offer customized loan products, including flexible repayment schedules and interest rates suited to individual needs.

4. **Reduced Default Rates**:

   Advanced credit scoring models improve the accuracy of risk assessment, minimizing the likelihood of defaults.

Challenges and Risks

1. **Data Privacy Concerns**:

   Extensive use of personal data raises questions about user privacy and data protection.

2. **Regulatory Hurdles**:

   Governments and regulatory bodies face challenges in creating frameworks that support innovation while ensuring consumer protection.

3. **Algorithmic Bias**:

   Machine learning models may inadvertently perpetuate biases, leading to unfair credit decisions.

4. **Cybersecurity Threats**:

   Increased reliance on digital platforms heightens the risk of cyberattacks and fraud.

5.3 MICROFINANCE AND ITS ROLE IN FINANCIAL INCLUSION

Microfinance has emerged as a transformative tool in fostering financial inclusion, particularly for underserved populations. It provides small-scale financial services such as credit, savings, and insurance to individuals and microenterprises that are often excluded from traditional banking systems. In the era of FinTech, microfinance has seen significant innovation, leveraging technology to expand its reach and enhance its efficiency. This chapter delves into the integration of microfinance with FinTech and its pivotal role in promoting financial inclusion.

Understanding Microfinance

Microfinance primarily targets individuals and small businesses that lack access to conventional banking services. Its core principles include:

1. **Provision of Small Loans (Microcredit):** Typically ranging from a few dollars to a few hundred dollars, these loans help individuals invest in income-generating activities.
2. **Savings Opportunities:** Encouraging the habit of saving, even in small amounts, to build financial resilience.
3. **Insurance and Risk Mitigation:** Offering micro-insurance products to safeguard against unforeseen risks.
4. **Capacity Building:** Providing financial literacy and entrepreneurial training to beneficiaries.

The Role of Microfinance in Financial Inclusion

Financial inclusion aims to ensure that individuals and businesses have access to affordable financial products and services. Microfinance plays a crucial role in this effort by:

1. **Empowering Marginalized Groups:** Particularly women, rural communities, and small entrepreneurs.

2. **Reducing Poverty:** Enabling individuals to invest in productive activities, thus improving income levels.
3. **Promoting Economic Growth:** Supporting the development of microenterprises that contribute to local economies.
4. **Building Financial Literacy:** Educating underserved populations about managing finances effectively.

Integration of FinTech in Microfinance
FinTech has revolutionized microfinance by addressing traditional challenges such as high operational costs and limited accessibility. innovations include:

1. **Digital Lending Platforms:** These platforms streamline the loan application process, making it faster and more accessible.
2. **Mobile Banking Solutions:** Mobile technology allows users in remote areas to access financial services via smartphones.
3. **AI-Based Credit Scoring:** Using alternative data sources to assess creditworthiness, reducing dependency on traditional credit histories.
4. **Blockchain for Transparency:** Enhancing trust and efficiency through secure and tamper-proof financial transactions.
5. **Digital Wallets:** Facilitating easy fund transfers and payments for microfinance clients.

Challenges in Microfinance and FinTech Adoption
Despite its potential, the integration of FinTech with microfinance faces several challenges:

1. **Digital Literacy:** Limited familiarity with technology among target populations.
2. **Infrastructure Deficiencies:** Poor internet connectivity in rural areas.
3. **Regulatory Barriers:** Complex compliance requirements for microfinance institutions.
4. **Data Privacy Concerns:** Ensuring the security of sensitive client information.

Future Directions

The future of microfinance lies in the continued adoption of technology to address existing challenges. Emerging trends include:

1. **Artificial Intelligence:** Enhancing credit risk assessments and customer engagement.
2. **Big Data Analytics:** Providing insights to tailor financial products to client needs.
3. **Partnerships with Traditional Banks:** Expanding the reach of microfinance services.
4. **Integration with Social Impact Programs:** Leveraging microfinance to address broader social issues like healthcare and education.

5.4 CROWDFUNDING PLATFORMS AND OPPORTUNITIES

Crowdfunding has emerged as a transformative financial innovation within the domain of FinTech, revolutionizing how individuals and organizations raise capital. By leveraging digital platforms and widespread internet access, crowdfunding facilitates the pooling of funds from a large group of contributors, bypassing traditional financial intermediaries like banks. This chapter explores the concept, types, functioning, benefits, challenges, and opportunities associated with crowdfunding in the FinTech ecosystem.

Understanding Crowdfunding

Crowdfunding is the practice of raising small amounts of money from a large number of people, typically via online platforms. It has gained prominence as an alternative financing solution, especially for startups, creative projects, and social causes. Crowdfunding democratizes access to capital, allowing innovators to pitch their ideas directly to potential backers.

Types of Crowdfunding

1. **Reward-Based Crowdfunding**

   Contributors receive non-monetary rewards, such as products, services, or exclusive perks, in exchange for their support. This model is popular for funding creative projects and product launches.

   Example: Kickstarter, Indiegogo

2. **Equity-Based Crowdfunding**

   Investors receive equity or shares in the company they support. This model is often used by startups to raise seed capital.

   Example: SeedInvest, Crowdcube

3. **Debt-Based Crowdfunding (P2P Lending)**

   Borrowers receive loans from multiple investors, with a promise to repay with interest. This model is popular for personal loans, small businesses, and student loans.

   Example: LendingClub, Funding Circle

4. **Donation-Based Crowdfunding**

   Contributors donate funds without expecting any financial return. It is primarily used for charitable causes, disaster relief, and social campaigns.

   Example: GoFundMe, Milaap

How Crowdfunding Platforms Operate

1. **Registration and Campaign Creation**

   Users register on a platform and create campaigns detailing their goals, funding requirements, and use of funds.

2. **Promotion and Fundraising**

   Campaigns are promoted via social media, email marketing, and other online channels to reach potential contributors.

3. **Payment Processing and Fund Disbursement**

Contributions are collected through secure payment gateways, and funds are disbursed to the campaign owner after meeting platform guidelines.

4. **Monitoring and Reporting**

   Campaign owners are often required to update backers on the progress of their projects, ensuring transparency.

Benefits of Crowdfunding

1. **Access to Capital**

   Crowdfunding eliminates the need for traditional financial institutions, enabling easier access to funds.

2. **Market Validation**

   Successful campaigns serve as proof of market interest and viability.

3. **Community Building**

   Contributors often become brand advocates, fostering long-term relationships.

4. **Flexibility in Funding Models**

   Campaign creators can choose a funding model that aligns with their needs.

Challenges in Crowdfunding

1. **Regulatory Hurdles**

   Legal frameworks governing equity and debt-based crowdfunding vary across jurisdictions, posing compliance challenges.

2. **Fraud and Misuse**

   The risk of fraudulent campaigns or misuse of funds undermines trust in crowdfunding platforms.

3. **Platform Fees**

   Most platforms charge fees for hosting campaigns, reducing the net funds received by creators.

4. **Saturated Market**

   With an increasing number of campaigns, standing out and attracting backers has become more challenging.

Opportunities in Crowdfunding

1. **Emerging Markets**

   Crowdfunding has significant growth potential in emerging economies where traditional financial infrastructure is limited.

2. **Integration with Blockchain**

   Blockchain can enhance transparency, security, and trust in crowdfunding by enabling decentralized platforms.

3. **Expansion of Niche Platforms**

   Platforms catering to specific sectors, such as healthcare, education, or renewable energy, offer targeted funding opportunities.

4. **Global Collaboration**

   Cross-border crowdfunding campaigns allow creators to tap into international markets and diverse funding sources.

5.5 IMPACT OF FINTECH ON TRADITIONAL LENDING

The financial technology (FinTech) revolution has significantly altered the landscape of traditional lending. FinTech companies have introduced innovative solutions that challenge conventional banking practices by offering faster, more accessible, and customer-centric services. This chapter explores the various ways FinTech has impacted traditional lending practices, highlighting the benefits, challenges, and future possibilities.

1. Transformation in Loan Accessibility

FinTech platforms have democratized access to credit by removing traditional barriers associated with lending. Unlike conventional banks that rely heavily on extensive documentation and lengthy approval processes, FinTech companies leverage technology to simplify these steps. Online lending platforms and mobile

applications enable users to apply for loans from the comfort of their homes, making the process more convenient and accessible.

Features:

- Use of digital platforms for loan applications
- Instant pre-approval systems powered by artificial intelligence (AI)
- Reduced dependency on physical branches

These advancements have particularly benefited individuals and small businesses previously underserved by traditional banks.

2. Alternative Credit Assessment Models

Traditional banks rely on credit scores as the primary tool for evaluating borrowers. FinTech companies, on the other hand, employ alternative credit assessment models to gauge an applicant's creditworthiness. By utilizing non-traditional data sources, such as social media behavior, online transaction patterns, and utility payments, FinTech firms can offer credit to those who may not qualify under conventional systems.

Advantages of Alternative Models:

- Inclusion of borrowers with little or no credit history
- Better risk prediction using AI and machine learning
- Greater transparency in lending decisions

These models are especially useful in promoting financial inclusion by catering to underserved populations.

3. Speed and Efficiency in Loan Processing

The integration of technology in lending has drastically reduced processing times. FinTech platforms use automated systems that streamline every step of the lending process, from application to disbursement.

Comparison with Traditional Lending:

- **Traditional Lending:** Loan approval may take weeks, requiring physical documentation and in-person verification.
- **FinTech Lending:** Loans can be approved within minutes, with digital verification and electronic fund transfers.

This speed and efficiency appeal to borrowers seeking immediate financial assistance, such as emergency personal loans or short-term business financing.

4. Peer-to-Peer Lending and Crowdfunding

FinTech has introduced alternative lending models like peer-to-peer (P2P) lending and crowdfunding, which bypass traditional financial institutions.

Peer-to-Peer Lending:
P2P platforms connect individual lenders with borrowers, providing an opportunity for both parties to benefit. Borrowers access funds at potentially lower interest rates, while lenders earn attractive returns.

Crowdfunding:
Entrepreneurs and small businesses use crowdfunding platforms to raise funds directly from the public. This model allows borrowers to present their projects or ideas and secure funding from multiple investors.

These innovations reduce reliance on traditional banks and provide new avenues for credit.

5. Competitive Pressure on Traditional Banks

The rise of FinTech has created significant competition for traditional banks. FinTech firms operate with lower overhead costs, enabling them to offer competitive interest rates and fees. This forces traditional banks to innovate and adopt digital strategies to retain their market share.

Examples of Adaptation:

- Launch of digital loan products by banks

- Collaboration between banks and FinTech companies
- Investment in AI-driven lending platforms

While some banks have successfully embraced digital transformation, others struggle to keep up with the agility of FinTech firms.

6. Challenges and Risks

Despite its numerous benefits, the integration of FinTech in lending is not without challenges.

Regulatory Concerns:

- FinTech platforms often operate in regulatory gray areas, raising questions about consumer protection and transparency.

Data Privacy and Security:

- The use of large volumes of personal data for credit assessment increases the risk of data breaches and privacy violations.

Over-indebtedness:

- Easy access to credit may lead some borrowers to take on excessive debt, creating financial instability.

Addressing these challenges is crucial for the sustainable growth of FinTech lending.

Long Questions

1. Discuss the role of digital lending platforms in enhancing financial inclusion. Provide examples to illustrate their impact.
2. Analyze the advantages and challenges associated with peer-to-peer (P2P) lending platforms. How do they compare with traditional banking methods?
3. How has artificial intelligence (AI) transformed credit risk assessment in the lending industry? Provide relevant examples.
4. Evaluate the impact of blockchain technology on the lending and credit ecosystem. How does it ensure transparency and security?
5. Explain the concept of Buy Now, Pay Later (BNPL) schemes. What are the risks and benefits for consumers and businesses?
6. Assess the significance of alternative credit scoring methods in extending credit to underbanked populations.
7. Discuss the role of fintech companies in reshaping the traditional credit delivery process. What challenges do they face in gaining widespread acceptance?
8. How do regulatory frameworks influence the adoption of innovative lending practices? Provide examples from different countries.
9. What is the importance of open banking in fostering lending and credit innovations? Discuss its impact on customer-centric financial services.

Short Questions

1. Define peer-to-peer (P2P) lending and its key characteristics.
2. What is a credit score, and why is it important in the lending process?
3. Mention two benefits of using blockchain in lending systems.
4. How does artificial intelligence assist in credit decision-making?
5. What is the primary objective of micro-lending initiatives?

UNIT 6: INSURTECH AND INNOVATIONS IN INSURANCE

6.1 DEFINITION AND GROWTH OF INSURTECH

InsurTech, short for "Insurance Technology," represents the application of innovative technologies to enhance and transform the insurance industry. Leveraging advancements in artificial intelligence, machine learning, blockchain, and big data analytics, InsurTech aims to streamline operations, improve customer experiences, and create more personalized insurance products. It bridges the gap between traditional insurance methods and the modern technological ecosystem, offering smarter and more efficient solutions.

Understanding InsurTech

InsurTech encompasses a wide range of digital innovations designed to disrupt and optimize various facets of the insurance value chain, including underwriting, claims processing, policy management, and customer engagement. Unlike traditional insurance, which often involves lengthy procedures and significant paperwork, InsurTech simplifies these processes through automation and digital platforms.

InsurTech include:

1. **Customer-Centric Approach**: Tailored policies and enhanced user experiences.
2. **Data-Driven Insights**: Use of big data for better risk assessment and pricing.
3. **Digital Integration**: Seamless operations using cloud computing and digital tools.

Growth of InsurTech

The evolution of InsurTech has been rapid, driven by advancements in technology, evolving consumer expectations, and a growing need for efficiency in the insurance industry.

1. **Technological Drivers**

- ✓ The adoption of AI and machine learning has revolutionized underwriting and claims management, making them faster and more accurate.
- ✓ Blockchain technology ensures transparency and security in policy issuance and claim settlements.

2. **Changing Consumer Behavior**

- ✓ Today's consumers demand quick, personalized, and hassle-free insurance services. InsurTech companies meet these expectations by offering on-demand and usage-based policies.

3. **Startups and Venture Capital Investments**

- ✓ The rise of InsurTech startups has disrupted traditional insurers, fostering competition and innovation. Venture capital investments in InsurTech firms have significantly increased, enabling them to scale and expand their offerings.

4. **Regulatory Support**

- ✓ Governments and regulatory bodies across the globe have been supporting the digital transformation of insurance by introducing policies that encourage innovation while ensuring consumer protection.

Impact of InsurTech on the Industry
The growth of InsurTech has led to:

- **Reduced Operational Costs**: Automation and digital platforms have cut costs for insurers.
- **Improved Customer Experience**: Simplified processes and quicker responses have enhanced customer satisfaction.
- **Broader Reach**: Digital platforms enable insurers to access underserved markets, such as rural and remote areas.

Challenges and Future Prospects

While InsurTech is transforming the insurance sector, it faces challenges such as cybersecurity risks, resistance to change within

traditional organizations, and the complexity of integrating new technologies with legacy systems.

However, the future of InsurTech is promising, with trends like embedded insurance, predictive analytics, and the integration of the Internet of Things (IoT) expected to drive further innovation.

6.2 DIGITAL PLATFORMS FOR INSURANCE SALES AND MANAGEMENT

In recent years, the insurance industry has undergone a significant transformation due to the rise of digital platforms and innovative technologies collectively referred to as InsurTech. These advancements have redefined how insurance products are sold, managed, and delivered, offering greater convenience, transparency, and efficiency for both providers and customers.

Understanding Digital Insurance Platforms

Digital insurance platforms serve as integrated systems that enable the seamless operation of various insurance processes. These platforms use technologies such as cloud computing, artificial intelligence (AI), and big data analytics to automate tasks, improve customer experiences, and reduce operational costs.

Features of digital insurance platforms include:

1. **Online Policy Purchase and Renewal**

   Customers can easily compare, purchase, and renew policies through user-friendly interfaces.

2. **Real-Time Support**

   Chatbots and virtual assistants offer immediate assistance, enhancing customer satisfaction.

3. **Data-Driven Insights**

   Predictive analytics provide insights into customer behavior, aiding in personalized offerings.

Benefits of Digital Platforms in Insurance

1. **Enhanced Customer Experience**

   Digital platforms streamline the customer journey, making it easier to select and manage policies. They offer personalized recommendations based on individual needs and preferences.

2. **Operational Efficiency**

   By automating routine processes such as underwriting, claims processing, and customer inquiries, insurers can focus on strategic initiatives and reduce processing time.

3. **Increased Reach**

   Digital platforms eliminate geographical barriers, enabling insurers to reach a broader customer base. Rural and underserved markets can now access insurance products more easily.

4. **Cost Reduction**

   Automation and reduced dependency on manual processes lower administrative costs, translating into more affordable insurance products.

Technologies Driving Digital Platforms

1. **Artificial Intelligence (AI)**

   AI-powered tools are used for fraud detection, risk assessment, and personalized policy suggestions.

2. **Blockchain**
   Ensures secure and transparent transactions, particularly in claims management and policy validation.

3. **Big Data and Analytics**

   Helps insurers analyze customer data to identify trends, predict risks, and develop tailored products.

4. **Cloud Computing**

   Supports scalable and flexible platforms, enabling real-time access to data and system resources.

5. **Internet of Things (IoT)**

   Connected devices, such as telematics in vehicles, provide real-time data that insurers use for dynamic pricing models.

Examples

1. **Policybazaar**
   A leading digital insurance platform in India, Policybazaar offers a range of products from multiple insurers. Its platform simplifies policy comparisons and purchasing.
2. **Lemonade**
   A US-based InsurTech company, Lemonade uses AI and behavioral economics to streamline policy purchases and claims processing.
3. **Oscar Health**

   Focused on health insurance, Oscar Health uses digital tools to provide customized health plans and wellness programs.

Challenges in Digital Insurance Platforms

1. **Data Security and Privacy**

   Protecting sensitive customer information remains a critical concern. Cyberattacks can undermine trust in digital platforms.

2. **Regulatory Compliance**

   Insurers must navigate complex regulations that vary across regions to ensure legal compliance.

3. **Digital Divide**

   Limited internet access and digital literacy in certain areas pose challenges to the adoption of digital insurance platforms.

Future of Digital Insurance Platforms

The future of digital insurance platforms lies in further integration of emerging technologies:

1. **AI-Driven Personalization**

   More advanced algorithms will offer highly customized insurance plans.

2. **Decentralized Insurance Models**

   Blockchain-based systems may lead to peer-to-peer insurance solutions.

3. **Enhanced Accessibility**

   Mobile-first platforms will play a significant role in reaching underserved communities.

   By embracing digital transformation, insurers can create a more customer-centric and efficient ecosystem, driving growth and innovation in the industry.

6.3 AI AND BIG DATA IN UNDERWRITING AND CLAIMS

The insurance industry is undergoing a significant transformation with the integration of Artificial Intelligence (AI) and Big Data. These advanced technologies are revolutionizing traditional underwriting and claims management processes, improving efficiency, accuracy, and customer satisfaction.

1. The Role of AI in Underwriting

Underwriting is a critical process in insurance, involving the evaluation of risks and determining policy terms. AI has introduced transformative changes to this domain:

- **Automated Risk Assessment:** AI-powered algorithms analyze vast amounts of data, including customer demographics, medical records, and behavioral patterns, to assess risk profiles more accurately and swiftly.
- **Personalized Policy Recommendations:** Machine learning models can customize insurance policies based on individual risk factors, enhancing customer experience.
- **Fraud Detection:** AI identifies anomalies in applications that may indicate fraudulent activities, reducing the risk for insurers.

2. Big Data in Underwriting

Big Data complements AI by providing a rich dataset for analysis:

- **Integration of Non-Traditional Data Sources:** Social media activity, geolocation data, and IoT device information are used to gain deeper insights into customer behavior and risk exposure.
- **Predictive Analytics:** Historical data trends help underwriters predict potential risks and set appropriate premium rates.
- **Enhanced Actuarial Models:** With Big Data, actuaries can develop more refined models, improving the accuracy of loss predictions.

3. AI in Claims Management

Claims processing is another area where AI is making a substantial impact:

- **Automated Claims Processing:** AI systems can handle routine claims from submission to settlement without human intervention, drastically reducing processing time.
- **Image Recognition for Damage Assessment:** AI-powered tools analyze images or videos of damaged property or vehicles to estimate repair costs quickly and accurately.
- **Customer Interaction:** Chatbots and virtual assistants guide customers through the claims process, answering queries and providing real-time updates.

4. Big Data in Claims Management

Big Data plays a vital role in improving claims handling:

- **Fraud Detection:** Data analytics identifies patterns of fraudulent claims, helping insurers minimize losses.
- **Claims Optimization:** Analysis of historical claims data enables insurers to optimize payouts and reduce operational inefficiencies.
- **Behavioral Insights:** Data from wearables, telematics, and smart home devices helps insurers understand customer behavior and preemptively mitigate risks.

5. Benefits of AI and Big Data in Insurance

The integration of AI and Big Data offers several advantages to insurers and policyholders:

- **Improved Accuracy:** Decisions based on data-driven insights are more accurate than traditional methods.
- **Cost Efficiency:** Automating processes reduces administrative costs and operational overheads.
- **Enhanced Customer Experience:** Faster claims settlement and personalized policies lead to greater customer satisfaction.

6. Challenges in Adopting AI and Big Data

While the benefits are significant, challenges remain:

- **Data Privacy Concerns:** The use of sensitive customer information raises ethical and regulatory issues.
- **Technological Barriers:** Smaller insurers may face difficulties in implementing advanced AI and Big Data solutions due to high costs.
- **Skill Gap:** The insurance workforce requires upskilling to effectively leverage these technologies.

7. The Future of AI and Big Data in Insurance

As technology evolves, the potential applications of AI and Big Data in insurance will expand:

- **Real-Time Underwriting:** IoT devices will enable continuous risk assessment, allowing insurers to adjust policies dynamically.
- **Predictive Maintenance:** Insurers can offer proactive solutions to prevent losses by analyzing real-time data.
- **Hyper-Personalization:** Advanced analytics will enable insurers to offer highly tailored products to meet individual needs.

6.4 PERSONALIZED INSURANCE PRODUCTS

The insurance industry has undergone a significant transformation in recent years, driven by advancements in technology and data analytics. One of the most notable innovations in this domain is the emergence of personalized insurance products. These tailor-made offerings are designed to meet the specific needs, preferences, and behaviors of individual customers, as opposed to the traditional one-size-fits-all approach.

The Concept of Personalization in Insurance

Personalized insurance revolves around the idea of customizing coverage and premiums based on the unique characteristics and requirements of each policyholder. This is made possible by leveraging modern technologies such as artificial intelligence (AI), big data analytics, and the Internet of Things (IoT).

For instance, instead of a generic auto insurance policy, personalized insurance might adjust premiums based on real-time driving behavior, vehicle usage, and environmental conditions. This shift not only ensures fairness but also enhances customer satisfaction by offering coverage that aligns with actual risks.

Technological Drivers of Personalization

1. **Big Data and Analytics**: Insurers now have access to vast amounts of data, ranging from customer demographics to real-time activity monitoring. Advanced analytics tools process this data to identify patterns and predict risks, enabling insurers to offer customized products.
2. **Artificial Intelligence and Machine Learning**: AI systems analyze customer data and provide insights that help insurers design personalized coverage. Machine learning models continuously improve these insights, refining the personalization process over time.
3. **Internet of Things (IoT)**: Devices like fitness trackers, connected cars, and smart home systems provide real-time data that insurers can use to tailor policies. For example, a health insurance policy might offer discounts to individuals who maintain an active lifestyle, as recorded by wearable devices.

Examples of Personalized Insurance Products

1. **Usage-Based Auto Insurance**: Policies such as pay-as-you-drive (PAYD) or pay-how-you-drive (PHYD) are gaining popularity. These products calculate premiums based on driving patterns, distance traveled, and adherence to traffic rules, ensuring fair pricing.
2. **Health Insurance with Wellness Incentives**: Many health insurers now reward policyholders for healthy behaviors. For example, individuals who meet daily activity goals tracked by wearables may receive lower premiums or additional benefits.
3. **Home Insurance with Smart Technology**: Smart home devices like security cameras and fire detectors can help reduce risks. Insurers offer discounts to homeowners who install these devices, as they lower the likelihood of claims.

Benefits of Personalized Insurance Products

1. **Customer-Centric Approach**: By focusing on individual needs, insurers enhance customer satisfaction and loyalty.
2. **Fair Pricing**: Premiums are calculated based on actual risks, ensuring that customers do not overpay for coverage they do not need.
3. **Encouraging Positive Behavior**: Personalized products incentivize safer and healthier lifestyles, benefiting both policyholders and insurers.

Challenges and Limitations

While personalized insurance products offer numerous advantages, they are not without challenges:

1. **Data Privacy Concerns**: Collecting and analyzing personal data can lead to privacy issues if not handled responsibly.
2. **Regulatory Compliance**: Insurers must navigate complex regulations to ensure fairness and transparency in personalized offerings.
3. **Implementation Costs**: The initial investment in technology and data infrastructure can be significant.

Future Trends in Personalized Insurance

The future of personalized insurance is promising, with further advancements expected in predictive analytics, blockchain for secure data sharing, and enhanced customer engagement through mobile apps. As technology continues to evolve, the insurance industry will likely see even more innovative and tailored products that redefine the customer experience.

6.5 CHALLENGES AND FUTURE DIRECTIONS IN INSURTECH

The insurance sector is undergoing a massive transformation, driven by technological advancements and the integration of InsurTech solutions. While these innovations bring numerous benefits, they also pose significant challenges that need to be addressed for the industry to evolve sustainably. This chapter explores the major challenges faced by InsurTech companies and the potential directions for their future growth.

Challenges in InsurTech

1. **Regulatory Complexities**

   The insurance industry is highly regulated, and compliance requirements vary across regions. InsurTech companies must navigate these complexities while ensuring that their innovative solutions adhere to local and international laws. Constant changes in regulatory frameworks can also create uncertainty, hindering the adoption of new technologies.

2. **Data Privacy and Cybersecurity**

   InsurTech relies heavily on customer data for personalization and risk assessment. However, the increasing volume of data collected raises concerns about privacy and cybersecurity. A single data breach can damage the reputation of an InsurTech company and lead to significant financial losses.

3. **Consumer Trust and Adoption**

   Many consumers are hesitant to trust digital-only insurance platforms due to the lack of physical interaction and perceived reliability of traditional insurers. Building trust and educating

customers about the benefits and security of InsurTech solutions remain critical challenges.

4. **Integration with Legacy Systems**

   Established insurance companies often rely on outdated legacy systems that are not compatible with modern technologies. Integrating InsurTech solutions into these systems can be time-consuming and costly, slowing down the digital transformation process.

5. **Technological Adaptation**

   Rapid advancements in technology require InsurTech companies to constantly update their systems and solutions. Smaller players may struggle to keep up with these demands, creating a competitive gap between startups and well-funded corporations.

6. **Cost of Innovation**

   Developing cutting-edge technologies such as AI, blockchain, and IoT requires substantial investment. Startups and smaller InsurTech firms may face financial constraints, limiting their ability to scale and compete with larger companies.

Future Directions in InsurTech

1. **Enhanced Personalization Through AI**

   Artificial Intelligence (AI) is expected to play a pivotal role in the future of InsurTech. Advanced algorithms can analyze customer data to offer highly personalized insurance products, streamline claims processes, and improve customer satisfaction.

2. **Integration of Blockchain Technology**

   Blockchain technology holds the potential to revolutionize the insurance industry by enhancing transparency, reducing fraud, and enabling smart contracts. InsurTech companies can leverage blockchain to automate claims processing and establish trust among stakeholders.

3. **Expansion into Emerging Markets**

   InsurTech companies can tap into underserved markets, particularly in developing countries where insurance penetration is low. Mobile-based solutions and microinsurance products can address the unique needs of these markets and promote financial inclusion.

4. **Focus on Preventive Insurance**

   The integration of IoT devices, such as wearable health trackers and connected home sensors, allows InsurTech firms to shift from reactive to preventive insurance models. By monitoring real-time data, insurers can predict and mitigate risks, reducing claims and improving profitability.

5. **Collaboration Between Traditional Insurers and InsurTech Firms**

   The future of the insurance industry lies in collaboration. Traditional insurers and InsurTech startups can work together to combine their strengths—established customer bases and innovative technologies—to deliver superior products and services.

6. **Sustainability and Green Insurance**

   InsurTech companies are increasingly exploring eco-friendly insurance solutions. By using data to assess environmental risks, they can create products that incentivize sustainable practices among customers and businesses.

7. **Improved Customer Engagement**

   Future InsurTech platforms will likely focus on enhancing customer engagement through gamification, chatbots, and seamless digital experiences. These innovations can build stronger relationships with customers and increase brand loyalty.

8. **RegTech Integration for Compliance**

   Regulatory Technology (RegTech) can simplify compliance processes for InsurTech firms by automating monitoring, reporting, and risk management. This can help companies stay ahead of regulatory changes and reduce operational burdens.

Long Questions

1. Explain the concept of InsurTech and discuss how it is transforming the traditional insurance industry.
2. Evaluate the role of artificial intelligence (AI) and machine learning in InsurTech solutions.
3. How do blockchain technologies enhance transparency and security in insurance processes? Provide examples.
4. Discuss the impact of InsurTech on customer experience and personalization in the insurance sector.
5. Analyze the challenges faced by traditional insurance companies in adopting InsurTech innovations.
6. How are telematics and IoT (Internet of Things) reshaping risk assessment and underwriting in insurance?
7. Compare and contrast peer-to-peer insurance models with traditional insurance models.
8. What are the regulatory challenges associated with InsurTech, and how can they be addressed?
9. Discuss the significance of mobile applications and digital platforms in driving innovation in insurance distribution.
10. How can data analytics and big data be leveraged to predict trends and improve decision-making in insurance?

Short Questions

1. Define InsurTech and its core objectives.
2. What is the significance of chatbots in the insurance industry?
3. Mention two examples of blockchain applications in insurance.
4. How does IoT improve claims management in insurance?
5. Name any two InsurTech companies and their innovations.
6. What is on-demand insurance, and how does it work?
7. Explain the role of predictive analytics in insurance.
8. What is the difference between usage-based insurance and traditional insurance?
9. How do wearable devices impact health insurance policies?
10. Mention two key benefits of adopting cloud computing in the insurance sector.

UNIT 7: REGTECH AND COMPLIANCE

7.1 UNDERSTANDING REGTECH AND ITS IMPORTANCE

In an era of rapid technological advancement, the financial industry faces the challenge of managing increasingly complex regulations. Regulatory Technology, commonly known as RegTech, has emerged as a transformative solution to this challenge. RegTech refers to the use of advanced technologies such as artificial intelligence (AI), machine learning (ML), blockchain, and big data analytics to streamline compliance processes and ensure adherence to legal and regulatory requirements.

The Evolution of RegTech

The concept of RegTech originated in response to the growing regulatory burden on financial institutions. Post-2008 financial crisis, governments worldwide introduced stringent laws to prevent fraud, money laundering, and other financial crimes. These regulations, while essential, created a need for cost-effective and efficient compliance solutions. RegTech emerged as a solution to reduce the manual workload, improve accuracy, and enhance transparency.

Components of RegTech

1. **Data Management**: RegTech uses big data analytics to manage and analyze large volumes of data, ensuring accuracy and compliance with regulations.
2. **Automation**: Automating routine compliance tasks, such as reporting and monitoring, reduces human error and speeds up processes.
3. **Risk Management**: Advanced technologies help identify potential risks and mitigate them proactively.
4. **Real-Time Monitoring**: RegTech tools enable real-time tracking of transactions, ensuring timely detection of suspicious activities.

Benefits of RegTech

1. **Efficiency**: Automating compliance tasks significantly reduces the time and resources required for regulatory adherence.
2. **Cost-Effectiveness**: RegTech solutions lower compliance costs by reducing dependency on manual processes.
3. **Accuracy**: Advanced technologies ensure compliance data is processed with minimal errors.
4. **Adaptability**: RegTech tools can quickly adapt to changing regulations, ensuring institutions remain compliant.
5. **Transparency**: Real-time monitoring and reporting enhance transparency within organizations and with regulatory authorities.

Applications of RegTech

1. **Anti-Money Laundering (AML)**: RegTech solutions monitor transactions to detect and prevent money laundering activities.
2. **Know Your Customer (KYC)**: Automating KYC processes reduces onboarding times and enhances customer experience.
3. **Fraud Detection**: AI-powered tools identify unusual patterns in transactions to mitigate fraud.
4. **Regulatory Reporting**: Automated systems generate and submit reports to regulatory authorities in a timely and accurate manner.
5. **Risk Assessment**: RegTech tools assess potential risks, enabling institutions to take preventive measures.

Challenges in Adopting RegTech

1. **Integration with Legacy Systems**: Many institutions face difficulty integrating RegTech solutions with outdated infrastructure.
2. **Cost of Implementation**: Initial investment in RegTech can be high, which may deter smaller organizations.
3. **Data Privacy Concerns**: Handling sensitive customer data raises privacy and security concerns.

4. **Lack of Standardization**: The absence of uniform global standards complicates RegTech implementation for multinational organizations.

The Future of RegTech

As regulations continue to evolve, RegTech is poised to play a more significant role in the financial ecosystem. Emerging technologies such as blockchain and AI are expected to further enhance its capabilities. Collaboration between regulators and technology providers will also be crucial in ensuring the seamless adoption of RegTech solutions.

RegTech represents a paradigm shift in the way financial institutions approach compliance. By leveraging technology, organizations can not only adhere to regulations but also enhance their operational efficiency and build trust with stakeholders.

7.2 AUTOMATION OF REGULATORY PROCESSES

In the realm of RegTech and compliance, automation of regulatory processes has emerged as a transformative solution for financial institutions and organizations seeking to streamline their operations while adhering to stringent regulatory requirements. This chapter explores the fundamental aspects of automation in regulatory compliance, its benefits, challenges, and the future potential of this innovative approach.

Introduction to Automation in Regulatory Processes

With the increasing complexity of regulations across jurisdictions, manual compliance processes have become inefficient and error-prone. Automation leverages advanced technologies such as Artificial Intelligence (AI), Machine Learning (ML), and Robotic Process Automation (RPA) to ensure regulatory adherence with greater speed and accuracy. These technologies are revolutionizing the way financial institutions handle compliance, enabling real-time monitoring and reporting.

Components of Regulatory Process Automation

1. **Data Collection and Management**

   Automation facilitates the aggregation of data from multiple sources, ensuring that organizations have access to accurate and updated information for compliance purposes. AI tools help in identifying relevant data patterns and inconsistencies.

2. **Regulatory Reporting**

   Automated systems generate compliance reports in real time, reducing the time and effort required for manual reporting. These systems ensure the reports are aligned with the latest regulatory guidelines.

3. **Risk Assessment**

   Automation enables predictive analytics, allowing organizations to identify and mitigate potential risks before they escalate. Tools powered by ML can analyze historical data and predict future trends in compliance risks.

4. **Transaction Monitoring**

   Automated solutions continuously monitor financial transactions to detect suspicious activities, ensuring compliance with anti-money laundering (AML) and counter-terrorism financing (CTF) regulations.

5. **Audit and Documentation**

   Automated systems maintain a comprehensive record of compliance activities, making audits more efficient and less time-consuming. They also ensure the organization has a transparent trail of actions taken to meet regulatory standards.

Benefits of Automating Regulatory Processes

1. **Increased Efficiency**

   Automation reduces the time spent on repetitive compliance tasks, allowing organizations to allocate resources to strategic activities.

2. **Cost Savings**

   By minimizing manual interventions, automation significantly lowers the costs associated with compliance management and reduces the risk of penalties for non-compliance.

3. **Accuracy and Consistency**

   Automated systems eliminate human errors, ensuring that compliance processes are consistent and reliable across the organization.

4. **Real-Time Updates**

   Automation keeps organizations updated with changing regulations, allowing them to adapt quickly and remain compliant.

Challenges in Implementing Automation

1. **High Initial Investment**

   Deploying automated compliance systems requires significant upfront costs, which may deter smaller organizations from adopting these solutions.

2. **Integration with Legacy Systems**

   Many financial institutions still rely on outdated systems, making it challenging to integrate new automation tools seamlessly.

3. **Data Privacy Concerns**

   Automation processes involve handling sensitive data, raising concerns about cybersecurity and data protection.

4. **Regulatory Ambiguity**

   Inconsistencies in regulations across jurisdictions can complicate the implementation of automated solutions, requiring customization and adaptation.

Technologies Driving Regulatory Automation

1. **Artificial Intelligence (AI)**

   AI enables real-time analysis of vast amounts of data, helping organizations detect irregularities and maintain compliance.

2. **Machine Learning (ML)**

   ML algorithms enhance the ability to predict compliance risks and adapt to new regulations by learning from historical data.

3. **Blockchain**
   Blockchain technology ensures transparency and immutability in compliance records, making audit trails more robust and trustworthy.

4. **Robotic Process Automation (RPA)**

   RPA handles repetitive tasks such as data entry and reporting, freeing up human resources for higher-value activities.

Future of Automation in Regulatory Compliance

The future of regulatory automation lies in the integration of advanced technologies and global standardization of regulations. As AI and ML continue to evolve, their predictive capabilities will further enhance compliance management. Moreover, collaboration between regulators and technology providers will be crucial in shaping the next generation of automated compliance solutions.

7.3 ROLE OF REGTECH IN ANTI-MONEY LAUNDERING (AML)

The emergence of Regulatory Technology (RegTech) has transformed the way financial institutions manage compliance with complex regulations, particularly in the domain of Anti-Money Laundering (AML). Money laundering poses a significant threat to the global economy, enabling illicit activities such as terrorism financing, drug trafficking, and corruption. Traditional AML measures, while effective to an extent, have struggled to keep pace with the increasingly sophisticated tactics used by criminals. RegTech provides innovative solutions to these challenges through automation, advanced analytics, and real-time monitoring.

1. Understanding RegTech in AML Compliance

RegTech refers to the use of technology to streamline regulatory processes, improve compliance efficiency, and reduce risks. In the context of AML, RegTech solutions are designed to detect, prevent,

and report suspicious financial activities by leveraging advanced tools such as machine learning, artificial intelligence (AI), and blockchain. These technologies enable financial institutions to process vast amounts of data quickly and accurately, ensuring compliance with local and international AML regulations.

2. Applications of RegTech in AML

a) Automated Transaction Monitoring

RegTech solutions use AI-powered algorithms to monitor financial transactions in real time. Suspicious activities, such as unusual patterns or high-risk transactions, are flagged automatically. This proactive approach minimizes the risk of undetected money laundering activities.

b) Enhanced Know Your Customer (KYC) Processes

RegTech facilitates more efficient KYC verification through digital identity checks, biometric authentication, and document scanning. These tools enhance the customer onboarding experience while ensuring adherence to compliance standards.

c) Risk Assessment and Profiling

Advanced analytics enable financial institutions to assess customer risk profiles based on factors like transaction history, geographic location, and behavior patterns. RegTech tools can dynamically update these profiles, ensuring continuous monitoring.

d) Regulatory Reporting and Audit Readiness

Automated reporting tools generate accurate, standardized reports required by regulatory bodies. This not only saves time but also ensures readiness for audits and inspections, reducing the risk of non-compliance penalties.

e) Pattern Recognition and Fraud Detection

Machine learning algorithms analyze large datasets to identify unusual patterns indicative of money laundering or fraud. These tools continuously learn and improve, staying ahead of emerging threats.

3. Benefits of RegTech in AML

Efficiency and Accuracy

RegTech solutions significantly reduce manual workloads, allowing compliance teams to focus on high-priority tasks. Automation ensures greater accuracy in detecting and reporting suspicious activities.

Cost Reduction

By automating routine processes, RegTech reduces the costs associated with compliance, including manpower, time, and potential fines for non-compliance.

Real-Time Monitoring

Real-time analysis ensures that potential money laundering activities are identified and addressed immediately, minimizing financial and reputational risks.

Scalability

As financial institutions grow, RegTech systems can scale to handle increased transaction volumes and evolving regulatory requirements without compromising efficiency.

4. Challenges in Adopting RegTech for AML

Integration with Legacy Systems

Many financial institutions rely on outdated infrastructure, making it challenging to integrate RegTech solutions seamlessly.

Data Privacy Concerns

The use of advanced data analytics raises concerns about data privacy and security. Institutions must ensure compliance with data protection laws.

High Initial Investment

Although cost-effective in the long term, the initial investment required for implementing RegTech solutions can be substantial, particularly for smaller organizations.

Regulatory Ambiguity

The fast-evolving nature of financial regulations can create uncertainty, making it difficult for institutions to adopt RegTech solutions confidently.

5. The Future of RegTech in AML

RegTech is poised to play an increasingly vital role in combating money laundering as technology continues to advance. The integration of AI, blockchain, and predictive analytics is expected to enhance the precision and effectiveness of AML efforts. Governments and regulatory bodies are also collaborating with RegTech providers to establish clear guidelines, encouraging broader adoption.

By overcoming current challenges and leveraging its potential, RegTech can redefine AML compliance, making it more robust, efficient, and adaptive to emerging threats.

7.4 RISK ASSESSMENT AND REPORTING SOLUTIONS

Risk assessment is a critical component of modern financial systems, helping organizations identify, evaluate, and mitigate potential threats to their operations, assets, and reputation. In the highly regulated financial sector, the integration of technology into risk management processes has become essential to ensure compliance and operational efficiency. This chapter explores how Regulatory Technology (RegTech) provides innovative solutions for risk assessment and reporting.

The Role of RegTech in Risk Assessment

RegTech leverages advanced technologies, such as artificial intelligence (AI), machine learning (ML), and big data analytics, to streamline and enhance the risk assessment process. By automating traditionally manual processes, RegTech solutions reduce errors, improve speed, and ensure accuracy in identifying potential risks. features include:

1. **Real-Time Monitoring:** Continuous surveillance of financial activities to detect anomalies or suspicious behavior.

2. **Predictive Analytics:** Use of ML algorithms to forecast potential risks based on historical data.
3. **Automated Risk Scoring:** Assigning risk levels to transactions, clients, or processes through predefined criteria.

Components of RegTech-Based Risk Assessment

1. **Data Aggregation and Integration:**

   RegTech tools collect data from multiple sources, including financial transactions, market trends, and regulatory updates, providing a consolidated view for risk analysis.

2. **Pattern Recognition:**

   Advanced analytics tools identify patterns and outliers in financial activities that may indicate potential risks, such as fraud or non-compliance.

3. **Scenario Analysis:**

   Simulating various scenarios to evaluate the impact of external and internal risks, enabling proactive decision-making.

4. **Regulatory Alignment:**

   Ensuring that the risk assessment processes are aligned with the latest regulatory frameworks, minimizing the risk of non-compliance.

Advantages of RegTech in Risk Assessment

1. **Efficiency:** Automated tools reduce time spent on manual assessments, allowing for quicker responses to emerging risks.
2. **Accuracy:** Advanced algorithms provide precise insights, minimizing the chance of human error.
3. **Scalability:** RegTech solutions can be scaled to meet the needs of organizations of varying sizes, from startups to multinational corporations.
4. **Cost-Effectiveness:** By streamlining processes, RegTech reduces operational costs associated with compliance and risk management.

Reporting Solutions in RegTech

Timely and accurate reporting is vital for financial institutions to maintain transparency and meet regulatory requirements. RegTech enhances the reporting process by automating data collection, analysis, and submission.

1. **Automated Regulatory Reporting:**

   RegTech platforms generate and submit compliance reports to regulators in the required formats, reducing manual workload and ensuring adherence to deadlines.

2. **Customizable Dashboards:**

   Interactive dashboards allow organizations to visualize risk indicators (KRIs) and compliance metrics in real time.

3. **Audit Trails:**

   Comprehensive records of all financial activities and decisions enable traceability and support regulatory audits.

4. **Regulatory Updates Integration:**

   Continuous updates on regulatory changes ensure that reporting practices remain compliant with evolving laws and standards.

Challenges in Implementing RegTech for Risk Assessment and Reporting

1. **Data Security Concerns:**

   With large volumes of sensitive data being processed, cybersecurity remains a top priority.

2. **Integration Issues:**

   Incorporating RegTech solutions into existing legacy systems can be complex and resource-intensive.

3. **High Initial Costs:**

   Although cost-effective in the long term, the initial implementation of RegTech solutions can require significant investment.

4. **Regulatory Uncertainty:**

   Variations in regulatory requirements across regions may complicate the standardization of risk assessment and reporting processes.

Successful RegTech Implementation

To illustrate the benefits of RegTech, consider a global financial institution that adopted a risk assessment platform powered by AI. The platform helped the institution detect fraudulent transactions in real time, reducing losses by 25% within the first year. Additionally, automated reporting tools streamlined compliance processes, ensuring timely submissions to regulators.

Future Trends in RegTech for Risk and Reporting

1. **AI-Powered Risk Models:**

   Increasing reliance on AI to develop more sophisticated risk models.

2. **Blockchain for Transparent Reporting:**

   Blockchain technology could enhance transparency and immutability in regulatory reporting.

3. **Global Standardization:**

   Efforts to harmonize regulatory frameworks across jurisdictions may simplify cross-border compliance.

Long Questions

1. Define RegTech and explain its significance in modern financial and regulatory ecosystems.
2. Discuss the role of RegTech in enhancing compliance management for financial institutions. Provide examples of how technology facilitates this process.
3. Compare and contrast traditional compliance methods with RegTech-based compliance solutions.
4. Analyze the challenges faced by companies when integrating RegTech solutions into their existing compliance frameworks.
5. Elaborate on how RegTech uses technologies like AI, blockchain, and big data to improve regulatory compliance.
6. Discuss the impact of RegTech on reducing regulatory costs and operational inefficiencies in the financial sector.
7. What are the global trends in RegTech adoption, and how are different regions responding to these innovations?
8. How does RegTech contribute to the detection and prevention of financial crimes such as money laundering and fraud?
9. Evaluate the ethical concerns and data privacy issues associated with the deployment of RegTech solutions.
10. Discuss the future of RegTech and its potential to transform compliance and regulatory practices across industries.

Short Questions

1. What is RegTech, and how does it differ from FinTech?
2. List three technologies commonly used in RegTech solutions.
3. What are the main benefits of using RegTech in compliance management?
4. Define the term "Regulatory Sandbox" and its relevance to RegTech.
5. How does artificial intelligence enhance RegTech applications?
6. Mention two industries other than finance where RegTech can be applied.

UNIT 8: FINTECH FOR FINANCIAL INCLUSION

8.1 FINTECH'S ROLE IN BRIDGING THE FINANCIAL GAP

Financial inclusion has become a cornerstone of global economic development. It refers to providing accessible, affordable, and sustainable financial services to individuals and businesses that are traditionally underserved by the financial system. Despite advancements, millions globally lack access to basic banking services, credit, or insurance. FinTech, or financial technology, has emerged as a transformative force in bridging this financial gap and reshaping how financial services reach marginalized populations.

Understanding the Financial Gap

The financial gap exists due to several barriers that limit access to traditional financial services. These include:

1. **Geographical Barriers**: Remote areas often lack physical banking infrastructure.
2. **Economic Barriers**: High costs of maintaining bank accounts or accessing credit deter low-income individuals.
3. **Cultural Barriers**: Limited financial literacy and distrust of formal institutions restrict participation.
4. **Documentation Challenges**: Many people lack the identification required for traditional banking.

FinTech addresses these issues through innovative solutions, bringing financial services to those left behind by conventional methods.

How FinTech Promotes Financial Inclusion

1. Digital Banking for the Unbanked

Mobile banking applications have revolutionized access to financial services, eliminating the need for physical branches. With a smartphone and internet connection, users can open accounts,

transfer money, and pay bills. For instance, platforms like M-Pesa in Kenya have empowered millions by providing simple, secure mobile payment solutions.

2. Affordable Microfinance Solutions

FinTech platforms enable microloans with minimal paperwork and low-interest rates. Peer-to-peer lending and digital microfinance companies use technology to assess creditworthiness through alternative data like mobile usage patterns, enabling loans for those without traditional credit histories.

3. Payment Innovations

Digital wallets and payment gateways like Paytm, Venmo, and Google Pay have made transactions seamless. These platforms are cost-effective, enabling small businesses and individuals to participate in the digital economy without needing expensive point-of-sale systems.

4. Role of Blockchain Technology

Blockchain ensures secure, transparent, and low-cost transactions, making it a valuable tool for financial inclusion. It allows cross-border remittances at significantly reduced costs, benefiting migrant workers and their families. Moreover, blockchain-based digital identities can help individuals lacking formal identification access financial services.

5. InsurTech for Underserved Communities

Digital insurance platforms offer microinsurance products tailored to the needs of low-income populations. These policies provide coverage for health, agriculture, or life at affordable rates, reducing vulnerability to financial shocks.

6. Empowering Small and Medium Enterprises (SMEs)

SMEs often face challenges in accessing credit. FinTech platforms offer data-driven lending, using AI and machine learning to analyze transaction histories and provide customized financial solutions. This innovation helps businesses grow and contribute to local economies.

Challenges in FinTech-Driven Financial Inclusion

While FinTech has made significant progress, challenges remain:

1. **Digital Divide**: Limited internet access and smartphone penetration in some regions restrict the adoption of FinTech solutions.
2. **Financial Literacy**: Many underserved communities lack the knowledge to effectively use digital financial tools.
3. **Regulatory Barriers**: Inconsistent regulations across regions can hinder the expansion of FinTech solutions.
4. **Cybersecurity Risks**: Ensuring the security of user data and transactions is critical for building trust in FinTech platforms.

The Way Forward

To maximize its impact on financial inclusion, FinTech must address these challenges through:

1. **Public-Private Partnerships**: Collaboration with governments and traditional financial institutions to expand infrastructure and awareness.
2. **Innovative Solutions for Connectivity**: Developing offline payment solutions and low-bandwidth applications for rural areas.
3. **Focus on Education**: Financial literacy programs can empower users to utilize digital tools effectively.
4. **Strengthened Regulations**: Clear and supportive regulatory frameworks can foster trust and accelerate adoption.

8.2 DIGITAL BANKING FOR THE UNBANKED AND UNDERBANKED

The unbanked and underbanked population represent a significant portion of the global community, particularly in developing regions. The unbanked are individuals without access to formal banking services, while the underbanked have limited interaction with traditional financial institutions. Digital banking, driven by FinTech innovations, has emerged as a transformative solution to

bridge this gap, offering accessible, affordable, and user-friendly financial services.

Understanding the Challenges

The lack of access to traditional banking services stems from several socio-economic and infrastructural challenges:

1. **Geographical Barriers:** Rural and remote areas often lack physical bank branches.
2. **High Costs:** Traditional banking services may impose fees that are unaffordable for low-income groups.
3. **Limited Documentation:** Many individuals lack the identification documents required to open a bank account.
4. **Financial Literacy:** A lack of awareness about financial services prevents many from engaging with formal banking systems.

The Role of Digital Banking

Digital banking leverages technology to overcome these barriers and cater to the needs of the unbanked and underbanked populations. aspects include:

1. **Mobile Banking Solutions:**

   Mobile phones serve as a gateway to financial services, allowing users to open accounts, transfer funds, and make payments through apps and SMS-based services.

   Example: Mobile money platforms like M-Pesa in Kenya provide easy access to banking services for millions.

2. **Agent Banking:**

   Agent networks extend banking services to rural and underserved areas by partnering with local retailers and businesses.

   Example: Bank agents can assist with deposits, withdrawals, and account openings.

3. **Biometric Authentication:**

   Digital banking solutions often use biometrics to verify user identity, addressing the lack of formal identification documents.

   Example: Aadhaar-based banking in India enables secure and simplified access.

4. **Low-Cost Accounts:**

   Digital banks offer low or zero-fee accounts designed specifically for low-income individuals.

   Example: Basic savings accounts with no minimum balance requirements.

Benefits of Digital Banking for Financial Inclusion

1. **Accessibility:**
   Digital banking eliminates the need for physical infrastructure, making financial services accessible in remote locations.

2. **Affordability:**
   The reduced operational costs of digital platforms allow banks to offer affordable services to underserved populations.

3. **Empowerment:**
   Access to financial services enables individuals to save, invest, and secure credit, promoting economic empowerment.

4. **Economic Growth:**

   Increased participation in the financial system contributes to economic development and reduces income inequality.

Examples

1. **M-Pesa in Africa:**

   A pioneer in mobile banking, M-Pesa provides a range of financial services, including money transfers, bill payments, and savings accounts, transforming the lives of millions in Africa.

2. **Aadhaar-Linked Banking in India:**

   The integration of banking services with Aadhaar, a unique biometric identification system, has facilitated access to financial services for millions of underprivileged citizens.

Challenges in Digital Banking Adoption

1. **Digital Literacy:**

   Many unbanked individuals lack familiarity with digital platforms, limiting their ability to utilize these services.

2. **Internet Connectivity:**

   Inadequate network coverage in rural areas hampers the reach of digital banking solutions.

3. **Cybersecurity Risks:**

   Digital platforms are vulnerable to fraud and data breaches, which can undermine trust among new users.

4. **Regulatory Barriers:**

   Varying regulatory environments across countries can impede the scaling of digital banking solutions.

The Way Forward

1. **Enhancing Digital Literacy:**

   Governments and organizations should invest in educational programs to teach individuals how to use digital banking platforms effectively.

2. **Strengthening Infrastructure:**

   Expanding internet connectivity and mobile network coverage will enhance the reach of digital banking services.

3. **Collaborations:**
   Partnerships between FinTech companies, governments, and non-profits can drive the adoption of inclusive banking solutions.

4. **Building Trust:**

   Ensuring robust security measures and transparent policies will help gain the trust of the unbanked population.

8.3 ROLE OF FINTECH IN EMERGING MARKETS

Emerging markets face unique challenges in achieving widespread financial inclusion. Limited access to formal banking systems, lack of financial literacy, and geographic barriers have historically excluded significant portions of the population from economic participation. FinTech has emerged as a transformative force in addressing these challenges, offering innovative solutions to bridge the gap between underserved populations and financial services.

1. Understanding Financial Inclusion in Emerging Markets

Financial inclusion refers to the availability and accessibility of affordable financial products and services to individuals and businesses. In emerging markets, the problem is acute due to factors such as:

- Inadequate banking infrastructure in rural and remote areas.
- High costs associated with traditional banking services.
- Lack of trust in formal financial institutions.

FinTech companies leverage technology to address these barriers, making financial services more inclusive and accessible.

2. Digital Banking as a Game-Changer

Digital banking platforms are revolutionizing financial access in regions where brick-and-mortar banks are scarce. Mobile banking applications and USSD-based solutions allow users to perform basic financial transactions using even simple mobile phones. examples include:

- **M-Pesa in Kenya**, which enables mobile money transfers and payments.

- **Paytm in India**, offering seamless digital payments and wallet services.

These platforms eliminate the need for physical bank branches, significantly reducing operational costs and expanding reach.

3. Microfinance Through Digital Platforms

Microfinance has long been a cornerstone of financial inclusion, providing small loans to underserved populations. FinTech enhances this model by using data analytics and alternative credit scoring methods to assess loan eligibility for individuals without traditional credit histories.

Examples include:

- Digital platforms like **Tala** and **Branch**, which offer microloans using smartphone data to evaluate creditworthiness.
- Integration with mobile wallets to disburse and collect loan repayments efficiently.

4. Enhancing Financial Literacy Through Technology

Lack of financial literacy is a significant barrier to financial inclusion in emerging markets. FinTech platforms are leveraging technology to educate users through:

- Interactive apps with gamified learning experiences.
- SMS and voice-based tools in local languages.
- Online courses and community-based learning initiatives.

By empowering users with financial knowledge, these platforms build trust and confidence in adopting digital financial services.

5. Bridging the Gender Gap in Financial Access

Women in emerging markets often face greater financial exclusion than men. FinTech initiatives are working to close this gap by:

- Developing tailored financial products for women entrepreneurs.
- Creating savings platforms that cater to women's needs and preferences.

- Partnering with NGOs to provide training and resources to underserved women.

  Programs like **Grameen Foundation's mobile financial services for women** in sub-Saharan Africa are notable examples of success.

6. Role of Blockchain and Cryptocurrencies

Blockchain technology is gaining traction in emerging markets for its potential to enhance transparency, reduce transaction costs, and provide secure financial services. applications include:

- **Cross-border remittances**: Platforms like **Ripple** allow for instant and low-cost international money transfers.
- **Decentralized finance (DeFi)**: Offering access to loans and investments without intermediaries.
- **Digital identity solutions**: Blockchain-based IDs enable individuals to access financial services without traditional documentation.

7. Challenges and Opportunities

While FinTech is driving financial inclusion in emerging markets, challenges remain:

- **Regulatory hurdles**: Inconsistent or unclear regulations can hinder innovation.
- **Digital divide**: Limited access to smartphones and the internet in some areas restricts the reach of FinTech solutions.
- **Cybersecurity risks**: Ensuring data privacy and protection is critical to building trust in digital platforms.

However, the opportunities outweigh the challenges. By fostering partnerships between governments, FinTech companies, and traditional financial institutions, emerging markets can accelerate the pace of financial inclusion.

8.4 MOBILE-BASED SOLUTIONS FOR RURAL FINANCE

Financial inclusion remains a critical challenge in rural areas worldwide, where access to traditional banking services is often

limited. Mobile-based solutions have emerged as a transformative tool, bridging the gap between the unbanked population and formal financial systems. By leveraging mobile technology, these solutions provide cost-effective, convenient, and scalable financial services tailored to rural communities.

The Role of Mobile Technology in Financial Inclusion

Mobile phones have become a gateway to financial services for millions in rural areas. The widespread adoption of mobile devices, even in low-income households, has opened avenues for delivering banking, credit, insurance, and payment services. The benefits include:

1. **Accessibility**: Mobile services reach remote locations where physical bank branches are absent.
2. **Affordability**: Reduced costs for both service providers and users, making financial services viable for low-income groups.
3. **Convenience**: Users can access services anytime without traveling long distances.

Types of Mobile-Based Financial Solutions

1. **Mobile Banking**

   Mobile banking allows users to perform banking activities such as checking balances, transferring funds, and paying bills directly from their phones. It eliminates the need for physical bank visits and reduces transaction costs.

2. **Mobile Money Services**

   Mobile money platforms enable users to store, send, and receive money digitally. Services like M-Pesa in Kenya and Paytm in India have shown significant success in improving financial inclusion.

3. **Digital Lending Platforms**

   Mobile applications are used to offer microloans and credit to rural individuals and small businesses. These platforms use alternative data sources to assess creditworthiness, bypassing traditional credit scoring methods.

4. **Mobile-Based Insurance**

   Insurance products tailored for rural populations are distributed via mobile platforms, providing affordable coverage for health, agriculture, and life risks.

5. **Savings and Investment Apps**

   Mobile apps encourage rural users to save and invest small amounts regularly, promoting financial discipline and long-term wealth creation.

Benefits of Mobile-Based Solutions in Rural Finance

1. **Empowering Small Farmers**

   Mobile solutions provide farmers with access to credit, crop insurance, and real-time market information, enabling better decision-making and financial stability.

2. **Improved Women's Financial Participation**

   Mobile platforms offer financial independence to women in rural areas by giving them control over their finances and enabling access to savings and credit facilities.

3. **Enhanced Economic Opportunities**

   Small businesses and entrepreneurs in rural areas can leverage mobile financial services to manage cash flows, expand operations, and access new markets.

4. **Strengthened Financial Literacy**

   Many mobile-based platforms include educational tools to enhance financial literacy, helping users make informed financial decisions.

Challenges and Limitations

1. **Digital Divide**: Limited smartphone penetration and internet access in some rural areas hinder adoption.

2. **Literacy Barriers**: Low levels of digital and financial literacy can affect usability.

3. **Trust Issues**: Skepticism toward digital financial systems can slow adoption rates.
4. **Regulatory Concerns**: Ensuring compliance with financial regulations and safeguarding user data remain critical issues.

Success Stories

1. **M-Pesa in Kenya**

   M-Pesa has transformed financial access in Kenya by enabling millions of rural users to transfer money and access microloans. Its success demonstrates the potential of mobile money in rural finance.

2. **Airtel Payments Bank in India**

   Airtel Payments Bank offers basic banking services through mobile phones, reaching rural customers with limited access to traditional banking.

3. **FarmDrive in Africa**

   FarmDrive uses mobile technology and machine learning to provide credit scoring for smallholder farmers, enabling them to access loans and improve productivity.

The Way Forward

1. **Infrastructure Development**: Improving mobile network connectivity in rural areas is essential.
2. **Promoting Financial Literacy**: Governments and organizations must invest in financial and digital literacy campaigns.
3. **Collaboration with Stakeholders**: Partnerships between FinTech companies, banks, and policymakers can drive scalable and sustainable solutions.
4. **Regulatory Support**: Simplifying regulations for mobile-based financial services can enhance adoption and innovation.

8.5 CHALLENGES IN ACHIEVING FINANCIAL INCLUSION

Financial inclusion refers to providing access to affordable financial services, including savings, credit, insurance, and payment systems, to individuals and businesses, particularly those underserved by traditional financial institutions. While FinTech has emerged as a powerful tool to bridge the financial gap, several challenges hinder its full potential in achieving comprehensive financial inclusion. This chapter explores these challenges and discusses potential solutions to address them.

1. Lack of Digital Infrastructure

One of the fundamental barriers to financial inclusion through FinTech is the lack of reliable digital infrastructure. Many rural and remote areas lack adequate internet connectivity, which is crucial for accessing digital financial services. Moreover, the high cost of smartphones and other digital devices further excludes a significant portion of the population.

Suggested Solution:

- Government and private sector collaboration to expand internet penetration.
- Subsidized programs for affordable devices in underserved areas.

2. Low Digital Literacy

Digital literacy is essential for individuals to effectively use FinTech solutions. However, in many developing regions, people lack basic knowledge about using mobile apps, internet banking, or digital payment systems. This gap prevents them from taking advantage of FinTech innovations.

Suggested Solution:

- Implementation of community-driven digital literacy programs.
- Partnerships with local organizations to educate users on FinTech tools.

3. Limited Financial Literacy

Even with access to technology, financial literacy remains a significant challenge. Many people do not understand basic financial concepts such as savings, credit, or insurance, making it difficult for them to use FinTech products effectively.

Suggested Solution:

- Integration of financial literacy modules in school curricula.
- Financial education campaigns targeting underserved demographics.

4. Regulatory and Compliance Issues

FinTech companies often face challenges in complying with local regulations, especially in regions with complex or unclear policies. This lack of regulatory clarity can discourage companies from expanding services to underserved areas.

Suggested Solution:

- Clearer and more supportive regulatory frameworks for FinTech services.
- Incentives for FinTech companies to operate in financially excluded regions.

5. Cybersecurity and Data Privacy Concerns

As FinTech solutions rely heavily on digital platforms, they are vulnerable to cybersecurity threats and data breaches. Users may hesitate to adopt digital financial services due to fear of fraud or misuse of personal data.

Suggested Solution:

- Adoption of robust cybersecurity measures by FinTech companies.
- Awareness campaigns to educate users about safe online practices.

6. Cultural and Behavioral Barriers

In many regions, cultural and behavioral norms impact financial decision-making. For instance, some communities prefer cash transactions and distrust formal financial systems. This mindset poses a challenge to the adoption of FinTech solutions.

Suggested Solution:

- Tailoring financial products to align with local customs and behaviors.
- Building trust through community engagement and transparency.

7. High Transaction Costs

While FinTech is often seen as a cost-effective alternative, high transaction fees can discourage low-income individuals from using digital financial services.

Suggested Solution:

- Introduction of tiered pricing models to make services affordable.
- Partnerships with governments to subsidize transaction costs for underserved populations.

8. Gender Inequality in Access

Women in many parts of the world face additional barriers to financial inclusion, such as lack of access to technology, lower levels of literacy, and cultural restrictions. This gender gap limits the overall impact of FinTech on financial inclusion.

Suggested Solution:

- Developing women-specific financial products and services.
- Programs to empower women through digital and financial literacy initiatives.

9. Trust Deficit in Technology

Many people, particularly in rural and low-income areas, lack trust in digital systems. This mistrust often stems from unfamiliarity

with the technology or negative experiences with fraud or system failures.

Suggested Solution:

- Simplified and user-friendly FinTech platforms.
- Demonstrating reliability and transparency to build user confidence.

10. Inadequate Credit History and Risk Assessment

Traditional credit assessment models often exclude individuals without formal employment or credit histories. This limitation prevents FinTech platforms from offering loans or other financial services to these individuals.

Suggested Solution:

- Leveraging alternative data sources, such as utility payments or mobile usage, for credit scoring.
- Developing innovative risk assessment tools tailored to underserved populations.

Long Questions

1. Discuss the role of FinTech in enhancing financial inclusion in rural and underdeveloped areas. Provide examples of successful implementations globally.
2. Analyze the impact of mobile banking and digital payment systems on bridging the gap between the unbanked and formal financial institutions.
3. Explain how blockchain technology can be leveraged to provide secure and accessible financial services to underserved populations.
4. Evaluate the challenges faced by FinTech companies in implementing financial inclusion initiatives in developing countries.
5. How does the integration of artificial intelligence (AI) and machine learning (ML) in FinTech improve financial literacy and accessibility for marginalized communities?
6. Examine the regulatory landscape for FinTech companies focused on financial inclusion. How do regulations affect innovation and adoption?
7. Critically assess the role of peer-to-peer lending platforms in providing credit to individuals and businesses excluded from traditional banking systems.
8. What are the social and economic implications of integrating FinTech solutions in microfinance? Use case studies to support your argument.
9. Discuss the ethical concerns associated with using technology for financial inclusion, particularly concerning data privacy and security.
10. Propose a comprehensive framework for using FinTech to address gender gaps in financial inclusion.

Short Questions

1. What is financial inclusion, and how does FinTech contribute to it?
2. Name two key technologies used in FinTech to promote financial inclusion.

3. What role does mobile banking play in improving access to financial services?
4. Define the term "digital payment system" and explain its importance for the unbanked population.
5. How can blockchain enhance transparency in financial transactions?
6. What are some challenges faced by FinTech firms in rural areas?
7. Mention two examples of FinTech solutions that have successfully promoted financial inclusion.
8. What is the significance of microloans in the context of FinTech and financial inclusion?
9. How can FinTech address the issue of financial illiteracy in marginalized communities?
10. What is the role of regulatory bodies in shaping the FinTech industry for financial inclusion?

UNIT 9: INVESTMENT AND WEALTH MANAGEMENT

9.1 ROBO-ADVISORS AND AUTOMATED INVESTMENT PLATFORMS

The evolution of financial technology has significantly transformed the landscape of investment and wealth management. Among the most impactful innovations are **robo-advisors** and **automated investment platforms**, which have democratized access to financial advice and streamlined the investment process. This chapter delves into the origins, functionalities, benefits, and limitations of these platforms, along with their implications for individual and institutional investors.

1. Understanding Robo-Advisors

Robo-advisors are digital platforms that provide automated, algorithm-driven financial planning and investment services. These platforms utilize advanced algorithms to manage investment portfolios based on user inputs, such as financial goals, risk tolerance, and investment horizon.

1.1 Origins and Evolution

The concept of robo-advisors emerged in the wake of the 2008 financial crisis, driven by the need for cost-effective investment solutions. Early platforms, such as Betterment and Wealthfront, pioneered the industry by offering automated portfolio management services, which were once exclusive to wealthier individuals.

1.2 How Robo-Advisors Work

- **Data Collection:** Users input their financial goals, risk appetite, and timeframes through a simple onboarding process.
- **Portfolio Construction:** Algorithms recommend diversified portfolios using exchange-traded funds (ETFs) or index funds, adhering to modern portfolio theory.
- **Rebalancing:** Portfolios are periodically rebalanced to maintain the desired asset allocation.

- **Tax Optimization:** Some platforms incorporate tax-loss harvesting to maximize after-tax returns.

2. Features of Automated Investment Platforms

Automated investment platforms offer a range of features that appeal to novice and experienced investors alike:

2.1 Low Costs

Traditional investment advisory services often charge high fees. Robo-advisors, by contrast, operate with lower management fees, typically ranging between 0.25% and 0.50% annually.

2.2 Accessibility

These platforms have reduced barriers to entry for investing by offering low account minimums, making financial planning accessible to a broader audience.

2.3 Customization and Personalization

Advanced algorithms tailor investment strategies to align with individual goals and preferences.

2.4 24/7 Availability

Being digital, these platforms offer round-the-clock access, allowing users to monitor their portfolios at any time.

3. Advantages of Robo-Advisors

- **Efficiency:** Automated systems process large datasets swiftly, providing quick and accurate recommendations.
- **Objectivity:** Decisions are free from human biases, ensuring rational investment strategies.
- **Scalability:** These platforms can serve a large number of clients simultaneously without compromising service quality.

4. Limitations and Challenges

Despite their advantages, robo-advisors face several challenges:

4.1 Lack of Human Touch

Many investors value the guidance and reassurance that come from human advisors, which automated platforms cannot fully replicate.

4.2 Limited Complexity

Robo-advisors are less effective in managing complex financial needs, such as estate planning or multi-generational wealth transfer.

4.3 Market Volatility

In periods of high market volatility, investors may prefer human intervention to address concerns and provide personalized advice.

5. Future Trends in Robo-Advisors

The rapid pace of technological advancement is likely to shape the future of robo-advisors in several ways:

- **Integration of Artificial Intelligence:** Enhanced AI capabilities could enable more sophisticated financial planning and decision-making.
- **Hybrid Models:** Combining automated platforms with human advisors may address limitations and appeal to a wider audience.
- **Global Expansion:** As internet penetration increases globally, these platforms are poised to reach untapped markets, promoting financial inclusion.

9.2 ROLE OF BIG DATA IN PORTFOLIO MANAGEMENT

Portfolio management has undergone a significant transformation in recent years, largely driven by the advent of big data and its analytical capabilities. Big data, characterized by vast volumes of structured and unstructured data, plays a critical role in reshaping the strategies and processes associated with portfolio management. This chapter explores how big data is utilized in portfolio management, highlighting its advantages, applications, and challenges.

1. Introduction to Big Data in Finance

Big data refers to the massive datasets generated from various sources such as social media, financial transactions, news, and economic indicators. In the context of portfolio management, big data enables investment managers to extract meaningful insights and make informed decisions. Unlike traditional data analysis, big data employs advanced technologies like machine learning and artificial intelligence to uncover patterns and trends in financial markets.

2. Advantages of Using Big Data in Portfolio Management

Big data provides several advantages that enhance the portfolio management process:

1. **Improved Decision-Making:**

   Real-time analysis of data allows portfolio managers to make timely and accurate investment decisions.

2. **Enhanced Risk Assessment:**

   By analyzing diverse datasets, big data helps identify potential risks and correlations across different asset classes.

3. **Customized Investment Strategies:**

   Insights derived from big data enable managers to create personalized portfolios based on an investor's risk tolerance, goals, and preferences.

4. **Market Sentiment Analysis:**

   Using big data from social media and news, managers can gauge market sentiment and predict potential price movements.

3. Applications of Big Data in Portfolio Management

The practical applications of big data in portfolio management are vast and impactful. applications include:

1. **Algorithmic Trading:**

   Big data powers trading algorithms that analyze market conditions and execute trades within milliseconds.

2. **Predictive Analytics:**

   Historical data combined with predictive models helps anticipate market trends and asset performance.

3. **Risk Management:**

   Advanced analytics assess risk exposures across a portfolio, identifying vulnerabilities and providing solutions to mitigate them.

4. **Portfolio Optimization:**

   By analyzing diverse datasets, big data aids in balancing risk and return to achieve optimal portfolio allocation.

5. **Performance Monitoring:**

   Continuous analysis of big data ensures that portfolio performance aligns with investment objectives.

4. Challenges in Implementing Big Data in Portfolio Management

Despite its numerous benefits, integrating big data into portfolio management presents several challenges:

1. **Data Quality:**

   Ensuring the accuracy and reliability of data remains a significant concern.

2. **Technology Infrastructure:**

   Implementing big data analytics requires advanced infrastructure, which can be expensive.

3. **Regulatory Compliance:**

   Managing and analyzing financial data must align with data protection regulations, such as GDPR.

4. **Skills Gap:**

   Portfolio managers need technical expertise in data science and analytics to fully leverage big data tools.

5. Future Trends in Big Data and Portfolio Management

The role of big data in portfolio management will continue to evolve as technology advances. future trends include:

1. **Integration of Artificial Intelligence:**

   AI will further enhance the ability to analyze large datasets and identify complex patterns.

2. **Real-Time Portfolio Adjustments:**

   Big data will enable instantaneous portfolio adjustments in response to market changes.

3. **Blockchain for Data Transparency:**

   Combining big data with blockchain technology can improve the accuracy and transparency of financial data.

4. **Sustainability Insights:**

   Big data will play a pivotal role in incorporating Environmental, Social, and Governance (ESG) factors into investment decisions.

9.3 TOKENIZATION OF ASSETS AND INVESTMENT ACCESSIBILITY

Tokenization is a groundbreaking innovation in the financial sector, driven by blockchain technology. It involves converting physical or digital assets into digital tokens that represent ownership or a share of the asset. These tokens are then stored and transferred on blockchain platforms, offering enhanced security, transparency, and accessibility. This chapter explores the concept of tokenization, its application in asset management, and its role in democratizing investment opportunities.

Understanding Tokenization of Assets

Tokenization allows for the division of an asset—be it real estate, art, stocks, or other tangible and intangible properties—into smaller, fungible units called tokens. These tokens can be traded on digital platforms, making traditionally illiquid assets more accessible to a broader audience.

How Tokenization Works

- ✓ Asset identification and valuation.
- ✓ Creating digital tokens using blockchain protocols.
- ✓ Issuing tokens to investors via secure platforms.
- ✓ Enabling transactions using smart contracts.

Types of Tokenized Assets

- **Real Estate**: Tokenizing properties for fractional ownership.
- **Art and Collectibles**: Making high-value assets accessible to multiple investors.
- **Equities and Bonds**: Tokenizing traditional securities for seamless trading.

Benefits of Tokenization in Investment

1. **Enhanced Accessibility**

   Tokenization lowers the entry barriers for investors, allowing individuals to participate with smaller capital investments.

2. **Liquidity Creation**

   By breaking down assets into smaller units, tokenization transforms illiquid assets into liquid investments, enabling faster transactions.

3. **Transparency and Security**

   Blockchain technology ensures an immutable and transparent ledger, reducing fraud and increasing trust among investors.

4. **Global Reach**

   Tokenized assets can be traded across borders, attracting a global pool of investors and unlocking new opportunities.

Challenges and Risks

Despite its potential, tokenization is not without challenges.

- **Regulatory Hurdles**

  Different jurisdictions have varying regulations, creating compliance complexities for issuers and investors.

- **Market Volatility**

  Tokenized assets are subject to market fluctuations, impacting investor confidence.

- **Technological Barriers**

  Adopting blockchain and digital platforms requires significant infrastructure and technological advancements.

Investment Accessibility and Financial Inclusion
Tokenization plays a crucial role in democratizing investments, enabling financial inclusion for underserved populations.

- **Fractional Ownership**

  Small-scale investors can now own a share of high-value assets, such as luxury properties or rare collectibles, previously out of reach.

- **Lower Costs**

  Tokenized assets eliminate intermediaries, reducing transaction fees and making investments more cost-effective.

- **Empowering Underserved Markets**

  Tokenization provides a gateway for individuals in emerging economies to participate in global financial markets.

Future of Tokenization in Wealth Management
The adoption of tokenization is poised to transform wealth management practices. trends include:

1. **Integration with Decentralized Finance (DeFi)**

   DeFi platforms are increasingly leveraging tokenized assets for lending, borrowing, and yield farming.

2. **Development of Regulatory Frameworks**

   Governments and financial institutions are working to establish comprehensive guidelines to ensure secure and transparent tokenized markets.

3. **Enhanced Investor Experience**

   Advanced platforms with user-friendly interfaces are making it easier for investors to explore and manage tokenized portfolios.

9.4 SOCIAL TRADING AND GAMIFICATION OF INVESTMENTS

Investment and wealth management have undergone a significant transformation in recent years, driven by advancements in technology and changing investor behavior. Two revolutionary trends shaping this landscape are social trading and the gamification of investments. These concepts have introduced new ways of engaging with financial markets, making investing more accessible and appealing to a broader audience.

Understanding Social Trading

Social trading is a method of investing that allows individuals to observe, learn, and replicate the trading strategies of experienced investors within an online community. It merges the power of social networking with financial markets, enabling users to share insights, discuss strategies, and collaborate on investment decisions.

Features of Social Trading

1. **Copy Trading:**

   Copy trading enables novice investors to automatically replicate the trades of seasoned professionals. By linking their accounts to those of expert traders, individuals can mirror successful strategies with minimal effort.

2. **Community Insights:**

   Social trading platforms provide forums and discussion boards where users can share market insights, trends, and tips, fostering a collaborative investment culture.

3. **Transparency:**
   Investors can access the trading history and performance metrics of top traders, allowing them to make informed decisions about whom to follow.

4. **Accessibility:**
   Social trading platforms are designed to be user-friendly, enabling individuals with little financial expertise to participate in the market effectively.

Popular Social Trading Platforms

Platforms such as eToro, ZuluTrade, and Tradeo have gained prominence in the social trading space, offering users a seamless experience in observing and emulating the strategies of successful traders.

Gamification of Investments

Gamification applies game-like elements, such as rewards, competitions, and interactive tools, to the investment process. It aims to make investing more engaging and enjoyable, particularly for younger and less experienced investors.

Core Elements of Gamification

1. **Achievements and Rewards:**

   Many platforms offer badges, points, or other incentives for completing specific tasks, such as achieving a savings goal or making a profitable trade.

2. **Leaderboards:**
   Leaderboards rank users based on their investment performance, creating a competitive yet motivating environment that encourages users to improve their strategies.

3. **Simulated Trading:**

   Virtual trading games allow users to practice investing without real financial risk, helping them build confidence and skills.

4. **Interactive Learning:**

   Gamified platforms often include tutorials, quizzes, and challenges to educate users about financial markets in an engaging way.

Examples of Gamified Investment Platforms

Platforms like Robinhood, Stash, and Acorns incorporate gamification elements to attract and retain users, especially Millennials and Gen Z investors.

Impact on Investment Behavior

Social trading and gamification have democratized investing by lowering barriers to entry and increasing engagement. However, they also pose potential risks, such as over-reliance on others' strategies or making impulsive decisions due to competitive pressures.

Benefits

- Enhanced accessibility for first-time investors.
- Increased financial literacy through interactive learning.
- Opportunities for collaboration and idea sharing.

Challenges

- Risk of herd mentality leading to suboptimal investment choices.
- Lack of regulation on some platforms, exposing users to potential fraud.
- Overemphasis on gamification elements could trivialize investment risks.

The Future of Social Trading and Gamification

The integration of artificial intelligence (AI) and blockchain technology is expected to further enhance these trends. AI can provide personalized investment recommendations, while blockchain ensures transparency and security in transactions. Additionally, regulatory frameworks are likely to evolve to address the challenges posed by these innovative approaches.

9.5 FUTURE OF WEALTH MANAGEMENT WITH FINTECH

The wealth management industry is undergoing a profound transformation driven by advancements in financial technology (FinTech). Traditional approaches to investment and wealth management are evolving, offering clients enhanced convenience, personalization, and efficiency. In this chapter, we explore how FinTech innovations are shaping the future of wealth management and revolutionizing the way individuals and organizations manage their financial assets.

1. The Role of Technology in Wealth Management

The integration of FinTech into wealth management has introduced a wide range of tools and platforms that cater to diverse client needs. Technology is enabling:

- **Accessibility:** Digital platforms provide wealth management services to a broader audience, including individuals with modest investments.
- **Efficiency:** Automated systems streamline portfolio management, reporting, and rebalancing, reducing the time and cost involved.
- **Personalization:** Advanced algorithms analyze client data to create tailored investment strategies.

2. Rise of Robo-Advisors

Robo-advisors are one of the most notable innovations in FinTech. These automated platforms:

- Use algorithms to create and manage portfolios.
- Offer low-cost alternatives to traditional advisors.
- Provide 24/7 accessibility and transparency for clients.

Although they lack the human touch, their affordability and efficiency have made them popular among younger and tech-savvy investors.

3. Big Data and Predictive Analytics

Big Data plays a pivotal role in the FinTech-driven wealth management industry:

- **Enhanced Decision-Making:** By analyzing historical market data, investment patterns, and client behavior, predictive analytics can identify opportunities and risks.
- **Client Profiling:** Wealth managers use data to understand client preferences, risk tolerance, and goals, enabling more accurate portfolio recommendations.

4. Tokenization and Investment Accessibility

Tokenization is the process of converting physical assets, such as real estate or art, into digital tokens on a blockchain. This innovation:

- Allows fractional ownership, enabling investors to participate in high-value assets.
- Provides increased liquidity and transparency in traditionally illiquid markets.
- Expands opportunities for diversification in investment portfolios.

5. Gamification and Social Investing

FinTech platforms are increasingly incorporating gamification and social features to engage younger investors:

- **Gamification:** By using interactive tools and reward systems, platforms make investment education more engaging.
- **Social Investing:** Platforms allow users to follow and replicate strategies of successful investors, fostering community-driven decision-making.

6. Ethical and Sustainable Investing

FinTech is supporting the growing trend of ethical and sustainable investing:

- Platforms use AI to identify companies and funds aligned with environmental, social, and governance (ESG) criteria.

- Investors can track the social and environmental impact of their investments.
- Transparent reporting tools enhance accountability.

7. Challenges and Risks

Despite its benefits, FinTech in wealth management presents challenges:

- **Cybersecurity:** Increased reliance on digital platforms raises concerns about data breaches and fraud.
- **Regulatory Compliance:** Adapting to global and regional regulations is essential to ensure trust and stability.
- **Overreliance on Technology:** Automated systems may lack the intuition and judgment of human advisors during volatile market conditions.

8. Future Trends in FinTech for Wealth Management

As technology continues to evolve, the future of wealth management will likely include:

- **Artificial Intelligence:** AI-driven insights will enhance portfolio performance and client engagement.
- **Blockchain:** Blockchain technology will improve transparency and efficiency in transactions and record-keeping.
- **Personalized Experiences:** Virtual reality (VR) and augmented reality (AR) may create immersive financial planning experiences for clients.

Long Answer Questions

1. Explain the concept of wealth management and its significance in achieving financial goals. Include the key components of a comprehensive wealth management strategy.
2. Discuss the different types of investment options available to individual investors, highlighting their risk-return profiles and suitability for different financial goals.
3. How does diversification reduce investment risk? Illustrate your answer with examples and provide insights into creating an optimal diversified portfolio.
4. Describe the role of financial advisors in investment planning. How do they balance the risk tolerance and financial objectives of their clients?
5. Analyze the impact of inflation on investment planning and wealth accumulation. Suggest strategies to combat inflation risk.
6. Compare and contrast active and passive investment strategies. What are the advantages and disadvantages of each approach?
7. Elaborate on the importance of asset allocation in investment management. How does it contribute to achieving a balanced portfolio?
8. Explain the concept of risk-adjusted returns in investment analysis. How do tools like the Sharpe ratio and Beta help evaluate investment performance?
9. Discuss the various tax-saving investment options available in your country. How do these contribute to effective wealth management?
10. Analyze the role of behavioral finance in investment decisions. What common biases affect investors, and how can they be mitigated?

Short Answer Questions:

1. What is the primary objective of wealth management?
2. Define portfolio diversification in investment management.
3. How does compound interest influence wealth accumulation over time?

4. What is the difference between equity and debt investments?
5. Name three key risks associated with investment in real estate.
6. What is a mutual fund, and how does it work?
7. Why is liquidity important in investment planning?
8. Mention two differences between growth investing and value investing.
9. What is the purpose of a financial risk tolerance assessment?
10. How do Exchange-Traded Funds (ETFs) differ from traditional mutual funds?

UNIT 10: FUTURE OF FINTECH AND ETHICAL CONSIDERATIONS

10.1 EMERGING TECHNOLOGIES SHAPING FINTECH

Financial Technology (FinTech) is undergoing rapid transformation, driven by emerging technologies that are reshaping the global financial landscape. These innovations enable faster, more efficient, and customer-centric services, breaking down traditional barriers in the financial ecosystem. This chapter explores the most impactful emerging technologies driving FinTech's evolution and their implications for the future of financial services.

1. Blockchain Technology

Blockchain has revolutionized the way financial transactions are recorded and verified. Its decentralized and transparent nature has made it a cornerstone for innovations like cryptocurrencies, smart contracts, and decentralized finance (DeFi).

- **Applications in FinTech:**
  - ✓ Secure and fast cross-border payments.
  - ✓ Creation of digital assets and tokenization.
  - ✓ Simplified and automated contract management through smart contracts.
- **Challenges:**
  - ✓ Regulatory uncertainties.
  - ✓ High energy consumption in some blockchain models.

2. Artificial Intelligence (AI) and Machine Learning (ML)

AI and ML have become integral to FinTech by enabling data-driven decision-making and enhanced customer experiences. These technologies provide real-time insights and automate complex processes.

- **Applications in FinTech:**
  - ✓ Fraud detection and risk management.

- ✓ Robo-advisors for personalized investment advice.
- ✓ Chatbots and virtual assistants for customer support.

- **Advantages:**
  - ✓ Improved accuracy in credit scoring.
  - ✓ Enhanced operational efficiency.

3. Big Data and Analytics

The ability to analyze vast amounts of data has empowered FinTech firms to understand customer behavior and market trends better.

- **Contributions:**
  - ✓ Identifying patterns in consumer spending.
  - ✓ Customizing financial products and services.
  - ✓ Real-time monitoring of financial risks.
- **Challenges:**
  - ✓ Data privacy concerns.
  - ✓ Integration with legacy systems.

4. Internet of Things (IoT)

IoT is extending FinTech's reach by connecting devices to financial systems, enabling real-time data exchange and transaction processing.

- **Applications in FinTech:**
  - ✓ Usage-based insurance models.
  - ✓ IoT-powered payment systems in retail and e-commerce.
  - ✓ Enhanced asset tracking for financial institutions.
- **Potential Risks:**
  - ✓ Cybersecurity threats.
  - ✓ Data integrity issues.

5. Quantum Computing

Quantum computing holds the potential to revolutionize FinTech with its unmatched processing power, capable of solving complex problems in seconds.

- **Implications for FinTech:**
  - ✓ Optimization of investment portfolios.
  - ✓ Enhanced cryptography for secure transactions.
  - ✓ Faster risk assessments and fraud prevention.
- **Current Limitations:**
  - ✓ High development costs.
  - ✓ Limited commercial availability.

6. Cloud Computing and Edge Computing

Cloud technology enables FinTech firms to operate efficiently with scalable and cost-effective solutions, while edge computing facilitates real-time data processing at the source.

- **Advantages:**
  - ✓ Reduced infrastructure costs.
  - ✓ Scalability for growing businesses.
  - ✓ Real-time decision-making at the edge.
- **Concerns:**
  - ✓ Dependency on third-party cloud providers.
  - ✓ Compliance with regional data regulations.

7. Biometric Authentication

Biometric technologies, such as fingerprint and facial recognition, enhance security and streamline user experiences in FinTech applications.

- **Popular Use Cases:**
  - ✓ Secure access to mobile banking apps.
  - ✓ Identity verification for online transactions.
  - ✓ Fraud prevention in e-commerce.

- **Ethical Concerns:**
  - ✓ Data misuse and unauthorized access.
  - ✓ Issues with inclusivity for users with disabilities.

10.2 CYBERSECURITY AND DATA PRIVACY IN FINTECH

As financial technology (FinTech) continues to redefine the global financial landscape, cybersecurity and data privacy have emerged as critical concerns. FinTech solutions rely heavily on digital platforms and vast amounts of data to deliver personalized and efficient financial services. However, with this reliance comes significant risks, including data breaches, identity theft, and cyberattacks. Ensuring robust cybersecurity measures and maintaining data privacy are essential to fostering trust and sustainability in the FinTech ecosystem.

The Importance of Cybersecurity in FinTech

1. **Rising Threats in the Digital Age**

   The increasing sophistication of cyberattacks poses a severe threat to FinTech platforms. Hackers target sensitive financial data, payment systems, and customer information, exploiting vulnerabilities in networks and software.

2. **Financial and Reputational Risks**

   A single cybersecurity breach can lead to financial losses, legal consequences, and irreparable damage to a company's reputation. For FinTech firms, where trust is paramount, safeguarding customer data is crucial.

3. **Compliance with Regulations**

   Governments and regulatory bodies across the globe mandate stringent cybersecurity measures. Regulations such as the General Data Protection Regulation (GDPR) and Payment Card Industry Data Security Standard (PCI DSS) require FinTech companies to adopt secure data handling practices.

Aspects of Data Privacy in FinTech

1. **Collection and Usage of Customer Data**

   FinTech platforms often collect vast amounts of personal and financial data. Transparency in data collection and usage policies is necessary to maintain customer trust.

2. **Consent and Control**

   Providing customers with control over their data is a cornerstone of privacy. FinTech companies must ensure that users can easily grant, revoke, or modify permissions for data usage.

3. **Data Storage and Encryption**

   Secure data storage mechanisms, including encryption, protect sensitive information from unauthorized access. Advanced cryptographic techniques are increasingly being deployed in FinTech solutions.

4. **Anonymization and Minimization**

   Minimizing data collection and anonymizing stored data can significantly reduce risks. By using only essential information, companies can enhance privacy without compromising service quality.

Emerging Technologies in Cybersecurity

1. **Artificial Intelligence and Machine Learning**

   AI-powered tools detect and respond to cyber threats in real-time. Machine learning algorithms can identify unusual patterns, enabling proactive measures to prevent breaches.

2. **Blockchain for Secure Transactions**

   Blockchain technology offers a decentralized and tamper-proof solution for secure transactions. Its use in FinTech enhances trust and reduces vulnerabilities in financial systems.

3. **Biometric Authentication**

   Biometric systems, such as fingerprint and facial recognition, provide a robust layer of security. These technologies reduce

reliance on traditional passwords, which are often vulnerable to attacks.

Ethical Challenges in Cybersecurity and Privacy

1. **Balancing Innovation and Privacy**

   While innovation drives the FinTech industry forward, it often involves collecting and analyzing vast amounts of data. Striking a balance between innovation and customer privacy remains a significant ethical dilemma.

2. **Addressing Algorithmic Bias**

   AI-driven tools in FinTech may unintentionally introduce biases, leading to unequal treatment of customers. Ethical considerations demand continuous monitoring and rectification of such biases.

3. **Transparency in Data Handling**

   FinTech firms must communicate their data handling practices clearly. Customers have the right to know how their data is being used and protected.

4. **Cross-Border Data Transfers**

   FinTech companies operating globally face challenges in complying with diverse data privacy regulations. Ethical practices require adherence to local laws while respecting customer privacy universally.

10.3 ETHICAL CHALLENGES IN FINTECH ADOPTION

The rapid growth of FinTech has transformed the financial landscape, offering unprecedented convenience, inclusivity, and innovation. However, this technological revolution brings with it a host of ethical challenges that demand careful consideration. These challenges are pivotal as they impact trust, transparency, and the overall adoption of FinTech solutions. Below are some of the critical ethical concerns associated with FinTech adoption:

1. Data Privacy and Security

One of the primary ethical challenges in FinTech is the handling of personal and financial data. FinTech platforms often collect extensive user information to provide personalized services. Ensuring the security of this data and protecting it from breaches is a significant concern. Questions arise about how companies use, store, and share this data, often leading to debates about informed consent and user control over their information.

Issues:

- Unauthorized data sharing with third parties.
- Inadequate encryption measures leading to data breaches.
- Lack of transparency in data collection policies.

2. Algorithmic Bias and Fairness

Many FinTech solutions leverage artificial intelligence (AI) and machine learning algorithms to make decisions, such as credit scoring, loan approvals, and insurance underwriting. While these technologies increase efficiency, they can unintentionally perpetuate biases in their decision-making processes. Discrimination based on gender, race, or geography can occur due to biased training data or flawed algorithms.

Issues:

- Lack of diversity in training datasets.
- Inadequate testing for fairness and bias.
- Absence of regulatory frameworks to address algorithmic discrimination.

3. Transparency and Accountability

FinTech platforms often rely on complex technologies such as blockchain and AI, which are not always fully understood by end users. The opacity of these systems can lead to ethical dilemmas when users cannot comprehend how their money or data is being managed. Furthermore, accountability becomes a gray area in decentralized systems, where multiple entities may be involved.

Issues:

- Lack of clear communication about fees and terms.
- Difficulty in identifying responsible parties in case of disputes.
- Misuse of customer trust due to complex terms and conditions.

4. Cybersecurity Risks

As FinTech platforms operate in a digital-first environment, they are inherently susceptible to cyber threats. Cybersecurity breaches not only lead to financial losses but also erode user trust in the system. Ethical concerns arise when companies fail to invest adequately in robust security measures, leaving customer data vulnerable.

Issues:

- Insufficient investment in cybersecurity infrastructure.
- Delayed response to breaches and lack of transparency about incidents.
- Ethical dilemmas around who bears the liability for cyberattacks.

5. Financial Exclusion and Digital Divide

While FinTech aims to promote financial inclusion, it can inadvertently exclude individuals who lack access to digital infrastructure, such as smartphones or the internet. This exclusion raises ethical questions about the equitable distribution of technological benefits and the reinforcement of existing inequalities.

Issues:

- Marginalization of rural or low-income populations.
- Dependence on digital literacy for accessing services.
- High fees or service costs that deter low-income users.

6. Regulatory Compliance and Ethical Standards

The rapid pace of innovation in FinTech often outstrips the ability of regulators to keep up. This regulatory gap can lead to ethical concerns, such as exploitation of legal loopholes, inadequate consumer protection, and non-compliance with anti-money laundering (AML) or counter-terrorism financing (CTF) guidelines.

Issues:

- Lack of universal regulatory frameworks.
- Ethical concerns around tax evasion or money laundering.
- Unethical practices such as predatory lending.

7. Environmental Impact

The environmental footprint of FinTech, particularly blockchain and cryptocurrency technologies, is an emerging ethical challenge. The significant energy consumption of these technologies contributes to carbon emissions, conflicting with global sustainability goals.

Issues:

- High energy consumption of blockchain networks.
- Lack of green alternatives in FinTech technologies.
- Ethical responsibilities toward sustainable operations.

Addressing Ethical Challenges in FinTech

To ensure the sustainable and responsible growth of FinTech, addressing these ethical challenges is crucial. Policymakers, businesses, and stakeholders need to collaborate to develop frameworks that prioritize:

1. **Enhanced Data Privacy Protections:** Implementing strict data protection laws and empowering users with greater control over their information.
2. **Algorithmic Accountability:** Regularly auditing AI systems to eliminate biases and ensure fairness.

3. **Transparent Communication:** Simplifying terms and conditions to promote informed decision-making among users.
4. **Inclusive Strategies:** Designing services that cater to underserved communities and reduce the digital divide.
5. **Strong Cybersecurity Measures:** Investing in cutting-edge technologies to safeguard against cyber threats.
6. **Environmental Sustainability:** Innovating green solutions for FinTech operations.

10.4 COLLABORATION BETWEEN FINTECH AND TRADITIONAL INSTITUTIONS

The collaboration between FinTech companies and traditional financial institutions has become a defining feature of the modern financial ecosystem. Rather than competing against each other, these two sectors are finding ways to merge their strengths, combining innovation with experience and trust. This chapter explores the dynamics of such collaborations, their benefits, challenges, and the broader implications for the future of finance.

The Need for Collaboration

1. **Combining Innovation with Stability**

FinTech firms bring innovative technologies such as blockchain, artificial intelligence, and machine learning.

Traditional institutions, with their robust infrastructure and regulatory compliance, provide stability and trust.

2. **Meeting Evolving Customer Expectations**

Customers demand faster, more personalized financial services.

Collaboration enables a seamless integration of technology into traditional banking processes, meeting these demands efficiently.

3. **Addressing Regulatory Challenges Together**

FinTech firms often face difficulties navigating complex regulations.

Partnering with established institutions helps them comply with legal and regulatory frameworks.

Models of Collaboration

1. Partnerships and Alliances

Banks and FinTech firms enter into strategic partnerships to develop innovative financial products.

Examples: Co-branded digital wallets or mobile banking apps.

2. White-Label Solutions

FinTech companies provide technology infrastructure, while banks brand and market the services.

Examples: Loan origination platforms powered by FinTech algorithms.

3. FinTech as Service Providers

Many FinTech firms operate as backend service providers for traditional institutions.

Examples: AI-driven fraud detection tools integrated into banking systems.

4. Acquisitions and Investments

Banks acquire promising FinTech startups to integrate their technology and talent.

Examples: Investment in blockchain firms for cross-border payments.

Benefits of Collaboration

1. Enhanced Customer Experience

Real-time transactions, intuitive interfaces, and personalized services become possible through collaboration.

2. Cost Optimization

Shared resources reduce operational costs for both entities.

Technology-driven solutions streamline processes, saving time and money.

3. **Wider Reach**

Digital platforms developed through collaboration can penetrate underserved markets, enhancing financial inclusion.

4. **Innovation and Agility**

Collaboration accelerates the adoption of cutting-edge technologies by traditional players.

Challenges in Collaboration

1. **Cultural Differences**

Traditional institutions often have hierarchical structures, while FinTech firms are agile and innovation-driven. Bridging these differences requires mutual understanding and adaptation.

2. **Data Security and Privacy**

Sharing customer data between institutions poses significant security risks. Ensuring compliance with data protection regulations is essential.

3. **Integration Complexities**

Merging legacy systems of banks with advanced FinTech solutions can be technically challenging.

4. **Regulatory Hurdles**

Collaborative models must align with stringent financial regulations to avoid penalties or restrictions.

Future Outlook

1. **Increased Cross-Sector Synergies**

The lines between FinTech and traditional institutions will continue to blur as both sectors adapt to collaborative frameworks.

2. **Adoption of Open Banking**

Open banking initiatives will create more opportunities for integration, enabling secure data sharing through APIs.

3. **Emergence of Hybrid Models**

Joint ventures and hybrid financial institutions will likely emerge, combining the best of both worlds.

4. **Focus on Sustainability**

Collaborations will increasingly emphasize sustainable finance, incorporating green technologies and ethical practices.

Long Questions

1. Discuss how emerging technologies such as blockchain, AI, and machine learning are shaping the future of fintech.
2. Evaluate the potential ethical concerns related to the use of customer data in fintech innovations.
3. Analyze the role of fintech in promoting financial inclusion and the associated ethical implications.
4. What are the challenges and opportunities of integrating decentralized finance (DeFi) into mainstream financial systems?
5. Examine the impact of regulatory frameworks on the development of ethical fintech solutions.
6. How can fintech companies ensure transparency and fairness in the use of AI algorithms for credit scoring and lending?
7. Discuss the implications of digital currencies, such as CBDCs (Central Bank Digital Currencies), for the global financial system.
8. Evaluate the ethical challenges associated with the rise of robo-advisors in wealth management.
9. What measures can fintech firms adopt to prevent cyber threats and ensure ethical cybersecurity practices?
10. Explore how fintech can balance innovation with ethical responsibility in underserved markets.

Short Questions

1. What is the role of blockchain in the future of fintech?
2. How does AI contribute to the fintech industry?
3. Define financial inclusion and its importance in fintech.
4. What are the ethical risks of using customer data in fintech?
5. How can fintech improve transparency in financial services?

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Analysis of Techniques to Ensure Data Security and Employee Privacy in E-HRM Systems

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***Abstract*— This paper analyses the data security and privacy concerns in electronic Human Resource Management (E-HRM) systems, focusing on the challenges introduced by digitalization and how to deal with such issues. Using an exploratory research approach based on secondary data, the study explores the landscape of cyber threats, including external attacks and insider risks, faced by organizations relying on E-HRM systems. Findings reveal the importance of balancing advanced data management capabilities with robust data protection measures to mitigate risks. The study emphasizes the need for a proactive approach to cybersecurity, combining technological solutions with organizational policies. It underscores the significance of ongoing employee education and training on data security best practices and the necessity for organizations to stay abreast of legal and regulatory changes in data protection. This research serves as a valuable resource for HR professionals and organizational leaders seeking to enhance the security and integrity of their e-HRM systems amidst the evolving digital landscape.**

Keywords—E-HRM, Data Security, Employee Privacy, Industry 5.0

I. Introduction

The adoption of new technologies and the digitalization of organizational processes have necessitated the rapid evolution of HRM practices. As a result, organizations must develop and adopt new HR competencies, new forms of employment, and agile HR processes to keep up with the changing times. This transformation, characterized by the migration from traditional HR practices to digital platforms, has significantly altered the way organizations manage employee data, conduct recruitment, perform evaluations, and engage with their workforce [1]. The concept of digital or E-HRM systems has gained significant popularity in recent years, and it is transforming the way organizations manage their employee data [2]. While such advancements offer considerable benefits, they also introduce complex challenges related to data security and employee privacy [3]. The issue of data security and employee privacy in e-HRM systems is a critical concern for organizations, employees, and policymakers. The significance of data security and privacy within the E-HRM system cannot be neglected, as breaches or mishandling of personal data can lead to serious consequences, including legal repercussions, financial losses, and damage to organizational reputation [4]. Organizations have a responsibility to protect their employees' data, and employees have a right to privacy in the workplace. As such, it is crucial to examine the future of work and how E-HRM systems can be designed to ensure data security and employee privacy.

As organizations continue to adopt E-HRM systems to manage their HR processes, it is crucial to address the potential risks associated with the handling of personal information. Thus, the future of work increasingly depends on the ability of organizations to navigate the complexities of digital data management, ensuring both the security of their systems and the privacy of employee information. The rationale for this study is to explore the challenges and risks associated with E-HRM systems and identify how organizations can ensure data security and employee privacy. The study will examine the existing regulatory frameworks and current practices in data security and employee privacy and analyze their effectiveness. This research paper aims to explore the challenges and strategies related to data security and privacy in e-HRM organizations. By examining current practices, technological solutions, and compliance measures, this study seeks to offer insights into effective data management approaches that balance security with privacy in the digital HR landscape. It will contribute to strategic discussions on how organizations can adapt to the future of work, ensuring that their HR practices not only comply with emerging laws but also foster an environment of trust and security. The study is divided into two sections; the first phase involves identifying the key challenges related to data security and employee privacy, while the second phase focuses on finding remedies. The current exploratory research project uses secondary data as its foundation.

II. Literature Review

Modern Human Resource Management (HRM) can be classified into three main components: HR actors, HR activities, and HR technologies. HR actors are the employees who are responsible for carrying out various duties and responsibilities related to HRM. HR activities refer to the range of practices that add value to an organization's management of people in the workplace. Finally, HR technologies refer to the networking of software and hardware that facilitate the successful completion of HRM tasks. Formulating a strong interrelationship between each of these three core elements is essential to effective employment management practices at modern firms [5].

Such rising popularity of digital HR processes has inadvertently made sensitive employee data more vulnerable to cyber threats. According to the literature review, E-HRM systems face significant technological vulnerabilities that pose a considerable risk to data security. Despite advances in encryption and security protocols, these systems remain susceptible to sophisticated cyber-attacks and data breaches [6]. Similarly, Berkelaar [7] argues that the proactive management of digital footprints in E-HRM practices must be balanced with respect for employee privacy, suggesting a framework for ethical data use in HR.

In their research, Dwivedi et al. [8] discuss the future of work and the role of emerging technologies such as artificial

Authorized licensed use limited to: AMITY University. Downloaded on March 28,2025 at 06:35:23 UTC from IEEE Xplore. Restrictions apply.

intelligence and machine learning in enhancing E-HRM systems. They propose that these technologies could revolutionize the way HR data is analyzed and processed, leading to more accurate and efficient decision-making processes. However, the implementation of these technologies also poses new challenges in terms of data security and employee privacy. With the increased use of AI and machine learning in HR processes, sensitive employee information is at risk of being compromised if proper security measures are not in place. Additionally, there is a growing concern among employees about the ethical use of their personal data in HR decision-making processes.

In their study, Smith et al. [9] highlight the importance of addressing the security of personal data proactively and discuss the various dimensions of information privacy. Failure to do so can result in significant financial losses and damage to an organization's reputation due to data breaches. Additionally, insider threats such as employee negligence or malicious intent further compound these security challenges. According to a report, In 2023, businesses across the world faced an average data breach cost of 4.45 million U.S. dollars. Additionally, a leaked data record cost around 165 U.S. dollars. The United States experienced the highest average breach cost globally, which was estimated at 9.48 million U.S. dollars [10].

III. Research Methodology

The present study adopts an exploratory research design, focusing on the comprehensive examination of data security and privacy concerns within E-HRM systems. Given the rapid development of digital technologies and the dynamic regulatory environment, exploratory research provides a flexible framework for understanding the emerging challenges and strategies related to data protection in E-HRM. This methodology is particularly suited to addressing the complex and multifaceted nature of cyber threats and privacy concerns that affect the digital transformation of human resources practices. Secondary sources include academic journals, industry reports, case studies, legislation texts, and publications from relevant professional bodies. By integrating findings from these varied sources, the study aims to uncover prevalent trends, identify significant challenges, and highlight effective strategies to safeguard sensitive employee data in the digital era.

IV. Findings & Discussion

A. Data Security in E-HRM systems

E-HRM systems offer a range of benefits that can help organizations automate and streamline HR processes, such as recruitment, training, and performance management. However, the use of E-HRM systems also presents significant risks to the security and privacy of sensitive employee information. Although there is substantial research on data security, it primarily centers around customer data. In contrast, there is comparatively less emphasis on employee data, which is equally vulnerable to cyber crimes. Data security in the workplace, particularly within the context of E-HRM systems, has emerged as a critical issue due to the increasing digitization of sensitive employee information. E-HRM systems store a large amount of sensitive employee data, including personal identification and financial information. As a result, E-HRM systems are a prime target for cyberattacks. When hackers gain access to these systems, they can potentially exploit personal and confidential data, leading to identity theft, financial fraud, and other privacy violations. This can cause significant damage to the affected employees, impacting their financial security and personal lives [11].

The central challenge in data security within E-HRM stems from the system's inherent features: storing large amounts of personal data, from biometrics to social security numbers, that are attractive targets for cybercriminals. For instance, HR systems that incorporate payroll functions hold bank account details and personal identification numbers, which can be exploited if not properly protected. The integration of third-party services with E-HRM systems, such as external payroll or benefits providers, often involves sharing sensitive data across platforms, potentially increasing vulnerability to security breaches.

HR professionals might not be aware of the potential risks and challenges associated with e-HRM systems, including data breaches, cyber-attacks, and unauthorized access as they are not IT experts. This lack of understanding can be due to several factors, including the complexity of data security regulations and the fast-paced changes in technology. Additionally, HR professionals may not have received adequate training or education on data security issues [5]. In the present study, we outline the various drivers of data security concerns and how they can be addressed.

Majeed et al. [12] in their study have highlighted the relationship between E-HRM and security systems. They have mentioned that strong integration between E-HRM and information security systems requires defining the complete information of organizations submitted by the management system to information security systems. This enables the continuous assessment of security measures performance. Fig. 1 depicts the integration between E-HRM and information security [12].

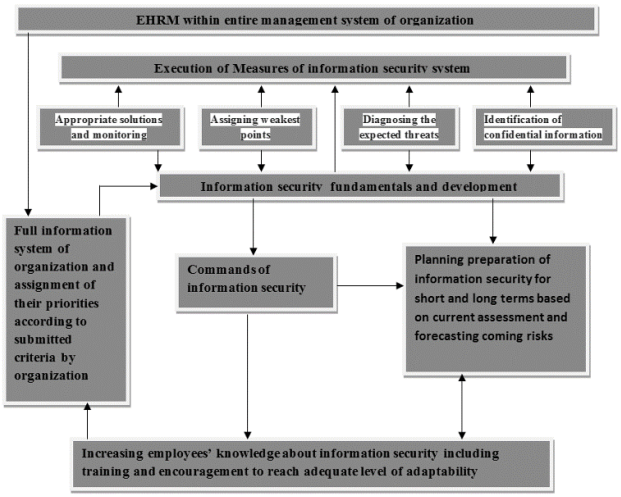


Fig. 1: Integration between E-HRM and Information Security

Cloud Environment: The trend of providing cloud-based E-HRM solutions is increasing rapidly [3]. Cloud-based E-HRM systems store vast amounts of sensitive personal and organizational data on remote servers, which are accessed over the Internet, increasing the potential exposure to data breaches and cyberattacks. Unlike traditional in-house IT environments, the cloud environment involves multiple

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parties: cloud service providers, third-party vendors, and the organization's own IT team, each with varying degrees of access and control over the data [13]. One of the benefits of cloud computing is the ability to share data among various organizations. However, this advantage also poses a risk to data security. Security and privacy are major concerns when it comes to using the cloud for data storage. Cloud-based e-HRM systems store vast amounts of sensitive personal and organizational data on remote servers, which are accessed over the Internet, increasing the potential exposure to data breaches and cyberattacks. To mitigate potential risks, it is necessary to ensure data repositories are adequately protected. Therefore, cloud service providers must ensure the integrity, privacy, and protection of data [14]. Additionally, HR professionals must understand the shared responsibility model of cloud security, where security obligations are divided between the provider and the client, to ensure all potential security gaps are covered.

BYOD: The trend of Bring Your Own Device (BYOD), where employees use their personal mobile phones and tablets to access company data, is becoming popular in the world of digitalization. Organizations acknowledge that BYOD can decrease costs and boost productivity. Employees prefer to work in a manner that enables them to use their personal devices anywhere and at any time, allowing them to engage in both personal and work-related activities [15].

The increasing popularity of BYOD policies within organizations poses unique challenges and vulnerabilities in E-HRM data security. BYOD allows employees to use their personal devices for professional tasks, which include accessing sensitive HR data and systems. While BYOD can enhance employee satisfaction and productivity by allowing the use of familiar devices, it also introduces significant security risks, particularly in the management of employee data in e-HRM systems. Fig. 2 highlights the potential attacks that may happen in BYOD and cloud settings [16]. Personal devices are more likely to be taken out of the secure corporate environment, increasing the risk of unauthorized access to sensitive HR information such as payroll data, personal employee records, and performance evaluations. Furthermore, the diversity of devices and operating systems can make it challenging for IT departments to ensure consistent security measures and updates across all devices [16], [17].



Fig. 2: Potential attacks in BYOD and Cloud Setting

Legal Regulations: The introduction of stringent data protection regulations, such as the General Data Protection Regulation (GDPR) in the European Union, underscores the importance of compliance and the need for robust data protection measures [18]. In this context, The Digital Personal Data Protection Act 2023 is enforced in India which is "an Act to provide for the processing of digital personal data in a manner that recognizes both the right of individuals to protect their personal data and the need to process such personal data for lawful purposes and for matters connected therewith or incidental thereto"[19]. The act necessitates that HR departments not only tighten their data security measures but also revise their data handling and processing protocols. Organizations must not only comply with these regulations but should also strive to exceed them to protect their stakeholders [20].

How to address data security concerns? Ensuring the security of data in E-HRM systems requires a comprehensive approach that includes both technical measures and organizational policies. This is particularly crucial due to the large amounts of sensitive data that HR departments handle, as well as the possible vulnerabilities in digital systems that could lead to security breaches. Technically, it is crucial to implement robust encryption protocols for data at rest and in transit. This protects sensitive information from unauthorized access. Data encryption is one of the main methods to improve data security within E-HRM systems [5]. Multi-factor authentication (MFA) can also be used to add an extra layer of security, ensuring that access to HRM systems is monitored and controlled [21]. Regularly updating and patching software is also essential to prevent cyber attackers from exploiting vulnerabilities [22]. On the organizational front, companies should establish clear data security policies that outline employee roles and responsibilities regarding data handling and breach response. Regular training programs should be conducted to educate employees about security best practices and the significance of safeguarding their personal and professional data. Furthermore, organizations should perform routine security audits and vulnerability assessments to identify and address potential security gaps in their HRM systems. This will help bolster their defenses against potential cyber threats [23].

For organizations, a breach can lead to direct financial losses, damage to trust and reputation, and long-term harm beyond immediate operational disruptions. Therefore, it is essential to implement robust security measures, such as advanced encryption technologies, regular vulnerability assessments, and employee education. These measures are necessary to protect both employee data and organizational integrity. It is also recommended that HR officials consider implementing more contingent employee offboarding strategies to avoid data leakage. When employees leave the organization, they may feel that they are no longer obligated to protect the organization's data integrity, which increases the risk of data leakage [5].

B. Employee Privacy in E-HRM organizations

It is evident from the literature that the introduction of technology in workplaces can enhance organizational efficiency and ultimately contribute to overall performance. With the growing adoption of E-HRM systems, various concerns such as technostress, burnouts, and privacy issues have also been aroused [24]. The existing literature sheds light on privacy concerns that arise in the context of consumers and explores the factors that trigger these concerns. However, individuals are not always consumers, due to this, there is a lack of understanding about how they perceive privacy in the workplace [25]. Fig. 3 depicts the

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connection between the implementation of digital workplaces and the emergence of privacy-related issues [25]. In the present study, we outline the various drivers of employee privacy concerns and how they can be addressed.

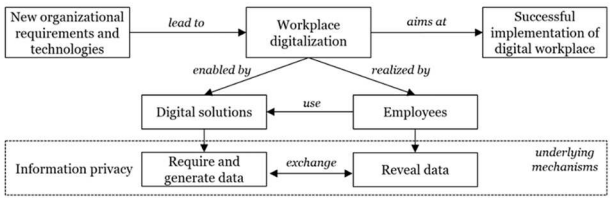


Fig. 3: Relationship between E-HRM and Employee Privacy

Surveillance and Monitoring: Organizations often implement monitoring methods for a variety of purposes, including cost management, performance and communication control, productivity measurement, and enhancement. Employers frequently encounter the need to verify confidentiality breaches, prevent damage to corporate image, and ensure compliance with security protocols. As such, monitoring methods play a crucial role in ensuring the smooth functioning and success of modern organizations [26]. E-HRM systems generally use advanced software for monitoring, surveillance, and work intensification to automate and oversee performance metrics, however, such extensive level of workplace monitoring and surveillance has further led to the issue of invasion of employee privacy [27]. For instance, companies such as Amazon use cutting-edge e-HRM systems to gauge warehouse workers' productivity by monitoring meticulous metrics like packing speed and idle time. While the intention behind these systems is to enhance productivity, they may also foster a climate of perpetual surveillance that can cause employee anxiety and a reduction in privacy [28].

Cyber-vetting: Another issue related to employee privacy is cyber-vetting, which is also called as social-media scanning. In addition to traditional sources of information like CVs and references, employers now have the option to delve into a candidate's online presence through the practice of cyber-vetting. Cyber-vetting is described as the proactive process of gathering online information [7]. The catalyst for this data collection is the internet, especially social media platforms. Cyber-vetting, due to its investigative nature, often occurs without the applicant's permission, knowledge, and thus consent. This has implications for both the individual being vetted and the organization utilizing the data. For the individual, it could impact their career, while for the organization, it could affect decision-making accuracy and raise moral and ethical dilemmas associated with using unfiltered information and potential errors. Similar issues arise when social media is employed in performance or disciplinary cases, highlighting the dual nature of using social media for both employers and employees [27].

Performance Assessment Systems: Employee privacy is also under threat due to the methods used for performance measurement in workplaces using E-HRM systems. The integration of modern tracking technologies and analytics into performance evaluation systems can lead to significant invasions of privacy. These systems often continuously monitor employees' activities, both online and offline, to gauge productivity and efficiency [29]. The use of keyloggers, location tracking, and real-time productivity software is becoming increasingly common in the workplace. These tools not only track employees' output but also closely monitor their behavior. While these practices can improve performance management, they also raise significant concerns about the extent to which they intrude into employees' personal lives and potentially violate their privacy rights. Reliance on invasive methods to monitor employee performance can harm the trust within an organization. This can create an atmosphere of surveillance that negatively impacts employee morale and job satisfaction. Therefore, organizations must strike a balance between effective performance monitoring and employee privacy. Monitoring practices should be transparent and justified to ensure respect for employee privacy [30].

Legal Regulations: Generally there is a lack of understanding of employee rights, granted permissions for data collection, and the nature of data collected in their workplace. The issue is that employees often give consent without knowing the implications of it, which can result in privacy concerns. Additionally, employees' perceptions about regulatory frameworks are often different from what is implemented in practice. This can lead to misunderstandings, particularly around when and to what extent their consent is required. Some employees believe that they always have to give their consent when their data is being processed, but this is not always the case. Thus, there is a lack of understanding among both employers and employees concerning laws and regulations related to employee privacy in the workplace [25]. Moreover, despite gaining paramount importance and consideration in today's world, India lacks comprehensive legislation on employee privacy policy [31].

How to address employee privacy concerns? To address the challenges and risks associated with E-HRM systems and ensure employee privacy, organizations need to adopt a multifaceted approach that prioritizes transparency, consent, and data minimization. Firstly, they need to establish clear policies and guidelines for data collection, processing, and storage, and ensure that employees are aware of their rights and granted permissions. Additionally, organizations should conduct regular risk assessments and audits of their E-HRM systems to identify vulnerabilities and implement necessary security measures. It is also crucial to provide adequate training to employees and HR professionals on data protection and privacy laws and regulations to avoid misunderstandings and ensure compliance [1]. Lastly, organizations should consider implementing privacy-enhancing technologies, such as encryption and anonymization, to protect employee data from unauthorized access and breaches. By addressing these critical aspects, organizations not only safeguard employee privacy but also strengthen their compliance with evolving data protection regulations.

V. Managerial Implications & Conclusion

Our research highlights the urgent requirement for organizations to implement comprehensive and proactive security measures to safeguard against data breaches. These measures should include advanced encryption technologies deployment, regular security audits, and continuous training of employees on data security best practices. Furthermore, the research emphasizes the importance of maintaining a balance between effective performance monitoring and respecting employee privacy to create a trustworthy and ethical work environment. This study does not aim to oppose the digital workplace, but rather to identify potential obstacles to its

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successful implementation. By understanding the determinants of privacy concerns in the workplace, organizations can improve their digital solutions to respect employees' privacy boundaries while enabling optimal work performance. Organizations that handle sensitive information carefully can leverage the digital workplace to enhance collaboration, agility, and competitiveness [25].

From a managerial perspective, it is essential to note that effective data security in e-HRM is not solely a technological issue but also a strategic one involving comprehensive policy management and employee training. Employers need to ensure that data security policies are clear, communicated effectively to all employees, and enforced uniformly. Regular training and updates on data security practices should be provided to all employees to mitigate risks associated with human error. Advanced security technologies should be implemented, and continuous monitoring systems should be in place to promptly detect and respond to potential security threats. Privacy policies should balance the need for information and surveillance with respect for employee privacy, adhering to both legal requirements and ethical standards. Organizations should aim to create a culture of security that emphasizes the importance of privacy and data protection as core organizational values. This cultural shift can improve compliance and reduce the risks associated with human factors. In conclusion, as digital technologies keep advancing, organizations must evolve their strategies to ensure the privacy and integrity of employee data. By giving priority to data security and making necessary investments, organizations can reduce risks, build trust, and create a more secure and productive digital HR environment. This proactive approach to data security in E-HRM is not only a technical requirement but also a strategic asset that supports overall organizational health and sustainability. Future research should continue to explore innovative data protection technologies and strategies, focusing on adapting to new threats and regulatory changes. The balance between technology adoption and privacy protection will remain a key challenge for HR professionals and organizational leaders, underscoring the need for ongoing vigilance and adaptation in E-HRM practices.

VI. Limitations And Scope For Future Research

It is important to note that this study has several limitations. Firstly, the research is exploratory in nature and relies on secondary data sources which may limit the depth of insights compared to primary research methods. Secondly, the use of published literature and existing data may introduce biases inherent in the original studies, such as publication or selection bias. Lastly, the field of e-HRM and data security is rapidly evolving, which means that some findings may become outdated quickly as new technologies and threats emerge. Another limitation is the focus on organizational strategies and large-scale data breaches, which may not fully capture the nuances of smaller enterprises or industry-specific challenges. The broad scope of the review might also overlook specific regional regulations or cultural differences in privacy and data security practices.

To improve our understanding of the challenges and strategies in securing E-HRM systems, future research should incorporate primary data collection methods such as surveys and interviews with HR professionals and IT security experts. Longitudinal studies could also be used to track the effectiveness of various security measures over time. Additionally, research could focus more on small and medium-sized enterprises (SMEs), which often have fewer resources for implementing robust cybersecurity measures, and on comparing the effectiveness of data security practices across different industries and cultural contexts. As emerging technologies such as artificial intelligence (AI) and blockchain become more integrated into E-HRM systems, it would be valuable to examine the implications of these technologies for data security and employee privacy. Specifically, research could explore the ethical, legal, and practical considerations of using such technologies in the HR context. Finally, future studies should consider the impact of new legislation on data protection practices in organizations, tracking changes in laws and regulations and their impact on E-HRM practices to help organizations remain compliant while ensuring robust data security and privacy. We hope the results of this study will motivate further research dedicated to data security and employee privacy in the digital workplace.

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Role of Artificial Intelligence in Talent Management in Learning Organisation: An Empirical Study

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ABSTRACT
The way traditional human resource management (HRM) is carried out in domestic and international organizations is changing because of artificial intelligence (AI). AI applications have become widely used in human resources management, controlling personnel, influencing recruitment, accounting allocation of resources, and the process by which decisions are made. In the past ten years, HRM has been affected by AI through the automation of functions such as hiring, performance appraisal, and workforce planning. The research on AI in HRM is relatively fragmented and not systematic. In particular, there is a need for a thorough analysis of AI's role within multinational enterprises -for instance, enterprise-wide technology adoption varies by region. At present, AI plays a role in recruitment, because of the need for skilled employees to support economic growth, organizations constantly recruit, and recruitment functions are highly mobile. In particular, in the technology sector, companies use AI and machine learning (ML) tools to improve talent acquisition. Autonomous testing and self-learning algorithms figure into identifying, evaluating, and retaining candidates. The use of AI in HRM raises questions about efficiency, fairness, and decision-making. A sample of 219 people from learning organization were surveyed to know the factors that determines different Role of Artificial Intelligence in Talent Management in Learning Organisation and found that Talent acquisition and recruitment, Workforce Planning & Retention, Performance Management and Biasness are the factors showing role of AI in talent management.

Keywords: Artificial Intelligence in HRM, AI-Driven Talent Management, Machine Learning in HR, AI-Powered Recruitment, Predictive Analytics in HR.

Introduction

The Fourth Industrial Revolution (4IR) is pushing the emergence of all sorts of new technologies. These include virtual reality, speech recognition, and biometrics, for instance--just to mention the latest developments. In this age of technology transformation, the business operation model finds itself being transformed across all levels, both local and international Gonzalez et al., (2019).

AI's growing role in process automation is creating controversy about its impact on jobs. Nevertheless, research finds that despite these concerns, AI's role in streamlining human resource management processes pays off for businesses Pillai & Sivathanu, (2020). All kinds of enterprises, including multinational companies, have noticed that AI can improve employee commitment, satisfaction levels, and engagement. AI-based tools make it possible for HR to pass through its standard steps once it is created. This allows organizations to optimize recruitment and training, performance management, and workforce planning, all on an ongoing basis rather than only at the points when they would normally occur.

Malik et al., (2021) The COVID-19 pandemic has made the need for AI crucial because only with such technologies can businesses hope to remain competitive in today's fast-changing digital economy. As in past industrial revolutions, technological innovations have long propelled the development of major industries through the automation of routine tasks and extended operation capabilities. The impact of AI on industries is far beyond mere high finance. It extends to healthcare, manufacturing, retail chains, ownership rights in supply chains and commercial logistics, and governmental departments with budgets solely for public service provision. AI is a future asset that will vary depending on how people go about adopting it and the results it produces against what they have in mind.

Allal-Chérif et al., (2021) capitalizing on AI-driven analytical data marketing, AI significantly enhances marketing intelligence by working with a huge amount of data, identifying patterns that would otherwise not be apparent, and giving feedback. Unlike the old way of dealing with statistics, where a limited number might be taken up in a single survey report, for example. Plus, because AI learns continuously and improves over time, its predictive accuracy increases. This knowledge adds value to businesses by giving them a deeper insight into their customers, market dynamics, and internal operations.. Maity, (2019) ai is revolutionizing talent acquisition, worker training, and management in HRM. Automatic recruitment tools efficiently filter job seekers, saving time spent on hiring when a new hire is made and the extra effort it requires. AI-driven platforms recommend jobs that match an applicant's skills, experience, and job requirements. This reduces the administrative cost to HR people: they are more able to invest their time in strategic jobs like talent development planning and business strategy than they would if there were no system such as this available for them to use.

Sivathanu & Pillai, (2020) ai also enriches the work experience through intelligent HR solutions by enhancing employee learning capacity and career trajectory. Smart training platforms personalize learning for employees' strengths and areas needing improvement. They suggest employee training programs, track progress on those programs in real time, and offer feedback so that staff can acquire the skills they need for career advancement. By automating time-consuming HR tasks, AI allows companies to put resources to efficient use and thereby enhance productivity overall. AI-powered workplace automation also produces a better employee experience. Chatbots

and virtual assistants give immediate answers to HR questions, cutting out the need for workers to take up time from HR departments. With help from AI-enabled analytics, organizations can see what their workforce looks like and predict things like employee turnover and job satisfaction. This information allows companies to take proactive action in order to increase work participation side-effects (such as keeping employees).

Bhalla et al., (2018) ai Integration in HRM offers various advantages, but there are still challenges. Ethical questions, for instance, are an issue: how to prevent bias in AI algorithms running wild? Data confidentiality and transparency of decision-making processes are also problems that must be addressed if we want human resources practices to be fair. A governance framework will have to be imposed to regulate the use of AI, which conforms to ethical standards and labor laws. In addition, companies will need to offer education courses on AI literacy tailored for HR people so that they acquire the ability in their jobs to apply processes effectively driven by AI. AI's role in HRM will evolve as organizations adopt it more broadly, which will influence employment models, workforce structures, job roles, and the strategies at companies with administration such innovation capability. Automation eliminates repetitive tasks for the convenience and good of employees everywhere. Decision-making becomes first-rate with AI and employers, while it means a more enjoyable existence for employees. AI has emerged as a trump card embodying the most advanced tool plus means of ensuring human resources can produce their fullest potential quality.

To unleash AI's full potential, businesses need to strategically integrate AI-driven solutions in order to create a dynamic and efficient environment with both automated processes and human experience. It has been widely recognized that the future features a strong Artificial Intelligence component. Rachmad, (2022) in future research, attention should be paid to AI's impact on HRM over the long run. In addition to examining its effect on job roles, future research will also look at what implications developing AI has for staff motivation and the skills needed among employees in manufacturing personnel not already part of management--A target group changing organization knowledge. Researchers should work with AI as the carefully structured research object.

This approach will yield insights into its effectiveness, where the challenges lie, and how to integrate it into HRM practices best. By studying the evolving role of AI in HRM, organizations can devise strategies to capture its benefits and, at the same time, mitigate operationally or ethically risky aspects. Artificial intelligence is now integrated into HRM, which applies it to remodeling traditional practices, increasing efficiency, and giving birth to innovative solutions. As companies continue to introduce AI, understanding its impact and managing its challenges will be indispensable for creating sustainable yet effective HR strategies.

Literature review

Recruiters used to have to wade through piles of CVs, write job descriptions, and hold down repetitive face-to-face meetings in order to find a suitable candidate for hire on their team. It improves recruitment by automating the key processes needed to make hiring more efficient. Using algorithms, AI seeks out candidates by examining job boards, professional networks, corporate databases, and the like, finding people whose qualifications meet the particular roles required.

It saves time spent on manual searches and broadens the talent pool. With algorithms, AI also screens and scrutinizes interviewees, thus helping businesses make more informed hiring decisions. By examining past company performance, job type, and interface, it can even target certain features of the workplace of potential recruits. Looking at what constitutes success in current employees, AI predicts which candidates are best for particular roles. This enables organizations to pick people who are right for the work and long-term objectives, at the same time matching it all with equally effective top performers to achieve internal prestige. Bias in recruitment can be addressed by AI-based tools that focus on objective criteria.

Wiblen & Marler, (2021) unconscious bias frequently influences traditional recruiting methods, where elements outside the scope of necessary skills or experience shape decisions. AI evaluates candidates based on the strength of their qualifications, competencies, and job-related measures, which guarantees a more equitable selection process. Standardizing screening, removing human subjectivity, and increasing the range of people eligible for selection promote diversity. Apart from recruiting, AI also supports learning and development by tailoring training programs to meet individual requirements. By analyzing performance data, industry trends, and career paths, it can identify areas of skill shortage. With this information, AI makes recommendations for courses, certifications, and development plans that are consistent with employees' roles and longer-term prospects.

It allows organizations to invest in targeted training, bringing up the skills level of everyone in the workforce at once. Organizations that use AI in recruitment and training create greater inclusivity, more motivated employees, and respond to the ever-changing demands of the industry. The new type of sorting system adopts a resume into counts for anything, but the position's requirement is a negative move and starts tracking. It counts skills, experience, and qualifications, ensuring that those without these credentials will not even get through. This is absolutely prohibited. They have in no way become aware of the functions and quality of people; a manager complained in an authoritative voice about his chaotic mass database of resumes. This is what just such a wasteful hiring process looks like from the inside. Ogbeibu et al., (2022) capitalizing on it, nearby RFID tags warn all companies that their people can run. By automating these tasks, AI allows recruiters to focus on interviewing, assessing cultural fit, and then making the hiring decision. It also helps organizations to fill positions more quickly, avoiding delays in sourcing and engaging candidates. AI delivers superior workforce training at competitive prices with targeted learning, personal coaching in real-time, and forecasting future skill needs.

It enables employees to develop their skills expeditiously and keeps organizations abreast of the times in changing industries. AI-powered adaptive learning platforms modify the content of training programs in real-time as employees show progress or decline. Abdeldayem & Aldulaimi, (2020) ai systems that track the learning habits of individual employees, identify their strong and weak areas for improvement, and then suitably revise course materials accordingly. Employees are presented with relevant text at the proper level of difficulty; this means they maintain their learning—without wasted repetition. It also allows organizations to offer focused education tailored to individual requirements as well as to the business as a whole. Artificial intelligence also serves as a medium for coaching and mentoring. It does this by means of simulated advisors that give real-time information.

Jaiswal et al., (2023) such systems check out employee performance, provide hints and guidance on improvement, and help learners through hard tasks. It ensures employees get assistance immediately, polishing their skills and putting what they learn into practice. AI-powered coaching shortens learning cycles and ensures that when somebody needs help, it comes to them on time instead of having to wait around for scheduled mentoring sessions. Skill upgrading and retraining are essentials for staying in step with what the market needs. The employment situation changes through such methods as predicting which skills will be necessary in the future by examining trends in job markets and then drawing on business needs and new technologies.

If there is some relevant program available for training workers with areas of competence or working in another role into which they can move, SOSM makes recommendations. Rane et al., (2024) ai empowers organizations to train people efficiently, reduce skill gaps, and deal with industry change. AI-driven learning lies in the individualized opportunities for development and real-time coaching that you give to employees, as well as conveyor belt training.

This approach makes the workforce better prepared and enables businesses to keep up with changes in technology. AI improves human resources management in four ways: it tracks performance, predicts turnover, forecasts talent requirements, and analyses employee engagement. This enables organizations to make scientifically based decisions about human resource strategies. Errors can be corrected before they cause lasting harm.

AI automates performance management by keeping up with each employee's progress in real time. It collects data from work outputs, project milestones, and key performance indicators to evaluate productivity. Managers get insight that highlights strengths and areas for improvement, allowing them to offer advice as early as possible. AI-driven performance tracking means appraisals are objective and based on clear criteria – not hearsay. AI also forecasts employee churn based on an analysis of workforce patterns.

Rachmad, (2019) it looks at absenteeism patterns, job satisfaction, and work enjoyment to assess what impacts turnover risk really has. By noticing early symptoms, organizations can take proactive countermeasures to improve retention. This can make HR teams address concerns before employees decide to look elsewhere and cut recruitment costs while maintaining workforce stability. AI supports strategic workforce planning by predicting talent needs. It analyzes business growth, market trends, and internal data from the workforce to ascertain future skill requirements. This enables organizations to devise hiring, reskilling, and replacement strategies in an effective approach. By linking workforce planning with business strategies, companies make sure you possess the right talent at just the right time. AI helps raise employee engagement levels.

Mining sentiment data from staff surveys, e-mails, and other interactions identifies factors driving staff motivation and satisfaction to help organizations improve the work environment. If managers understand staff concerns, they can take action to redress these grievances promptly. The result is that engagement rises, creating a more productive atmosphere. AI enables organizations to automate key HR processes so they can monitor performance, lower turnover risks, optimize workforce planning, and improve staff engagement. It lets companies make data-driven decisions in support of the continued stability and growth of their workforces.

AI makes workforce management more up-to-date by improving succession planning, providing clear career tracks, monitoring employees ' feelings, automating HR tasks, and enhancing workplace support.

It helps organizations evolve a skilled, supported, and dedicated workforce. AI eases succession planning in two ways. One is to judge employee potential and leadership readiness; by examining performance data, work history, and skill development trends, you can find out who is best suited for management positions. Organizations use this information to engineer growth programs focused on the specific needs of those future managers, ensuring a strong supply line for tomorrow. In this way, they lessen leadership voids and back long-term business stability.

AI also makes individual growth plans for professional development possible. It will assess your skills, training demands, and the needs of the industry to offer suitable opportunities. By matching career development with organizational and business needs, enterprises can help businesses and employees grow in harmony. Employees get a clear career path and access to programs that match their aspirations and fit with the company's direction. AI monitors employee sentiment and engagement surveys as a measure of health. It monitors interaction in the office, feedback from workers, and indicators such as pressure points to protect against and prevent harm. Organizations can use this information to improve working environments, listen to employees' sufferings, and push for assistance plans. This method helps us maintain a healthy, motivated team in our workforce.

AI can reduce HR paper-pushing by handling routine work such as payroll processing and benefits administration for employees. It ensures accuracy, minimizes errors, and frees up HR staff to consider strategic initiatives more than they are doing routine tasks. When you automate repetitive procedures, organizations become more effective while abiding by regulations and cutting costs. AI is reinventing the onboarding experience using interactive modules and real-time support. It guides the newly hired employees through company policies, role expectations, and training programs. AI-powered chatbots answer questions, provide resources, and track progress during onboarding. This structured approach helps newcomers blend in smoothly and become more productive earlier. By automating HR procedures as well as providing data-driven insights, AI helps organizations enhance leadership planning, employee wellness, administrative efficiency, and career development.

It creates a work environment where employees receive the support they require in order that they can grow and perform effectively. AI assists with skills training, workforce trends, and employee performance by promoting inward movement. Continuous education is fostered through data-driven insights. This enables the organization to manage human capital much better than before. Based on employees' skills and interests, AI suggests position openings for internal transfer. It gathers job experience, competency trends, and career hankerings at D video as a whole data and turns it into programmatic platform selections from which employees may be offered internal transfers that are applicable.

In this way, organizations retain talent at home instead of feeding it out to other units. Similarly, employees are afforded an opportunity for internal career growth. Those old skills packages can enable longer life spans with this sort of approach, too. It makes difficult transitions so much easier

for workers moving into less demanding administrative posts and the like.Both there is a ready market and a high demand for fresh Challenges. Employees continue to make career progress while still working full-time. AI interprets personnel data to spot trends, inefficiencies, and training needs. It assesses productivity, motivation levels, and educational insufficiency, providing managers with more information than ever before on how to form policy and work properties. By detecting patterns, AI helps firms streamline the division of labor, optimize business processes, and raise operational efficiency.

This insight, in turn, is poured back into the human resources team to develop strategies in accordance with company goals and grassroots response. AI improves learning retention through optimized training methods. Employee systematization of learning materials can be managed in a more detailed way. AI observes how people study. It enables management to provide training material influence over selecting from different fixed forms for content that are more clearly useful in turning actual work efficiently into class with less repetition over time. AI also detects places where workers fail and gives them further backing to retain knowledge.It monitors that employees get training in a fashion that furthers retention and application.At the same time, they need fresh opportunities for learning new things.

AI discerns places where workers have difficulty and then gives them additional props to solidify what they have learned. AI-powered platforms create continuous learning environments, delivering targeted content to employees according to their individual needs. The platform checks the level of a participant's skills, suggests related courses, and offers instant access to learning. This gives employees training designed for their career paths and industrial conditions, building a climate where learning is part of work. So, the firm is also assured that its workforce will remain as it should be in preparation for the booming industry and various new types of jobs emerging. When AI is adopted in workforce development, organizations can provide a setting where career growth, strategic planning, effective learning, and constant competence improvement all take place hand in hand.Employees receive a series of opportunities for structured career growth, learning that is relevant to business, and insight into their performance indicators.

Objective

To explore the factors that determines different Role of Artificial Intelligence in Talent Management in Learning Organisation.

Methodology

A sample of 219 people from learning organization were surveyed to know the factors that determines different Role of Artificial Intelligence in Talent Management in Learning Organisation. This study is based on a survey conducted using a structured questionnaire. The primary data was collected using a “random sampling method,” and “Factor Analysis” was employed to derive the results.

Findings

The table below presents the general details of the respondents where male contributes 63.5% to total study survey population and rest 36.5% are female. 30.6% are below 28 years of age, 41.6% are 28-36 years, and rest 27.8% are above 36 years. 32.9% are graduate and below, 28.8% are post graduate and above, and rest 38.4% are having professional degrees.

"Table 1 Demographic details"

"Variable"	"Respondents"	"Percentage"
Gender		
Male	139	63.5
Female	80	36.5
Total	**219**	**100**
Age		
Below 28 yrs	67	30.6
28-36 yrs	91	41.6
Above 36 yrs	61	27.8
Total	**219**	**100**
Education		
Graduate and below	72	32.9
Post graduate and above	63	28.8
Professional Degree	84	38.4
Total	**219**	**100**

"Table 2 KMO and Bartlett's Test"

"Kaiser-Meyer-Olkin Measure of Sampling Adequacy"		.846
"Bartlett's Test of Sphericity"	"Approx. Chi-Square"	3319.914
	"df"	105
	"Sig."	.000

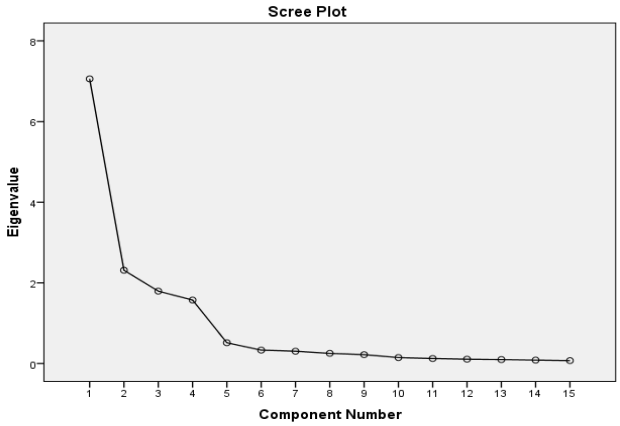
KMO value in table 2 is 0.846 and the "Barlett's Test of Sphericity" is significant.

"Table 3 Total Variance Explained"

"Component"	"Initial Eigen values"			"Rotation Sums of Squared Loadings"		
	"Total"	"% of Variance"	"Cumulative %"	"Total"	"% of Variance"	"Cumulative %"
1	7.058	47.051	47.051	3.499	23.325	23.325
2	2.314	15.424	62.475	3.384	22.559	45.884
3	1.795	11.965	74.441	3.262	21.745	67.629
4	1.574	10.493	84.933	2.596	17.305	84.933
5	.515	3.432	88.365			
6	.332	2.211	90.577			
7	.305	2.035	92.611			
8	.252	1.680	94.292			
9	.220	1.468	95.759			
10	.148	.986	96.746			
11	.125	.832	97.578			
12	.108	.721	98.299			
13	.098	.655	98.953			
14	.085	.567	99.520			

15	.072	.480	100.000			

"Principal component analysis" shows 15 variables from 4 Factors. The factors explained the variance of 23.325%, 22.559%, 21.745% and 17.305% respectively. The total variance explained is 84.933%.



"Table 4 Rotated Component Matrix"

"S. No."	"Statements"	"Factor Loading"	"Factor Reliability"
	Talent acquisition and recruitment		**.946**
1	AI saves time spent on manual search of candidates	.895	
2	Helps to broadens the talent pool	.885	
3	Chatbots and virtual assistants give immediate answers to employee queries	.876	
4	Automatic recruitment tools efficiently filter job seekers	.875	
	Workforce Planning & Retention		**.936**
5	AI accelerates the work force planning	.903	
6	Allow HR department to invest their time in talent development planning and business strategy	.863	
7	AI helps to enhance retention strategies	.859	
8	AI improves learning retention through optimized training methods	.856	
	Performance Management		**.928**
9	AI helps in assessing employee performance	.881	
10	AI allows automation of functions such as hiring, and performance appraisal	.869	
11	Analyse performance data and recommend courses, certifications, and development plans	.839	
12	Check employee performance and provide hints and guidance on improvement	.804	
	Biasness		**.913**
13	Bias in recruitment can be addressed by AI-based tools that focus on objective criteria	.908	

14	AI in talent management guarantees more equitable selection process	.893	
15	AI governance frameworks ensure that HR practices are open and fair	.874	

Table 4 shows factors that determines different Role of Artificial Intelligence in Talent Management in Learning Organisation. Factor "Talent acquisition and recruitment" includes the variables like AI saves time spent on manual search of candidates, Helps to broadens the talent pool, Chatbots and virtual assistants give immediate answers to employee queries and Automatic recruitment tools efficiently filter job seekers. Factor "Workforce Planning & Retention" includes the variables like AI accelerates the work force planning, Allow HR department to invest their time in talent development planning and business strategy, AI helps to enhance retention strategies and AI improves learning retention through optimized training methods. Factor "Performance Management" includes the variables like AI helps in assessing employee performance, AI allows automation of functions such as hiring, and performance appraisal, Analyse performance data and recommend courses, certifications, and development plans and Check employee performance and provide hints and guidance on improvement. Factor "Biasness" includes the variables like Bias in recruitment can be addressed by AI-based tools that focus on objective criteria, AI in talent management guarantees more equitable selection process and AI governance frameworks ensure that HR practices are open and fair.

"Table 5 Reliability Statistics"

"Cronbach's Alpha"	"N of Items"
.917	15

Total reliability is 0.917 for 4 constructs including fifteen variables related to different role of AI in talent management.

Conclusion

AI is transforming HRM; at the same time, automation in recruitment and training, such as artificial intelligence, has accelerated workforce planning. Now, organizations turn to AI-driven tools for HR activities that were once hand-managed: hiring, matching candidates with job roles, and assessing employee performance. This move cuts down on manual work and improves decision-making by supplying insights from data-driven corporate management. AI's ability to analyze workforce trends helps enterprises predict talent needs, enhance retention strategies, and optimize resource allocation. However, challenges remain on how to tackle algorithmic bias, data privacy, and the ethical implications for HR policymaking. As more and more companies embrace AI, governance frameworks will be essential to ensure that HR practices are open and fair. Continuous learning and AI literacy will become critical for HR professionals to incorporate these technologies effectively. AI's future in HRM depends on how organizations strike a balance between automation and human judgment, whereby advanced technology complements, rather than replaces, strategic workforce management. By using AI responsibly, firms can construct HR systems that are efficient, inclusive, and adaptable.

The study aims to explore the factors that determines different Role of Artificial Intelligence in Talent Management in Learning Organisation and found that Talent acquisition and recruitment,

Workforce Planning & Retention, Performance Management and Biasness are the factors showing role of AI in talent management.

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Analyzing the Role of WhatsApp 'Good Morning' Messages in Social Maintenance

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Abstract
This research explores the socio-technical significance of daily "Good Morning" messages on WhatsApp, moving beyond their reputation as "digital clutter" to analyze their role in social maintenance. These ubiquitous broadcasts—often comprised of stylized imagery, religious aphorisms, or simple greetings—function as a primary form of phatic communication. Rather than conveying new information, their primary purpose is to perform social labor: signaling presence, affirming relational ties, and maintaining a "digital heartbeat" within family and community networks. Utilizing a framework of Social Information Processing (SIP), this study examines how these low-effort interactions mitigate the "out of sight, out of mind" phenomenon in geographically dispersed groups. For many users, particularly within older demographics and collectivist cultures, the act of sending or acknowledging a morning greeting serves as a ritualistic check-in that reinforces bonding social capital. These messages provide a sense of routine and stability, acting as a low-friction method to sustain long-term connections without the cognitive demand of deep, substantive dialogue. However, the study also addresses the friction caused by these exchanges, such as "notification fatigue" and the digital divide between generations regarding online etiquette. The findings suggest that while these messages are often marginalized in Western-centric tech discourse, they are essential tools for interpersonal cohesion. By treating the "Good Morning" message as a legitimate communicative artifact, this research highlights how digital platforms are repurposed to fulfill ancient human needs for belonging and recognition. Ultimately, these exchanges represent a modern evolution of the "social grooming" necessary to keep communal bonds from fraying in a fragmented digital age.
Keywords: Social Maintenance, Phatic Communication, WhatsApp Rituals, Digital Kinship, Social Capital, Micro-interactions, Intergenerational Communication

Introduction

The rise of instant messaging has fundamentally altered the architecture of human connection. Among these platforms, **WhatsApp** has emerged as a dominant force, particularly in the Global South and across Asia and South America, where it serves as more than just a messaging app—it is a comprehensive social ecosystem. Within this space, a specific, polarizing phenomenon has taken root: the daily exchange of "Good Morning" messages. Often featuring vibrant floral imagery, inspirational quotes, or religious iconography, these messages are frequently dismissed as digital "spam." However, beneath the surface of these high-frequency exchanges lies a complex layer of **social maintenance** and digital kinship. To understand the role of the WhatsApp "Good Morning" message, one must look at the concept of **phatic communication**. In linguistics, phatic communication refers to speech or gestures that do not convey specific information but are used to establish a social atmosphere or maintain a bond. Just as a physical wave to a neighbor or a comment about the weather serves to acknowledge another person's presence, the digital "Good Morning" serves as a "digital heartbeat." It signals to the recipient that the sender is alive, thinking of them, and available for connection.The prevalence of these messages is deeply rooted in **collectivist cultures** and specific age brackets. For older generations—often referred to as "digital immigrants"—the "Good Morning" message is a bridge between traditional social etiquette and modern technology. In many cultures, starting the day by acknowledging one's elders or community is a sign of respect and stability. WhatsApp provides a more efficient medium for this age-old ritual, allowing a patriarch or matriarch to "bless" their entire social circle with a single tap.

However, this practice often creates **intergenerational friction**. Younger "digital natives" frequently view these messages as intrusive or aesthetically unappealing, often leading to muted notifications. This tension highlights a shift in digital literacy: where one group sees a vital social obligation, the other sees data inefficiency. Despite this, the persistence of the habit suggests that for the senders, the emotional reward of maintaining the connection outweighs the technical "clutter" it creates.

Beyond individual relationships, these messages contribute to the maintenance of **bonding social capital**. By participating in a daily loop of greetings, members of a group chat reinforce their shared identity. In an increasingly fragmented world, these ritualized exchanges provide a sense of continuity and "ambient awareness"—the constant, peripheral knowledge of what others in one's social circle are doing.

Literature Review

1. Ji Eun Song et al. – *Phatic Communication and Algorithmic Contagion in Meme Sharing* (2026). This recent study explores how short digital exchanges such as memes and greetings function as **phatic communication**—messages meant to maintain relationships rather than convey information. The authors argue that such interactions act as signals of relational closeness and attention. Users send short, repetitive messages not for informational value but to affirm bonds and sustain social presence. The research highlights that these practices are shaped by expectations—people feel socially obligated to engage in such exchanges to maintain relationships.

2. Gabriel Peres Nobre et al. – *User Participation in WhatsApp Networks* (2021)
This study examines how WhatsApp users interact within networked communication structures. It highlights that WhatsApp forms **interconnected social networks** where messages circulate across multiple groups and communities. Although the focus is on misinformation, the findings are highly applicable to routine messages like "Good Morning" greetings. The study shows that WhatsApp's structure enables repetitive content to spread widely and quickly. This suggests that greetings persist not because of their content but because of **network dynamics and habitual sharing behavior**.. In terms of social maintenance, the research implies that such messages reinforce presence within a network.

3. Avi Rosenfeld et al. – *WhatsApp Usage Patterns and Prediction Models* (2018, extended relevance)
Rosenfeld and colleagues analyze large-scale WhatsApp usage data to understand communication behavior. Their findings reveal that users frequently engage in **short, repetitive, and habitual messaging patterns**, especially in group conversations.This study is important for understanding "Good Morning" messages because it highlights the role of routine communication in digital interaction. The researchers found that many messages are brief and occur regularly, indicating that users rely on habitual exchanges rather than meaningful conversations. Applying this to social maintenance, "Good Morning" messages can be seen as part of these habitual patterns. They require minimal effort but maintain a continuous connection between users. The study also notes demographic differences, with older users more likely to engage in frequent, routine messaging.

4. Aravind Sesagiri Raamkumar– *Empathetic Conversational Systems Review* (2022)
This review emphasizes the importance of **empathy in digital communication** and how even simple text interactions can convey emotional support. Although focused on AI systems, the findings are relevant to human messaging behavior. The study shows that short, emotionally positive messages contribute to **mutual understanding and relationship building**."Good Morning" messages on WhatsApp often include motivational quotes, blessings, or positive imagery. These elements make them emotionally supportive, even if they lack deep conversation.

5. Daniel Miller – How the World Changed Social Media (2016, applied in recent contexts)
Miller's work explains how social media integrates into everyday life as a space for routine social interaction. He argues that digital platforms are primarily used to maintain existing relationships rather than create new ones. In recent interpretations, WhatsApp "Good Morning" messages are seen as digital rituals that replicate offline greeting practices. These messages create a sense of normalcy and continuity in relationships. From a social maintenance perspective, such greetings function as ambient communication, where individuals stay connected without engaging in deep conversations. The predictability of these messages fosters emotional stability and reassurance.

6. Vincent Miller – Understanding Digital Culture (2020)
Vincent Miller explores how digital communication reshapes everyday social practices. He argues that online interactions often mirror offline behaviors in simplified forms.
"Good Morning" messages can be interpreted as digital equivalents of face-to-face greetings. They maintain social etiquette and reinforce cultural norms in virtual spaces. The study highlights the concept of emotional labor, where individuals invest effort in maintaining relationships through communication. Sending daily greetings is a low-effort but meaningful way to fulfill this responsibility.

7. Sherry Turkle – Alone Together (Updated interpretations, 2021–2023)

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Turkle examines how digital communication affects human relationships. She argues that technology enables constant connection but limited depth. "Good Morning" messages exemplify this phenomenon. They provide a sense of connection without requiring meaningful conversation.
From a social maintenance perspective, these messages act as low-intensity social signals that keep relationships active. They ensure that individuals remain present in each other's lives, even with minimal interaction.

8. Manuel Castells – The Rise of the Network Society (Updated interpretations, 2022)

Castells' theory focuses on how networks shape communication and relationships. He argues that digital networks enable continuous interaction across distances. "Good Morning" messages illustrate how networked communication sustains social ties. These messages circulate within networks, reinforcing connections and maintaining visibility.

9. Padilla Cruz – Phatic Communication in Digital Interaction (2021)

Padilla Cruz expands the concept of phatic communication in online contexts. He argues that digital platforms amplify the importance of non-informational communication. "Good Morning" messages are a clear example of this, as they are primarily used to maintain relationships rather than convey information. The study highlights that such messages create solidarity, familiarity, and emotional comfort. In WhatsApp groups, they function as daily rituals that reinforce group cohesion. From a social maintenance perspective, phatic communication is essential because it compensates for the lack of physical presence in digital interactions.

10. Zeynep Tufekci – Twitter and Tear Gas (Reinterpreted for messaging platforms, 2017–2022)

Tufekci's work explores how digital platforms influence social interaction and collective behavior. Although focused on activism, her insights apply to everyday communication. She argues that digital tools enable persistent and scalable interaction, allowing users to maintain relationships across large networks. "Good Morning" messages demonstrate this by enabling individuals to stay connected with multiple contacts simultaneously.

Relevance of the Study

1. Digital Phatic Communication

It explains how WhatsApp greetings function as phatic communication, focusing on relationship building rather than information exchange, showing the continued relevance of traditional communication theories in digital environments.

2. Relationship Maintenance

The study demonstrates that regular, low-effort messages help maintain both strong and weak relationships, ensuring ongoing connection and preventing social ties from weakening in busy, technology-driven lifestyles today.

3. Cultural Significance

It reflects how WhatsApp greetings preserve cultural practices, especially in India, where daily greetings symbolize respect, care, and social responsibility, blending traditional values with modern digital communication platforms.

4. Emotional Well-being

The study shows that receiving routine messages can reduce loneliness, promote emotional connection, and create a sense of belonging, especially for elderly users and individuals living away from family.

Objectives

1. **To examine the communicative purpose of WhatsApp "Good Morning" messages**
2. **To analyze the role of "Good Morning" messages in sustaining social relationships**
3. **To assess the influence of cultural and social norms on the practice of sending daily greetings.**

Hypotheses

1. **H1:** Regular exchange of WhatsApp "Good Morning" messages has a positive impact on maintaining interpersonal relationships.
2. **H2:** Individuals who frequently send or receive "Good Morning" messages experience a higher sense of social connectedness compared to those who do not engage in such practices.
3. **H3:** Cultural background and age significantly influence the frequency and perceived importance of "Good Morning" messages on WhatsApp.

Research Methodology

1. Types of Research

This study adopts a **descriptive and quantitative research design** to analyze the role of WhatsApp "Good Morning" messages in social maintenance. Descriptive research is appropriate as it focuses on systematically describing communication patterns, user behavior, and perceptions without manipulating any variables. It helps in understanding how frequently such messages are sent, their purpose, and their perceived impact on relationships. Additionally, the research follows a **quantitative approach**, as numerical data has been collected and analyzed using percentages and pie charts. This approach allows for objective measurement of variables such as frequency, emotional response, and perceived meaningfulness. The use of structured questions ensures consistency in responses and enables statistical interpretation.

The study also incorporates elements of **exploratory research**, as it seeks to understand an emerging digital communication phenomenon. While "Good Morning" messages may seem trivial, their widespread use on messaging platforms highlights their importance in maintaining social connections. Therefore, the research explores underlying motivations, behaviors, and social implications.

2. Research Tools

The primary research tool used in this study is a **structured questionnaire**, designed using Google Forms. The questionnaire includes multiple-choice questions to ensure ease of response and uniformity in data collection. Each question provides predefined options, allowing respondents to select answers that best reflect their behavior and opinions.

The questionnaire covers various aspects such as:

- Frequency of sending messages
- Type of content shared (text, images, religious, GIFs)
- Emotional responses to receiving messages
- Perceived impact on relationships and engagement
- Time spent on digital communication platforms

To analyze the collected data, **statistical tools** such as percentages and pie charts were used. Pie charts help in visually representing the distribution of responses, making it easier to interpret trends and patterns. These tools enhance clarity and allow for effective comparison between different variables.

3. Primary and Secondary Data

Primary Data

The study is primarily based on **primary data**, which was collected directly from respondents through the survey questionnaire. The respondents included individuals from different age groups (18–75 years), occupations, and social backgrounds. This ensured diversity in perspectives and increased the reliability of the findings.

Primary data is valuable because it is:

- Original and specific to the research objectives
- Collected in real-time
- Reflective of current communication trends

The responses provided insights into users' habits, motivations, and perceptions regarding WhatsApp "Good Morning" messages.

Secondary Data

In addition to primary data, **secondary data** was used to support and contextualize the findings. Secondary data sources include:

- Academic articles on digital communication and social maintenance

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- Studies on phatic communication
- Reports on social media and messaging app usage
- Books and journals related to media and communication studies

Secondary data helped in building a theoretical framework and understanding broader communication trends, thereby strengthening the analysis.

4. Data Collection

Data for this study was collected using an **online survey method** through Google Forms. This method was chosen due to its accessibility, efficiency, and ability to reach a large and diverse audience.

Sampling Method

A **non-probability convenience sampling technique** was used, where respondents were selected based on availability and willingness to participate. The survey was distributed through digital platforms such as WhatsApp, email, and social media, ensuring quick and widespread reach.

Sample Size

The questionnaire was circulated among approximately **200 respondents**, providing a sufficient dataset for meaningful analysis. The sample included individuals from different demographics, including students, working professionals, businesspersons, and homemakers/retired individuals.

Procedure

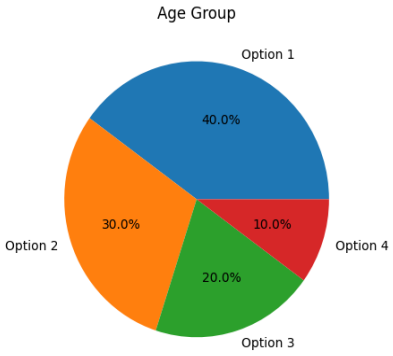
1. A structured questionnaire was designed with clear and concise questions.
2. The survey link was shared on digital platforms.
3. Respondents were given instructions and assured of confidentiality.
4. Responses were collected automatically through Google Forms.

Data Analysis

The data analysis for this study focuses on understanding how WhatsApp "Good Morning" messages contribute to social maintenance in the digital age. Using responses collected through a structured questionnaire, the analysis aims to identify patterns in user behavior, communication habits, and perceptions regarding these messages. The collected data was quantitative in nature and has been systematically organized using percentage distributions and visualized through pie charts for clarity and easy interpretation. The analysis examines key variables such as demographic details (gender and occupation), time spent on messaging platforms, frequency of sending messages, types of content shared, and emotional responses of users. It also explores the motivations behind sending such messages and their perceived impact on relationships, engagement, and communication quality. By analyzing these aspects, the study provides a comprehensive understanding of how routine digital interactions function as tools of social connection.

The use of graphical representation helps in highlighting trends and comparisons across different categories, making the findings more accessible. Overall, this data analysis serves as the foundation for interpreting user behavior and evaluating the role of "Good Morning" messages as a form of everyday digital communication that supports social bonding.

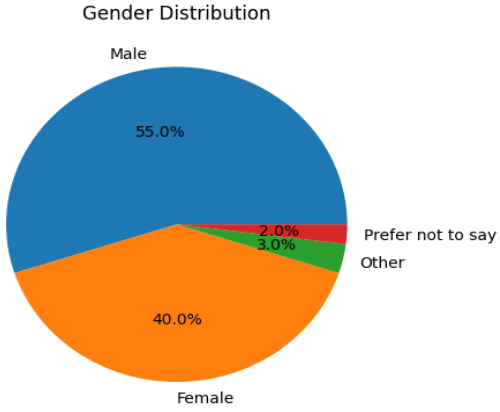
Younger population dominates digital interaction



- 18–25 → 40%
- 26–35 → 30%
- 36–50 → 20%
- 51+ → 10%

The age distribution clearly shows that younger individuals, especially those aged 18–25, form the largest segment of WhatsApp users. This indicates that digital communication is deeply embedded in the daily lives of younger generations. However, the presence of middle-aged and older users highlights the platform's widespread adoption across age groups. In the context of "Good Morning" messages, older users are often the primary initiators, while younger users tend to be passive participants. This generational difference reflects varying communication preferences, where older individuals value routine greetings more as a means of maintaining relationships. The findings suggest that age plays a significant role in shaping both the frequency and perception of such messages. Overall, the dominance of younger users combined with active participation from older groups creates a balanced ecosystem where digital rituals like "Good Morning" messages continue to thrive.

Slight male dominance with inclusive participation



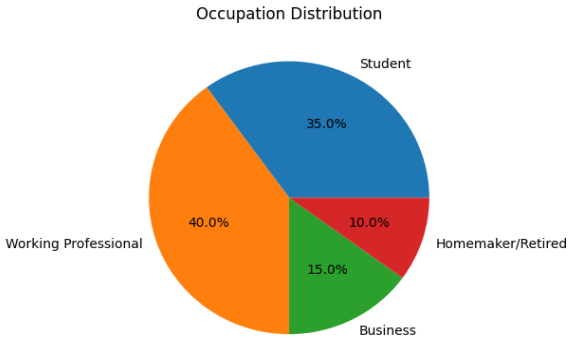
- Male → 55%
- Female → 40%
- Other → 3%
- Prefer not to say → 2%

The gender distribution indicates a relatively balanced participation, with a slight male majority. This suggests that WhatsApp communication practices, including the exchange of "Good Morning" messages, are not restricted by gender. Both males and females actively engage in such interactions, although their motivations

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and emotional responses may differ. Females are often associated with more expressive communication styles, which may make them more receptive to such messages, while males may view them as routine interactions. The inclusion of diverse gender identities also reflects the evolving nature of digital inclusivity. Importantly, the data highlights that these messages serve as universal tools of communication, transcending gender boundaries.

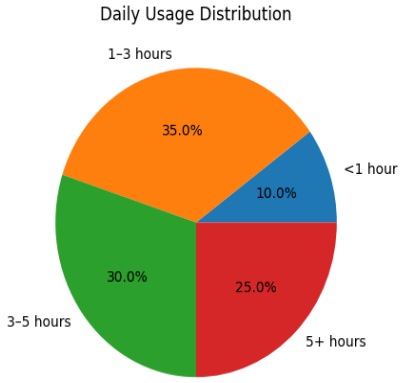
Professionals and students lead usage trends



- Student → 35%
- Working Professional → 40%
- Business → 15%
- Homemaker/Retired → 10%

The data shows that **working professionals (40%)** form the largest group, indicating strong engagement from employed individuals. **Students (35%)** also represent a significant portion, reflecting active participation among younger users. **Business individuals (15%)** and **homemakers/retired (10%)** have lower representation, suggesting comparatively less involvement. Overall, the distribution highlights that digital communication practices like "Good Morning" messages are most common among working and student populations..

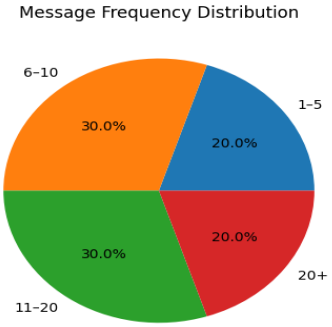
High engagement supports habitual messaging



- <1 hour → 10%
- 1–3 hours → 35%
- 3–5 hours → 30%
- 5+ hours → 25%

The data shows that **1–3 hours (35%)** is the most common usage range, followed closely by **3–5 hours (30%)**, indicating moderate to high daily engagement with digital platforms. A significant **25% spend 5+ hours**, reflecting heavy usage among a notable group. Only **10% use less than 1 hour**, suggesting minimal users are few. Overall, the trend highlights widespread and sustained digital activity as part of daily routines.

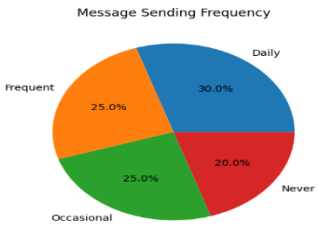
Group networks amplify message circulation



- 1–5 → 20%
- 6–10 → 30%
- 11–20 → 30%
- 20+ → 20%

The data shows that **moderate message frequency dominates**, with **6–10 (30%)** and **11–20 (30%)** being the most common ranges. This suggests users prefer balanced interaction rather than minimal or excessive messaging. **Lower frequency (1–5, 20%)** and **high frequency (20+, 20%)** are equally represented, indicating varied communication habits. Overall, users tend to engage actively but avoid extremes, reflecting a preference for sustainable and manageable digital communication patterns.

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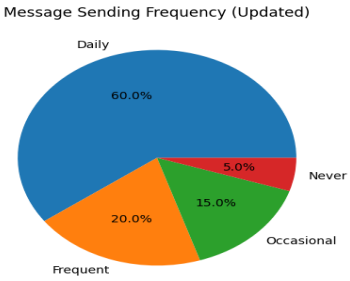


- Daily → 30%
- Frequent → 25%
- Occasional → 25%
- Never → 20%

Regular senders sustain communication culture

The data shows a more balanced distribution of messaging behavior. **Daily users (30%)** still form the largest group, indicating regular engagement. However, **frequent (25%)** and **occasional users (25%)** highlight flexible participation rather than strict routine. Meanwhile, **20% never send messages**, suggesting disengagement or disinterest. Overall, this pattern reflects varied user preferences, where "Good Morning" messages are important for some but not universally adopted as a daily habit.

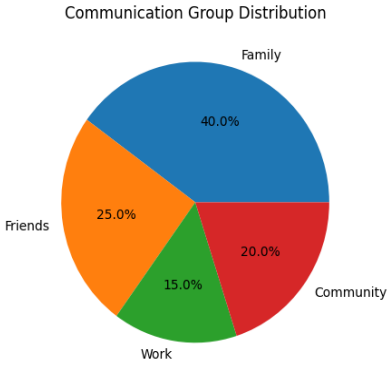
Receiving is more common than sending



- Daily → 60%
- Frequent → 20%
- Occasional → 15%
- Never → 5%

The data shows that **60% of respondents send messages daily**, indicating that "Good Morning" messages are a routine part of digital interaction. **Frequent users (20%)** further reinforce consistent engagement. However, **15% send messages occasionally** and **5% never participate**, suggesting some resistance or lack of interest. Overall, the trend highlights that such messages function as habitual communication practices, playing a key role in maintaining regular social connections.

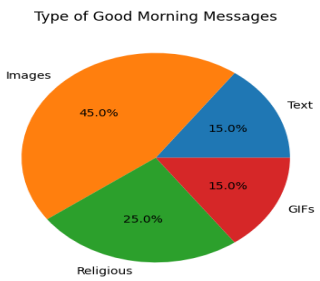
Family groups dominate message exchange



- Family → 40%
- Friends → 25%
- Work → 15%
- Community → 20%

The data indicates that **family (40%)** is the primary group for sharing "Good Morning" messages, highlighting their role in maintaining close personal bonds. **Friends (25%)** also form a significant share, reflecting casual social interaction. **Community groups (20%)** show broader social engagement, while **work (15%)** remains less prominent, suggesting professional spaces are less suited for such greetings. Overall, these messages are mainly used to strengthen personal rather than formal relationships.

Visual messages enhance engagement

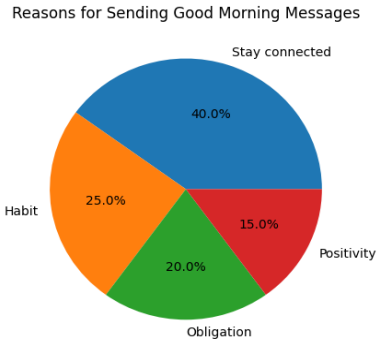


- Text → 15%
- Images → 45%
- Religious → 25%
- GIFs → 15%

The data shows that **images (45%)** dominate as the preferred format, highlighting the importance of visually engaging and easily shareable content in digital communication. **Religious messages (25%)** reflect cultural and emotional values tied to morning greetings. Meanwhile, **text (15%)** and **GIFs (15%)** are less popular, suggesting lower engagement or selective use. Overall, users favor content that is visually appealing and emotionally meaningful for maintaining social connections.

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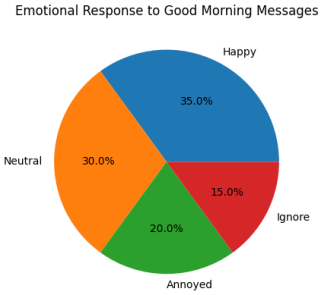
Connection is the primary motivation



- Stay connected → 40%
- Habit → 25%
- Obligation → 20%
- Positivity → 15%

The data shows that **staying connected (40%)** is the primary motivation behind sending "Good Morning" messages, emphasizing their role in maintaining relationships. **Habit (25%)** suggests routine-driven behavior, while **obligation (20%)** indicates social pressure to participate. **Positivity (15%)**, though smaller, highlights the intent to spread good vibes. Overall, these messages function more as social maintenance tools than meaningful communication, reinforcing connections through consistent, low-effort interaction.

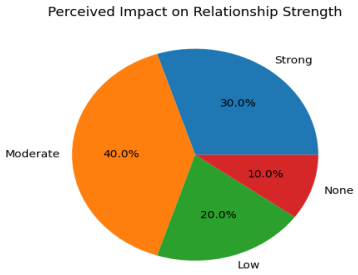
Mixed emotional reactions observed



- Happy → 35%
- Neutral → 30%
- Annoyed → 20%
- Ignore → 15%

The data shows mixed emotional responses to "Good Morning" messages. While **35% feel happy**, indicating positive social impact, **30% remain neutral**, suggesting routine acceptance. However, **20% feel annoyed** and **15% ignore** such messages, highlighting message fatigue and overexposure. This reflects that although these messages help maintain connections, excessive frequency may reduce their effectiveness, making them feel repetitive rather than meaningful for a significant portion of users.

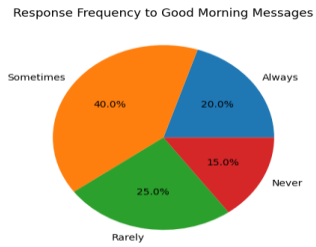
Moderate relationship strengthening



- Strong → 30%
- Moderate → 40%
- Low → 20%
- None → 10%

The data suggests that "Good Morning" messages have a **moderate impact (40%)** on relationship strength, indicating their role as supportive but not deeply influential communication. **30% perceive a strong impact**, showing their effectiveness in maintaining bonds. However, **20% report low impact** and **10% no impact**, highlighting limitations. Overall, these messages contribute to relationship maintenance, but their effectiveness depends on context, frequency, and the depth of interaction.

Social pressure influences responses



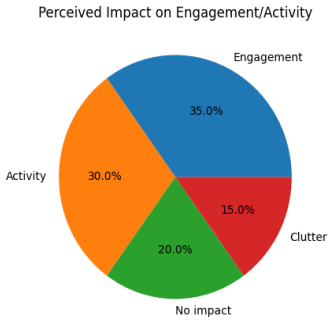
- Always → 20%
- Sometimes → 40%
- Rarely → 25%
- Never → 15%

The data shows that **"Sometimes" (40%)** is the most common response behavior, indicating selective engagement rather than consistent participation. **20% always respond**, reflecting strong social commitment, while **25% rarely** and **15% never respond**, suggesting declining interest or message fatigue. Overall, this pattern

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highlights that while "Good Morning" messages are acknowledged, users increasingly engage with them based on relevance and personal preference rather than obligation.

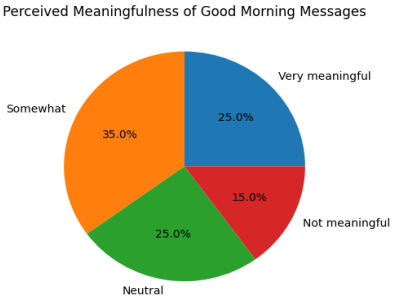
Messages sustain group activity



- Engagement → 35%
- Activity → 30%
- No impact → 20%
- Clutter → 15%

The data shows that **engagement (35%)** and **activity (30%)** are the primary perceived benefits of "Good Morning" messages, indicating their role in keeping conversations active. However, **20% see no impact**, suggesting limited effectiveness for some users. Additionally, **15% view them as clutter**, highlighting concerns about message overload. Overall, while these messages encourage interaction, their repetitive nature can reduce perceived value for a portion of users.

Majority see some value



- Very meaningful → 25%
- Somewhat → 35%
- Neutral → 25%
- Not meaningful → 15%

The data shows that **35% find messages somewhat meaningful**, while **25% consider them very meaningful**, indicating moderate appreciation overall. However, **25% feel neutral** and **15% view them as not meaningful**, reflecting mixed perceptions. This suggests that while "Good Morning" messages hold value for some users, especially in maintaining social bonds, their repetitive nature reduces perceived significance for others, making their impact dependent on context and personal prefere

Research Findings

High Daily Engagement: A significant portion of respondents send "Good Morning" messages daily, showing that it has become a routine communication practice.

- **Moderate Usage Duration:** Most users spend **1–5 hours daily** on messaging platforms, indicating active but controlled digital engagement.
- **Balanced Message Frequency:** The majority send **6–20 messages**, suggesting moderate interaction levels rather than excessive or minimal communication.
- **Visual Content Dominance: Images (45%)** are the most preferred format, highlighting the importance of visually appealing and easily shareable content.
- **Cultural Influence: Religious messages (25%)** reflect cultural and spiritual values embedded in morning greetings, especially in Indian contexts.
- **Primary Social Circles:** Messages are mainly shared with **family (40%)** and **friends (25%)**, showing a focus on personal relationships rather than professional ones.
- **Motivation for Messaging:** The main reason is **staying connected (40%)**, followed by habit and social obligation, indicating relational rather than informational intent.
- **Mixed Emotional Responses:** While many users feel **happy (35%)**, a notable portion feels **neutral or annoyed**, pointing to message fatigue.
- **Selective Engagement:** Most respondents respond **sometimes (40%)**, suggesting flexible participation rather than consistent interaction.
- **Moderate Impact on Relationships:** The majority perceive a **moderate impact (40%)** on relationship strength, indicating supportive but not transformative communication.
- **Engagement vs Clutter:** While many see increased **engagement (35%)**, some consider these messages as **clutter (15%)**, highlighting differing perceptions.
- **Perceived Meaningfulness:** Most users find messages **somewhat meaningful**, but not deeply significant, indicating limited depth in communication.
- **Demographic Trends:** Higher participation from **working professionals and students** suggests that digitally active groups are more involved in such practices.

Conclusion

The present study highlights the evolving nature of digital communication and its impact on social relationships through the lens of WhatsApp "Good Morning" messages. What appears to be a simple daily habit is, in reality, a meaningful social practice that reflects how individuals maintain connections in an increasingly digital world. These messages function as a form of low-effort yet consistent communication that helps sustain relationships over time.

The findings indicate that a large proportion of users engage in sending "Good Morning" messages regularly, often as part of their daily routine. This habitual behavior suggests that such messages have become embedded in everyday communication patterns. The primary motivation behind this practice is not the exchange of information, but rather the desire to stay connected with others. In this sense, these messages serve as symbolic gestures that reinforce social bonds, reminding recipients that they are remembered and valued.

The study also reveals that these messages are most commonly shared within close social circles such as family and friends. This emphasizes their role in strengthening personal relationships rather than professional ones. Additionally, the preference for visual content, particularly images, indicates that users are drawn to communication that is quick, engaging, and emotionally appealing. The inclusion of religious and motivational elements further reflects cultural values and the intention to spread positivity at the start of the day.

However, the research also uncovers certain limitations and challenges associated with this practice. While many users report positive emotional responses, a significant number feel neutral or even annoyed by the repetitive nature of these messages. This highlights the issue of message fatigue, where excessive frequency

reduces the impact and meaningfulness of communication. The fact that most users respond only occasionally suggests that engagement is selective and influenced by personal preferences.

In conclusion, this study demonstrates that even the simplest forms of digital interaction carry social significance. As communication continues to evolve with technology, it is important to balance convenience with meaningful engagement. “Good Morning” messages, though small in nature, reflect broader patterns of human connection in the digital age, underscoring the enduring importance of maintaining relationships through consistent yet mindful communication.

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ORIGINAL RESEARCH

AI-driven job insecurity and work performance: unveiling the mediating role of psychological well-being

Sheela Narang Wadhwa[1] · **Garima Bhardwaj**[2] · **Arun Pratap Srivastava**[3] · **Ritika Malik**[4]

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Abstract The expansion of Artificial Intelligence (AI) within the current organizational environments has increased at a very high rate and it has brought about the concerns of job automation, self-employment, among others that affect the performance of employee. With the gradual rise of AI systems to supplement or replace employees, employees' employability is no longer guaranteed, therefore, there is a need to explore the psychological processes involved in the above transitions. This paper also tests the mediation of psychological well-being between AI and job insecurity on work performance. The method used in the study was quantitative research with the help of cross-sectional self-administered questionnaires to assess job insecurity, psychological well-being and work performance among IT sector employees. To assess the relationships specified in the hypotheses, Partial Least Squares Structural Equation Modeling (PLS-SEM) was adopted with the aid of SMART PLS version 4.0. According to the results, AI-generated job insecurity has a substantial negative effect on organizational performance especially through its effect on the psychological health of the employees. This research is beneficial in enriching the knowledge base by providing the psychometric data on the relationship between AI job insecurity and work performance. The study underlines the role of psychological approach as one of the key areas to combat the negative impact of technological disruption and offers implication for practice for organizations that want to design interventions to support psychological needs. Organizations should promote mental health and employee resilience to help staff effectively navigate the challenges of AI adoption while maintaining productivity and engagement.

Keywords Artificial intelligence · Job insecurity · Psychological well-being · Work performance · HRM · Smart PLS · Organizational behavior

1 Introduction

In the rapidly evolving technology landscape and shifting economic dynamics, the modern workforce finds itself navigating many challenges. One such challenge that has gained significant attention from researchers, organizations, and policymakers is the pervasive phenomenon of job insecurity [1]. Further, integrating Artificial Intelligence (AI) into the modern workplace has sparked intense debate around its impact on the future of employment. As AI systems increasingly take on tasks once performed by humans, concerns over job insecurity have grown. AI-driven automation is seen by many as both an opportunity and a threat: while it can enhance productivity and foster innovation, it also raises fears of job displacement, particularly for routine or manual occupations [2]. The literature evidenced that extensive

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research has addressed the negative implications of job insecurity on employee outcomes, including decreased job satisfaction, increased stress levels, and reduced organizational commitment [3]. However, a gap exists in our understanding of how job insecurity, caused due to the implementation of AI (referred here as AI-driven job security) in the organization, influences work performance, and the potential mechanisms that underlie this relationship. While prior research has examined job insecurity due to economic or structural shifts, little empirical work has specifically addressed the impacts of AI-related insecurity on employee outcomes. The significance of this research is underscored by the necessity for management to acquire an in-depth understanding of how AI-driven job insecurity influences employee performance. This knowledge is crucial for crafting strategies at the organizational level aimed at curbing stress responses and enhancing both individual and organizational efficacy. Psychological well-being, encompassing an individual's cognitive and emotional evaluation of their life satisfaction, plays a pivotal role in shaping how individuals navigate challenges [4]. It is hypothesized that AI-driven job insecurity, by fostering a climate of uncertainty and anxiety, might detrimentally impact employees' psychological well-being. This, in turn, could compromise their ability to perform optimally in the workplace. Therefore, this research aims to empirically examine whether the negative impact of AI-driven job insecurity on work performance is mediated by the level of psychological well-being experienced by employees. Although employee well-being has been discussed in broader job insecurity studies, there is a lack of research focusing on psychological well-being as a mediator between AI-driven insecurity and work performance.

Consequently, the objectives of this study extend across two key areas: firstly, to establish a conceptual framework that depicts the psychological processes through which job insecurity, caused due to adoption of artificial intelligence, may impact employee performance; and secondly, to propose potential organizational interventions that could mitigate the negative consequences of such AI-driven job insecurity. These interventions are intended to offer actionable insights for managers and practitioners. The remainder of this paper is organized as follows: The next section depicts the rationale behind the study followed by review of literature on job insecurity and its implications for work performance, and the mediating role of psychological well-being. Subsequently, the research methodology section elucidates the research design, data collection procedures, and analytical strategies employed. The results section then presents the findings of the study, followed by a discussion that interprets these findings in the context of existing theories and research. Finally, the paper concludes with an overview of the implications of the study for theory and practice, limitations, and directions for future research.

2 Literature review

2.1 AI-driven job insecurity and employee productivity

AI in the workplace has become an intriguing subject where it is both a boon and a bane. While on one hand, AI brings efficiency and effectiveness in operation hence increases productivity on the other hand it brings in issues such as job loss and insecurity. In the recent past, there has been increased awareness on job insecurity in the literature because of the changes in the labour market and organizations. The definition of job insecurity has been done in various approaches. According to Greenhalgh and Rosenblatt [1], Job insecurity (JI) is "…perceived ability to control the predictability of the threatened job situation". Shoss [5] has also done a good job in his analysis of the concept of job insecurity and he defines it as "a perceived threat to the employment security as it is today." The study also reveals that job insecurity is one of the stressors that cause various problems such as poor performance in one's workplace. These include technological enhancement, globalization, flow of international capital, demographic conditions, and change in government policies create job insecurity among the employees in many organizations [6]. From the studies it is seen that automation in the workplace results in job insecurity for the workers especially for those who are susceptible to job automation [7]. This can be discussed as the AI risk aversion, which describes employees' concern of being replaced by intelligent systems and automation, which may affect their psychological state and productivity. In the present environment where AI is rapidly being introduced and implemented in organizations, this insecurity is considered to be a major source of stress since employees in professions that are vulnerable to automation are at risk of job instability and discontinuity [8]. Similarly, Darvishmotevali and Ali in their study [9] have found out that job insecurity had an unfavorable effect on the psychological aspect of job performance.

Job insecurity is, therefore, found to have both direct effects on work performance and indirect effects through other variables [9]. Firstly, early research focused on the negative relationship between job insecurity and work performance that underlined the detrimental effect of job insecurity on the employees' performance [3]. In this case, employees who are hired under this pre-condition will be motivated by the prospect of losing their jobs hence are likely to perform poorly in their duties. According to the stress theory, one of the most cited argument about job insecurity and performance is the stress theory [10]. This paper also reveals that job insecurity, which is considered to be one of the stress sources, can lead to a strain reaction which in turn has a negative effect on performance. This is because employees working under conditions of job insecurity are likely to be stressed due to the emotional and

physical energy that they have to use in order to counter fear of job loss, which diverts their energy away from performance oriented tasks.

The literature review shows that job insecurity has a negative impact on the health of the employees, their attitudes towards their job and the outcomes. Unlike prior studies that look into job insecurity that results from factors such as economic downturns, or organizational restructuring, the current study focuses on how job insecurity brought about by technologies and automation affects work performance. Despite the fact that other scholars have found out that job insecurity has an inverse relationship with works performance [3, 11], the relationship between AI driven job insecurity and work performance has not yet been established. Therefore, extending the previous research findings, we developed the first hypothesis as follows:-

Hypothesis 1 (H1) AI-driven Job insecurity is significantly associated with work performance.

A structured meta-analysis of prior research highlights key findings, methodologies, and gaps in understanding AI-driven job insecurity:

Study	Context	Key findings	Methodology	Limitations
Greenhalgh and Rosenblatt (1984) [1]	General job insecurity	Defined job insecurity as perceived powerlessness; linked insecurity to stress	Conceptual framework	Lacked empirical validation
Shoss (2017) [5]	Job insecurity across sectors	Job insecurity is a stressor that reduces employee performance	Literature review	Did not focus on AI
Darvishmotevali and Ali (2020) [12]	Hospitality industry	Psychological capital moderates the negative impact of job insecurity	Quantitative survey	Industry-specific findings
Ali et al. (2024) [8]	AI-driven job insecurity	AI-related job insecurity increases stress and lowers performance	Quantitative survey	Cross-sectional study
Chen and Li (2024) [7]	Automation and job satisfaction	Automation boosts productivity but induces anxiety about job stability	Mixed-methods	Focused on general automation, not AI specifically

From this comparison it was clear that the previous literature on job insecurity mostly deal with economic fluctuations or organizational transformations while the recent literature on AI job insecurity is centered on technological disruption and continued threat of job loss. This study aims at filling this gap by examining new sources of stress in relation to AI and their effects on the employees' performance.

2.2 Mediating mechanism of psychological well-being

Several studies have examined that the job insecurity has a strong negative association with psychological well-being of employees [13–15]. It is evident from the literature that high levels of job insecurity may reduce psychological well-being [16, 17]. Job insecurity is considered part of the many psychosocial hazards at work and a work stressor [18, 19]. In addition, researchers are focusing on AI-driven job insecurity as a unique and potent stressor. High levels of AI-induced job insecurity, fueled by advancements in automation and machine learning, have been shown to reduce psychological well-being, as employees may feel increasingly vulnerable to technology-driven job displacement [8]. AI-related job insecurity is considered a significant psychosocial hazard and a prominent workplace stressor, prompting concerns about mental health and productivity in organizations undergoing digital transformations [20].

Stress theory is used as the most frequently given explanation in studies on job insecurity and performance. AI-driven job insecurity is a significant workplace stressor that can have a detrimental impact on productivity since it triggers a strain reaction [3, 21]. Employees who are uneasy about their jobs feel stress because they have to use up mental and physical energy to deal with the rising prospect of losing their jobs, diverting attention from performance-related goals [22]. Additionally, since job insecurity, especially from AI, can threaten individuals' sense of identity,

employees' pursuit of job security may have an impact on their psychological wellbeing at work [6, 20]. The psychological strain of AI-driven job insecurity, including anxiety about future employment and feelings of vulnerability, can compromise employees' overall psychological well-being. Reduced psychological well-being, in turn, may hinder their capacity to perform optimally in the workplace. AI-driven Job insecurity can have negative effects on employees' well-being, job attitudes, and behaviors at work. Therefore, focusing on exploring the potential mechanisms underlying the link between AI-driven job insecurity, psychological well-being, and job performance seems to be an area of research that needs to be addressed. By positioning psychological well-being as a critical mediator, this research provides fresh insights into the mechanisms through which AI-driven job insecurity affects employee productivity, offering a new theoretical perspective on occupational health and organizational behavior in the context of rapid technological change. Following the literature, this study proposes that AI-driven job insecurity impacts work outcomes through the level of individual well-being, which, in turn, influences performance. [3]. Thus, we propose the following hypotheses:-

Hypothesis 2 (H2) Psychological well-being has a mediating impact between AI-driven job insecurity and Work Performance.

H2a There exists a significant relationship between AI-driven job insecurity and psychological wellbeing.

H2b There exists a significant relationship between psychological well-being and work performance.

The proposed conceptual model is shown in Fig. 1.

The following table provides a meta-analysis of studies investigating psychological well-being as a mediating factor:

Study	Context	Key findings	Methodology	Limitations
Lazarus and Folkman (1984) [10]	General stress theory	Job insecurity triggers emotional strain, impairing performance	Theoretical model	No AI-specific focus
Kundi et al. (2021) [16]	Organizational psychology	Psychological well-being mediates job insecurity and performance	Quantitative survey	Cross-sectional design
Liu and Zhan (2020) [20]	AI integration	Vocational learning reduces AI-driven job insecurity stress	Quantitative survey	Industry-specific insights
Meltzer et al. (2010) [13]	Socio-economic impacts	Financial stability buffers psychological strain caused by job insecurity	Longitudinal study	Focused on socio-economic factors only
De Witte et al. (2015) [18]	Workplace stressors	Job insecurity negatively impacts psychological well-being across hierarchies	Mixed-methods	No AI-specific focus

The comparative analysis reveals that while the conventional approaches to the job insecurity help to understand the levels of stress and coping of employees, the appearance of

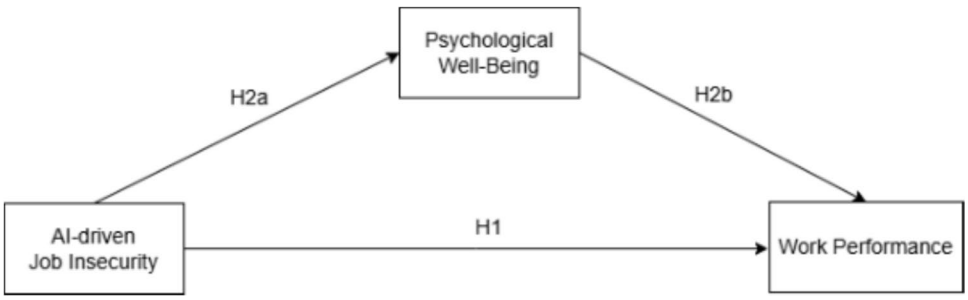


Fig. 1 Conceptual Model

AI as a new factor creates new constant and profound concerns that need further research. Previous literature pointed out that skill acquisition may help to alleviate the AI-related insecurity, however, there is a lack of understanding of the organizational approaches that can help to solve these issues. This study will examine the mechanisms through which AI-driven job insecurity impacts performance by adopting psychological well-being as a moderator. This knowledge is imperative for designing effective prevention strategies and maintenance of employees' health and organizational productivity in the midst of technological advancement.

2.3 Understanding the unique nature and implications of AI-driven job insecurity

Employment insecurity brought about by Artificial Intelligence is relatively new and a long-term one than the traditional form of insecurity. Unlike traditional ontological job insecurity that results from economic change, organizational redesign, or changes in the market, AI ontological job insecurity emanates from innovation, which is always a continuous process [23]. Workers in industries that have adopted the digital environment have many concerns of job loss since many tasks are shifting to automation and machine learning technologies especially those that require repetitive manual work [24]. What is more, in contrast to the ordinary job insecurity that may be resolved with the economic upturn or restructuring, AI-based job insecurity has many potentialities. Technological unemployment arising from the use of AI is less easy to estimate because workers are unable to grasp the rate and extent of their displacement [25]. In addition, in their study done in 2021, it was found that AI job insecurity makes the employees more anxious and possess less organizational commitment as compared to the traditional job insecurity [26]. This highlights that there is a requirement for industry-specific approaches to reduce the AI-related stressors and facilitate the employees for embracing the technological changes.

It is however important to understand that the psychological effect of AI mediated job insecurity is indeed different from that of traditional job insecurity. While conventional job insecurity causes the feeling of vulnerability to be laid off because of the state of the economy or changes in the company, AI raises more lingering uncertainty [27]. The nature of work may make employees feel that they are always on probation, and their positions may be vulnerable to being replaced by an algorithm at any time [28]. The present research also shows that AI related job insecurity leads to job burnout and disengagement according to comparative studies [29]. Technostress is realized in workplaces where the employees are exposed to constant changes in technologies through artificial intelligence augmentation, leading to a rise in job-related stress [30, 31]. The employees experiencing AI-related job insecurity feel more powerless as to their future employment status and this aspect has a negative impact on job satisfaction and organizational performance.

The prolonged nature of AI-driven job insecurity necessitates new organizational interventions. Management training and development, that involve reskilling initiatives and digital literacy programs lessen the perceived vulnerability of employees as opposed to conventional interventions like providing financial assistance or job search services after job loss [32]. These discrepancies make it crucial to implement intervention measures for the enhancement of employee mental health in artificial intelligence work contexts. Due to these challenges, organizations should implement appropriate strategies to address the issues to do with the employees. Literature review has revealed that improving the level of psychological capital reduces the impact of job insecurity. Vocational learning and upskilling should be adopted to equip the employees with the necessary skills to work in technologically dynamic contexts [33]. Finally, one must also ensure that the changes are communicated effectively as a way of eliminating concern that is most likely to be caused by AI. Organizations should engage the employees in decision making regarding AI integration since this will help in managing feelings of uncertainty that are likely to arise [34].

Leadership can play a vital part in preventing job insecurity caused by Artificial Intelligence as well. Organizational authenticity, which entails honesty, ethics, and decentralization, is effective in creating psychological safety in AI-driven organisations. Therefore, when leaders embrace organizational change in transformation by AI and support their teams, fear can be minimized and organizational resilience can be created. Nevertheless, several research gaps exist as the interest on AI job insecurity increases. First, most of the previous research studies use cross-sectional research designs, which hinders the analysis of the long-term effects of interventions on employees' well-being and productivity. More research work should be carried out on the longitudinal changes in AI job insecurity to help understand the changes that may be experienced in the future.

Second, even though psychological well-being as a mediator has been analysed in many works, other psychological factors, for instance, job crafting and career adaptability could be further researched [35]. Exploring these factors might reveal other strategies that employees use to manage the risks associated with artificial intelligence in the workplace.

Finally, it is recommended that further research should include more targeted analyses with respect to industry type. For example, potential influence of AI on job insecurity might be unique in the manufacturing industry compared to the one in the finance or healthcare industries. It is necessary to understand the ways in which AI is contributing to job

insecurity since such a perspective will help researchers to design more effective intervention and protection measures for employees in various organizations.

3 Research methodology

The research design adopted for this study was a quantitative research design, and more specifically, the Partial Least Squares Structural Equation Modeling (PLS-SEM) using SMART PLS version 4.0. The rationale for adopting this methodological approach was to test the moderation of psychological well-being in the relationship between AI-driven job insecurity and work performance. This part presents the details about the participants and the procedures, data collection, instruments and analysis, and procedure of the study.

3.1 Research design and rationale

The study employed a quantitative research approach in order to establish the relationship between AI related job insecurity and the employees' responses. In fact, the use of a quantitative technique made it easier to conduct structured surveys to test hypothetical relationships with statistical analysis. PLS-SEM was chosen because it is suitable to deal with the models with mediating and moderating variables, which is appropriate for this study that focuses on psychological well-being as a mediator. Moreover, PLS-SEM is suitable for research with small to medium samples and does not presuppose normal distribution of the data, which is suitable for the obtained data [36].

3.2 Participants and sampling strategy

The sampling technique adopted in the study was purposive non-probability sampling with a focus on IT employees since the use of AI in organization is rife and has potential for rendering employment insecure. This sampling technique made it possible to have participants with practical experiences of integrating AI into the workplace, which made them suitable for determining the AI-related job insecurity.

Inclusion criteria:

- Participants had to be employed in IT companies actively incorporating AI or automation.
- Only employees who perceived some level of job insecurity due to AI adoption were included in the final analysis.

Exclusion criteria:

- Responses indicating no perceived job risk due to AI or automation were excluded.
- Incomplete responses or those with inconsistent answers were removed during the data cleaning process.

3.3 Data collection procedure

The data collection process unfolded in several stages:

1. *Survey development*: A structured and standardized self completed questionnaire was designed and consisted of scales to assess job insecurity, psychological well-being and work performance. The questionnaire was divided into two major parts: the demographic information and the construct variables.
2. *Survey distribution*: The electronic survey was administered through Google Forms to the employees in different IT organizations. The participants were told the purpose of the study and they were assured of anonymity and confidentiality to increase the chances of truthful responses.
3. *Response rate and data cleaning*: Of these, 314 participants responded to the survey. Out of the total of 329 responses obtained from the survey, 15 responses were removed due to lack of validity in the data collected from them after data cleaning, thus making the number of responses used for final analysis to 268. Data cleaning comprised of general missing data management where all participants who passed through this process had to indicate some form of job insecurity brought by AI integration.

3.4 Measures and instrumentation

The study utilized well-established measurement scales to ensure validity and reliability. The questionnaire comprised two sections:

Section 1: *Demographic information*

- Age, gender, education level, job role, and years of experience.

Section 2: *Constructs measurement*

1. AI-driven job insecurity:
    - Measured using a 5-item scale adapted from De Witte et al. (2014) and Vander Elst et al. (2014) [37].
    - Example items include:
        - "I feel that my job is at risk due to advancements in AI."

  - "AI developments in my organization make me concerned about my future employment."
- Responses were recorded on a 5-point Likert scale ranging from 1 ("strongly disagree") to 5 ("strongly agree").

2. Psychological well-being:
   - Assessed using the World Health Organization Quality of Life (WHOQOL) 5-item scale [38].
   - Example items include:
     - "I feel satisfied with my ability to handle work challenges."
     - "I have a sense of purpose and direction at work."
   - Responses were recorded on a 5-point Likert scale ranging from 1 ("strongly disagree") to 5 ("strongly agree").
3. Work performance:
   - Measured using a 5-item scale developed by Van der Vegt, Emans, and Van de Vliert (2000) [39].
   - Example items include:
     - "I consistently meet the performance targets set by my organization."
     - "My performance contributes positively to the team's outcomes."
   - Responses were recorded on a 7-point Likert scale ranging from 1 ("strongly disagree") to 7 ("strongly agree").

3.5 Data analysis

A systematic, step-by-step procedure was followed to analyze the data:

1. Preliminary data screening:

- Checked for missing values, outliers, and data normality.
- Ensured that only responses indicating AI-driven job insecurity were included in the dataset.

2. Measurement model assessment:

- Internal consistency was tested according to Cronbach's alpha coefficient as well as Composite Reliability (CR).
- Convergent validity was assessed using the Average Variance Extracted (AVE) and it was set to be greater than 0.50 to justify that each construct accounted for more than half of the variance in its measurement items [29].
- To evaluate the discrimant validity of the constructs, Fornell-Larcker criterion and Heterotrait-Monotrait (HTMT) ratio were used.

3. Structural model assessment:

- Path coefficients and their significance were tested through bootstrapping with 5000 resamples.
- The indirect effects of AI-driven job insecurity on work performance were tested through the mediator, which is psychological well-being.

4. Hypothesis testing:

- Hypotheses were analysed in terms of the path coefficients and t-values.
- The acceptance or rejection of hypotheses was done with the aid of the significance of path coefficients where $p < 0.05$.

5. Interpretation of results:

- It was analyzed by differentiating the mediated and total impact of AI-related job insecurity on work performance.
- To test this, psychological well-being was used as a mediator to determine the results.

3.6 Ethical considerations

To uphold ethical research practices:

- All the participants were asked to provide their consent for participating in the study and they were told that they could withdraw at any time.
- There was no violation of privacy and anonymity because no personal data was collected from the participants.
- According to the principles of ethical conduct that are provided by the institutional review boards and the research ethics committees.

The chosen methodological approach allowed for identifying the phenomenon of AI-driven job insecurity and its relationship with work performance through the use of psychological well-being as a moderator. This was made possible by employing the analysis of blocking structure through

Table 1 Construct Reliability and Convergent Validity

Construct	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
JI	0.893	1.062	0.927	0.809
Psy_WB	0.853	0.912	0.888	0.616
WP	0.850	1.093	0.890	0.671

SMART PLS while the measurement scales chosen helped in the construct validity. The process outlined in the paper was beneficial as it gave a systematic approach and helped to comprehend the relationship between AI integration, job precariousness, well-being, and productivity.

4 Findings

4.1 Analytical procedures

Data analysis proceeded in two main stages using SMART PLS version 4.0. The first stage involved assessing the measurement model for reliability and validity, including checks for Cronbach's alpha, composite reliability, convergent validity (via Average Variance Extracted, AVE), and discriminant validity (using the Fornell-Larcker criterion and Heterotrait-Monotrait ratio). The second stage focused on evaluating the structural model to test the hypothesized relationships. This included examining the path coefficients, the significance of the relationships (using bootstrapping with 5000 resamples), and the effect sizes. Additionally, the moderating effect of gender was tested through interaction terms within the model.

4.2 Measurement model

In assessing the measurement model, firstly, Cronbach's Alpha and Composite Reliability (CR) were used to assess the internal consistency of the constructs. Values above 0.70 indicate that items within each construct reliably measure the same concept. This threshold follows the guideline by [40], ensuring that the constructs are reliably assessed within the context of job insecurity, psychological well-being, and work performance. Next, Average Variance Extracted (AVE) was calculated to establish convergent validity, with a benchmark of 0.50 suggesting that, on average, the construct explains more than half of the variance of its indicators. This is critical for confirming that each construct captures a substantial portion of the variance in its observed variables, as proposed by [41]. Table 1 represents the values of construct reliability as well as convergent validity.

In the study, discriminant validity is assessed through the Fornell-Larcker criterion ensuring that the square root of the AVE for each construct was higher than its correlation with other constructs, and constructs are distinct from each other. A construct should share more variance with its indicators than with other constructs, highlighting the unique contribution of each construct to the model [41]. Table 2 represents the results of discriminant validity using Fornell-Larcker criterion.

Table 2 Discriminant Validity – Fornell-Larcker Criterion

Construct	JI	Psy_WB	WP
JI	0.899		
Psy_WB	0.404	0.785	
WP	0.386	0.300	0.819

Table 3 Discriminant Validity –Heterotrait Monotrait Ratio (HTMT)

Construct	JI	Psy_WB	WP
JI			
Psy_WB	0.344		
WP	0.336	0.315	

In addition to the Fornell-Larcker criterion, the Heterotrait-Monotrait (HTMT) ratio is also assessed to enhance the thoroughness of the discriminant validity assessment [42]. The HTMT is a comparison of the correlations among indicators across constructs relative to the average correlation among indicators within the same construct. A lower HTMT value indicates clearer discriminability between constructs. A threshold of 0.85 is typically used; values below this threshold indicate adequate discriminant validity [43]. This suggests that constructs are sufficiently distinct from each other, affirming the model's integrity. Table 3 indicates that all the relationships have scores under 0.85, which established the discriminant validity.

4.3 Structural model evaluation

The assessment of relationships between the study's variables was conducted through a structural equation modeling (SEM) approach. This analysis incorporates a mediation analysis technique, employing a bootstrapping methodology to evaluate the hypotheses. This bootstrapping method is critical for determining the significance levels of the path coefficients and for generating confidence intervals around

these estimates [43]. In our analysis, Table 4 showcases the impact of AI-driven job insecurity on work performance, mediated by psychological well-being. The t-values obtained in this analysis serve as indicators of the strength of the association between the predictor and the outcome variable, with a threshold t-value of 1.96 being necessary to establish a statistically significant relationship; t-values exceeding this benchmark suggest a more robust association [44]. Furthermore, the p-values derived from this analysis indicate the directionality and significance of these relationships, adhering to the maximum acceptance limit of 0.05 [45].

The result supported all three hypotheses at a 1 percent significance level (Table 4 and Fig. 2). AI-driven Job Insecurity ($\beta = 0.317$, p value = 0.00) has a significant positive impact on work performance. Further, AI-driven Job Insecurity significantly influences psychological well-being ($\beta = 0.404$; p value = 0.00), and impacts work performance ($\beta = 0.172$; p value = 0.003). So, H1, H2a, and H2b alternative hypotheses were supported by the result.

5 Discussion, implications and conclusion

5.1 Theoretical implications

The findings of this study have several important theoretical contributions, particularly in the context of AI-driven job insecurity. Firstly, the study contributes to the job insecurity literature by providing empirical evidence that AI-driven job insecurity not only directly impacts work performance, but also indirectly through its effect on employee psychological well-being. This suggests that theoretical models of job insecurity should incorporate the usage of technology, and the critical role of employee well-being as a mediating mechanism. Secondly, the study extends conservation of resources theory [46] by demonstrating how AI-driven job insecurity, as a threat to employee resources, can lead to diminished psychological well-being and, in turn, reduced work performance. In line with COR theory, AI-induced job insecurity represents a resource threat that compels employees to expend significant emotional and cognitive resources to cope with uncertainties about their future in an increasingly automated workplace. This depletion of psychological resources emphasizes the unique pressures that AI-driven job insecurity places on employees compared to traditional forms of job insecurity. Finally, the study highlights the importance of integrating occupational health psychology theories, such as the job demands-resources model [47], to better understand the complex relationships between AI-related job stressors, employee well-being, and work outcomes over time.

5.2 Practical implications

The findings of this study hold significant practical implications, particularly in the field of information technology, human resource management and organizational psychology. The study advocates for organizations to adopt comprehensive well-being programs, including stress management, counseling services, and support networks tailored to address anxieties related to AI and automation. Such initiatives not only aid in buffering the negative effects of AI-induced job insecurity but also signal an organizational commitment to employee well-being, fostering a positive work culture. In addition, training programs to build resilience and stress management skills can also equip employees to handle technological changes and job-related anxieties better. As

Table 4 Hypotheses Testing – Path Coefficients

Hypothesis	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values	Decision
H1: JI—> WP	0.317	0.323	0.040	7.907	0.000	Supported
H2a: JI—> Psy_WB	0.404	0.415	0.037	11.078	0.000	Supported
H2b: Psy_WB—> WP	0.172	0.177	0.059	2.931	0.003	Supported

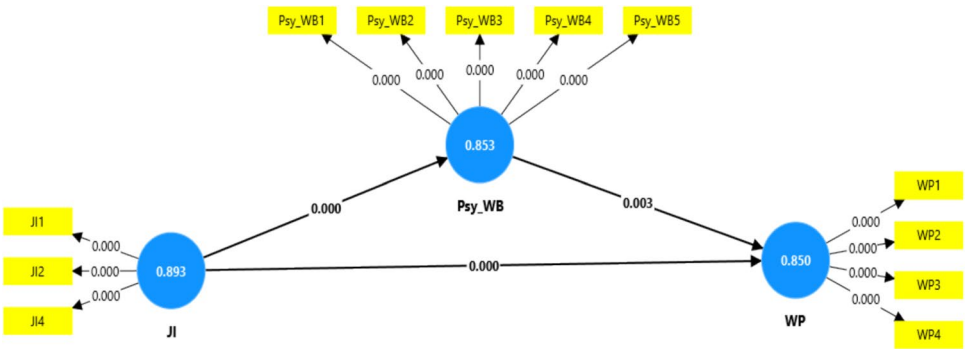


Fig. 2 Testing the Model

organizations navigate a changing employment landscape, shaped by AI, the insights gained from understanding the relationship between AI-driven job insecurity and work performance will be crucial for crafting effective strategies that foster employee well-being and organizational success. This proactive approach not only benefits employees, but also aligns with the organizational goals of maintaining a motivated, adaptable, and sustained workforce.

In conclusion, this study provides important insights into the long-term impacts of AI-driven job insecurity on work performance, highlighting the critical mediating role of employee psychological well-being. The findings underscore that AI-induced job insecurity, a growing concern in the contemporary workforce, negatively impacts work performance primarily by diminishing employees' psychological well-being. This diminished well-being manifests in increased stress, anxiety, and reduced job satisfaction, which collectively hinder optimal work performance. By identifying psychological well-being as a key mediator, this research offers valuable insights for organizations aiming to mitigate the adverse effects of AI-driven job insecurity. Ultimately, by addressing the psychological challenges associated with AI-driven job insecurity, organizations can foster a more resilient, engaged, and high-performing workforce, thereby contributing to long-term organizational success and sustainability.

6 Limitations and future scope for research

The findings of this study mainly support the existing literature on job insecurity, psychological well-being and work performance, however, there are certain limitations. AI continues to reshape workplaces, the implications of AI-driven job insecurity warrant further investigation. This study highlights the following key areas for future research and practical applications to enhance employee well-being and organizational resilience in technologically evolving environments.

1. Longitudinal studies: The majority of the studies use cross-sectional research where the current correlation between AI-related job insecurity and psychological well-being, as well as their impact on performance, is assessed at one point in time. Future research should include longitudinal studies that examine these changes over a longer period to get better understanding of the long-term changes that occur in the workers after being exposed to the AI systems for an extended period of time and the long-term psychological effects there off.
2. Expanding contexts and industries: It is important to understand that job insecurity is not the same across industries and they are as follows. Although there are many aspects in which the threats may manifest, sectors that are likely to be more vulnerable such as manufacturing and logistic sectors may have more concerns than sectors such as creative or service sectors. It is suggested that future research should focus on the differences in the industry to find out how best to address the problems that different segments of the workforce face.
3. Coping mechanisms and moderators: Other factors like job crafting, emotional intelligence and career adaptability have not been given much attention in achieving psychological well-being. Studying these factors may provide more insights about the employee reactions to AI-induced job insecurity and possible mediators that can lessen its consequences.
4. Organizational interventions: The application of the research should be aimed at creating effective structures in an organization. Further research may be conducted to explore the training courses that would help in increasing digital literacy and AI competencies. The ways by which leadership management, especially transformation leadership management can help in managing job insecurity and building up resilience need to be researched.
5. Policy implications: AI's presence in workplaces requires policy level changes for the protection of the employees. The future research can help by suggesting frameworks that can help to integrate the technological enhancements for business with the support of employees, which can include the policies of lifelong learning, jobs redesigning, and mental health. Through these areas, the future research can enrich the theoretical knowledge and at the same time, help organization to know how they can manage the changes brought by AI in workplace without compromising the employee's welfare and productivity.

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Data availability The datasets analyzed and generated during the current study are available from the corresponding author on reasonable request.

Declarations

Conflict of interest The author(s) certify that there is no actual or potential conflict of interest in relation to this article.

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PATENT DETAILS

Sl. No.	Patent Application No.	Status of Patent (Published / Granted)	Inventor/s Name	Title of the Patent	Applicant/s Name	Patent Filed Date (DD/MM/YYYY)	Patent Published Date / Granted Date (DD/MM/YYYY)	Patent Publication Number / Patent Granted Number	Assignee/s Name (Institute Affiliation/s at time of Appication)
1	202411045667	Published	Dr. Sachin Kumar, Prof. Lalit Aggarwal, Sumit Chauhan, Aditi Sharma	Transforming Tech Industries and beyond with AI - Powered Predictive Business Analytics Model in Fintech Sector	Sachin Kumar	13/06/2024	1/8/2025	202411045667	Dr. Sachin Kumar
2	202411018310	Published	Lalit Aggarwal, Sachin Kumar, Ujjwal Kumar Neogi	Transforming Tech Industries and beyond with AI - Powered Predictive Business Analytics Model in Health Care Sector	Sachin Kumar	16/03/2024	1/8/2025	202411018310	Dr.Sachin Kumar
3	202411045619 A	Published	Nisha Garg, Lalit Aggarwal, Deepshikha Kalra, Ritu Aggarwal, Soumi De, Ishwar Singh, Anil Kumar Grewal	Judicial Disparity under the Jurisdiction of Delhi Courts : Contrasting verdicts on a singular case	Nisha Garg	13/06/2024	5/9/2025	202411045619 A	Nisha Garg
4	202411027761	Published	Prof. Lalit Aggarwal, Ms. Swati Chawla	System and Method for implementing reverse mentoring programmes in corporate environment	Swati Chawla	3/4/2024	1/8/2025	202411027761	Ms. Swati Chawla
5	202411013564	Published	Pooja Singh Negi, Lalit Aggarwal, Ujjwal Kumar Neogi	Modular Clothing Exchange Kit : Empowering Sustainability Practices in the Fast Fashion Era	Pooja Singh Negi	25/02/2024	1/8/2025	202411013564	Pooja Singh Negi
6	202411013566	Published	Aditi Sharma, Lalit Aggarwal, Ujjwal Kumar Neogi, Vijay Kumar Lamba	Replacement of Silicon as active material in Solar Cell Panel	Aditi Sharma	25/02/2024	1/8/2025	202411013566	Aditi Sharma

7	202411059271	Published	Dr. Ujjwal Kumar Neogi, Prof. Lalit Aggarwal, Dr. Deepshikha Kalra, Dr. Ritu Aggarwal	Tech Transforms Mahua Processing for Tribal Communities	Ujjwal Kumar Neogi	6/8/2024	1/8/2025	202411059271	Dr. Ujjwal Kumar Neogi
8	202511049333 A	Published	Prof. Lalit Aggarwal, Dr. Deepshikha Kalra, Mr. Amit Vikas Hans, Dr. Sarita Yadav	A Sign to Speech Conversion System	Prof. Lalit Aggarwal, Dr. Deepshikha Kalra, Mr. Amit Vikas Hans, Dr. Sarita Yadav	22/05/2025	13/06/2025	202511049333 A	Prof. Lalit Aggarwal
9	202511049337 A	Published	Prof. Lalit Aggarwal, CMA Ajay Jain, Mr. Anuj Kumar, Ms. Mansi Mathur	A Method For Tracking Drugs Using Block-Chain Based System	Prof. Lalit Aggarwal, CMA Ajay Jain, Mr. Anuj Kumar, Ms. Mansi Mathur	22/05/2025	13/06/2025	202511049337 A	Prof. Lalit Aggarwal
10	202511049729 A	Published	Prof. Lalit Aggarwal, Dr. S.K. Pandey, Ms. Shweta Ahuja, Dr. Simranjeet Kaur	Virtual Land Survey System	Prof. Lalit Aggarwal, Dr. S.K. Pandey, Ms. Shweta Ahuja, Dr. Simranjeet Kaur	23/05/2025	13/06/2025	202511049729 A	Prof. Lalit Aggarwal
11	202511079287 A	Published	Prof. Lalit Aggarwal, Dr. Arkin Chawla, Dr. Stuti Narula Markan	A method for Synthesizing Yarn from Biodegradable waste	Prof. Lalit Aggarwal, Dr. Arkin Chawla, Dr. Stuti Narula Markan	21/08/2025	12/9/2025	202511079287 A	Prof. Lalit Aggarwal
12	202511079315 A	Published	Prof. Lalit Aggarwal, Dr. Anil Kumar Grewal, Dr.Pooja Singh Negi	A method for converting industrial CO2 emissions into high-value chemicals	Prof. Lalit Aggarwal, Dr. Anil Kumar Grewal, Dr.Pooja Singh Negi	21/08/2025	12/9/2025	202511079315 A	Prof. Lalit Aggarwal
13	202511079248 A	Published	Prof. Lalit Aggarwal, Prof. Devendra Bahadur, Ms. Nisha Garg	A haemoglobin monitoring based wrist-band	Prof. Lalit Aggarwal, Prof. Devendra Bahadur, Ms. Nisha Garg	21/08/2025	12/9/2025	202511079248 A	Prof. Lalit Aggarwal
14	202511064907	Published	Prof. Lalit Aggarwal, Dr. Payal, Dr. Suresh Jha, Mr. Pardeep	A methor for Monitoring Air Quality	Prof. Lalit Aggarwal, Dr. Payal, Dr. Suresh Jha, Mr. Pardeep	8/07/2025	25/07/2025	202511064907	Prof. Lalit Aggarwal
15	202511064854	Published	Prof. Lalit Aggarwal, Dr. Umesh Gupta, Dr. Rashmi Jha,, Mr. Gaurav Kumar	Drone-based system for Measuring Actual Evapotranspiration (AET)	Prof. Lalit Aggarwal, Dr. Umesh Gupta, Dr. Rashmi Jha,, Mr. Gaurav Kumar	8/07/2025	25/07/2025	202511064854	Prof. Lalit Aggarwal

16	202511064856	Published	Prof. Lalit Aggarwal, Dr. Abhilasha, Mr. Dushyant	An IOT based Waste Management System	Prof. Lalit Aggarwal, Dr. Abhilasha, Mr. Dushyant	8/07/2025	25/07/2025	202511064856	Prof. Lalit Aggarwal
17	484886-001	Granted	Dr. Vijeta Yadav, Dr. Neha Shukla, Shashikant Verma, Prof. (Dr.) Rashmi Jha, Dr. Rohit Kumar, Rajesh Kumar Verma	AI Based Customer Relationship Management Kiosk	Dr Rashmi Jha	23/12/2025	12/2/2026	484886-001	Dr Rashmi Jha
18	202511112583A	Published	Prof. Lalit Aggarwal, Dr. Tapash Dey, Dr. Richa Gupta, Dr. Suresh Jha	Method for Synthesizing a Novel Green Solvent	Prof. Lalit Aggarwal, Dr. Tapash Dey, Dr. Richa Gupta, Dr. Suresh Jha	17/11/2025	02/01/2026	202511112583A	Prof. Lalit Aggarwal
19	202511112477A	Published	Prof. Lalit Aggarwal, Dr. Neha Shivani, Dr. Lalita Yadav, Dr. Monika Sharma	Method for Removing Contaminants from Water	Prof. Lalit Aggarwal, Dr. Neha Shivani, Dr. Lalita Yadav, Dr. Monika Sharma	17/11/2025	02/01/2026	202511112477A	Prof. Lalit Aggarwal
20	202611018111	Published	Prof. Lalit Aggarwal, Dr. Monika Sharma, Ms. Preeti Verma, Mr. Akhil Jaitely	A Smart Urban Resilience System for Real-Time Air Quality and Health Disaster Response	Prof. Lalit Aggarwal, Dr. Monika Sharma, Ms. Preeti Verma, Mr. Akhil Jaitely	18/02/2026	10/04/2026	202611018111	Prof. Lalit Aggarwal
21	202611018059 A	Published	Prof. Lalit Aggarwal, Prof. Sadanand Pandey, Dr. Arkin Chawla, Mr. Sachin Sharma	Method and Platform for Translating Traditional Indian Design Knowledge into Contemporary, Utility-Optimized Fashion and Spatial Products	Prof. Lalit Aggarwal, Prof. Sadanand Pandey, Dr. Arkin Chawla, Mr. Sachin Sharma	18/02/2026	03/04/2026	202611018059 A	Prof. Lalit Aggarwal
22	202611052285 A	Published	Prof. Lalit Aggarwal, Ms. Nidhi Sharma, Ms. Ekta Mishra, Dr. Sheela Narang Wadhwa	A System for Cognitive Load-Balanced Task Distributiion in Multi-Agent Collaborative Environments	Prof. Lalit Aggarwal, Ms. Nidhi Sharma, Ms. Ekta Mishra, Dr. Sheela Narang Wadhwa	24/04/2026	29/05/2026	202611052285 A	Prof. Lalit Aggarwal

MANAGEMENT EDUCATION & RESEARCH INSTITUTE
BACHELORS OF BUSINESS ADMINISTRATION
SEMESTER I Batch 2025-28
BUSINESS ECONOMICS
Course Code: BBA 107
Credits – 4 COURSE OUTLINE
Course Instructor: Dr. Neha Shivani

LEARNING OBJECTIVE:

In this course, the students will be able to will be able to develop expertise related to the following:-

1. To comprehend the basic concepts and issues in business economics and their application and business decisions.
2. To analyze & estimate the demand and understand consumer behavior.
3: To critically evaluate the business problems related to cost & production functions

PREREQUISITES

1. Basic knowledge of economy and awareness about demand and supply
2. Familiarity business problems related to cost & production function

COURSE OUTCOMES:

After completion of this course, students will be able to:

CO1. Ability to solve the problems of economics
CO2. Analyze market and demand fluctuations to support managerial decision-making
CO3. Evaluate strategies for effective capacity utilization in production and operations
CO4. Make informed pricing decisions across different market structure

PEDAGOGY

Designing a course on Business Economics involves careful consideration of pedagogical approaches to effectively impart knowledge and skills to students. In this direction, the students would be encouraged through class discussions, and case studies to promote active engagement with the course material. Use real-world examples to help students apply theoretical concepts to practical situations. In addition, students would be accessed through a combination of written assignments, presentations, and exams. Evaluation would be based on not only their understanding of theories but also their ability to apply the concepts to practical situations.

Case studies/Assignments will be specified for preparation to supplement learning wherever required.

EVALUATION

Besides the semester end- examination, the students will be continuously assessing during the course on the following basis:

a. Quiz/Assignment/Project : 10 marks
b. Mid-term Test : 15 marks
(c) Discipline/Attendance : 10 marks
(d) Club-contribution. : 05 marks
(e) External University Exams : 60 marks

Total : 100marks

COURSE CONTENT

The program will unfold as per the following Session-wise Teaching-Learning Plan

Business Economics

Detailed Course Outline	Sessions	Reference
Unit 1		
UNIT I **Introduction to Business Economics and Fundamental concepts:** Nature, Scope, Definitions of Business Economics, Difference between Business Economics and Economics, Contribution and Application of Business Economics to Business. Micro vs. Macro Economics. Opportunity Costs, Marginalism, Incrementalism, Market Forces and Equilibrium. Concept of Behavioural Economics. **Consumer Behavior:** Cardinal Utility Approach: Diminishing Marginal Utility, Law of Equi-Marginal Utility. Ordinal Utility Approach: Indifference Curves, Marginal Rate of Substitution, Budget Line and Consumer Equilibrium. **Brain storming Game to evaluating economical decision making skills: -** 1. Students were divided in a group of 3 each. 2. Each Group was assigned different situation and they were asked to reply how they will react to the situation in the best economical way. 3. Students were shortlisted based on their reaction on the assigned situation. 4. The group which gives the best economical solution of the situation is winner. **Assignment** 1. Explain the concept that "Business Economics is a discipline that application of economic theory with business management". Comment. 2. Write short notes on the following: a. Incrementalism b. Marginalism c. Time Value of money d. Opportunity cost **Quiz**	3+6	D N Dwivedi Chapter 1 and 2

Unit 2		
Demand Analysis: Theory of Demand, Law of Demand, Movement along vs. Shift in Demand Curve, Concept of Measurement of Elasticity of Demand, Factors Affecting Elasticity of Demand, Income Elasticity of Demand, Cross Elasticity of Demand, Advertising Elasticity of Demand. **Demand Forecasting:** Need, Objectives and Methods in brief. Theory of Production: Meaning and Concept of Production, Factors of Production and Production function. Fixed and Variable Factors, Law of Variable Proportion (Short Run Production Analysis), Law of Returns to a Scale (Long Run Production Analysis) through the use of ISO QUANTS. Concept of Cost, Cost Function, Short Run Cost, Long Run Cost, Economies and Diseconomies of Scale. **Quiz 2** **Assignment:** 1. Explain the law of variable proportions. Of the three stages which is the most optimum stage as per producer and why? 2. What is envelope curve. Explain the concept with the help of concept of economies and diseconomies of scale. **Case Study:** 1. Case analysis of demand and supply of Gold in India. 2. TATA's Nano: A small car with large consumer surplus. 3. Analysis of the Production Processes in a Sugar factory in Maharashtra. **E-learning Module: Management Lessons from Sri Bhagavad Gita for the Students** **(includes assignment and quiz based on the module)**	5+4	D N Dwivedi Chapter 3, 4, 5 , 6, 7 and 8
Unit 3		
Price Output Decisions: Pricing under Perfect Competition (features, short run, long run equilibrium of firm/industry), Pricing Under Monopoly (features, short run and long run equilibrium), Control of Monopoly, Price Discrimination, Pricing Under Monopolistic Competition (features, short run and long run equilibrium, demand and cost, excess capacity), Pricing Under Oligopoly (Cournot Model, kinked demand curve model). **Assignment:** 1. What is the excess capacity hypothesis? Why is there no such concept in the case of perfect competition? 2.What is the kinked demand curve? Why is the price and output	5+4	D N Dwivedi Chapter 9,10, 11, 12 and 13

indeterminate in case of Oligopoly? **Case Study:** Oligopoly Behavior in the Automobiles industry. **Quiz 3**		
Unit 4		
Concepts of Macro Economics: Definitions, Importance, Macro-economic variables, circular flow model, inflation, unemployment, GDP. **National Income:** Concepts, Definition, Methods of Measurement, National Income in India, Problems in Measurement of National Income & Precautions in Estimation of National Income. **Project Presentations Group wise (Two groups in a day)** **Quiz**	5+4	

Text Book:

1. Managerial Economics byPetersonLewis (PearsonPublication)

Reference books:

1. Managerial Economics by DN Dwivedi (VikasPublications)
2. Principles of Micro Economics byMankiw (Cengage Publications)
3. Managerial Economics by PetersonLewis (PearsonPublication)
4. Principles of Economics by G. Mankiw (Cengagepublication)
5. Economics by Samuelson, P Nordhaus (McGraw hill Education)
6. Advanced Micro Economic Theory by M. Maria John Kennedy (Himalaya Publishing House)

Suggested Readings:

- The Economist
- Business India

**********HAPPY LEARNING**********

MANAGEMENT EDUCATION & RESEARCH INSTITUTE
MASTRER OF BUSINESS ADMINISTRATION
SEMESTER I (Batch: 2025-2028)
BBA 105- FINANCIAL ACCOUNTING and ANALYSIS
L-4, Credits-4
COURSE OUTLINE
Course Instructor: Ms. Sarita Yadav

LEARNING OBJECTIVES:-

In this course, the learners will be able to develop expertise related to the following:-

1. Develop conceptual knowledge and understanding of management theories and practices.
2. Apply critical thinking and analytical skills for effective business decision making.
3. Develop communication and leadership abilities to steer through the dynamic and global business environment.
4. Demonstrate business intelligence and foster research to find innovative solutions for diverse business situations.
5. Imbibe responsible citizenship, promoting sustainability, and embrace diverse cultures with universal values.

PREREQUISITES:-

1. Basic knowledge of assets and liabilities.
2. Basic knowledge of Excel.

COURSE OUTLINES:-\

CO1: Comprehension about concepts of accounting and relevance of GAAP and accounting standards.
CO2: Preparation of company final accounts with adjustments.
CO3: Appreciate contemporary issues and challenges in accounting.
CO4: Examine the concept and the methods of depreciation.
CO5: Comprehension about accounting for shares and debentures.
CO6: Explore the role of stock exchanges and SEBI as a regulator.
CO7: Conduct comprehensive financial analysis of companies.

PEDAGOGY: -

The pedagogy will be Lectures, Illustrations, Discussions and Presentations, quizzes, assignments & mid-term tests.

EVALUATION:

Besides the Semester end- examination, the students will be continuously assessed during the course on the following basis:

(a)	End Term Exams	: 60 marks
(b)	Written Assignments/ Case Analysis/ Presentation	: 10 marks
(c)	Attendance/Discipline	: 10 marks

(d) Mid Term Test : 15 marks
(e) Club Contribution : 5 marks
Total: : 100 marks

COURSE CONTENT:-

The program will unfold as per the following **Session-wise Teaching-Learning Plan:**

Detailed Course Outline	Sessions	References
UNIT I		
1. Meaning and Scope of Accounting, Objectives, Nature, 2. Book-Keeping and Accounting, functions, Limitations, Branches of Accounting 3. Relationship of Accounting with other disciplines 4. Concepts and Conventions, GAAP, Accounting Standards issued by ICAI **Assignment:-** Assignment on Accounting Concepts and conventions and accounting standards + Quiz 1 **E-Learning Module on Accounting Concepts: Basics | GPETS 105** **https://www.youtube.com/watch?v=Eol48RSgJ-U**	3+3+1+3	D.K. Goel Chapter 1 to 5
UNIT II		
1. Journal Entries, Compound Journal Entries, Opening Entries 2. Ledger Posting and Trial Balance; Preparation of Ledger, 3. Cash Book, Purchase Book, Sales Book and Trial Balance 4. Trading Account , Profit and Loss Account and Balance sheet as per schedule of companies Act 2013 5. Preparation of Final Accounts with Adjustments, **Illustrations**: Numerical Based Assignment on Journal Entries and final account + Quiz 2	4+2+4+4+4	D.K. Goel Chapter 5 to 10
UNIT III		

1. Concept, Causes, features and Objectives of Providing Depreciation 2. Method of recording and providing Depreciation, Depreciation Policy, AS-6, Provisions and Reserves 3. Change of method of Depreciation (by both current and retrospective effect). 4. Human Resource Accounting, Green Accounting, Inflation Accounting, Price Level Accounting, Social Responsibility Accounting **Assignment:-** Contemporary issues in Accounting	2+3+4+5	D.K. Goel Chapter 12 J. R. Monga Chapter 11
UNIT IV		
1. Introduction to Joint Stock Company, Shares, Share Capital 2. Accounting Entries, Under Subscription, Oversubscription, Calls in Advance, Calls in Arrears, Issue of shares at premium, Issue of Shares at Discount, Forfeiture of Shares, Surrender of Shares, Right Shares 3. Issue of Debentures, Methods of Redemption, Redemption of Debentures 4. Overview of Stock Exchanges of India and role of SEBI **Illustrations** on accounting entries of shares and debentures **Case study on** Jio Finance	2+4+4+3	J. R. Monga Chapter 13 to14
TOTAL NO. OF SESSIONS	**55**	

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Annexure I

Note: Attempt all questions. Each question carries equal marks. Submit assignment on google classroom dashboard

Q.1 What is meant by term Generally Accepted Accounting Principles (GAAP)'? Explain the meaning and significance of concepts and conventions of accounting.

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Q.3 Write short notes on:

a) Human Resource Accounting

b) Green Accounting

c) Inflation Accounting

d) Social Responsibility Accounting

e) Price Level Accounting

f) Stock Exchange and SEBI

Q.4 Explain the purpose of providing for depreciation. Should depreciation be charges on replacement cost?

Annexure II

Tutorials

Assignment1. (a) What is the significance of the historical cost convention in accounting, and what are its limitations?

(b) What is the full disclosure principle, and why is it critical for transparency in financial reporting?

Assignment 2 (a) Journalise the following transactions and post them into ledger.

(a) Sold good s to Vipin of the list price of Rs 20000 at trade discount of 10%

(b) Nandu Returned goods of the list price of Rs 4000

(c) Received from Vipin Rs 14150 in full settlement of his Account

2(b)- From the following trial balance extracted from the books of Sri Mathias Sarika as on March 31 2023 prepare final accounts as on March 31 2023 after taking into consideration the adjustment.

Particulars	Debit(Rs)	Credit(Rs)

Sundry creditors		46,000
Rent		
Cash at bank	1,200	
Cash in hand	3,000	
Stock on 1st April , 2021	1,400	
Bad Debts	16,000	
Discounts	1,000	
Purchases and sales	400	1,000
Carriage on sales	1,10,000	1,68,000
Plant & Machinery	3,600	
Sales Returns	20,000	
Purchase Returns	8,000	
Carriage on Purchase		4,000
Furniture and fixtures		
Insurance and office expenses	1000	
Salaries	12,000	
Bills Receivable	3,000	
Drawings	6,000	
Wages	12,000	
Provisions for doubtful debts	12000	
Capital	12000	
Sundry Debtors		2,000
Commission		50,000
	40,000	
	8,400	

Adjustments

1. Depreciate plant and machinery at 10% and furniture and fixture at 5%
2. Insurance prepaid was Rs 200
3. Ours salary was Rs 1000 and outstanding rent was Rs 200
4. Maintain R.D.D(Reserve for doubtful debts) at 6% on debtor
5. Closing stock of Rs 20,000

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Assignment 4(a) G limited issued 75,00,000 6% Debenture of Rupees 50 each at par payable Rs 15 on application and Rs 35 on allotment, redeemable at par after 7 years from the date of issue of debenture.Record necessary entries in the books of company.

(b) Y. ltd. Issued 2,000,6% Debentures of Rs 100 each payable as follows : Rs 25 on application, Rs 50 on allotment and Rs 25 on first and final call.

Annexure III

QUIZ

Q.1 Creating Provision against fluctuation in the price of investment is an example of which accounting convention.

A. Convention of conservatism

B. Convention of full disclosure

C. Convention of materiality

D. Convention of consistency

Ans. A

Q.2 Return of goods by a customer should be debited to

A. Customers account
B. Sales return account
C. Goods account
D. Purchase account

Ans B

Q.3 The concept of separate entity is applicable to which of following types of businesses?

A. Sole proprietorship

B. Corporation

C. Partnership

D. All of them

Ans D

Q.4. Accounting principles are generally based upon:

A. Practicability

B. Subjectivity

C. Convenience in recording

D. None of the above

Ans A

Debit the receiver credit the giver rule for

A. Real a/c

B. Personal a/c

C. Nominal a/c

D. None of these

Ans B

Managerial accounting information is generally prepared for

A. Shareholders

B. Creditors

C. Managers

D. Regulatory agencies

Ans C

True & fair profit and loss a/c of a company know by

A. Preparing trial balance

B. Preparing respective ledger of account

C. Preparing trading a/c

D. Preparing trading & profit & loss a/c

Ans D

The basic sequence in the accounting process can best be described as:

A. Transaction, journal entry, source document, ledger account, trial balance.

B. Source document, transaction, ledger account, journal entry, trial balance.

C. Transaction, source document, journal entry, trial balance, ledger account.

D. Transaction, source document, journal entry, ledger account, trial balance.

Ans D

Amount brought in by proprietor should be credited to

A. cash account

B. capital account

C. drawings account

D. creditors account

Ans B

Which of the following is a real (permanent) account?

A. Goodwill

B. Sales

C. Accounts Receivable

D. Both Goodwill and Accounts Receivable

Ans D

If closing stock appears in the trial balance, it should be

A. Credited to the trading account

B. Credited to the profit and loss account

C. Deducted from the purchases in the trading account

D. Shown on the liability side of the Balance sheet

Ans A

Financial information should be neutral and bias free" is the dictation of which one of the following?

A. Completeness concept

B. Faithful representation Concept

C. Objectivity Concept

D. Duality Concept

Ans C

A book containing a chronological record of business transaction & original record

A. Journal

B. Ledger

C. Trial balance

D. None of these

Ans A

Which of these items would be accounted for as an expense?

A. Repayment of bank Loan

B. Dividend to stock holders

C. The purchase of land

D. Payment of current period rent

Ans D

The amount of salary paid to Suresh should be debited to

A. The account of Suresh

B. Salaries a/c

C. Cash a/c

D. Bank a/c

Ans B

The cash discount allowed to a debtor should be credited to

A. Discount a/c

B. Customer a/c

C. Sales a/c

D. None of these

Ans B

Accounting is the process of matching

A. Benefits & Costs

B. Revenues & Costs

C. Cash Inflow & Cash Outflow

D. Potential & Real Performance

Ans B

Of the following account types, which would be increased by a debit?

A. Liabilities and expenses.

B. Assets and equity.

C. Assets and expenses.

D. Equity and revenues.

Ans C

Custom and traditions which guide the accountant while preparing the accounting statements

A. Accounting convention

B. Accounting concepts

C. Accounting principles

D. None of these

Ans C

The convention of disclosure implies that all material information should be

A. Disclosed in the account

B. Disclosed in the accounts which is required to owner

C. Not disclosed

D. None of these

Ans A

Interest , rent, electricity bill are types of account

A. Personal a/c

B. Impersonal a/c

C. Real a/c

D. Nominal a/c

Ans D

Which of the following equation is related with Dual Aspect Concept ?

A. Total Assets = Total Liabilities

B. Total Assets = Capital + Outsider's Liabilities

C. Capital = Total Assets - Outsider's Liabilities

D. All of the above

Ans D

The prime function of accounting is to

A. To record economic data

B. Provide the information basis of action

C. Classifying and recording business transaction

D. Attainment of economic goal

Ans C

MANAGEMENT EDUCATION & RESEARCH INSTITUTE
MASTRER OF BUSINESS ADMINISTRATION
Semester I (Batch: 2025-2028)
BBA 105 - Financial Accounting & Analysis
Course Outline
Course Instructor: Dr. Sangeeta

LEARNING OBJECTIVES:-

In this course, the learners will be able to develop expertise related to the following: -

1. Develop conceptual knowledge and understanding of management theories and practices.
2. Apply critical thinking and analytical skills for effective business decision making.
3. Develop communication and leadership abilities to steer through the dynamic and global business environment.
4. Demonstrate business intelligence and foster research to find innovative solutions for diverse business situations.

PREREQUISITES:-

1. Basic knowledge of Accounting Terms.
2. Basic knowledge of Excel.

COURSE OUTLINES:-

CO1: Comprehension about concepts of accounting and relevance of GAAP and accounting standards.
CO2: Preparation of company final accounts with adjustments.
CO3: Appreciate contemporary issues and challenges in accounting.
CO4: Examine the concept and the methods of depreciation.
CO5: Comprehension about accounting for shares and debentures.
CO6: Explore the role of stock exchanges and SEBI as a regulator.
CO7: Conduct comprehensive financial analysis of companies.

PEDAGOGY: -

The pedagogy will be Lectures, Illustrations, Discussions and Presentations, quizzes, assignments & mid-term tests.

EVALUATION:

Besides the Semester end- examination, the students will be continuously assessed during the course on the following basis:

(a)	End Term Exams	: 60 marks
(b)	Written Assignments/ Case Analysis/ Presentation	: 10 marks
(c)	Attendance/Discipline	: 10 marks
(d)	Mid Term Test	: 15 marks
(e)	Club Contribution	: 5 marks

Total: : 100 marks

COURSE CONTENT:-

The program will unfold as per the following **Session-wise Teaching-Learning Plan:**

Detailed Course Outline	Sessions	References
UNIT I		
1. Meaning and Scope of Accounting, Objectives, Nature, **2.** Book-Keeping and Accounting, functions, Limitations, Branches of Accounting **3.** Relationship of Accounting with other disciplines **4.** Concepts and Conventions, GAAP, Accounting Standards issued by ICAI **Assignment:-** Assignment on Accounting Concepts and conventions and accounting standards + Quiz 1	3+3+1+3	D.K. Goel Chapter 1 to 5
UNIT II		
1. Journal Entries, Compound Journal Entries, Opening Entries 2. Ledger Posting and Trial Balance; Preparation of Ledger, 3. Cash Book, Purchase Book, Sales Book and Trial Balance 4. Trading Account , Profit and Loss Account and Balance sheet as per schedule of companies Act 2013 5. Preparation of Final Accounts with Adjustments, **Illustrations**: Numerical Based Assignment on Journal Entries and final account + Quiz 2	4+2+4+4+4	D.K. Goel Chapter 5 to 10
UNIT III		
1. Concept, Causes, features and Objectives of Providing Depreciation 2. Method of recording and providing Depreciation, Depreciation Policy, AS-6, Provisions and Reserves 3. Change of method of Depreciation (by both current and retrospective effect). 4. Human Resource Accounting, Green Accounting, Inflation Accounting, Price Level Accounting, Social Responsibility Accounting **Assignment:-** Contemporary issues in Accounting	2+3+4+5	D.K. Goel Chapter 12 J. R. Monga Chapter 11

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Annexure II
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Salaries	6,000	
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Adjustments

1. Depreciate plant and machinery at 10% and furniture and fixture at 5%
2. Insurance prepaid was Rs 200
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Annexure III

QUIZ

Q.1 Creating Provision against fluctuation in the price of investment is an example of which accounting convention.

A. Convention of conservatism

B. Convention of full disclosure

C. Convention of materiality

D. Convention of consistency

Ans. A

Q.2 Return of goods by a customer should be debited to

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B. Sales return account
C. Goods account
D. Purchase account

Ans B

Q.3 The concept of separate entity is applicable to which of following types of businesses?

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B. Corporation

C. Partnership

D. All of them

Ans D

Q.4. Accounting principles are generally based upon:

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B. Subjectivity

C. Convenience in recording

D. None of the above

Ans A

Debit the receiver credit the giver rule for

A. Real a/c

B. Personal a/c

C. Nominal a/c

D. None of these

Ans B

Managerial accounting information is generally prepared for

A. Shareholders

B. Creditors

C. Managers

D. Regulatory agencies

Ans C

True & fair profit and loss a/c of a company know by

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D. Transaction, source document, journal entry, ledger account, trial balance.

Ans D

Amount brought in by proprietor should be credited to

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B. capital account

C. drawings account

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Ans B

Which of the following is a real (permanent) account?

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C. Accounts Receivable

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Ans D

If closing stock appears in the trial balance, it should be

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D. Shown on the liability side of the Balance sheet

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Of the following account types, which would be increased by a debit?

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B. Assets and equity.

C. Assets and expenses.

D. Equity and revenues.

Ans C

Custom and traditions which guide the accountant while preparing the accounting statements

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The convention of disclosure implies that all material information should be

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Ans A

Interest , rent, electricity bill are types of account

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C. Real a/c

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Ans D

Which of the following equation is related with Dual Aspect Concept ?

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B. Total Assets = Capital + Outsider's Liabilities

C. Capital = Total Assets - Outsider's Liabilities

D. All of the above

Ans D

The prime function of accounting is to

A. To record economic data

B. Provide the information basis of action

C. Classifying and recording business transaction

D. Attainment of economic goal

Ans C

MANAGEMENT EDUCATION & RESEARCH INSTITUTE
MASTRER OF BUSINESS ADMINISTRATION
Semester I (Batch: 2025-2028)
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Course Instructor: Dr. Sangeeta

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1. Concept, Causes, features and Objectives of Providing Depreciation 2. Method of recording and providing Depreciation, Depreciation Policy, AS-6, Provisions and Reserves 3. Change of method of Depreciation (by both current and retrospective effect). 4. Human Resource Accounting, Green Accounting, Inflation Accounting, Price Level Accounting, Social Responsibility Accounting **Assignment:-** Contemporary issues in Accounting	2+3+4+5	D.K. Goel Chapter 12 J. R. Monga Chapter 11

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Furniture and fixtures	12,000	
Insurance and office expenses	3,000	
Salaries	6,000	
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Capital		50,000
	40,000	

Sundry Debtors Commission	8,400	

Adjustments

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B. Subjectivity

C. Convenience in recording

D. None of the above

Ans A

Debit the receiver credit the giver rule for

A. Real a/c

B. Personal a/c

C. Nominal a/c

D. None of these

Ans B

Managerial accounting information is generally prepared for

A. Shareholders

B. Creditors

C. Managers

D. Regulatory agencies

Ans C

True & fair profit and loss a/c of a company know by

A. Preparing trial balance

B. Preparing respective ledger of account

C. Preparing trading a/c

D. Preparing trading & profit & loss a/c

Ans D

The basic sequence in the accounting process can best be described as:

A. Transaction, journal entry, source document, ledger account, trial balance.

B. Source document, transaction, ledger account, journal entry, trial balance.

C. Transaction, source document, journal entry, trial balance, ledger account.

D. Transaction, source document, journal entry, ledger account, trial balance.

Ans D

Amount brought in by proprietor should be credited to

A. cash account

B. capital account

C. drawings account

D. creditors account

Ans B

Which of the following is a real (permanent) account?

A. Goodwill

B. Sales

C. Accounts Receivable

D. Both Goodwill and Accounts Receivable

Ans D

If closing stock appears in the trial balance, it should be

A. Credited to the trading account

B. Credited to the profit and loss account

C. Deducted from the purchases in the trading account

D. Shown on the liability side of the Balance sheet

Ans A

Financial information should be neutral and bias free" is the dictation of which one of the following?

A. Completeness concept

B. Faithful representation Concept

C. Objectivity Concept

D. Duality Concept

Ans C

A book containing a chronological record of business transaction & original record

A. Journal

B. Ledger

C. Trial balance

D. None of these

Ans A

Which of these items would be accounted for as an expense?

A. Repayment of bank Loan

B. Dividend to stock holders

C. The purchase of land

D. Payment of current period rent

Ans D

The amount of salary paid to Suresh should be debited to

A. The account of Suresh

B. Salaries a/c

C. Cash a/c

D. Bank a/c

Ans B

The cash discount allowed to a debtor should be credited to

A. Discount a/c

B. Customer a/c

C. Sales a/c

D. None of these

Ans B

Accounting is the process of matching

A. Benefits & Costs

B. Revenues & Costs

C. Cash Inflow & Cash Outflow

D. Potential & Real Performance

Ans B

Of the following account types, which would be increased by a debit?

A. Liabilities and expenses.

B. Assets and equity.

C. Assets and expenses.

D. Equity and revenues.

Ans C

Custom and traditions which guide the accountant while preparing the accounting statements

A. Accounting convention

B. Accounting concepts

C. Accounting principles

D. None of these

Ans C

The convention of disclosure implies that all material information should be

A. Disclosed in the account

B. Disclosed in the accounts which is required to owner

C. Not disclosed

D. None of these

Ans A

Interest , rent, electricity bill are types of account

A. Personal a/c

B. Impersonal a/c

C. Real a/c

D. Nominal a/c

Ans D

Which of the following equation is related with Dual Aspect Concept ?

A. Total Assets = Total Liabilities

B. Total Assets = Capital + Outsider's Liabilities

C. Capital = Total Assets - Outsider's Liabilities

D. All of the above

Ans D

The prime function of accounting is to

A. To record economic data

B. Provide the information basis of action

C. Classifying and recording business transaction

D. Attainment of economic goal

Ans C

MANAGEMENT EDUCATION & RESEARCH INSTITUTE
BACHELORS OF BUSINESS ADMINISTRATION
SEMESTER I BATCH (2025-2028)
BBA 101 -MANAGEMENT PROCESS AND ORGANISATIONAL BEHAVIOUR

L-4

COURSE OUTLINE

***Course Instructor*: Ms. Preeti Verma**

LEARNING OBJECTIVES:

In this course, the learners will be able to develop expertise related to the following:

1. To acquire knowledge on the fundamentals of management.
2. To analyzing organizational structure and processes.
3. To understand the leadership and decision - making skills.
4. To understand the importance of managing organizational behavior.

PRE-REQUISITES:

1. Fundamental of management and organizational behavior
2. Basics of management function and process.

COURSE OUTCOMES:

CO.1 Examine the evolution of thoughts and approaches to the modern concept of Management
CO 2. Comprehend the process of Management in the context of organizations and their environment
CO 3. Assess the need, relevance and process of delegation and decentralization of authority in an organization
CO 4. Explain the needs and drives of an individual through theories of Motivation
CO 5. Analyze the role of a leader and significance of team work in an organization
CO 6. Observe human personality and its influence on behavior
CO 7. Analyze significance of communication in the decision-making process

PEDAGOGY:

The pedagogy will be Lectures, Case Study, Presentation and discussion and current practice adopted in Management. Hands on experience will be provided through simulation.

EVALUATION:

Besides the semester end-examination, the students will be continuously assessing during the course on the following basis:

(a) Quiz/Assignment/Project/case study : 10marks
(b) Mid-term Test : 15 marks
(c) Discipline/Attendance : 10 marks
(d) Club contribution : 5 marks
(d) External University Exams : 60 marks
Total : 100 marks

COURSE CONTENT:

The program will unfold as per the following Session-wise Teaching-Learning Plan:

Detailed Course Outline	**Session**	**References**
UNIT-1		
Management: Concept and Need, Managerial Functions **Evolution of Management Thought:** Classical Approach – Taylor, Fayol, Neo-Classical and Human Relations Approach, Behavioural Approach, Systems Approach, Contingency Approaches. MBO, Business Process Re-engineering **Written Assignment:** Concept of management. **Case Study**: Toyota Motor Corporation - Mastering Lean Manufacturing	**14**	**T.N. CHHABRA** **C.B. GUPTA**
UNIT-II		
Planning: Types of Plans, Strategic Planning, Environmental Analysis and Diagnosis (Internal and External environment) Decision-Making: Process & Techniques; Perfect and Bounded Rationality **Organizing:** Concept and Process of organizing- An overview, Span of Management, Different types of authority (line, staff and functional), Decentralization, Delegation of authority; Formal and Informal structure; Principle of Organizing; Types of Organization Structures; Emerging Organization Structures.	**14**	**T.N. CHHABRA** **C.B. GUPTA**

Written Assignment: Concept of strategic planning and types of plans. **Case Study:** "Ethics is good business" importance of ethical practice in business		
UNIT-3		
Personality perception and Attitude: Personality- Type A & B, Factor influencing personality; Perception-Concept, Perceptual Process, Factors influencing perception; Values and Attitudes- Concept and types of values; Components of attitude, job related attitude **Group Discussion (Topic:** Personality Type A and Type B**)**	**14**	**T.N. CHHABRA** **C.B. GUPTA**
UNIT-4		
Motivation and Leadership: Concept, Importance, Extrinsic and Intrinsic Motivation; Leadership: Concept and Importance **Conflict and Culture:** Power and conflict, Power Tactics, Organizational Culture and climate- Concept and determinants of organizational culture. **Case Study:** Related to E-learning (Transformational Leadership)	**14**	**T.N. CHHABRA** **C.B. GUPTA**

PRESCRIBED TEXT:

1.T.N Chhabra (2023), Management process and organizational behavior, Sun india Publication

REFERENCE BOOKS

1. Robbins., Fundamentals of Management: Essentials Concepts and Applications, Pearson Education.

2.Koontz, H., Essentials of Management, McGraw Hill Education.
3.Ghillyer,A. W., Management A Real World Approach, McGraw Hill Education.
4.Stoner, Freeman and Gilbert Jr., Management, Pearson Education.

SUGGESTED REFERENCES

- Organizational Behavior" by Stephen P. Robbins, Timothy A. Judge, and Neharika Vohra
- Principles of Management" by Charles W. L. Hill and Steven McShane
- Essentials of Organizational Behavior" by Stephen P. Robbins and Timothy A. Judge

**********HAPPY LEARNING**********

MANAGEMENT EDUCATION & RESEARCH INSTITUTE BACHELOR OF COMPUTER APPLICATIONS SEMESTER I

BCA 108 T - FUNDAMENTALS OF COMPUTERS AND IT

Credit 4

COURSE OUTLINE

Course Instructor: Ms Ritu Sawanni

LEARNING OBJECTIVES:

The objectives of this course is to provide the learners:

1. Awareness of the evolution of Computers, various types of computers, their characteristics, usage, and limitations.

2. Identification of different categories of computers, their peripherals and memory.

3. Knowledge about operating systems, their types, MS-Office various software.

4. Understanding of computer network fundamentals and various communication networks.

5. Overview of emerging technologies in IT i.e. AI and Machine Learning, IOT, Data Analytics, etc.

PRE-REQUISITES:

None

COURSE OUTCOME

Students should be able

CO1: To Describe the Concept of Computer (Characteristics, usage, limitations and benefits, Computer Memories and its type, Software and its type)

CO2: Acquire knowledge about Number Systems, Various Computer languages and Operating System DOS

CO3: Attain skills in Applications Software used for word processing, spreadsheet and presentation

CO4: Understand network fundamentals and various communication network, Advance trends in IT

PEDAGOGY

The course objective will be achieved through theoretical discussions and presentations, quizzes and mid- term tests.

EVALUATION

Besides the semester end- examination, the students will be continuously assessed during the course on the following basis:

(a) Quiz/Assignment/ Project	:	10 marks
(b) Mid-term Test	:	15 marks
(c) Discipline/Attendance	:	10 marks
(d) Club contribution	:	05 marks
(e) External University Exams	:	60 marks
Total	:	100 marks

TEACHING PLAN

Detailed Course Outline	Sessions	References
UNIT 1 **a)Fundamentals of Computers**: Definition and Characteristics of Computers, Computer Generation from First Generation to Fifth Generation, Classification of Computers: Micro, Mini, Mainframe and supercomputers **b) Computer Hardware:** Major Components of a digital computer, Block Diagram of a computer, Input/output Devices (Hardware , Software , Humanware,Firmware), Description of Computer Input Units, Output Units, CPU **c) Computer Memory:** Memory Hierarchy**,** Types of Memory-Primary Memory(RAM and ROM), Secondary Memory, Cache memory, Secondary storage Devices-Hard Disk, Compact Disk, DVD, Flash memory.	2+2+2	P.K.Sinha (1,2,7,8,9)
Quiz on Memory system	1	

UNIT 2 **Computer Software**: **a) System Software:** Assemblers, Compilers, Interpreters, linkers, loaders **b) Application Software:** Introduction to MS Office (MS-Word, MS PowerPoint, MS-Excel) **c) Operating System**: Introduction to Operating System, Need, Functions and Types of OS **d)DOS:** Booting Sequence, Concepts of File and Directory, Types of DOS Commands **e) Computer Languages:** Introduction to Low-Level Languages and High-Level Languages. **Assignment 1 to be given after completion of Unit 1 & 2.**	2 +2+2+2+2	P.K.Sinha (10,12,14)
UNIT 3 **a)Computer Number System:** Positional and Non-positional number systems, Binary, Decimal, Octal and Hexadecimal Number Systems and their inter-conversion **b)Binary Arithmetic**: Addition, subtraction, multiplication and division. **c) Use of complement method** to represent negative binary numbers, 1's complement, 2's complement, subtraction using 1's complement and 2's complement. **d) Introduction to Binary Coded Decimal** (BCD), ASCII Codes, EBCDIC codes	2+3+3	P.K.Sinha (3,5,4)

UNIT 4 **a)Computer Networks And Internet**: Basic elements of communication system, Data Communication concepts, **b) Data transmission modes**, Data Transmission speed, Data transmission media, Digital and Analog Transmission **c) Concepts of Computer Networks** ,Network Types (LAN, WAN and MAN) ,Internet, Intranet & Extranet, Network Topologies **d)Internet:** Terminologies related to Internet: Protocol, Domain name, Internet Connections, IP address, URL, Repeater, Bridge, Hub, Switch, Router, Gateway, Firewall, Bluetooth technology **e) Advance Trends in IT Applications:** Brief Introduction to Cloud Computing, Internet of Things Data Analytics, AI and Machine Learning**.** **E-learning Video on Cloud Computing** **Assignment 2 to be given after Unit 4**	2+2+2+2+2	P.K.Sinha (17,18)

Text Books:

1. P.K. Sinha, “Computer Fundamentals”
2. Goyal, Anita , Computer Fundamentals, Pearson Education

Reference Books:

1. B.Ram Computer Fundamentals Architecture and Organization, New Age Intl.
2. Alex Leon & Mathews Leon, “Introduction to Computers”, Vikas Publishing.
3. Norton Peter, “Introduction to computers”, 4th Ed., TMH, 2001.
4. Vikas Gupta, “Computer Kit”, Willey Dreamtech, Delhi, 2004.

E-learning Video on Cloud Computing: (25) Cloud Computing Tutorial for Beginners | Cloud Computing Explained | Cloud Computing | Ms. Ritu - YouTube

Assignment 1

General Instructions:

1) Assignment should be handwritten.

2) Program example must be included.

3) Scan it and upload the same in Google classroom by the deadline.

4) It should be clearly visible.

Ques. Describe the types of computer memory and their roles in computer systems.

Ques. Explain the various classification of computers based on their size and technology. How does classifications influence the choice of computer system in different contexts?

Ques. Mention the advantages and disadvantages of third generation computers.

Ques. Describe the components of a computer system. Explain the role of each component in overall functionality of the computer and how they collaborate to perform tasks efficiently.

Assignment 2

General Instructions:

1) Assignment should be handwritten.

2) Program examples must be included.

3) Scan it and upload the same in Google classroom by the deadline.

4) It should be clearly visible.

Ques : Discuss the different data transmission modes (simplex, half-duplex, and full-duplex). Provide examples where each mode would be applicable.

Ques: Describe the differences between LAN, WAN, and MAN. Include examples of each type and typical use cases.

Ques:What is a Firewall? Explain its purpose in network security and how it operates.

Ques: Provide a brief introduction to Cloud Computing. What are the different types of cloud services (IaaS, PaaS, SaaS), and how do they benefit businesses?

PRACTICAL FILE

ON

Fundamental of Computers and IT lab

BCA 1st Sem

Course code: BCA-108P

Session: 2025-2028

SUBMITTED TO:

Ms. Ritu Sawanni
Assistant Professor, IT

SUBMITTED BY:

Name:
Roll No.:
Class:

INDEX

S. No.	List of Programs	Page no.	Sign.
1	Introduction about MS Word.		
2	Write a program to create a cover page of the project.		
3	Write a procedure to create company letterhead.		
4	Write a program to create hyperlink.		
5	Write a program to create Curriculum Vitae (CV) / Bio-Data using MS Word with formatting.		
6	To create a program using macro.		
7	Write a program to create mail merges.		
8	Introduction about MS PowerPoint		
9	Write a program to create Custom Animation Effect		
10	Write a program to create different charts.		
11	Write a program to Calculate Sum,average , min , max , count.		
12	Write a program to Calculate Grade.		
12	Write a program to Calculate salary of the employees.		
13	Write a program to create and insert conditions using conditional formatting in MS Excel.		
14	To calculate H-LOOK UP and V-LOOK UP.		

MANAGEMENT EDUCATION & RESEARCH INSTITUTE BACHELOR OF COMPUTER APPLICATIONS SEMESTER I (Batch 2025-29)

BCA 107T –Mathematical Foundation for Computer Science

L-4 T-0,
Credits- 4
COURSE OUTLINE

Course Instructor: **Mr. Wasim Akram**

LEARNING OBJECTIVES:

The objectives of this course are to provide the learners with the following:

1. The knowledge of Mathematical Probability
2. Understanding of various Numerical Techniques

PRE-REQUISITES:

1. Basic Concepts of Mathematics
2. Set theory, Permutations and Combinations
3. Knowledge of methods of Differential Calculus, Integral Calculus
4. Matrix Algebra

COURSE OUTCOMES:

The course has been designed with the following objectives:

CO1: Understand the various approaches dealing the data using theory of Probability
CO2: Understand various numerical techniques and apply them to solve real life problems
CO3: Understand various techniques to solve linear simultaneous equations
CO4: Analyse and evaluate the accuracy of common Numerical Methods

PEDAGOGY:

Focus on basic concepts. Use of the results and theorems as tools. Illustrative exercises/problems based on each topic with discussion on applications.
Tutorial and teacher guided problem solving based pedagogy for better understanding of Concepts and applications

EVALUATION:

Besides the semester end- examination, the students will be continuously assessed during the course on the following basis:

a. Quiz/Assignment/Project : 10 marks
b. Mid-term Test : 15 marks
c. Discipline/Attendance: 10 marks
d. Club contribution : 05 marks
e. External University Exams : 60 marks

Total : 100 marks

COURSE CONTENT

The program will unfold as per the following **Session-wise Teaching-Learning Plan:**

Detailed Course Outline	**Sessions**	**References**
UNIT I		
1. Probability: Introduction, Axiomatic definition of Probability, Addition Theorem, Multiplication theorem, Conditional Probability, Bayes' theorem and its applications. 2. Probability distributions: Random Variable, Probability Mass function, Probability density function, Mathematical Expectations of a Random Variable, Binomial Distribution, Poisson distribution, Normal Distribution. **Assignment : Problems based on Unit – I**	6 + 8	"*Probability and Numerical Methods*" ANE Books, 4th Edition 2019 by J.P. Singh **[chapters 2, 3, 4, 5, 6]**
UNIT II		

1. Interpolation: Operators: Shift; Forward Difference, Backward Difference Operators and their relationship, Interpolation Formulae: Newton's Forward, Backward and Divided Difference Formulae, Lagrange's Formula. 2. Solutions of non linear equations: Bisection Method, False Position Method, Newton – Raphson Method for Solving Equation Involving One Variable only. **Assignment : Problems based on Unit – II**	8 + 4	"*Probability and Numerical Methods*" ANE Books, 4th Edition 2019 by J.P. Singh **[chapters 7, 8, 9]**

Unit III		
1. Solution of linear simultaneous equations (Analytical methods): Gaussian Elimination Method with and without row interchange, Gauss Jordan Method and to find Inverse of a Matrix by this method, LU Decomposition method. 2. Iterative methods: Gauss - Jacobi method and Gauss-Seidel Method **Assignment : Problems based on Unit – III**	8 + 4	"*Probability and Numerical Methods*" ANE Books, 4th Edition 2019 by J.P. Singh **[chapters 10, 11]**
Unit IV		

1. Numerical differentiation: First and Second Order Derivatives at Tabular and Non- Tabular Points, 2. Numerical integration: Trapezoidal Rule, Simpsons 1/3 Rule: Error in Each Formula (without proof.) **Assignment : Problems based on Unit – IV**	6 + 6	"*Probability and Numerical Methods*" ANE Books, 4th Edition 2019 by J.P. Singh **[chapters 10, 11]**

PRESCRIBED TEXT:

TB1. S.S. Sastry, "Numerical Analysis"; Prentice Hall of India, 1998.

TB2. Johnson, R., Miller, I. and Freund's, J., Miller and Freund's "Probability and Statistics for Engineers, Pearson Education (2005) 7th Ed.

TB3. Singh J P "Probability and Numerical Methods" ANE Books, 4th Edition 2019

REFERENCEBOOKS :

RB1. Grewal B S "Numerical Methods in Engineering and Science" Khanna Publishers, 2012

RB2. Walpole, Ronald E., Myers, Raymond H., Myers, Sharon L. and, Keying Ye, Probability and Statistics for Engineers and Scientists, Pearson Education (2007) 8th Ed.

RB3. Gupta S C, Kapoor V K "Fundamental of Mathematical Statistics" Sultan Chand and Sons 11th edition 2002

ONLINE CERTIFICATION COURSES:

An Introductory Method to Numerical Analysis (NPTEL)
Probability & Statistics (NPTEL)

LIST OF OPEN SOURCE SOFTWARE/LEARNING WEBSITE:

1. https://www.nptel.ac.in/
2. https://swayam.gov.in

3. https://www.coursera.org
4. https://www.khanacademy.org/

SUGGESTED REFERENCES

1. B. V. Ramana, Higher Engineering Mathematics, McGraw Hill Education
2. Alan Jeffrey, “Advanced Engineering Mathematics”, Elsevier Publishers

**********HAPPY LEARNING**********

MANAGEMENT EDUCATION & RESEARCH INSTITUTE BACHELOR OF COMPUTER APPLICATIONS SEMESTER I (Batch 2025-29)
BCA 181T– Bridge Course in Mathematics

L-2 T-0,
Credits- 2
COURSE
OUTLINE
Course Instructor: Mr Wasim Akram

LEARNING OBJECTIVES:

The objectives of this course are to provide the learners with the following:

1. The knowledge about the matrices, determinants and limits.
2. Familiarity with basic concepts of differential and integral calculus.

PRE-REQUISITES:

1. Basic Concepts of Mathematics
2. Solution of simultaneous linear equations in two variables
3. Solution of quadratic equations in one variable
4. Trigonometry

COURSE OUTCOMES:

The course has been designed with the following objectives:

CO1: Understand the various approaches dealing the data using theory of matrices
CO2: Understand and apply the concepts of determinants
CO3: Understand the concept of calculus such as limit, continuity and differentiability

CO4: Appraise and determine the correct logic and solutions for any given real world problem using application of integration& integral calculus.

PEDAGOGY:

Focus on basic concepts. Use of the results and theorems as tools. Illustrative exercises/problems based on each topic with discussion on applications.
Teacher guided problem solving based pedagogy for better understanding of Concepts and applications

EVALUATION:

Besides the semester end- examination, the students will be continuously assessed during the course on the following basis:

a. Quiz/Assignment/Project : 10 marks
b. Mid-term Test : 15 marks
c. Discipline/Attendance: 10 marks
d. Club contribution : 05 marks
e. End term exam : 60 marks

Total : 100 marks

COURSE CONTENT

The program will unfold as per the following **Session-wise Teaching-Learning Plan:**

Detailed Course Outline	**Sessions**	**References**
UNIT I		
1. Matrices: Concept, notation, order, equality, types of matrices, zero and identity matrix, transpose of a matrix, symmetric and skew symmetric matrices. Operations on matrices: Addition, multiplication and multiplication with a scalar. Simple properties of addition, multiplication and scalar multiplication, invertible matrix. **2.** Determinants: Determinant of a square matrix (up to 3 x 3 matrices), properties of determinants, minors, co-factors and applications of determinants in finding the area of a triangle. Adjoint and inverse of a square matrix, solving system of equations using matrix method, Cramer rule (only two and three unknown). **Assignment : Problems based on Unit – I**	3 + 4	"Calculus" ANE Books, 2nd edition 2012 by J.P. Singh,
UNIT II		

1. Introduction to trigonometric functions: Degree and radian measurements of an angle, Quadrant system, allied angles, 2. Simple problems based: on Sum/difference of angles of t functions, C and D Formulae, t functions of multiple angles. **Assignment : Problems based on Unit – II**	3 + 4	"Applied Mathematics for polytechnics", CBS publishers by H K Dass

Unit III		
1. Limit of a function at a Point, Properties of Limit, Computation of Limits of Various Types of Functions, 2. Continuity and differentiability of a function 3. Derivative of composite functions, chain rule, derivative of implicit functions. Concept of exponential and logarithmic functions. Derivatives of logarithmic and exponential functions. Logarithmic differentiation, derivative of functions expressed in parametric forms. **Assignment : Problems based on Unit – III**	2 + 1 + 4	"Calculus" ANE Books, 2nd edition 2012 by J.P. Singh
Unit IV		
1. Integral as Limit of Sum, Riemann Sum Fundamental Theorem of Calculus, Indefinite integrals **2.** Simple problems based on Methods of Integration Substitution, By Parts, Partial Fractions, Integration of Algebraic and transcendental Functions. **Assignment : Problems based on Unit – III**	3 + 4	"Calculus" ANE Books, 2nd edition 2012 by J.P. Singh

PRESCRIBED TEXT:

TB1. Mathur A B, Jaggi V P "A Textbook of Engineering Mathematics" Khanna Publishers, TB2. Dass H K "Applied Mathematics for polytechnics" CBS publishers
TB3. Singh J P "Calculus" ANE Books

REFERENCEBOOKS

RB1. Kresyig E., "Advanced Engineering Mathematics", 5th Edition, John Wiley & Sons
RB2. H.K. Dass, "Advanced Engineering Mathematics", S. Chand & Company
RB3. Grewal B S, "Elementary Engineering Mathematics"

LIST OF OPEN SOURCE SOFTWARE/LEARNING WEBSITE:

1. https://www.nptel.ac.in/
2. https://swayam.gov.in
3. https://www.coursera.org
4. https://www.khanacademy.org/

SUGGESTED REFERENCES

1. David C. Lay, "Linear Algebra and Its Applications", Addison-Wesley, 2012
2. Dennis Zill, Warren S. Wright "Calculus: Early Transcendentals", Jones & Bartlett Learning, 2009

**********HAPPY LEARNING**********

MANAGEMENT EDUCATION & RESEARCH INSTITUTE
BACHLOR OF COMPUTER SCIENCE BCA 1st Year
MODULE WRITING SKILLS
COURSE OUTLINE
Course Instructor: Dr.Kamal Chandel.

Learning Objectives of Writing Skills Module:

1. **Grammar and Mechanics:**
   - Identify and apply rules of grammar, punctuation, and sentence structure in writing.
   - Edit and revise written work for common mechanical errors.
2. **Organization and Structure:**
   - Construct well-organized paragraphs and essays with clear introductions, bodies, and conclusions.
   - Use appropriate transitions to connect ideas logically within and between paragraphs.
3. **Clarity and Style:**
   - Write with clarity and precision using appropriate vocabulary and tone for different audiences.
   - Vary sentence structure and word choice to enhance readability and engagement.
4. **Purpose and Audience:**
   - Analyze the purpose of a writing task and tailor content and style to suit a specific audience.
   - Differentiate between formal and informal writing styles.
5. **Writing Process:**
   - Apply the stages of the writing process: planning, drafting, revising, editing, and proofreading.
   - Use feedback constructively to improve written work.

COURSE OUTCOMES:

After completion of this course, the student will be able to learn these outcomes enunciate below.

The **course outcomes** of a *Writing Skills* course typically focus on developing a learner's ability to communicate effectively in written form across various contexts. Here's a general list of expected outcomes:

1. **Improved Grammar and Syntax:**
   - Use correct grammar, punctuation, and sentence structure in written communication.
   - Identify and correct common errors in writing.
2. **Clarity and Coherence in Writing:**
   - Organize ideas logically with clear transitions.
   - Develop paragraphs and essays with a coherent flow of ideas.

3. **Audience Awareness:**
    - Adapt tone, style, and content based on the intended audience and purpose.
    - Use appropriate vocabulary and structure for academic, professional, or creative writing.
4. **Writing for Various Purposes:**
    - Compose different types of writing: narratives, descriptive, persuasive, expository, reports, emails, etc.
    - Understand the structure and conventions of formal and informal writing.
5. **Critical Thinking and Argumentation:**
    - Develop logical arguments and support them with evidence.
    - Analyze and critique texts and respond with well-reasoned writing.
6. **Revision and Editing Skills:**
    - Edit drafts for content, structure, and mechanics.
    - Use peer and instructor feedback to improve writing quality.
7. **Academic Integrity and Citation:**
    - Understand and apply proper citation methods (APA, MLA, etc.).
    - Avoid plagiarism through correct paraphrasing and referencing.
8. **Research Writing (if applicable):**
    - Conduct basic research using credible sources.
    - Integrate research findings effectively into writing.

PAEDAGOGY

Facilitator-led discussions would be the primary method of learning. In addition, this will be achieved through theoretical discussions, video discussions, case analysis, quizzes, action learning, assignments, and midterm tests. The course will also include real-time examples and articles of leading firms and international organisations, etc.

Case studies/Assignments will be specified for preparation to supplement learning wherever the faculty finds it appropriate.

COURSE CONTENT

The program will unfold as per the **following Session-wise Teaching-Learning Plan:**

Detailed Course Outline	REFERENCE	SESSIONS
UNIT I	***The Elements of Style*** by William Strunk Jr. & E.B. White	5

Introduction to Writing Introduction to Technical Communication, Need and importance of communication, channel, Distinction between general and technical communication, nature and features of technical communication, Seven Cs of communication, Types of Technical communication, style in technical communication, technical communication skills, Language as a tool of Communication, History of development of Technical Communication, Computer Aided Technical Communication. **Written Assignment** **Assignment:-** 1. Draw out the different formats of Reports? **Case Study:-** **A•** Case Study on the Effectiveness of Peer Review in Enhancing Writing Skills. **Challenges•** Faced by ESL Learners in Academic Writing.		
<u>UNIT II</u> Principles of effective oral communication, Introduction of Self and others, Greetings, Handling Telephone Calls Interviews: Meaning & Purpose, Art of interviewing, Types of interview, Interview styles, Essential, Techniques of interviewing, Guidelines for Interviewer, and Guidelines for interviewee. Meetings: Definition, Kind of meetings, Agenda, Minutes of the Meeting, Advantages and disadvantages of meetings/ committees, Planning and organization of meetings. Project Presentations: Advantages & Disadvantages, Executive Summary, Charts, Distribution of time (presentation, questions & answers, summing up), Visual presentation, Guidelines for using visual aids, Electronic media (power-point presentation) **Assignment.** 1. Write an essay on **"The Importance of Writing Skills in the 21st Century."?** 2. Discuss how social media influences writing styles and communication? **Case Study for Discussion.** A Case Study on Written Communication Gaps in Remote Teams.	***Grammar Girl's Quick and Dirty Tips for Better Writing*** by Mignon Fogarty	8

UNIT III Overview of Technical Writing: Definition and Nature of Technical Writing, Basic Principles of Technical Writing, Styles in Technical Writing, Note – Making, Notice, E-mail Writing Writing Letters: Business letters, Persuasive letters- Sales letters and complaint letters Office memorandum, Good news and bad news letter's Report Writing: Definition & importance; categories of reports, Elements of a formal report, style and formatting in report Special Technical Documents Writing: Project synopsis and report writing, Scientific Article and Research Paper writing, Dissertation writing: Features, Preparation and Elements Proposal Writing: Purpose, Types, characteristics and structure Job Application: Types of application, Form & Content of an application, drafting the application, Preparation of resume. **Assignment:-** 1. Compare and contrast online learning and traditional classroom education. 2. Write a cause-and-effect essay on **"The Impact of Poor Writing in the Workplace."** **Case Study:-** Cross-Cultural Writing Challenges in Multinational Companies.	***English Grammar in Use*** by Raymond Murphy	8
UNIT IV Business Etiquettes – Professional Personality, Workplace Protocols, Cubicle. Non-Verbal Communication: Kinesics and Proxemics, Paralanguage Interpersonal Skills Language Skills: Improving command in English, improving vocabulary, choice of words, Common problems with verbs, adjectives, adverbs, pronouns, tenses, conjunctions, punctuations, prefix, suffix, idiomatic use of prepositions. Sentences and paragraph construction, improve spellings, common errors and misappropriation, Building advanced Vocabulary (Synonyms, Antonyms), introduction to Business English. **Written Assignment** **1.** Write a cover letter applying for an internship in your field. 2. Compose a memo addressing a workplace communication issue.	***The Elements of Technical Writing*** by Gary Blake & Robert W. Bly	4
TOTAL NO. OF SESSIONS		25

1. **Text Book:-** ***The Elements of Style*** by William Strunk Jr. & E.B. White
    - Classic guide to clear, concise writing and grammar essentials.
2. ***Grammar Girl's Quick and Dirty Tips for Better Writing*** by Mignon Fogarty
    - Easy-to-understand grammar and usage tips.
3. ***English Grammar in Use*** by Raymond Murphy
    - Best for learners of English (ESL); practical exercises included.

MANAGEMENT EDUCATION & RESEARCH INSTITUTE
Department of Information Technology

BCA SEMESTER I, (Batch 2025-29)
Course Code BCA 191T, Understanding India
L-4, Credits-4
COURSE OUTLINE
Course Instructor: Prof Sadanand Pandey

LEARNING OBJECTIVES:

The course has been designed with the following objectives:

i. To have an understanding of the history and culture of ancient India.
ii. The students will be acquainted with the literature, philosophy, art, and architectural developments in India during the period concerned.
iii. To understand the ancient India Knowledge system

The students will also get to know about their constitutional rights and duties

PRE-REQUISITES:

1. Basic knowledge of the Ancient, Modern History of India and Indian Culture
2. Basic Knowledge of the Geographical Economy of India

COURSE OUTCOMES:

CO#	Detailed Statement of the CO
CO1	Familiar with the history and culture of Ancient India
CO2	Understanding the ancient Indian literature
CO3	Having awareness of the ancient knowledge system of India
CO4	Aware of the Basic features of our constitution

PEDAGOGY:

The pedagogy for the Understanding India subject will be interactive and discussion-oriented. Faculty will organize discussions on core concepts of India History, Religion, Culture, Ancient Education, Health Systems of India, and The Environment, about the rich traditions and consciousness would be created.

EVALUATION:

Besides the semester-end examination, the students will be continuously assessed during the course on the following basis:

(a)	Assignment/ Case/ Presentation	:	10 marks
(b)	Midterm Test	:	15 marks
(c)	Discipline/Attendance	:	10 marks
(d)	Club contribution	:	05 marks
(e)	External University Exams	:	60 marks

Total : 100 marks

Course Content

The programme will unfold as per following **Session-wise Teaching-Learning Plan:**

Detailed Course Outline	Sessions	References
UNITI		
Introducing India: The People of India: demography and languages, The Name of our Country: Jambudvipa, Sindhu (Indus), Inde, Hind, Hindustan, Bharat, India The idea of Bharatvarsha: Ancient Indian literature, Sanskrit, Pali, Prakrit, Tamil Religions and philosophies of ancient India-Vedic, Buddhism, Jainism **Apart from the Lectures, the students need to create curiosity through stories to know the religious History of India.**	3+4+4	**The students will be advised to go through the INDIA, Published by the Publication Division of the Information and Broadcasting Ministry**
UNITII		
Science, and Medicine: A General Survey of the Progress of Science, Technology, and medicine in ancient India The Knowledge System of India: Traditional Knowledge System: Gurukuls, Pathsalas, Tols, Maktabs, Madrasas Beginnings of Modern Education: Main features of British Government's educational policies, Growth of higher and technical education in India **Comparative studies have to be done between ancient knowledge, Health, and education systems. And also with the current.**	3+4+4	Encyclopedia may be helpful for Students.
Unit III		
The Indian Economy: Features of the Indian economy from past to present (agriculture, industry, and trade)	4+4	The students will be advised to take help of Indian Economy written by Rudra Dutta From

The students must be aware about the basic knowledge of Indian Economy, Industrial Policies and Trade systems.		Sutan chand Publication.
Unit IV		
The Making of Contemporary India: The Struggle for Independence (1885-1947) Basic features of the Indian Constitution: Basic Structure, Doctrine, Fundamental rights, and duties, Directive principles, Federal Structure, Independence of Judiciary, and the Parliamentary system **The students need to know about the freedom movement and also brief knowledge of the Inian Constitutional Institutions and provisions.**	4+4	

TEXTBOOKS:

TB1. A.L.Basham, The Wonder that Was India, Picador India,1971
TB2. R.S.Sharma, Ancient Past, New Delhi, OUP,2007
TB3. Upinder Singh, The History of Ancient and Early Medieval India, Pearson, 2008
TB4. SatishChandra, History of Medieval India, Arihant Publication, 2020.

REFERENCES:

RB1. Durga DasBasu, Introduction to the Constitution of India, LexisNexis,20182003
RB2. Tirthankar Ray, The Economic History of India, 1857-1947, OUP, 2006
RB3. Vijay Joshi and I.M.D.Little, Economic Reforms,1991-2001, OUP,1996
RB4. Dr.Prabhakiran Jain & R.Sharma, Understanding India, Mahavir Publication

MANAGEMENT EDUCATION & RESEARCH INSTITUTE
BCA I SEMESTER
BCA-107T WEB TECHNOLOGIES CREDITS-4
COURSE OUTLINE

Course Instructor: Dr. Sachin Kumar

COURSE OBJECTIVE

After completion of this course the learners will be able to
CO1- Develop static webpages through HTML, JavaScript, CSS and bootstrap.
CO2- Implement different constructs and programming techniques using JavaScript.
CO3- Adapt HTML, JavaScript, CSS and bootstrap syntax and semantics to build webpages.
CO4- To develop client-side script using JavaScript to display the contents dynamically.

PEDAGOGY

The course objective will be achieved through Lectures, Assignments, PPT Presentations

EVALUATION

Besides the semester end-examination, students will be continuously assessed during the course on the following basis:

METHOD OF ASSESSMENT	**(As per G.GS.I.P University, New Delhi)**	
Practical Courses	Allocation of Marks: 100 marks	
Class Test	There shall be one Class Test in each semester.	15
Continuous Evaluation	It shall be based on Assignments & Exercises	10
Internal Assessment	Attendance and Discipline	10
Club Contribution	Club Contribution	5
External University Exams		60

TEACHING PLAN:

Detailed Course Outline	References	Sessions
UNIT I World Wide Web & HTML Overview		11
1. Introduction web page, homepage, website, static and dynamic website, 2. client/server computing concepts 3. Web client and Web browser, web server, 4. Client side and server-side Scripting languages 5. Introduction to HTML, HTML document, structure tags, HTML comments 6. Text formatting, inserting special characters, anchor tag, adding images and sound. 7. Lists types of lists 8. Tables 9. Frames and floating frames 10. Developing forms	Thomas a Powell, TMH publication [Chapter 1] Thomas a Powell, TMH publication [Chapter 3,5] Thomas a Powell, TMH publication [Chapter 3,9]	**3+3+4+1**

11. Image maps		
<u>UNIT II-</u> Cascading Style Sheet & Bootstrap Basics		12
1. Types of style sheets: internal, 2. Inline and external sheets 3. Creating styles, link tag 4. CSS properties, CSS styling, 5. Style Selector ID 6. Class name and pseudo class 7. Introduction to bootstrap 8. Responsive web design 9. Linking with bootstrap, Container class 10. Grids, tables, images, 11. Buttons, typography classes, 12. Jumbotron, glyph icons	Thomas a Powell, TMH publication [Chapter 1] Thomas a Powell, TMH publication [Chapter 2,4] Thomas a Powell, TMH publication [Chapter 1,9] Jack Spurlock, O Reilly[Chapter 1,4,9]	3+3+3+3
<u>Unit III- Introductions to JavaScript :</u>		11
1. Data types, 2. Control statements 3. Operator, 4. Dialogue boxes, 5. Built-in functions 6. User defined functions 7. Objects in JavaScript 8. Handling events 9. Basic validation 10. Document Object Model 11. Browser Object Model	Jeffrey C Jackson [Chapter 1,7, 9] Jeffrey C Jackson [Chapter 8, 9]	5+3+3
<u>Unit IV- XML & Web hosting concepts :</u>		12
1. XML introduction 2. Features 3. XML Naming rules, building block of XML Document 4. Difference between HTML and XML 5. XML Parser, 6. DTD's using XML with HTML and CSS 7. Concepts of domain 8. Physical domain, virtual domain 9. Registering a domain 10. Need of IP addressing 11. Web hosting 12. and publishing concepts	Jeffrey C Jackson [Chapter 2,4] Jeffrey C Jackson [Chapter 1, 9] Jeffrey C Jackson [Chapter3, 9]	3+3+3+3
TOTAL NO. OF SESSIONS		46

Text Book:

1. The Complete Reference HTML and CSS, Thomas a Powell, TMH publication
2. Jeffrey C Jackson, "Web Technologies: A Computer Science Perspective", Pearson
3. Internet and World Wide Web, Deitel HM Deitel, Goldberg, third edition
4. Bootstrap: Responsive Web Development, Jack Spurlock, O Reilly, first Edition

E-Learning Modules Link: -

1. **https://youtu.be/MkcfB7S4fq0?feature=shared**
2. **https://youtu.be/4WjtQjPQGIs?feature=shared**
3. **https://youtube.com/shorts/4jmG0pUG21E?feature=shared**
4. **https://youtu.be/l1EssrLxt7E?feature=shared**
5. **https://youtu.be/BmkH_-Fm5-U?feature=shared**
6. **https://youtu.be/FFcZ8MVYqRs?feature=shared**

Assignment 1

BCA-1st Semester, Web Technologies (BCA-105T)

Q1. What is the World Wide Web (WWW)?
Q2. What is the difference between a web page, a website, and a home page?
Q3. What is the role of a web browser in accessing the World Wide Web?
Q4. What is HTML and why is it used in web development?
Q5. What are the basic structure tags of an HTML document?
Q6. What is the purpose of the <a> (anchor) tag in HTML?

Assignment 2

BCA-1st Semester, Web Technologies (BCA-105T)

Q1. What is CSS and how is it used in web development?
Q2. What are the different types of CSS (Inline, Internal, External)?
Q3. How does CSS help in separating content from design in HTML pages?
Q4. What is Bootstrap and why is it used in web development?
Q5. What is the purpose of the Bootstrap grid system?
Q6. Name any two commonly used Bootstrap classes and their uses.

Assignment 3

BCA-1st Semester, Web Technologies (BCA-105T)

Q1. What is JavaScript and how is it used in web development?
Q2. How is JavaScript different from HTML and CSS?
Q3. How do you include JavaScript in an HTML document?
Q4. What is a variable in JavaScript and how do you declare it?
Q5. What are some basic data types in JavaScript?
Q6. What is the purpose of functions in JavaScript?

Assignment 4

BCA-1st Semester, Web Technologies (BCA-105T)

Q1. What is XML and what is its primary purpose in web development?
Q2. How is XML different from HTML?
Q3. What are the basic rules for writing XML documents?
Q4. What is web hosting?
Q5. What is the difference between a domain name and web hosting?
Q6. Name any two types of web hosting services.

MANAGEMENTEDUCATION&RESEARCHINSTITUTE
BACHELOR OF COMPUTER APPLICATIONS
SEMESTER II(Batch 2025-29)
BCA 106- DATA STRUCTURE & ALGORITHM USING C
L-3, T-1, Credits-4
COURSE OUTLINE
Course Instructor: Dr. Ritu Aggrawal

LEARNINGOBJECTIVES:

In this course, the learners will be able to develop expertise related to the following:- 1. Understanding of the basic concepts of data structures and their operations like insertion, deletion, searching and sorting
2. Design algorithms and pseudo codes of various linear and non-linear data structures

PRE-REQUISITES:

1. C Programming Skills
2. Discrete Mathematics

COURSEOUTCOMES:

Thecoursehas beendesigned withthefollowing objectives:
CO1:Students will be able to familiarize the basics of data structures and algorithms. CO2:Understand and apply linear and nonlinear data structures and their operations.
CO3:Compare and implement searching, sorting, and hashing techniques.
CO4:Appraise and determine the correct data structure for any given real-world problem.

PEDAGOGY:

The course objective will be achieved through theoretical discussions, practicals, assignments, Quiz, projects, presentations, and midterm tests.

EVALUATION:

Besides the semester end- examination, the students will be continuously assessed duringthecourseon thefollowing basis:

(a) Quiz/Assignment/Project : 10marks
(b) Mid-termTest : 15marks
(c) Discipline/Attendance : 10marks
(d) Club contribution: : 05marks

(e) External University Exams : 60marks

Total : 100 marks

COURSECONTENT:

[redacted] UNIT-I

1. Linear Data Structures- Static: Introduction to

Algorithms- Attributes, Design Techniques, Time Space Trade Off, Data Structures, Classification and Operations of Data Structures, Growth of functions, Master theorem
2. Arrays: Single Dimension, Two-Dimension and Introduction to Multi Dimensions, Memory Representation, Address Calculation, Sparse Matrices- Types, Representation.
3. Introduction: Dynamic Memory Allocation, Dynamic Memory versus Static Memory Allocation
4. Linked List Types: Singly Linked List, Doubly
Linked List, Header Linked List, Circular Linked List.
5. Operations: Creation, Insertion, Deletion, Modification, Searching, Sorting, Reversing, and Merging.

UNIT-II

6. Searching and Sorting: Linear and Binary
2+2+2+3 +2
Tanenebaum
[Chapters 1, 4, 9], E. Horowitz and S. Sahni [Chapters 1,2,4]

7. Stacks: Introduction, Static and Dynamic Implementation, Operations, Applications Evaluation and Conversion between Polish and Reverse Polish Notations.
8. Queues: Introduction, Static and Dynamic Implementation, Operations, Types- Linear Queue, Circular Queue, Doubly Ended Queue, Priority Queue.
9. Hashing: Hash Table, Hash Functions, and Collision Resolution.

Written Assignment 1
3+3+3+2 Tanenebaum [Chapter 2,4,6,7],
E. Horowitz and S.
Sahni [Chapter
7,3,8,9]

UNIT-III		

10. Trees: Notations & Terminologies, Memory Representation, Binary Trees Types- Complete, Full, Strict, Expression Binary Tree, Tree Traversals (Recursive & non recursive), Binary Search Tree, AVL Tree, M- Way Tree, and B Tree.	10	Tanenebaum [Chapter 5], E. Horowitz and S. Sahni [Chapters 5,10,11]

UNIT-IV

11. Introduction to Graphs: Notations & Terminologies, Representation of Graphs Adjacency Matrix, Incidence Matrix and Linked Representation. Graph Traversal (Breadth First and Depth First), Prim's Algorithm, Kruskal's algorithm, Dijkstra's Algorithm, Bellman-Ford algorithm, Warshall's Algorithm. Written Assignment 2 + Video Learning	10	Tanenebaum [Chapters 8], E. Horowitz and S. Sahni[Chapters 6]

PRESCRIBEDTEXT:

1. Y. Langsam, M. J. Augenstein and A.M. Tanenebaum, "Data Structures using C", Pearson Education India, Second Edition, 2015.
2. E. Horowitz and S. Sahni, "Fundamentals of Data Structures in C". Universities Press, Second edition, 2008.

REFERENCEBOOKS:

RB1. Schaum's Outline Series,"Data Structures", TMH, Special Indian Ed., Seventeenth Reprint, 2014. RB2. Ashok N kamthane, "Introduction to Data Structures in C", Pearson, Third Edition, 2009. RB3. D. Samanta, "Classic Data Structures", PHI, Second Edition, 2009.
RB4. D. Malhotra and N. Malhotra, "Data Structures and Program Design using C", Laxmi Publications, Indian adapted edition from Mercury Learning and Information-USA, First edition, 2018. RB5. Y. Kanetkar "Data Structures through C", BPB Publication, Third Edition, 2019. RB6. R.F Gilberg, and B A Frouzan- "Data

Structures: A Pseudocode Approach with C", Thomson Learning, Second Edition, 2004.
RB7. A. K. Rath, and A.K. Jagadev, "Data Structures and Program Design Using C", Scitech Publications, Second Edition, 2011.

SUGGESTED REFERENCES:

1. https://www.youtube.com/watch?v=xLetJpcjHS0&list=PLBlnK6fEyqRj9lld8sWIUNwlKfdUoPd1Y 2. https://www.youtube.com/watch?v=AT14lCXuMKI&list=PLdo5W4Nhv31bbKJzrsKfMpo_grxuLl8 LU

MANAGEMENT EDUCATION & RESEARCH INSTITUTE
BCAIII SEMESTER
BCA 201T – Python Programming
CREDITS-4
COURSE OUTLINE
Course Instructor: Ms. Shikha Yadav

LEARNINGOBJECTIVES:

In this course, the learners will be able to develop expertise related to the following:-
1. To understand Python programming fundamentals
2. To define the structure and components of a Python program.
3. To apply fundamental problem-solving techniques using Python
4. To design and program applications using Python.

PRE-REQUISITES:

Computer Fundamentals

COURSE OUTCOMES:

After completion of this course the learners will be able to:
CO1 Demonstrate knowledge of basic programming constructs in python.

CO2 Illustrates string handling methods and user-defined functions in python

CO3 Applying data structures primitives like List, Dictionary and tuples.

CO4 Inspects file handling and object- oriented programming techniques.

CO5 To understand the concept of Reusability.

PEDAGOGY

The course objective will be achieved through Lectures, Quiz , assignments.

EVALUATION

Besides the semester end-examination, students will be continuously assessed during the course on the following basis:

METHOD OF ASSESSMENT	**(As per G.GS.I.P University, New Delhi)**	
Practical Courses	Allocation of Marks: 100 marks	
Mid Term Examination	There shall be one Class Test in each semester.	15
Continuous Evaluation	It shall be based on Assignments, Exercises & Project	10
Internal Assessment	Attendance and Discipline	10
Club contribution	Participates in various extra-curricular activities	05
External University Exams	Conducted by university	60

TEACHINGPLAN:

DetailedCourseOutline	Sessions	References
UNITI		
Basic Introduction: Origin, Need of Python Programming, Features, program structure, identifiers, reserved words, escape sequences, IDLE-Python Interpreter **Python Programming Introduction**: Variables and assignment statements, data types, Keywords, Operators: Assignment, Unary, Binary, Arithmetic, Relational, Logical, Bitwise Operator and membership operator **Control Structures**: if-conditional statements, if –else condition, if-elif-else condition, nested if-elif-else condition, Iteration (for Loop and while loop), Nested Loops, break and continue statement. **Strings:** Slicing, Membership, Built in functions (count, find, capitalize, title, lower, upper and swap case, replace, join, isspace (), isdigit(), split(), startswith(), endswith()). **Quiz**	2+3+3+3	Summerfield [Chapters 1, 2], Sheetal [Chapters 1, 3, 6]
UNITII		
Mutable and Immutable objects: **List:** creating, initializing, accessing, slicing, and traversing List. List operations: length, concatenation, repetition, in, not in, max, min, sum, all, any. List methods: append, extend, count, remove, index, pop, insert, sort, reverse and introduction to sets **Tuples:** creating tuples, Tuple operations: length, concatenation, repetition, membership, maximum, minimum, tuple methods: count, index. **Dictionary:** Dictionary operations, functions- get, update, copy. Deletion in dictionary. **Assignment**	4+3+4	Summerfield [Chapter 3], Sheetal [Chapters 7, 12]
Unit III		
Concept of Functions: Functions: Defining, Calling and Types of Functions, Arguments and Return Values, Formal vs. Actual Arguments, Scope and Lifetime, Keyword Arguments, Default Arguments, Recursion and Modules **File handling:** Types of Files (Text file, Binary Files, CSV file), Creation, writing, appending, Insertion, deletion, updating, modification of Data in into the files. **Quiz**	4+3	Summerfield [Chapters 5], Sheetal [Chapters 2, 8]
Unit IV -		

Object Oriented Programming: Classes, Objects, Attributes and Methods, Access Specifiers, Constructors, Static Methods, Data Hiding, Encapsulation, Inheritance, Polymorphism. **NumPy Library:** introduction to NumPy, Creation of One-Dimensional Arrays, Re-shaping of an Array, Element-wise Operations, Aggregate Operations, Array indexing, Array Slicing, insert Row/Columns, Append Row/Columns, Array Manipulation Operations. **Introduction to matplotlib:** Bar Graphs , pie charts **Quiz**	5+4+1	Summerfield [Chapters 5, 7] Sheetal [Chapter 9],

TEXTBOOKS:

TB1. Programming in Python 3: A Complete Introduction to the Python Language (2nd Edition), Mark Summerfield.

TB2. Python Programming: A Modular Approach by Taneja Sheetal, Kumar Naveen, Eleventh Impression, Pearson India Education Services Pvt. Ltd.

TB3. Agile tools for real world data: Python for Data Analysis by Wes McKinney, O'Reilly

REFERENCE BOOKS:

RB1. Let Us Python 2Nd Ed: Python Is Future, Embrace It Fast (Second Edition): Yashvant Kanetkar.

RB2. Programming Python, 4th Edition by Mark Lutz Released December 2010 Publisher(s): O'Reilly Media, Inc.

RB3. Python: The Complete Reference by Martin Brown.

MANAGEMENT EDUCATION & RESEARCH INSTITUTE
BCA III SEMESTER

BCA: BCA 207T Introduction to Data Analytics

CREDITS-4

COURSE OUTLINE

Course Instructor: Ms Mrinal Verma

COURSE LEARNING OBJECTIVES

The objectives of this course are to provide the learners with the following:

1. Explain the fundamental concepts of data analytics, types of data, the data analytics lifecycle, data collection, sampling techniques, data cleaning, preprocessing, and transformation.
2. Apply statistical techniques, including measures of central tendency, dispersion, correlation, and probability, to analyse datasets and perform exploratory data analysis.
3. Develop and evaluate basic predictive and descriptive analytical models using classification, regression, clustering, and association rule mining techniques.
4. Implement data analytics tasks using Python libraries such as NumPy, Pandas, Matplotlib, and Seaborn for data manipulation, analysis, and visualisation.
5. Describe Big Data fundamentals, the Hadoop ecosystem, and the MapReduce programming model, and identify applications of data analytics in real-world scenarios.

PRE-REQUISITES:

Fundamentals of Computer

COURSE OUTCOMES

After completion of this course, the learners will be able to

CO	Detailed Statement of the CO
CO1	Explain the concepts, lifecycle, and applications of data analytics.
CO2	Apply data collection, preprocessing, visualisation, and exploratory data analysis techniques.
CO3	Apply basic statistical methods and machine learning algorithms for predictive and descriptive analytics.
CO4	Perform data analysis using Python libraries for real-world datasets
CO5	Describe big data concepts, Hadoop ecosystem, and applications of data analytics in various domains.

PEDAGOGY

The course objective will be achieved through lectures and PPT presentations.

EVALUATION

Besides the semester end- examination, the students will be continuously assessed during the course on the following basis:

METHOD OF ASSESSMENT	(As per G.GS.I.P University, New Delhi)	
Practical Courses	Allocation of Marks: 100 marks	
Mid-Term Examination	There shall be one Class Test in each semester.	15
Continuous Evaluation	It shall be based on Assignments & Exercises	10
Internal Assessment	Attendance and Discipline	10
Club contribution	Participates in various extra-curricular activities	05
External University Exams	Conducted by university	60

TEACHING PLAN:

Detailed Course Outline	Textbook Reference	Sessions
UNIT I		11
Introduction to Data Analytics: Data, Information and Knowledge, Types of Data, Data Analytics Process, Data Analytics Lifecycle, Applications of Data Analytics, Data Collection, Sampling Techniques, Data Cleaning, Data Preprocessing, Data Transformation.	Chapter/Book Reference: TB2[Chapter-2, 3, 4, 5], RB1[Chapter-5,6]	Total 11 sessions
UNIT II		11
Statistical Foundations and Exploratory Data Analysis: Measures of Central Tendency, Measures of Dispersion, Correlation, Probability Basics, Exploratory Data Analysis (EDA), Data Visualisation, Histograms, Box Plots, Scatter Plots, Introduction to Hypothesis Testing. **Assignment 1: After completion of Unit 1 & 2**	Chapter/Book Reference: TB2[Chapter-6, 7], RB1[Chapter-6,7]	Total 11 sessions
UNIT III		11
Predictive and Descriptive Analytics: Supervised and Unsupervised Learning, Classification, Regression, Naïve Bayes, K-Nearest Neighbour (KNN), Linear Regression, Clustering, K-Means Algorithm, Hierarchical Clustering, Association Rule Mining, Apriori Algorithm. **Assignment 2: After completion of Unit 3**	Chapter/Book Reference: TB1[Chapter-5, 9], RB3 [Chapter-11]	Total 11 sessions
UNIT IV		11

Python for Data Analytics and Big Data: Introduction to NumPy, Pandas, Matplotlib and Seaborn, Data Import and Export, Data Manipulation, Data Visualization, Big Data Fundamentals, Hadoop Ecosystem, MapReduce, Applications of Data Analytics. **Presentation: Presentation on any one topic from all units.**	Chapter/Book Reference: TB1[Chapter-12,13], RB3[Chapter-7]	Total 11 sessions
TOTAL SESSIONS		44

TEXT BOOKS:

TB1. Foster Provost and Tom Fawcett, "Data Science for Business: What You Need to Know about Data Mining and Data-Analytic Thinking", 2nd Edition, O'Reilly Media, 2023.

TB2. Wes McKinney, "Python for Data Analysis: Data Wrangling with pandas, NumPy, and Jupyter", 3rd Edition, O'Reilly Media, 2022.

TB3. Jiawei Han, Micheline Kamber and Jian Pei, "Data Mining: Concepts and Techniques", 4th Edition, Morgan Kaufmann (Elsevier), 2023.

REFERENCE BOOKS:

RB1. Joel Grus, "Data Science from Scratch: First Principles with Python", 2nd Edition, O'Reilly Media, 2019.

RB2. Bart Baesens, "Analytics in a Big Data World: The Essential Guide to Data Science and its Applications", Wiley, 1st Edition, 2014.

RB3. Jake VanderPlas, "Python Data Science Handbook: Essential Tools for Working with Data", 1st Edition, O'Reilly Media, 2016.

RB4. Gareth James, Daniela Witten, Trevor Hastie, Robert Tibshirani and Jonathan Taylor, "An Introduction to Statistical Learning with Applications in Python", 2nd Edition, Springer, 2023

MANAGEMENT EDUCATION & RESEARCH INSTITUTE
BCA III SEMESTER
BCA 205T Computer Organization and Architecture
CREDITS-4
COURSE OUTLINE

Course Instructor: Ms. Ekta Mishra

COURSE LEARNING OBJECTIVES

The objectives of this course are to provide the learners with the following:
1. Knowledge about various logic gates and design principles of different digital electronic circuits. 2. Implementation and designing of different combinational and sequential circuits.
3. Identify the functional units of the process or and the factors affecting the performance of a computer
4. Understanding about the Input–Output organization of a typical computer

PRE-REQUISITES:

Fundamentals of Computer

COURSE OUTCOMES

After completion of this course the learners will be able to

CO#	Detailed Statement of the CO
CO1	Able to understand the fundamentals of digital principles and able to design digital circuits by simplifying the Boolean functions
CO2	Implement the combinational and sequential circuits for the given specifications
CO3	Able to trace the execution sequence of an instruction through the processor
CO4	Demonstrate computer architecture concepts related to design of modern processors, memories and I/Os.
CO5	Demonstrate the ability to classify the addressing modes, instructions set

PEDAGOGY

The course objective will be achieved through lectures and PPT Presentation.

EVALUATION

Besides the semester end- examination, the students will be continuously assessed during the course on the following basis:

METHOD OF ASSESSMENT	(As per G.GS.I.P University, New Delhi)	
Practical Courses	Allocation of Marks: 100 marks	
Mid Term Examination	There shall be one Class Test in each semester.	15
Continuous Evaluation	It shall be based on Assignments & Exercises	10
Internal Assessment	Attendance and Discipline	10
Club contribution	Participates in various extra-curricular activities	05
External University Exams	Conducted by university	60

TEACHING PLAN:

Detailed Course Outline	Textbook Reference	Sessions
UNIT I		11
Boolean Algebra and Logic: Basics Laws of Boolean Algebra, Logic Gates, Simplifications of Boolean equations using K-maps SOP and POS, Don't Care condition. Arithmetic Circuits: Adder, Subtractor, Parallel binary adder/Subtractor. **Combinational Circuits:** Multiplexers, De-Multiplexers, Decoders, Encoders.	Chapter/Book Reference: TB2[Chapter-2, 3, 4, 5], RB1[Chapter-5,6]	Total 11 sessions
UNIT II		11
Sequential Circuits: Latch, S-R,D,J-K,T, Clocked Flip-flop, Race around condition, Master slave Flip Flop, Realisation of one flip-flop using another flip-flop. **Shift Registers** Serial-in-serial-out, serial-in-parallel-out, parallel-in-serial-out and parallel-in-parallel-out. **Counters** Ripple counter, Synchronous Counter, Modulo Counters. **Assignment 1: After completion of Unit 1 & 2**	Chapter/Book Reference: TB2[Chapter-6, 7], RB1[Chapter-6,7]	Total 11 sessions
UNIT III		11
Data Transfer Operations: Register Transfer, Bus and Memory Transfer, Registers and micro operations. **Basic Computer Organizations and Design**: Instruction Codes, Computer Registers, Instruction Cycle, General Register Organization, Stack Organization, Instruction Formats, Addressing Modes**,**	Chapter/Book Reference: TB1[Chapter-5, 9], RB3 [Chapter-11]	Total 11 sessions

Assignment 2: After completion of Unit 3		
UNIT IV		11
Input-Output Organization: Peripheral Devices, Input-Output Interfaces, Asynchronous Data Transfer, Modes of Transfer, Priority Interrupt, Direct Memory Access (DMA). **Memory Organization:** Main Memory, Auxiliary Memory, Associative Memory, Cache Memory, Virtual Memory. **Presentation: Presentation on any one topic from all units.**	Chapter/Book Reference: TB1[Chapter-12,13], RB3[Chapter-7]	Total 11 sessions
TOTAL SESSIONS		44

TEXTBOOKS:

TB1. Morris Mano, Computer System Architecture, 3rd Edition Prentice-Hall of India Private Limited, 1999.

TB2. Moris Mano, "Digital Logic and Computer Design", PHI Publications,2002

REFERENCES:

RB1. R.P. Jain, "Modern Digital Electronics", TMH,3rd Edition,2003.

RB2. WIliam Stallings, Computer Organization and Architecture, 4th Edition, Prentice Hall of India Private Limited, 2001

RB3. Subrata Ghosal, "Computer Architecture and Organization", Pearson2011

RB4. Malvino, "Digital Computer Electronics: An Introduction to Micro-computers", McGraw Hill.

MANAGEMENT EDUCATION & RESEARCH INSTITUTE
BACHELORS OF COMPUTER APPLICATIONS

SEMESTER III
BATCH: 2025-2028

PRINCIPLES OF MANAGEMENT & ORGANIZATIONAL BEHAVIOUR
Course Code: BCA 211 Credits:3

COURSE OUTLINE

Course Instructor: Dr. Sheela Narang Wadhwa

COURSE OBJECTIVE

Students will be able to:-
CO1: Explain the concepts, principles, functions, and evolution of management.
CO2: Apply planning, organizing, staffing, and controlling techniques for effective management.
CO3: Analyse individual and group behaviour, motivation, communication, and leadership in organizations.
CO4: Evaluate organizational culture, conflict, power, organizational change, and decision-making processes.
CO5: Apply management and organizational behaviour concepts to solve real-world organizational problems.

PAEDAGOGY

- The course objective will be achieved through classroom discussions, video learning, assignments, activities, presentations, quizzes, case studies and midterm test.

- The course will also include real-time examples and articles of leading firms and international organisations taken from LinkedIn, HBR, etc.

EVALUATION

The students will be continuously assesses during the course on the following basis:

(a)	Mid-term Examination	:	15 Marks
(b)	Quiz / Assignment / Presentation / Class room behaviour / Case Study	:	10 Marks
(c)	Discipline / Attendance	:	10 Marks
(d)	Club Contribution	:	05 Marks

(e) External University Exam : 60 Marks
Total **: 100 Marks**

TEACHING PLAN:-

DETAILED COURSE OUTLINE	REFERENCE	SESSIONS
UNIT I Introduction to Management: Nature, Scope and Functions of Management, Managerial Roles and Skills, Evolution of Management Thought, Classical, Neo-Classical and Modern Management Theories, Principles of Management. **Assignment + Quiz1 + Case Study + Class Activity** **Assignment:-** Case Analysis: "Saffron Bites – From Jugaad to Professional Management?" Timeline: 7 days **Case Studies:-** 1. Short case study on MBO 2. Case Study – More than a Good Story 3. Short scenarios of Principles of Management **Class Activity:-** The Management Consultant Challenge based on Evolution of Management	Stephen Robbins (Mgt) – Chapter 1 Koontz – Chapter 1	08
UNIT II Planning and Organizing: Planning Process, Types and Levels of Planning, Management by Objectives (MBO), Strategic Management, Forecasting, Decision Making Process, Organizational Structure, Organizational Design, Delegation, Authority and Responsibility, Centralization and Decentralization, Coordination, Staffing, Human Resource Management, Selection Process. **Assignment + Quiz 2 + Case Study + Video Learning** **Assignment:-** AI as a Management Consultant: Evaluating Managerial Decision-Making Timeline: 7 days	Stephen Robbins (Mgt) – Chapter 7, 8, 9, 10, 11, 12 Koontz – Chapter 4, 5, 6, 8, 9, 11	12

Case Studies:- 1. Short Case studies on Planning, Decision-Making, HRM, MBO 2. Corporate Examples of Successful & Failed Planning 3. Case Study – Tata Nano **Video Learning:-** Henry Minztberg on Decision Making https://mintzberg.org/videos/hm-decision-making		
<u>UNIT III</u> Organizational Behaviour: Foundations of Organizational Behaviour, Individual Behaviour, Personality, Learning, Values, Attitudes, Emotional Intelligence, Perception, Attribution Theory, Motivation Theories (Maslow, Herzberg, McGregor, McClelland, Alderfer, Vroom, Adams, Goal Setting Theory), Group Behaviour, Team Building, Communication and Barriers. **Presentation + Quiz 3 + Case Study + Action Learning** **Presentation:-** Class presentation on any one contemporary OB topic as discussed in class. **Case Studies:-** 1. Short Case Studies on Motivation, Perception, Learning, Personality **Action Learning:-** 1. 16 Personality Test 2. Activity – The Motivation Auction 3. Role Play Activity	Stephen Robbins Chapter (OB) – Chapter 1, 3, 4, 5, 6, 7, 8, 9, 10, 12	12
<u>UNIT IV</u> Leadership and Organizational Development: Leadership Theories, Conflict Management, Power and Politics, Organizational Culture, Organizational Change, Resistance to Change, Change Management Process, Controlling, Types of Control, Control Techniques, Contemporary Management Practices and Case Studies. **Quiz 4 + Case Study + Video Learning + Action Learning**	Stephen Robbins Chapter (OB) – 13, 14, 16, 17 Stephen Robbins (Mgt) – Chapter 18 Koontz – Chapter 18, 19	10

Case Studies:- 1. Leadership Case Study on Sunita Williams 2. Short Case studies on Situational Leadership, Organizational Justice, Groups & Teams **Video Learning:-** 1. Group Dynamics https://youtu.be/HZX5Ir1w0cQ?si=IgYOwkyG5OlgzT5Y 2. Power of Teamwork https://youtu.be/8PAnd4fVpxs?si=GLcFxksuh9xXtJcL 3. What Makes a High Performing Team https://youtu.be/S2SWffHSa1o?si=qnIeMFlIdxIW3zTk **Action Learning:-** Team Building Activity		
TOTAL NO. OF SESSIONS		42

Text Book:-

1. Stephen P. Robbins, Mary Coulter and Lori Long, Management, 16th Edition, Pearson, 2025.
2. Stephen P. Robbins and Timothy A. Judge, Organizational Behaviour, 19th Edition, Pearson, 2024.
3. Harold Koontz, Heinz Weihrich and Mark V. Cannice, Essentials of Management: An International, Innovation and Leadership Perspective, 11th Edition, McGraw-Hill, 2023.

Suggested Readings (Latest Edition) :-

RB1. Richard L. Daft, Management, 15th Edition, Cengage Learning, 2024.
RB2. Fred Luthans, Organizational Behavior: An Evidence-Based Approach, 14th Edition, Information Age Publishing, 2022.
RB3. Ricky W. Griffin, Management, 14th Edition, Cengage Learning, 2021.
RB4. John R. Schermerhorn Jr., Introduction to Management, 15th Edition, Wiley, 2023.
RB5. Peter G. Northouse, Leadership: Theory and Practice, 9th Edition, Sage Publications, 2021

Topics beyond Syllabus:-

1. Management in the VUCA & BANI World
2. AI in Management & Decision-Making
3. Design Thinking for Managers

MANAGEMENT EDUCATION & RESEARCH INSTITUTE BACHELOR OF COMMERCE(HONS.) SEMESTER I (Batch: 2025-2028)

B.COM 105 - Quantitative Techniques for Commerce

L-3, Credits–3

COURSE OUTLINE

Course Instructor: Dr. Richa Gupta

LEARNING OBJECTIVES:

In this course, the learners will be able:-

1. To enhance students' knowledge and comprehension of Mathematics by introducing fundamental concepts and demonstrating their applications in business.

2. To build Confidence & develop problem solving skills of students.

PRE-REQUISITES:

Students should have a basic knowledge and understanding of concepts of Mathematics up to 10th standard.

COURSE OUTCOMES:

CO 1. Explain how matrices are used as mathematical tools in representing a system of equations CO 2. Apply differential calculus to solve simple business problems

CO 3. Solve business problems involving complex linear and non-linear relationships CO 4. Apply mathematical formulation and solution of problems related to finance including different methods of interest calculation, futureand present value of money

CO 5. Develop software programs for business problems involving constrained optimization. **PEDAGOGY:**

The course objective will be achieved through Problem solving sessions, theoretical discussions, daily practice questions, projects, surprise tests and midterm test.

Evaluation:

The students will be continuously assessed during the course on the following basis: (a) Mid-term Test 15 Marks (b) Assignment 10 Marks (c) Attendance/ Discipline/Class Performance 10 Marks
(d) Club Contribution 5 Marks (e) External University Exam 60 Marks Total 100 Marks

COURSE CONTENTS:

The program will unfold as per the following Session-wise Teaching-Learning Plan:

Detailed Course Outline	**No. of Sessions**	**References**
Unit I		
Principle of Counting, Matrices and Determinants Permutation and Combination, Arithmetic and Geometric progression, Definition and types of matrix, Algebra of matrices, Inverse of a matrix-Business Applications. Solution of system of linear equations (having unique solution and involving not more than three variables) using Matrix Inversion Method and Cramer's Rule. Leontief Input Output Model (Open Model Only). Homogenous system of linear equations, consistency andapplication to business problems **Assignment** Assignment containing numerical and application-based problems on above topics **Practice Questions**	14	Singh, S. K. & Singh J. K., *Business Mathematics.*
Unit II		
Basic Calculus Mathematical functions and their types (linear, quadratic, polynomial, exponential, logarithmic and logistic function). Concepts of limit and continuity of a function. Partial Differentiation: Partial derivatives up to second order. Homogeneity of functions and Euler's theorem. Total differentials. Differentiation of implicit functions with the help of total differentials. Maxima and Minima involving two variables – Applied optimization problems and Constraint optimization problems using Lagrangian multiplier involving two variables having not more than one constraint. Concept of Marginal Analysis. Concept of Elasticity, Applied Maxima and Minima problems including effect of Tax on Monopolist's Optimum price and quantity. **Assignment** Numerical and Application based Problems on above topics **Practice Questions**	14	Singh, S. K. & Singh J. K., *Business Mathematics.*
Unit III		

Integration: Standard forms & methods of integration- by substitution, by parts and by the use of partial fractions. Definite integration. Applicationof Integration to marginal analysis; Consumer's and Producer's Surplus. Rate of sales, The Learning Curve **Assignment** Numerical and Application based Problems on above topics **Practice Questions**	14	Singh, S. K. & Singh J. K., *Business Mathematics.*
Unit IV		
Formulation of Linear programming problems (LPPs), Graphical solutions of LPPs. Cases of unique solutions, multiple optional solutions, unbounded solutions, infeasibility, and redundant constraints. Solution of LPPs by simplex method - maximization and minimization cases. Shadow prices of the resources, Identification of unique and multiple optimal solutions, unbounded solution, infeasibility and degeneracy. The dual problem: Formulation, relationship between Primal and Dual LPP, Primal and Dual solutions (excluding mixed constraints LPPs). Economic interpretation of the dual. **Assignment** Numerical & Application based Problems on above topics **Practice Questions**	14	Singh, S. K. & Singh J. K., *Business Mathematics.*

Prescribed Text:

1. Singh, S. K. & Singh J. K., *Business Mathematics.* Brijwasi Book Distributors 2. Sharma, S. K., & Kaur, G. *Business Mathematics*. DELHI: S. Chand Publishing. 3. Kapoor, V. K., & Sancheti, D. C. *Business Mathematics, Theory & Applications*. DELHI: S. Chand Publishing.

Reference Books:

1. N. D. Vohra, Business Mathematics and Statistics, McGraw Hill Education (India) Pvt Ltd 2. C. Chiang and Kevin Wainwright, Fundamental Methods of Mathematical Economics, McGrawHill
3. Simon and Blume Mathematics for Economists, Viva Books
4. Antthony, M., & Biggs, N. *Mathematicsfor Economics and Finance.* Cambridge: Cambridge University Press.

**********HAPPY LEARNING**********

MANAGEMENT EDUCATION & RESEARCH INSTITUTE

BCOM 203- BUSINESS LAW
COURSE OUTLINE
SEMESTER III

Course Instructor: *Dr.Shikha Gupta*

COURSE OBJECTIVE

The objective of this course is to impart basic knowledge of the important business laws along with relevant case law.

Course Outcomes: After completion of the course, the students will be able to:

CO1 - Develop an understanding of different laws applying to business transactions
CO2 - Analyse and interpret the implications of transactions involving contractual obligations
CO3 - Comprehend the key legal aspects pertaining to setting up of a new company including rights and responsibilities of shareholders
CO4 - Interact effectively using standard legal terminology
CO5 - Utilize critical thinking skills to demonstrate rational and precise argument to various case laws.
CO6 - Interpret the various legal provisions to develop their own cases and examples to contribute to the field of knowledge

METHODOLOGY :

The pedagogy will be Lectures, Assignments, Case studies, Discussions and Tests.

EVALUATION

Besides the Semester end- examination, continuous assessment will be done on the following basis:

End Term Exams	: 60 marks
(b) Assignments	: 10 marks
(C) Mid Term Test	: 15 marks
(D) Club Contribution	: 5 marks
Total	: 100 marks

Contd….2…..

DETAILED COURSE OUTLINE	REFERENCE	SESSIONS
<u>UNIT I : The Indian Contract Act 1872: General Principal of Law of Contract</u> Contract: Meaning, Characteristics & Kinds Essentials of a Valid Contract Offer and Acceptance Consideration Contractual Capacity Free Consent Void Agreements Contingent Contracts/Quasi Contracts Performance of Contracts Discharge of Contracts Remedies of a Breach of a contract Legality of Objects Contract of Indemnity Contract of Guarantee Contract of Bailment and Pledge ***<u>Written Assignment: Caselets + Quiz1</u>***	MC Kuchhal Ch. 1-13	14
<u>UNIT II: The Sale of Goods Act, 1930</u> Contract of Sale, Meaning and differences between sale and agreement to sell Condition and Warranties Transfer of ownership in goods including sale by non-owners Performance of Contract of Sale Unpaid Seller- Meaning and Rights of an unpaid seller ***<u>Written Assignment: Caselets + Quiz 2</u>***	Ch 16-20	14

UNIT III: The Companies Act. 2013 Essential Characteristics of a Company Types of Companies MOA & AOA Shares and Debentures Allotment and Transfer of Share Essential Conditions for a valid meeting Kinds of Meeting and Resolutions Directors and Remuneration Directors, Managing Directors – Their Appointment, Qualification, Powers and Limits on their Remuneration Prevention of Oppression and Mismanagement Single Person Company Points of Differences b/w Old and New Contract ***Assignment- Caselets – 2***		14
UNIT IV: The Negotiable Instruments Act. 1881 Meaning and Characteristics of Negotiable Instruments Types of NI – Promissory Note, Bill of Exchange and Cheque Crossing of Cheques Bouncing of Cheques Holder and Holder in due Course Privileges of Holder in Due Course Negotiation: Types of Endorsements ***Assignment: Caselets+Quiz 3***		14
TOTAL NO. OF SESSIONS	Ch 25-30	52

Text Book:-

Kucchal, M.C. and Vivek Kucchal, (4th Edition) Business Law, Vikas Publishing House, New Delhi

N.D.Kapoor, Business Law. Sultan Chand, New Delhi

Suggested Readings:-

Maheshwari and Maheshwari, Principles of Business Law (1st Ed., 2014) Himalaya Pub. House-New Delhi

Ravinder Kumar, Legal Aspects of Business (1st Edition 2013), Cengage Learning.

Pathak A. , Legal Aspect of Business, McGraw Hill Education.

Singh, Avtar, Business Law, (10th Ed., 2014), Eastern Book Company, Lucknow.

MANAGEMENT EDUCATION & RESEARCH INSTITUTE
Bachelor Of Commerce (Honours)
SEMESTER III Batch 2024-27
BCOM211-Design Thinking & Innovation
Credits – 2
COURSE OUTLINE

Course Instructor:Prof(Dr) Deepshikha Kalra

COURSE OBJECTIVE

Student should be able

CO1- Understand Fundamentals of Design Thinking

CO2- Apply design thinking to real business problems

CO3- Ideate and collaborate effectively in teams

CO4- Create customer-centric and sustainable designs

CO5- Use design thinking for entrepreneurial ideas

PEDAGOGY

The course objective will be achieved through theoretical discussions, case analysis, project, presentations and mid term tests.

EVALUATION

Besides the semester end- examination, the students will be continuously assesses during the course on the following basis:

Quiz/Assignment/ Project	:	10 marks
Mid term Test	:	15 marks

Discipline/Attendance : 05 marks
Club contribution/Seminar : 10 marks
External University Exams : 60 marks
Total : 100 marks

Contd….2…..

TEACHING PLAN :

Unit	Topics Covered	Sessions	Case Studies	Articles / Readings
I	**Introduction to Design Thinking in Commerce**- Fundamentals & relevance in business- Traditional vs. Innovative processes- Empathy and market trends- Observation for improvement	1–5	- Apple: User-Centric Innovation- Zappos: Customer Service by Design	- *Why Design Thinking Works* – HBR- *What is Design Thinking?* – IDEO
II	**Conceptualization & Prototyping for Business**- Visual thinking and sketching- Brainstorming & ideation- Prototype development- Iterative design and feedback	6–10	- Paytm UX journey- Google Material Design	- *Design Thinking Comes of Age* – HBR- IDEO: *Power of Prototyping*
III	**Sustainable & Customer-Centric Product Design**- Sustainability principles- Ergonomics and semantics- Aligning specs with needs- Practical redesign project	11–15	- Tata Starbucks: Zero-Waste Packaging- Mumbai Dabbawalas	- *Business of Sustainability* – McKinsey- *Sustainable Products* – MIT Sloan

IV	**Entrepreneurship & Innovation in Commerce**- Design Thinking in entrepreneurship- IP and business models- Advanced prototyping- Final pitch presentation	16–20	- Byju's EdTech innovation- redBus disruption model- Reliance Jio & Innovation	- *Stanford d.school Resources- Value Proposition Canvas* – Strategyzer

Suggested Readings: (Latest Editions)

1. Tim Brown, Change by Design: How Design Thinking Transforms Organizations and Inspires Innovation, HarperCollins Publishers Ltd.
2. Idris Mootee, Design Thinking for Strategic Innovation, John Wiley & Sons Inc
3. Ulrich &Eppinger, Product Design and Development, McGraw Hill
4. Pressman A. Design thinking: A guide to creative problem solving for everyone. Routledge

Additional Articles & Case Sources

- Harvard Business Review: Design Thinking Series
- IDEO Design Kit
- Stanford d.school (https://dschool.stanford.edu)
- Case repositories: Byju's, redBus, Reliance Jio, Zappos, Paytm, Apple, Dabbawalas

MANAGEMENT EDUCATION & RESEARCH INSTITUTE
MASTERS IN BUSINESS ADMINISTRATION
SEMESTER II
MANAGERIAL ECONOMICS
Credits – 4
COURSE OUTLINE

Course Instructor:Prof(Dr) Deepshikha Kalra

COURSE OBJECTIVE

Student should be able

CO1: To define and comprehend the basic concepts of Economics. They should be able to distinguish between Economics & Managerial Economics

CO2: To analyze & estimate the demand and supply functions

CO3: To critically evaluate the business problems related to cost and production Functions

CO4: To apply the various concepts in evaluating pricing and output decisions under various market competition

CO5: To comprehend the recent developments in business & economic environment

PEDAGOGY

The course objective will be achieved through theoretical discussions, case analysis, project, presentations and mid term tests.

EVALUATION

Besides the semester end- examination, the students will be continuously assesses during the course on the following basis:

Quiz/Assignment/ Project : 10 marks
Mid term Test : 15 marks
Discipline/Attendance : 5 marks
Club contribution/Seminar : 10 marks
External University Exams : 60 marks
Total : 100 marks

TEACHING PLAN :

Detailed Course Outline	Sessions	Time line
UNIT I **Introduction**: Principles of Economics,Nature, Scope and Significance of Managerial Economics, its Relationship with other Disciplines. **Ref: Chapter 1 Managerial Economics Mark Hirschey & Chapter 1 Gregory Mankiw**	2	
Management Game- to teach the principles of economics 1. Students will be Divided In a group of 5 each 2. Each Group will be given 5 rupees 3. They will be asked to buy different items which includes Paper, sketch pen, glue stick out that 5 rupees only 4. Each Group will be reuired to make something out of it using their creativity. They can make out of that paper. They can make even more than one item keeping in mind that it is useful and could be sold 5. Group can trade or exchange items (Barter System) among themselves 6. Finally each group is supposed to market their product in terms of its utility 7. The group which gets the highest quote for its product is winner	2	**First class of economics**
Role of Managerial Economics in Decision Making; Opportunity cost Principle, Production Possibility Curve, Incremental Concept,	6	

ET Quiz 1 **Case study** on Oppportunity Cost		
Cardinal and Ordinal Approaches to Consumer Behaviour: Equi-Marginal Principle, Law of Diminishing Marginal Utility, Indifference Curve Analysis **Ref: Chapter 21 Principles of Economics** N Gregory Mankiw **Ref: Kim, J. Y., Natter, M., & Spann, M. (2009). Pay what you want: A new participative pricing mechanism. *Harvard Business Review, 87*(6), 62–66.** **ET Quiz 2** **Video case** Latest in consumer choice and preferences cases of Behavioural Economics (Pay What You Wish to Pay, Lifebuoy Kumbh Mela, The Economist Subscription)	6	2nd week
UNIT II **Demand Analysis and Theory of Production**: Demand Function, Determinants of Demand Supply Function, Market Equilibrium **Ref: Chapter 3 & Chapter 6 Managerial Economics Mark Hirschey** https://andrewchen.com/wp content/uploads/2016/01/effects_of_ubers_surge_pricing.pdf	3	Given on 1st week to be submitted by 2nd week

ET Quiz 3 **Case Study** UBER surge pricing **Case Study** India Shedding Tears on Onion Prices		
Demand Estimation and Forecasting Applications of Demand Analysis in managerial Decision Making **Ref: Chapter 3 & Chapter 6 Managerial Economics Mark Hirschey** **ET Quiz 4** **Report Discussion** Top 10 global Consumer Trends by Euro Monitor **Video Case Study BSGI 1.0**	4	2nd week
Theory of Production: Production Function, Short Run analysis,Long Run Production Analysis, Isoquants, Optimal Combination of Inputs, Applications in Managerial Decision Making. **Ref: Chapter 7 Managerial Economics Mark Hirschey** **ET Quiz 5** **Case Study** Indian Airlines and Air India Merger	7	3rd week

Unit III **Theory of Cost and Market Structures**: Traditional and Modern Theory of Cost in Short and Long Run, Economies of Scale and Economies of Scope; Revenue curves **Ref: Chapter 8 Managerial Economics Mark Hirschey** **Case Study :**Alpen Bank- Launching the Credit Card In Romania	4	Given in first lecture of Cost .To be discussed in 4th lecture of cost
Market Structures: Price-Output decisions under Perfect Competition, Price-Output decisions Monopoly, Monopolistic Competition Oligopoly; Strategic Behavior of Firms **Ref: Chapter14 Principles of Microeconomics N. Gregorey Mankiw** **Ref: Chapter 10 & 12 Managerial Economics Mark Hirschey** **Ref: Chapter 13 Managerial Economics Mark Hirschey** **ET Quiz 6** **Project** Latest Economic trends in World to be submitted in group of 5	6	Given on 2nd week
Game Theory:- Nash Equilibrium, Prisoner's Dilemma – Price and Non-price Competition. **Ref: Chapter 14 Managerial Economics Mark Hirschey** **Case Study** Sony Play Station and Microsoft XBox to explain the Nash Equilibrium	6	
UNIT IV **Introduction to Macro Economics**: Nature and Importance; Economic Growth and Development, Determinants of Economic Development Methods of Measurement of National Income **Ref: Chapter20 Business Economics**	6	Last week

N Gregorey Mankiw, Mark P Taylor & Andrew Ashwin **Inflation**: Meaning, Theories, and Control Measures; Recent Developments in Indian Economy **Ref: Chapter22 Business Economics** **N Gregorey Mankiw, Mark P Taylor & Andrew Ashwin** Behavioural Economics- PWYW, **case of Spotify and NET flix, Identifying Nudges** Video e Learning GPETES 1.0 Project Presentations Group wise (Two groups in a day)		
TOTAL NO. OF SESSIONS	52	

Text Book:

1. Hirschey, Mark (2009). Fundamentals of Managerial Economics, 9th edition, Cengage Learning

Reference books :

1. Managerial Economics by D N Dwivedi (Vikas Publications)
2. Managerial Economics by Suma Damodaran (Oxford Press)
3. Principles of Micro Economics by Mankiw (Cengage publications)
4. Managerial Economics by Peterson Lewis (Pearson Publication)
5. Principles of Macro economics by G. Mankiw (Cengage publication)

Suggested Readings

- The Economist
- Business World
- Business India
- WEF reports

SEMESTER III, 2025-27

MS-211: Business Analytics

L-2, Credit-2
COURSE OUTLINE

Course Instructor: Prof(Dr.) Deepshikha Kalra

LEARNING OBJECTIVES:

The objective of this course is to introduce students to the capabilities and applications of business analytics for problem solving

PRE-REQUISITES:

1. Basic knowledge about the concepts of Data, Research and Statistics
2. An understanding of Data Biases

COURSE OUTCOMES:

CO1: Develop an understanding of business analytics and its models for problem solving

CO2: Learn data visualization and validation techniques for effective data presentation and management

CO3: Understand how to treat data for errors so as to analyse management problems correctly and create effective solutions

CO4: Be able to apply predictive analysis tools to solve organizational problems using a systematic and analytical decision-making approach

Pedagogy

Lectures assisted by Case Studies, Presentations & Discussions. Each session shall involve discussion among students with practical examples, management games and supplements from the faculty-student coordination.

EVALUATION

a.	Case Study Participation/Project Presentation/Club activity	:	15marks
b.	Mid Term Test	:	15 marks
c.	Internal Assessment	:	10 marks
d.	End term Exams	:	60 marks
	Total	:	100 marks

TEACHING PLAN

Detailed Course Outline	Sessions
UNIT 1 Concept and Scope, Importance of data in Business, Decision Models-Concept and Types, Analyst's role in the Business Analytics Model	**3+2**
UNIT II **Exploring Data and Data Visualization:** Exploring data using Pivot Tables, Pivot Charts, Look-up functions, Data Validation and what-if analysis functions in spreadsheets for data visualization. Introduction to Google Dashboards and Power BI.	**3+3+1**
UNIT III **Data Preparation:** Treatment of Missing Values, Identification and management of Outliers & erroneous data. **Data Warehousing**: Need for a data warehouse. ETL processes, Data Quality: Cause and Effect of Poor Data Quality, Alternative Ways of Storing Data, Master data management	**3+3+1**
UNIT IV **Predictive Modelling and Analysis:** Logic driven modelling, strategies for building predictive models, data-driven modelling, Supervised learning, regression-simple, multiple and logistic regression. **Data Reduction Techniques:** Principal Component Analysis, Clustering Analysis: k-Nearest Neighbors.	3+3+1
Complete Overview of Syllabus	2
Total	28

Text Books:

Evans, J.R. Business Analytics. Pearson

Reference Book:

1. RN Prasad and Seema Acharya. Fundamentals of Business Analytics, Wiley, India.

2. Purba Halady Rao. Business Analytics: An Application Focus, PHI.

3. David Roi Hardoon and Galit Shmueli. Getting Started with Business Analytics: Insightful Decision-Making, CRC Press, Taylor & Francis Group.
4. Gert H.N. Laursen and Jesper Thorlund. Business Analytics for Managers: Taking Business Intelligence Beyond Reporting, Wiley.

**********HAPPY LEARNING**********

MANAGEMENT EDUCATION & RESEARCH INSTITUTE
MASTER OF BUSINESS ADMINISTRATION
SEMESTER III, 2025-27

MS-211: Business Analytics

L-2, Credit-2
COURSE OUTLINE

Course Instructor: Prof(Dr.) Deepshikha Kalra

LEARNING OBJECTIVES:

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CO4: Be able to apply predictive analysis tools to solve organizational problems using a systematic and analytical decision-making approach

Pedagogy

Lectures assisted by Case Studies, Presentations & Discussions. Each session shall involve discussion among students with practical examples, management games and supplements from the faculty-student coordination.

EVALUATION

a.	Case Study Participation/Project Presentation/Club activity	:	15marks
b.	Mid Term Test	:	15 marks
c.	Internal Assessment	:	10 marks
d.	End term Exams	:	60 marks
	Total	:	100 marks

TEACHING PLAN

Detailed Course Outline	Sessions
UNIT 1 Concept and Scope, Importance of data in Business, Decision Models-Concept and Types, Analyst's role in the Business Analytics Model	**3+2**
UNIT II **Exploring Data and Data Visualization:** Exploring data using Pivot Tables, Pivot Charts, Look-up functions, Data Validation and what-if analysis functions in spreadsheets for data visualization. Introduction to Google Dashboards and Power BI.	**3+3+1**
UNIT III **Data Preparation:** Treatment of Missing Values, Identification and management of Outliers & erroneous data. **Data Warehousing**: Need for a data warehouse. ETL processes, Data Quality: Cause and Effect of Poor Data Quality, Alternative Ways of Storing Data, Master data management	**3+3+1**
UNIT IV **Predictive Modelling and Analysis:** Logic driven modelling, strategies for building predictive models, data-driven modelling, Supervised learning, regression-simple, multiple and logistic regression. **Data Reduction Techniques:** Principal Component Analysis, Clustering Analysis: k-Nearest Neighbors.	3+3+1
Complete Overview of Syllabus	2
Total	28

Text Books:

Evans, J.R. Business Analytics. Pearson

Reference Book:

1. RN Prasad and Seema Acharya. Fundamentals of Business Analytics, Wiley, India.
2. Purba Halady Rao. Business Analytics: An Application Focus, PHI.
3. David Roi Hardoon and Galit Shmueli. Getting Started with Business Analytics: Insightful Decision-Making, CRC Press, Taylor & Francis Group.
4. Gert H.N. Laursen and Jesper Thorlund. Business Analytics for Managers: Taking Business Intelligence Beyond Reporting, Wiley.

**********HAPPY LEARNING**********

MANAGEMENT EDUCATION & RESEARCH INSTITUTE
MASTERS OF BUSINESS ADMINISTRATION
Semester III (Batch: 2025-27)
MS 223- FINANCIAL MARKETS AND INSTITUTIONS
L-3, Credits-3
COURSE OUTLINE
Course Instructor: Dr. Sarita Yadav

LEARNING OBJECTIVES:-

In this course, the learners will be able to develop expertise related to the following:-

1. To provide the student a basic knowledge of financial markets and institutions and to familiarize them with major financial services in India.

PRE-REQUISITES:-

1. Basic knowledge of banking system
2. Emerging trends in financial system

COURSE OUTCOMES:-

After completion of the course, students will be able to:

CO1: The students will understand interrelationship of economic, commerce, financial markets and strategies for corporate decision making.

CO2: This course will help students develop understanding of foundations of financial markets and institutions.

CO3: They will learn tools and techniques for analysing market behaviour, impact of regulatory policies on changing decision making of companies and will be able to make strategies for investment.

CO4: The course is especially useful for those learners who want to get employed in financial sector or start entrepreneurial ventures as financial service provider as investment consultants, advisors and investment banking.

PEDAGOGY: -

The pedagogy will be Lectures, Case Studies, Presentations and current practices adopted in financial markets. Hands on experience of virtual trading will be provided through moneybhai.com.

EVALUATION:

Besides the Semester end- examination, the students will be continuously assessed during the course on the following basis:

(a)	End Term Exams	: 60 marks
(b)	Written Assignments/ Case Analysis/ Presentation	: 10 marks
(c)	Attendance/Discipline	: 10 marks
(d)	Mid Term Test	: 15 marks
(e)	Club Contribution	: 5 marks
	Total:	**: 100 marks**

COURSE CONTENT:-

The program will unfold as per the following **Session-wise Teaching-Learning Plan:**

Detailed Course Outline	Sessions	References
UNIT-I:		
1. Financial markets and economic development 2. Money market, instruments, types, regulations, 3. Role of central bank in money market 4. Capital markets, types, products, reforms 5. Book building process and corporate debt market, 6. SEBI and recent reforms. **E-Learning Video on Current Scenario and Future of Central Bank Digital Currencies:** https://www.youtube.com/watch?v=g6onQ_pjzUk **Assignment: Indian Financial System and financial sector reforms + Small Quiz**	2+4+1+2+2+1	Bharti Pathak Chapter 4
UNIT-II:		
1. Banking sector in India, role of RBI, commercial banks, committees, 2. Functions of a bank, products, assets and liabilities of banks; 3. Non-performing assets, growth and performance of Indian banking sector; 4. Shadow banking, Fintech, digital currency, 5. CBDC, E-banking, payment banks, financial inclusion, role and scope of payment banks, risks in banking- operational risk, credit risk, 6. Liquidity risk, financial stability, 7. Monetary policy, recent trends in banking sector. **Discussion on current Monetary Policy of India and policy rate changes made by RBI on time to time with its impact on economy** **Assignment on current status of NPA's of different banks and reasons for occurring.**	2+2+2+1+2+2+2	Bharti Pathak Chapter 1, 2, 3 & 4
UNIT-III:		
1. Non-banking financial companies (NBFCs); 2. Development Financial Institutions (DFIs);		Bharti Pathak

3. Mutual Funds, instruments, growth and performance of mutual funds; 4. Life and non-life insurance companies in India, IRDA and recent reforms; 5. Ministry of Corporate Affairs; **6.** Pension Fund Regulatory and Development Authority; Housing finance. **Practical exposure:A virtual trading on moneybhai.com + Quiz + Discussion of Small Hypothetical Case Study**	2+1+1+2+1+2	Chapter 12, 13, 14 & 17 and notes
UNIT-IV		
1. Merchant banking, Venture capital and private equity 2. Factoring; Credit rating agencies; Underwriting; 3. Portfolio management; Project financing; 4. Stock brokerage services; Leasing and Hire-purchase; 5. Recent developments. **Presentation by students:** Financial Intermediaries, Commercial Banks, payment banks, Small Finance Banks, Investment Banking and Microfinance, Financial Inclusion, Mutual Funds, IRDA and SEBI	3+3+2+2+2	Bharti Pathak Chapter 18, 19 Mishkin, F. S., & Eakins
Total Number of Sessions	**46**	

PRESCRIBED TEXT:-

1. Bharti, P. Indian Financial System, Pearson Publication.

REFERENCE BOOKS:-

1. Gordon E. and Natarajan K. (2019). Financial Markets and Services. New Delhi: Himalaya Publishing House

2. Kumar, V. Gupta, K. & Kaur, M. (2017). Financial Markets, Institutions and Financial Services. New Delhi: Taxmann's Publication.

3. Khan M. Y. (2010). Indian Financial System- Theory and Practice. New Delhi: Vikas Publishing House.

SUGGESTED REFERENCES:-

- RBI Bulletin
- Indian Institute of Banking and Finance: https://www.youtube.com/watch?v=B-ULvtkdsrw

LINK FOR QUUIZ:- https://forms.gle/PDXbmz9um7c2crRf9

**********Happy Learning**********

Annexure 1

Assignment 1

Q.1 Assess the long-term sustainability of the RBI's monetary policy tools in the face of evolving economic and financial dynamics. What adjustments or innovations might be necessary to adapt to changing economic conditions and achieve the central bank's objectives effectively?

Q.2 Assess the challenges and opportunities of using multiple monetary policy tools simultaneously to achieve the RBI's objectives. How does the coordination of quantitative tools like repo rates, CRR, SLR, and OMOs impact the overall effectiveness of monetary policy in India, particularly during economic crises?

Assignment 2

Q.1 Effectiveness of investor's protection through the functioning of SEBI and NSDL & CDSL
Q.2 Explain current status of NPA's of different banks and reasons for occurring.

Annexure 2

Case Studies

Case 1

Financial market is not a usual market where you buy commodities but a special place where one can have all the necessary information about the different securities traded in the market. The buyers on the one hand get to know about the securities and they get a place where securities are sold helping reduce the wastage of time, effort and money. The financial experts say otherwise the job of the people involved in the securities transactions would have been really difficult. Securities get a buyer on the one hand and the seller on the other hand on a common platform—this helps in easy conversion of securities into cash. In the economies where there is no stock exchange the funds remain blocked. The money trapped in the houses should come out and flow in the economy and when they are invested in the shares of a company they have the capability to attain the maximum value. People would always like to sell securities on their own conditions. No government intervention can predict the price of securities. The stock market is a place which runs on the forces of demand and supply thus giving a security its price depending upon its demand. One wonders how the economy of a company can grow without the existence of financial market.
Q. Identify explain the functions of financial market discussed in the above case**.**

Case 2

A bank named 'Dhan Sangraha Karta' allows Kapoor family to deposit their money time and again in it. It gives a definite return to this family which is in the form of interest. To get this interest the money stored in the household of Kapoor family gets entry into this bank. Nearby

there is a stock exchange, Mr. Raj an Kapoor, who is the head of the family, goes there and buys securities. He says that in this way more return in earned by him on his saved money though the risk is also there.

1. Identify the process in above case performed by the bank and the stock exchange.
2. What are the roles of the bank and the stock exchange with respect to each other?
3. Name a condition for the bank to perform its role in this process.
4. Name a condition for the stock market to perform its role in this process.

Case 3

These days, the development of a country is also judged by its system of transferring finance from the sector where it is in surplus to the sector where it is needed the most. To give strength to the economy, SEBI is undertaking measures to develop the capital market. In addition to this, there is another market in which unsecured and short term debt instruments are actively traded every day. These markets together help the savers and investors in directing the available funds into their most productive investment opportunity.

1. Name the function being performed by the market in the above case.
2. Name the market segment other than the capital market segment in which unsecured and short-term debt instruments are traded. Also, give any three points of difference between the two.

Case 4

Ramesh buys a financial asset from the RBI. This financial asset is an instrument of short term borrowing. He has bought it because he doesn't want to take risk and wants an assured return. This instrument is a promissory note. It is highly liquid. This instrument is also known as Zero Coupon Bond. On this instrument is written T-91.

1. Which financial asset is indicated in the above case?
2. On whose behalf does the RBI issue this instrument?
3. Why is this instrument called as the Zero Coupon Bond?
4. What does T-91 denote here?
5. What is the minimum amount for which this instrument is available?

Case 5

A company uses a financial instrument for bridge financing. The instrument here is short term, low risk, unsecured and highly liquid. It needed to buy machinery for which it issued equity. This turned out to be expensive as this issue involved floatation costs. The company is a large and creditworthy and this method has come up as a great help to it.

1. Which financial instrument is indicated in the above case?
2. Which type of instrument is this?
3. Name the types of floatation costs which are generally involved?
4. How has this method helped the company?
5. Name two money market instruments which are issued at discount and redeemed at Par.

MANAGEMENT EDUCATION & RESEARCH INSTITUTE
MASTER OF BUSINESS ADMINISTRATION

SEMESTER III
BATCH: 2025-2027

MANAGING INDUSTRIAL RELATIONS

Course Code: MS 231 Credits:3

COURSE OUTLINE

Course Instructor: Dr. Sheela Narang Wadhwa

COURSE OBJECTIVE

CO1: Examine the role of various stakeholders of industry in maintaining peace at macro and micro level in the local as well as global industry.

CO2: Understand the concepts and principles of managing industrial relations at the organization level through worker participation, grievance management, discipline management and collective bargaining.

CO3: Understand the legal processes and procedures of handling employee relations and industrial relations for better personal, professional and social life of employees.

CO 4: Application of knowledge gained about national and international industrial relations in current scenario in problem solving, strategy formation and innovative solutions to problems at organization and industry level.

PAEDAGOGY

- The course objective will be achieved through classroom discussions, video learning, assignments, case studies and midterm test.

- The course will include real-time examples to help students learn and understand industrial relations.

EVALUATION

The students will be continuously assesses during the course on the following basis:

(a)	Mid-term Examination	:	15 Marks
(b)	Written Assignment / Presentation / Class room behaviour / Case Analysis / Quiz	:	10 Marks
(c)	Discipline / Attendance	:	10 Marks
(d)	Club Contribution	:	5 Marks
(e)	External University Exam	:	60 Marks
	Total	**:**	**100 Marks**

TEACHING PLAN:-

DETAILED COURSE OUTLINE	REFERENCE	SESSIONS
UNIT I **Introduction to Industrial Relations:** Concept Nature, Scope, Approaches and Evolution of Industrial Relations in India, Role of Government, Unions and Management Associations in Industrial Relations, International Labour Organization: Objectives and Major Role. **Written Assignment + Quiz1+ Case Study + Video Learning** **Written Assignment + Quiz 1+ Case Study + Video Learning** **Assignment:-** Case Study: Labour Unrest at Maruti Suzuki Timeline: 7 days **Case Study:-** 1. Caselet: Tata Steel and the Evolution of Trade Unions in India 2. Supreme Court judgement in the case of Tamil Nadu Govt Staff Strike **Video Learning:-** Labour Unrest at Wistron Corporation India https://youtu.be/RVIVCONrMS8?si=l1CUnto86v1E9KX4	TN Chhabra Chapters 2, 3, 5, 7, 8	10

UNIT II **Interactions & Outcomes in Industrial Relations:** Employee Involvement and Participation: Concept, Objectives and Forms, Discipline and Grievance Management: Forms and Handling of Misconduct, Collective Bargaining: Importance, process of negotiations and recent trends in Collective Bargaining. **Presentation + Quiz 2 + Case Study + Role Play** **Presentation:-** Presentation on contemporary topics of the subject as discussed in class. **Case Study:-** 1. Honda Motorcycle & Scooter India, Gurgaon Strike, 2005 2. Boeing Workers' Strikes: Collective Bargaining in Manufacturing **Role Play Activity:-** Collective Bargaining Simulation	TN Chhabra Chapters 11, 14, 17, 18	8
UNIT III **Legal Framework of Industrial Relations:** Labor Codes: The Code on Wages, Industrial Relations Code, Social Security Code and the Occupational Safety, Health and Working Conditions Code, Prevention of Sexual Harassment at Workplace: Meaning and definition, Provisions, International Norms, National Norms, Labor Laws in IT Industry (Karnataka Shop and Establishment Act). **Assignment + Quiz 3 + Case Study + Video Learning** **Assignment:-** Labour Code Compliance Audit of an Organization. Timeline: 10 days **Case Study:-** 1. Hypothetical Case on HR Compliances 2. Critical Analysis of Labour Codes 3. Corporate Incidents of POSH https://www.linkedin.com/posts/anurag-rana-	Taxmann's New Labour & Industrial Laws + Recent Amendments	18

246a98297_some-uncommon-examples-of-posh-at-workplace-share-7273001029036568576-cqti/ https://hbr.org/2019/05/case-study-was-that-harassment **Video Learning:-** POSH Act https://www.youtube.com/watch?v=0NjuSnyq6R0		
UNIT IV **Emerging Scenario of Industrial Relations:** Latest developments as reported by Ministry of Labor and Employment, Annual Reports of Ministry of Labor. **Written Assignment + Action Learning** **Case Study + Quiz 4 + Action Learning** **Case Study:-** Air India–Vistara Integration: Employee Relations Under Merger Pressure **Action Learning:-** Comparative Analysis of Development Across 5 years	Ministry of Labor and Employment Website	6
TOTAL NO. OF SESSIONS		42

Text Book:-

1. Chhabra T.N., Suri R.K. (3rd Ed, 2006). Industrial Relations: Concepts & Issues, Dhanpat Rai Publications
2. Taxmann's New Labour and Industrial Laws (Latest Edition)

Suggested Readings:-

1. Taxmann's New Labour and Industrial Laws (Latest Edition)
2. Saha, Satish, K. & Agarwal, Anju (Latest Edition). Industrial Relations and Labour Laws, SBPD Publications
3. Goparaju, Srikanth (Latest Edition). Industrial Relations in Modern India. Independent Publication

4. Lakhawat, Pradhyuman Singh. & Singh, Poonam. (Latest Edition). Contemporary Issues of Industrial Relations: An Indian Perspective (Management). Central West Publishing
5. Ministry of Labor and Employment Website www. https://labour.gov.in/
6. Srivastava, S.C. (Latest Edition). Industrial Relations and Labour Laws, Vikas Publications

Link for Annual Reports:-

https://labour.gov.in/annual-reports

Topics Beyond Syllabus:-

1. Global Industrial Relations Practices
2. AI and Automation: Impact on Industrial Relations
3. Diversity, Equity, Inclusion and Industrial Relations

MANAGEMENT EDUCATION & RESEARCH INSTITUTE
MASTER OF BUSINESS ADMINISTRATION
SEMESTER III, 2025-27

MS-209: STRATEGIC MANAGEMENT

L-3, Credit-3

COURSE OUTLINE

Course Instructor: Dr. Gurpreet Kaur Chhabra

LEARNING OBJECTIVES:

In this course, the learners will be able to develop expertise related to the following:-

1. Students will be able to identify the importance of strategy and strategic activities for corporate success
2. Manage strategic integration across different departments in a business enterprise and government enterprise.
3. Understanding strategic cascade and aspects of Vision, Mission, goals and objectives
4. Identifying differences between business unit, departmental and marketing level strategies
5. Perceiving ways to integrate different levels of strategies taking into consideration the available budget.
6. Identifying various aspects of strategic decision making and comprehend about the types of market position and competitive strategies.

PRE-REQUISITES:

1. Basic knowledge about the concepts of marketing, HR, Business environment and competitive scenarios
2. An understanding of portfolio planning models such as BCG and GE matrix

COURSE OUTCOMES:

CO1: Understand the integrative model of strategic management process along with role of corporate governance in strategic management.
CO2: Demonstrate the knowledge in formulating strategies along with identifying the resource endowments specific to the firm & industry.
CO3: Implement a strategic plan that takes into account the functional areas of business along with procedures in order to achieve organizational goals.
CO4: Evaluate challenges faced by managers in implementing and evaluating strategies based on the nature of business. industry, and cultural differences.

Pedagogy

Lectures assisted by Case Studies, Presentations & Discussions. Each session shall involve discussion among students with practical examples, management games, in-basket exercises, role playing and supplements from the faculty-student coordination.

EVALUATION

a.	Case Study Participation/Project Presentation/Club activity	:	15marks
b.	Mid Term Test	:	15 marks
c.	Internal Assessment	:	10 marks
d.	End term Exams	:	60 marks
	Total	:	100 marks

TEACHING PLAN

Detailed Course Outline	Sessions	References
UNIT 1 Nature of Strategic Management: Concept of Strategy; Vision Mission, Goals and Objectives; External Environmental Analysis; Analyzing Companies Resource in Competitive Position; Mintzberg's 5Ps of Strategy; Strategic Management Process, Corporate Governance. Video Case of : 100 years of ITC https://www.youtube.com/watch?v=O3qRPzI7Wbw Assignment: Find out the vision and mission statements of any 5 firms of your choice and contemplate them for class discussion	**3+3+3+1**	Strategic Management and Business Policy Azhar Kazmi Third Edition Tata Mc Graw –Hill Publications Chapter 1 & 2
UNIT II Strategy Formulation: External Environmental Analysis; Analyzing Companies Resource in Competitive Position- Concept of Stretch, Leverage and Fit; Strategic Analysis and Choice, Porter's Five Forces Model, Concept of Value Chain, Grand Strategies; Porter's Generic Strategies; Strategies for Competing in Global Markets. **Video Case:** What Strategy P&G use during Covid | Double down strategy https://www.youtube.com/watch?v=hueJMj06tGk Assignment: Apply porter's five forces model to the Paint industry in India and identify the role played by each player.	**3+3+3+1**	Strategic Management and Business Policy Azhar Kazmi Third Edition Tata Mc Graw –Hill Publications Chapter 3,4,8 &9

UNIT III Corporate-Level Strategies: Diversification Strategies: Creating Corporate Value and the Issue of Relatedness, Vertical Integration: Coordinating the Value Chain, The Growth of the Firm: Internal Development, Mergers & Acquisitions, and Strategic Alliances Restructuring Strategies: Reducing the Scope of the Firm. Video Case: Why Xerox failed to lead IT Industry? https://www.youtube.com/watch?v=HwXxxhFKJ28 Assignment: Critically analyze the diversification strategies adopted by any one conglomerate firm of FMCG sector.	**3+3+3+1**	Strategic Management and Business Policy Azhar Kazmi Third Edition Tata Mc Graw –Hill Publications Chapter 5,6&7
UNIT IV Strategy Implementation and Evaluation : Structural Considerations and Organizational Design; Leadership and Corporate Culture; Strategy Evaluation: Importance and Nature of Strategic Evaluation; Strategic and Operational Control, Need for Balanced Scorecard. Video Case: Balanced Score Card- A case of Uber https://www.youtube.com/watch?v=h5tDPm9N2OI Assignment : Identify a CEO of any corporate firm, whom you admire and identify the reasons for his/her success	3+3+3+3	Strategic Management and Business Policy Azhar Kazmi Third Edition Tata Mc Graw –Hill Publications Chapter 10,11,12,13 & 14
Complete Overview of Syllabus		**2**
Total		**44**

Text Books:

Strategic Management and Business Policy Azhar Kazmi Third Edition Tata Mc Graw –Hill Publications

E- Learning module on - Design Thinking for Strategic Advantage | 24 FACM 01- Prof.(Dr.) Deepshikha Kalra

https://www.youtube.com/watch?v=633jhvkRDE0

Reference Book:

1. Thomas L. Wheelen, J. David Hunger (2010). Strategic Management and Business Policy, Pearson/Prentice Hall.
2. Arthur, A, Thomson and Strickland, A. J. (2002). Strategic Management – Concept and Cases.Tata McGraw Hill, New Delhi.
3 Kark Rajneesh (2008). Competing with the Best: Strategic Management of Indian Companies in a Globalizing Arena Penguin Books.
4 Hitt Michael A., Ireland R.D. and Robert E Hoskisson. Strategic Management: Competitiveness &
Globalization, Concepts and Cases, Addison Wesley.
45 Fred David (2008) Strategic Management : Concepts and Cases , 12th Edition Prentice hall of India

**********HAPPY LEARNING**********

MANAGEMENT EDUCATION & RESEARCH INSTITUTE
MASTER OF BUSINESS ADMINISTRATION
SEMESTER III, 2025-27

MS 213- Consumer Behavior

L-3, Credit-3

COURSE OUTLINE

Course Instructor: Dr. Gurpreet Kaur Chhabra

LEARNING OBJECTIVES:

In this course, the learners will be able to develop expertise related to the following:-

1. At the end of the course it is expected that the students will be knowledgeable about the contribution of various disciplines in understanding buyer Behaviour in a wholistic manner.

2. They would be familiar with the advances in consumer research in deciphering buyer motivation, and Behaviour (pre-purchase, purchase and post purchase)
3. Impact of social and cultural variables on consumption decisions.
4. They are expected to be equipped with frameworks to analyze consumer Behaviour and use them in designing marketing strategies and in enhancing the effectiveness of marketing program.
5. Students should be able to understand the intricacies of buyer behaviour in online buying and buying of services.

PRE-REQUISITES:

1. Basic knowledge about the concepts of marketing, human behaviour, learning, motivation and memory
2. An understanding of different personality types

COURSE OUTCOMES:

CO1: Demonstrate an understanding of the importance of studying consumer behaviour and its relevance to decisions in marketing, public policy and social and economic spheres.
CO2: Demonstrate an understanding of the consumer decision-making process and the internal and external determinants that influence this process.
CO3: Apply the various research tools and techniques to gain insights into consumer behaviour.
CO4: Demonstrate the ability to develop creative marketing strategies and solutions based on an understanding of the consumer behaviour of the relevant target groups.

METHODOLOGY

1. The pedagogy will be lectures, discussions, case studies, assignments and quiz for each unit after the completion of the unit.

2. Audio-Visual aids along with role plays and simulation games will be used during the course.

EVALUATION

a. Case Study Participation/Project : 15marks
Presentation/Club activity

b. Mid Term Test : 15 marks
c. Internal Assessment : 10 marks
d. End term Exams : 60 marks
Total : 100 marks

Teaching Plan :

Detailed Course outline	Sessions	References
UNIT 1 • Introduction to Consumer Behavior: Scope and Relevance of Consumer Behavior Studies; • Basic Model of Consumer Behavior: Buying Decision Process- Problem Recognition; Information Search, Alternative Evaluation-Decision Rules- and Selection, Outlet Selection and Purchase, Post Purchase Behavior and Customer Satisfaction • Role of Involvement; Types of Buying Behavior. **Case study**: Motivations behind TV viewing Assignment: identify the steps involved in buying any 5 items of your choice	**3+3+3+1**	**Ch- 1 of Consumer behaviour by Gurpreet Kaur Chhabra** **Ch- 4 of Consumer Behaviour by Gurpreet K Chhabra**
<u>Unit II</u> **Individual Determinants of Consumer Behavior:** • Motivation • Attention, Perception & Consumer Imagery • Learning and Memory • Personality and Self Concept • Consumer Attitudes – Formation and Change; Consumer Values and Lifestyles. • Market Segmentation & positioning Case study: Perception Concept Map- An evaluation of attitude formation Assignment- Implement the concept map	**3+3+3+3+2**	Ch – 8 Ch - 9 Ch – 5 Ch- 8 Ch – 9 Ch – 3 Of Consumer Behaviour by Gurpreet K

studied as the case into your own buying behavior and present the same.		Chhabra
UNIT - III **External Determinants of Consumer Behavior:** • Influence of Culture and Subculture; • Social Class; • Reference Groups and Family Influences. Case study: The story of Burnol-Burns ointment Assignment – Identify the differences among the buying patterns of people across different parts of India	3+3+3+1	Ch – 6 Ch – 7of Consumer Behaviour by Gurpreet K Chhabra
UNIT - IV • Diffusion of Innovation • Models of Consumer Behavior • Researching Consumer Behavior • Online Consumer Behavior	3+3+2	Ch – 2 (pg 31-52) of Consumer Behavior in Indian Perspective, Suja R. Nair Ch – 10 of Consumer Behavior by Gurpreet K Chhabra Ch-15 of Consumer Behaviour by Gurpreet K Chhabra
Total	**42**	

Text Book:

Chhabra, G.K. (2015). Consumer Behaviour. 1st ed., Biztantra Publisher, New Delhi, India.

MERI E LEARNING MODULE- ROLE OF NEUROMARKETING IN ADVERTISING- **https://www.youtube.com/watch?v=sSIVoIv3C5A**

References:

Solomon, Michael R. (2016), Consumer Behaviour: Buying, Having and Being, 11/e Pearson Education

Sharma D, Sheth J.N. & Mittal B., (2015), Consumer Behaviour: A managerial Perspective, 1/e, Cengage Learning, New Delhi

Babin, B.J.Harris, E.G.& Mohan, A.(2016), Consumer Behaviour: A south Asian Perspective, 1/e, Cengage Learning India Pvt. Ltd, New Delhi

London, David L. and Della Bitta, J.(2001), Consumer Behaviour, 4/e, Mc Graw Hill Education

MANAGEMENT EDUCATION AND RESEARCH INSTITUTE

SEMESTER III

Management of International Business

Course Code: MS 203
L - 3, Credits – 3

Course Instructor: Dr. Monika Sharma

COURSE OBJECTIVES: This course aims to **introduce students to various facets of international business**.
Students should understand the theories of international business and environmental factors affecting international activities and apply the learning to manage functional operations in a global context.

Course Outcomes:
CO1: Develop an understanding of the global business environment in terms of economic, socio-cultural, political, technological and legal aspects.
CO2: Absorb insights of the international aspects of strategic management, global talent management, finance, marketing, e-commerce, organization and design of multinational corporations
CO3: Learn the knowledge and skills necessary to function successfully in the diverse international business environment, with the ability to contribute to the innovation processes.
CO4: Apply the knowledge of cross cultural issues for effectively managing international business negotiations

CO5: Appreciate the underlying global public issues of ethical, sustainable and socially responsible conduct of business in the business operations of MNCs for effective decision making

PEDAGOGY:

Lectures assisted by Case Studies, Presentations and Article Discussions, Viva Voce, Quizzes

EVALUATION:

TOTAL INTERNAL EVALUATION	**UNIT WISE**
Class Test –Unit Wise / Quiz/Assignment/ Project/Case Study	10 Marks
Mid Term Test	15 Marks
Discipline / Attendance	10 Marks
Club Contribution	5
External University Exams	**60 Marks**
TOTAL	**100 Marks**

TEACHING PLAN

Detailed Course Outline	References	Sessions
UNIT I : Introduction to International Business: Driving Forces of Globalization, Reasons for Going International, E.P.R.G. Framework, The Environment of International Business, Cross-Cultural Management: Hofstede Study, Edward T Hall Study, Analyzing International Entry Modes, Entry Barriers, International Trade Theories, Regional Economic Integration. **Case Study: Apple's Global Supply Chain and the Driving Forces of Globalization** **Quiz 1**	International Business by Dr. Sumati Varma, Pearson Publication	10
UNIT II **Formulating & Implementing Global Strategy**: Organization Design & Structures, International Competitive Advantage, International Strategic Alliances, Global Mergers and Acquisition, Managing innovations and Intellectual Property Rights. **Case Study: Managing Innovations at Tata Motors – The Nano and Beyond** **Quiz 2**		10

UNIT III: Managing Globally: Global Marketing Management, Outsourcing and Logistics, Global Operations Management & Supply Chain Management, Global Talent Management, Aspects of Global Financial Management. **Case Study:** **EcoDrive Mobility Pvt. Ltd.: Integrating Global Marketing, Operations, Finance, Talent, Outsourcing, and Supply Chain for International Success** Quiz 3		10
UNIT IV: Broad Issues in Globalization: E-Commerce, Ethics, Corporate Social Responsibility and Sustainability dimensions of International Business, The Social Responsibility of the Global Firm, International Negotiations and Cross-Cultural Communication, Future of International Business and other emerging concepts. Quiz 4		10
TOTAL SESSIONS		40

Suggested Readings: (Latest Editions)

1. Daniels John, Radebaugh Lee, Sullivan Daniel, Salwan P. Click R.W., International Business Environments and Operations, Pearson Education.
2. Charles, W.L.Hill International Business: Competing in the Global Marketplace, McGraw-Hill/Irwin
3. Luthans Fred & Doh Jonathan, International Management: Culture, Strategy, and Behavior, Mc McGraw-Hill Education.
4. Mike W. Peng, Deepak K. Srivastava, Global Business Cengage India
5. Michael R. Czinkota, Ilkka A. Ronkainen, Suraksha Gupta, International Business, Cambridge University Press
6. Cavusgil, S. T., Knight, G., Riesenberger, J. R., International Business: The New Realities. Pearson Education

Management Education & Research Institute
Master of Business Administration
Semester III (Batch: 2024-2026)
MS 205- Managing E- Business
L-3, Credits – 3
Course Outline
Course Instructor: **Dr Anand Nandwani**

LEARNING OBJECTIVES:

In this course, the learners will be able to develop expertise related to the following: -
1. To impart understanding of the concepts and various application issues of e-business
2. To impart understanding of various online strategies for e-business.
3. To identify and compare various e-business models and digital value creation strategies.
4. To examine how digital technologies, platforms, and tools support e-business operations and innovation.

PRE-REQUISITES:

1. Basic understanding of digital platforms and IT systems used in business operations.
2. Familiarity with core business functions to contextualize e-business practices.

COURSE OUTCOMES:

CO 1: Understanding the concepts of electronic business and electronic commerce and related tools and techniques.
CO 2: Identifying various security issues and measures for any online digital medium
CO 3: Understanding about latest innovation in field of electronic payment systems.
CO 4: Understanding of latest trends in electronic commerce and learning its ethical, societal, legal impacts.

PEDAGOGY:

The course will include midterm test, Audio-Visual aids and real-time examples to help students learn and understand the concepts. The course objective will be achieved through classroom lectures and discussions, video learning, assignments, case studies and role-plays etc. Case studies/Assignments will be specified for preparation to supplement learning wherever the faculty finds it appropriate

EVALUATION:

Besides the semester end- examination, the students will be continuously assessed during the course on the following basis:

(a) Quiz/Project/Assignment	:	10 Marks
(b) Mid-term Test	:	15 Marks
(c) Discipline / Attendance	:	10 Marks
(d) Club Contribution	:	05 Marks

(e) External University Exam	:	60 Marks
Total	**:**	**100 Marks**

COURSE CONTENT:

The program will unfold as per the following **Session-wise Teaching-Learning Plan:**

Detailed Course Outline	**No. of Sessions**	**References**
Unit I		
Introduction to e-business: Electronic Business, Electronic Commerce, Types of Electronic Commerce, Limitations and Barriers of E-commerce, Electronic Commerce Models, Electronic Commerce in India, Impact of Electronic Commerce on different Industries, Electronic Commerce technologies, Usage and Application of Electronic Commerce technologies in Business. **E-Learning:** **Emerging Issues in Digital Marketing** https://www.youtube.com/watch?v=7BD_psOq8kQ **Assignment:** Identify and analyze the challenges and barriers faced by businesses operating in the E-Commerce environment. Discuss issues such as security concerns, logistics, and regulatory challenges. **Case Study:** Whatsapp: Creating and Communicating Value for Whatsapp Payments **Quiz**	10	Elias M. Awad Chapter 1 & Chapter 11 Bharat Bhaskar Chapter 1 & Chapter 2
Unit II		
Security Issues in e-business: Security Overview, Electronic Commerce Threats, Encryption, Cryptography, Public Key and Private Key Cryptography, Digital Signatures, Digital Certificates. Securing Electronic commerce Networks: Security Protocols, HTTP, SSL, Firewalls, IDS, VPNs, Public Key Infrastructure (PKI) for Security. **Assignment:** Evaluate security measures of an e-commerce platform, focusing on encryption, digital certificates, and network security protocols. **Case Study:** Extended Reality Extends into Enterprise **Quiz**	11	Elias M. Awad Chapter 2, Chapter 3, Chapter 5, & Chapter 7 Bharat Bhaskar Chapter 4, Chapter 5, Chapter 6, & Chapter 7
Unit III		
Electronic Payment System: Concept of Electronic Money, Concept of Electronic Payment System, Types of Electronic Payment Systems, Credit & Debit Cards, Smart cards, RuPay cards, Electronic wallets, Payment Gateways, Infrastructure Issues in	10	Elias M. Awad Chapter 13 & Chapter 15

Electronic Payment Systems, Electronic Fund Transfer. **Assignment:** Explore and categorize different types of electronic payment systems, including credit cards, mobile wallets, and cryptocurrency. Provide examples and analyze their advantages and disadvantages. **Case Study:** The Future of E-Commerce: Lessons from the Livestream Wars in China **Quiz**		Joseph, P.T. and S.J. Chapter 6 Bharat Bhaskar Chapter 8, Chapter 9, & Chapter 10
Unit IV		
E-Business Applications & Strategies: Business & Revenue Models over Internet, Emerging Trends in E-Business, Digital Commerce, Mobile Commerce: Concepts, Benefits and Models, Emerging Trends in Mobile Apps; Internet based Business Models, Legal and Ethical Issues of E-Commerce. **Assignment:** Research and analyze emerging trends in the E-Commerce landscape. Discuss how technologies like artificial intelligence, virtual reality, or blockchain are influencing and shaping the future of E-Commerce. **Case Study:** Camera IQ and the Metaverse: Building Augmented Reality Brand Experiences **Quiz** **Guest Lecture:** Speaker of Eminence	11	Elias M. Awad Chapter 6, & Chapter 10 Bharat Bhaskar Chapter 13, & Chapter 14

PRESCRIBED TEXT:

1. Elias M. Awad, Electronic Commerce- From Vision to Fulfillment, PHI Learning.
2. Joseph, P.T. and S.J., E-Commerce – An Indian Perspective, PHI Learning.
3. Bharat Bhaskar, (2009), Electronic Commerce- Framework, Technologies and Applications, McGraw Hill Education.

REFERENCE BOOKS:

1. Dave Chaffey, E-Business and E-Commerce Management- Strategy, Implementation and Practice, Pearson Education.
2. Bharat Bhaskar, Electronic Commerce- Framework, Technologies and Applications, Tata McGraw Hill.
3. Efraim Turban, David King, Dennis Viehland, Jae Lee, Electronic Commerce – A Managerial Perspective, Pearson Education.
4. Schneider Gary P. and Perry, James T, Electronic Commerce Strategy, Cengage Learning.

SUGGESTED READINGS:

- Statistical Appendix: Economic Survey 2023
- http://www.dipp.nic.in/sites/default/files/FDI_FactSheet_January_March2017.pdf
- https://www.flipkart.com/
- https://www.amazon.in/

**********HAPPY LEARNING**********

MANAGEMENT EDUCATION & RESEARCH INSTITUTE
MBA III SEMESTER
MS 241 Database Management Systems
CREDITS-2

COURSE OUTLINE

Course Instructor: Ms. Ekta Mishra

COURSE LEARNING OBJECTIVES

This course will help students to understand how databases can be used to store an organization's information.

PRE-REQUISITES:

1. Basic Computer Knowledge
2. Use of Internet

COURSE OUTCOMES

After completion of this course the learners will be able to

CO#	Detailed Statement of the CO
CO1	To understand the different forms of Database, its purpose, advantages and disadvantages and compare different database models.
CO2	To implement SQL for creation, modify and display data from DBMS
CO3	Understand the basic concept of ER Models, design issues and key constraints, also Reduction of E-R Schema to Tables.
CO4	To impart knowledge about Oracle, its structure and PL/SQL commands, cursors, triggers procedure and functions.
CO5	To impart knowledge about the Structure of Relational Database, Normalization, Functional Dependencies, and their application, and learn database transaction, concurrency control and methods to manage data integrity.

PEDAGOGY

The course objective will be achieved through lectures, Practical's + PPT Presentation.

EVALUATION

Besides the semester end- examination, the students will be continuously assessed during the course on the following basis:

METHOD OF ASSESSMENT	(As per G.GS.I.P University, New Delhi)	
Practical Courses	Allocation of Marks: 100 marks	
Mid Term Examination	There shall be one Class Test in each semester.	15
Continuous Evaluation	It shall be based on Assignments & Exercises	10
Internal Assessment	Attendance and Discipline	10
Club contribution	Participates in various extra-curricular activities	05
External University Exams	Conducted by university	60

TEACHING PLAN:

Detailed Course Outline	Textbook Reference	Sessions
UNIT I		6
Introduction to DBMS: Purpose, Advantages and Disadvantages of DBMS, Schemas and Instances, DBMS Architecture , Data Independence, Data abstraction, Data models – Hierarchical, Network, Relational, Object-Oriented and Object Relational. Data dictionary, metadata, RDBMS, Codd's rules.	TB1 [Chapters - 1,2]; TB2[Chapters - 1,2,3]	Total 6 sessions
UNIT II		8
ER-Model: Basic concepts, Types of attributes, Design Issues, Mapping Constraints, Keys, E-R Diagram :Design of an ER Database Schema, Reduction of E-R Schema to Tables, DDL and DML of SQL: Background, Basic Structure, Set Operations, Aggregate Functions, Null Values, Nested Sub Queries, Derived Relations, Views, Joined Relations, Domain Constraints, Referential Integrity, String Commands, Numeric Function, Date Function, Translate and Decode Function, Modification of Database, Data manipulation **Assignment 1: After completion of Unit 1 & 2**	TB1 [Chapters – 6,3], TB2 [Chapters – 7,8,9,4]	Total 8 sessions
UNIT III		8

Oracle: Basic Architecture, Introduction to PL/SQL (Conditional, Logic, Loops, Exceptional Handling, Triggers, Procedures, Functions, Cursor). **Assignment 2: After completion of Unit 3**	TB1 [Chapters - 3,4,5], TB2 [Chapters - 4,5,13]	Total 8 sessions
UNIT IV		6
Structure of Relational Databases: Relational Algebra, Functional Dependencies, Normal forms NF1, NF2, NF3 and BCNF, Multivalued Dependencies and Fourth Normal Form, Join Dependencies and Fifth Normal Form. Transaction: ACID Properties, Transaction State, Concurrency: Locks, Deadlock Condition, Two- Phase Locking Protocol. **Presentation: Presentation on any one topic from all units.**	TB1 [Chapters - 7], TB2[Chapters – 16,21,22,]	Total 6 sessions
TOTAL SESSIONS		28

TEXT BOOKS:

TB1 Silberschatz, A, Korth H and Sudarshan S, Database System Concepts, McGraw- Hill Education.
TB2 Elmsari R. and Navathe S. , Fundamentals of Database Systems, 6/e, Pearson Education.

REFERENCE BOOKS:

RB1. Koch, G. & Loney, K., Oracle, The complete reference. Mc GrawHill Education.
RB2. Bipin C. Desai, Introduction to Database Management System, Galgotia Publication.
RB3. Singh, Shio Kumar, Database Systems: Concepts, Design and Applications, 2/e, Pearson Education.
RB4. Rob. Peter, Data base system concepts, 1/e, Cengage Learning India Pvt. Ltd.

MANAGEMENT EDUCATION & RESEARCH INSTITUTE
MASTERS OF BUSINESS ADMINISTRATION
SEMESTER II
MS108 - BUSINESS RESEARCH
COURSE OUTLINE

Course Instructor : *Prof (*Dr) Deepshikha Kalra

COURSE OBJECTIVE:

The course has been designed with following objectives:

Co1: Student will be able to describe the current and past theory and practice of ‘

Business Research’ in India and abroad.

CO3: Student will be able to develop research aptitude based on best practices in research,

CO4: Student will develop analytical and critical thinking based on primary and secondary research for better decision making

CO5: Student will be able to comprehend the variety of factors which influence research in business.

6. Pedagogy

Prior reading of suggested course material for each session happens to be a prerequisite for each participant (that includes the Faculty too) to meaningfully reflect his/her point of view. Since the reading material will be quite exhaustive, barring exceptions, the role of faculty member is restricted to that of a facilitator or a moderator. Each session shall involve discussion among participants with practical examples and supplements from the faculty member.

Case studies/Assignments will be specified for preparation to supplement learning wherever the faculty finds it appropriate

Course Content

The program will unfold as per the following **Session-wise Teaching-Learning Plan:**

Section	Theme	Hours	Timeline
I **Introduction**	Intro to Business Research, Meaning, Purpose, and nature of research	3	

	Types of research		
	Steps in the Research Process, Reviewing of Literature type and techniques **Case study:- LG electronics creating Customer Experience**	3	to be discussed in 2nd week
	Formulating a Research Problem, Research objectives and research questions, and Hypothesis Formulation. Constructs and Variables **Assignment:- Prepare a review literature of 15 research papers on topic selected using MENDELEY & Zotero**	4	assigned in 3rd week to be submitted by 5th week
		3	
II **Research Design**	Research design – definition, functions; study designs – based on number of contacts, based on Reference period, experimental, non-experimental, and quasi-experimental study designs, cross-Over comparative experimental design, replicated cross-sectional design, action research **Discussion on reports AI, ML entrepreneurship, Customer Experience Etc**	6	To be executed in class
Sampling	Sampling – Concepts, Principles; Types of Sampling – Probability, Non-Probability, Mixed Sampling Designs; Sampling Frame; Sample Size Determination;	4	assigned in 5th week to be submitted by 6th week
III Measurement Concept	Types of Measurement Scale, Attitudinal Scales – Likert, Thurstone, Guttman Scales; Validity of Research Instruments – Face And Content, Concurrent And Predictive, Construct Validity; Reliability of Research Instruments –External And Internal Consistency Procedures	4	
Questionnaire Design	Questionnaire Design Assignment: **Develop a Questionnaire based on your research objectives for primary data collection using Google forms & Survey monkey**		assigned in 6th week to be submitted by end of 6th week
Research Proposal	Writing A Research Proposal; Ethical Issues In Data Collection; Data Editing, Coding, And Tabulating.	7	

IV **Data Analysis**	Descriptive Statistics, Introduction to Hypothesis Testing Advanced-Data Analysis Techniques – Basic Concepts of Discriminant Analysis, Factor Analysis, Cluster Analysis, Multi-Dimensional Scaling And Conjoint Analysis; Displaying Data; Writing A Research Report, **Assignment: Data Analysis Using SPSS**	10	assigned in the 7th week to be submitted by the 9th week

Prescribed Text:

1. Ranjit Kumar (2009) Research Methodology, 2nd edition, Pearson Education.
2. Naresh Malhotra and S Dash (2009) Marketing Research, 5th edition, Pearson Prentice Hall.

Reference Books

1. Donald Cooper and PS Schindler (2009) Business Research Methods, 9th edition, Tata McGraw Hill.
2. Uma Sekaran (2010) Research Methods for Business, 4th edition, Wiley.
3. Robert Stine and D Foster (2010) Statistics for Business, 1st edition, Pearson Education.
4. Richard Levin and DS Rubin (2009) Statistics for Management, 7th edition, Pearson Education
5. Zikmund William G, Business Research Methods, Seventh Ed., Thomson South Western

Suggested Readings

- Annual report on MSME by msme.gov.in
- KPMG report on Education Sector in India
- IMF report on INDIA 2025
- Understanding Statistics by Andy P field
- Tutorials on SPSS
- Knowledge @ wharton India

MANAGEMENT EDUCATION & RESEARCH INSTITUTE
MASTERS OF BUSINESS ADMINISTRATION
Semester II (Batch: 2025-27)
MS 102- TECHNOLOGY AND INNOVATION MANAGEMENT
L-3, Credits-3
COURSE OUTLINE
Course Instructor: Dr. Sarita Yadav

LEARNING OBJECTIVES:-

This course is designed to help students to understand the importance of managing technology, innovation and change at the micro and macro level.

PRE-REQUISITES:-

1. Basic knowledge of innovations and inventions.
2. Emerging trends in technological innovations.

COURSE OUTCOMES:-

After completion of the course, students will be able to:

CO1: Understand the concept of technology and its usefulness for an organization
CO2: Develop technology development processes and strategies for a firm
CO3: Identify the emerging trends in technology development at national and global level
CO4: Classify the innovation on different criteria for adoption in organizations.
CO5: Examine the Innovation Strategies of various firms in a systemic manner.
CO6: Evaluate the role of innovation in organizational performance and transformation.
CO7: Understand and examine the factors affecting the technological change and its management
CO8: Build innovative organizations through climate and culture for innovation
CO9: Apply creative thinking for problem solving.

PEDAGOGY: -

The pedagogy will be Lectures, Case Studies, Presentations and current practices adopted in international financial markets.

EVALUATION:

Besides the Semester end- examination, the students will be continuously assessed during the course on the following basis:

(a)	End Term Exams	: 60 marks
(b)	Written Assignments/ Case Analysis/ Presentation	: 10 marks
(c)	Attendance/Discipline	: 10 marks
(d)	Mid Term Test	: 15 marks
(e)	Club Contribution	: 5 marks
	Total:	**: 100 marks**

COURSE CONTENT:-

The program will unfold as per the following **Session-wise Teaching-Learning Plan:**

Detailed Course Outline	Sessions	References
UNIT-I:		
1. Understanding Technology and its Relationship with Wealth of Nations. 2. Technology Life Cycles, S- curve of Technology Evolution 3. Technological Planning and Forecasting 4. Technology Policy, Technology Strategy, Technology Generation and Development, Technology Acquisition and Absorption 5. Technology Transfer, Technology Exports and Joint Ventures 6. Global Trends in Technology Development and Management. **E-Learning Video on IPR** **Assignment:** Technological innovations and global trends	2+2+1+2+3	Khurana V. K. and Saini A.K.
UNIT-II:		
1. Concepts of Invention and Innovation 2. Classification and Types of Innovation 3. Frugal Aspects of Innovation, Social Innovation, Innovation Strategies and Models Concurrent Engineering 4. Process Innovation, Product Innovation 5. Case Studies on Innovation. **Assignment: Structural model of innovations and its types+ Quiz**	5+1+3+4+3	Khurana V. K. and Saini A.K
UNIT-III:		

1. Understanding the Nature, Importance, Forces, Types of Technological Change 2. Diagnosing Organizational Capability to Change Process, Change Strategy Building 3. Culture and Climate for Change and Innovation, Building, Managing 4. Sustaining Innovative Organizations: Nurturing Innovation, Role of Leadership. 5. Case studies on Business Transformation **Discussion on** Role of leadership in technological innovations	2+3+2	Khurana V. K. and Saini A.K
UNIT-IV		
1. Understanding Creative Thinking 2. Myths about Creativity 3. Factors affecting Creative Thinking 4. Creative Problem Solving: Approach and process 5. Managing Lateral Thinking with Exercises. **Presentation by students:**	2+3+3+2	Khurana V. K. and Saini A.K
Total Number of Sessions	**43**	

PRESCRIBED TEXT:-

1. Khurana V. K. and Saini A.K. Management of Technology and Innovation for Competitive Advantage, Ane Books, New Delhi.
2. Sanjiva Shankar Dubey. Technology and Innovation Management, Prentice Hall India.

REFERENCE BOOKS:-

1. Khalil, T. M. and Shankar, R. Management of Technology: The Key to Competitiveness and Wealth Creation, McGraw Hill Education

2. Narayanan, V. K. Managing Technology and Innovation for Competitive Advantage, Pearson Education.

3. Frederick Betz. Managing Technological Innovation: Competitive Advantage from Change, John Wiley & Sons, Inc., USA.

SUGGESTED REFERENCES:-

1. Tushman, Michael L and Anderson P. Managing Strategic Innovation and Change, Oxford University Press.

**********Happy Learning**********

Annexure 1

Assignment 1

Assignment 2

Annexure 2

Case Studies

MANAGEMENT EDUCATION & RESEARCH INSTITUTE
MASTER OF BUSINESS ADMINISTRATION

MBA 2025- 27 Batch
SEMESTER II

MS 116- Professional Skill Development(NUES)

COURSE Instructor: Dr. Gurpreet Kaur Chhabra

COURSE OBJECTIVES

The Course is designed to equip students with life skills such that they not only develop a holistic personality but, are also equipped to lead in the face of contemporary challenges. The students will be exposed to various techniques that help in self-management and effectively relating to others. The objective is to equip them with the requisite soft skills for smooth campus to corporate transition and enhance their digital readiness.

METHODOLOGY

1. The pedagogy will be lectures, discussions, Video case studies, advertisements, assignments and role-plays.

2. Audio-Visual aids will be used during the course.

EVALUATION SCHEME:

EVALUATION

a. Mid Term Test	:	75 marks
b. Internal Assessment	:	25 marks
Total	:	100 marks

TEACHING PLAN

Detailed Course Outline	**References**	**cases/assignments**	**No. of Sessions**	**Timeline for assignment**
UNIT I LIFE SKILLS: 1. Understanding oneself(core self-evaluation, values, ethics, personality assessment) 2. Stress management 3. Building positive mindset 4. Time management 5. Work life balance 6. Exercises on personality development and mindfulness	**Wadkar, Alka. Life Skills for Success. Sage Publications**	Psychometric analysis- AT Kearney Temperament Sorter Test	10	After completion of unit 1
UNIT II RELATING TO OTHERS: 1. Interpersonal relationship assessment 2. Management and transactional analysis 3. Social intelligence 4. Johari Window concept 5. Conflict management 6. Exercise on relationship management & active listening	**Joshi, Gangadhar. Campus to Corporate: Tour Roadmap to Employability. Sage Publications**	A T Kearney Intelligence sorter Test	11	Midway during unit 2

UNIT III CAMPUS TO CORPORATE: 1. Success at group discussion 2. Resume writing and feedback on resumes 3. Success in personal interviews 4. Public speaking and extempore	**Daniel, K. Thinking, Fast and Slow, Pengin Psychology** **.** ,	Abstract, creative and critical thinking GD practices	11	Throughout unit 3
UNIT IV **JOB READINESS:** 1. Introduction to analytics using spreadsheets, Introduction to Data visualization 2. Simulation exercises through online platforms 3. Dream job analysis	**Covey, S.R. The 7 Habits of effective people: Powerful lessons in personal change. Simon and Schuster.**	Hands on Data visualization through spreadsheets	10	After completion of unit 3

Text Books /Reference Books

1)Wadkar, Alka. Life Skills for Success. Sage Publications
2) Joshi, Gangadhar. Campus to Corporate: Tour Roadmap to Employability. Sage Publications
3)Daniel, K. Thinking, Fast and Slow, Pengin Psychology
4) Covey, S.R. The 7 Habots of effective people: Powerful lessons in personal change. Simon and Schuster.

MANAGEMENT EDUCATION & RESEARCH INSTITUTE
MASTER OF BUSINESS ADMINISTRATION

SEMESTER I
BATCH: 2025-2027

STRATEGIC HUMAN RESOURCE MANAGEMENT
Course Code: 241MS1201DS04 Credits:3

COURSE OUTLINE

Course Instructor: Ms. Sheela Narang Wadhwa

COURSE OBJECTIVE

Students will be able to:-
CO1: understand strategic role performed by HR in business organization
CO2: understand the tools and techniques essential as a strategic contribution of HRM to organization growth.
CO3: explore the relationship between management of people and pursuit of an organization's strategic goals and objectives
CO4: understand the alignment of among different HR system and practices and organization outcomes.

PAEDAGOGY

- The course objective will be achieved through theoretical discussions, video discussions, case analysis, quizzes, action learning, assignments and midterm test.

- The course will also include real-time examples and articles of leading firms and international organisations taken from LinkedIn, HBR, etc.

EVALUATION

The students will be continuously assesses during the course on the following basis:

(a)	Mid-term Test	:	15 Marks
(b)	Quiz / Assignment / Presentation / Class room behaviour / Case Study	:	05 Marks
(c)	Discipline / Attendance	:	05 Marks
(d)	Club Contribution	:	05 Marks
(e)	External University Exam	:	70 Marks
	Total	**:**	**100 Marks**

TEACHING PLAN:-

DETAILED COURSE OUTLINE	REFERENCE	SESSIONS
UNIT I Strategic HRM: introduction, components, objectives and evolution of SHRM, difference between traditional HRM and SHRM, Investment perspective of human resource management, challenges in SHRM, barriers to Strategic HR, SHRM approaches: The Indian Context **Written Assignment + Quiz1 + Case Studies + Video Learning** **Assignment:-** Case Study: How to Fire? A Case of Strategic Layoffs Timeline: 7 days **Case Studies:-** 1. Short case study on introduction to SHRM 2. L&D at Colgate Palmolive **Video Learning:-** Videos on AI in recruitment	Tanuja Agarwala Chapter-1	10
UNIT II Human Resource Evaluation: concept, approaches, rationale for HR evaluation, linkage between HRM and firm performance, best practices and bundles approach, distinctive HR practices, HR outsourcing and off shoring, human resource planning: an overview, significance, perspectives and objectives of HRP, business strategy and HRP, process of HRP. **Presentation + Quiz + Case Study + Video Learning** **Assignment:-** Case study on HRP Timeline: 7 days **Case Studies:-** 1. Short Case studies on successful HRP 2. Case study on Distinctive HR practices at Publix Super Markets.	Tanuja Agarwala Chapter-3, 4, 5	12

Video Learning:- Google's Innovative HR Practices		
<u>UNIT III</u> HR systems: staffing systems, reward and compensation systems, employee and career development systems, performance management systems **Written Assignment + Quiz + Case Study + Action Learning** **Assignment:-** Ethically Right case of Performance Appraisal Timeline: 5 days **Case Studies:-** 1. How Deloitte Reinvented Their Performance Management 2. Case study on Compensation Management **Action Learning:-** 1. Designing a performance assessment form 2. Preparing a simple compensation structure for the profile of a manager.	Tanuja Agarwala Chapter-7, 8, 9	10
<u>UNIT IV</u> Strategic options: downsizing and restructuring, outsourcing and off shoring, other HR practices/decisions. **Presentation + Quiz + Case Study** **Presentation:-** Class presentation on current HRM topics **Case Studies:-** 1. Downsizing Examples of various organizations 2. Offshoring examples of various organizations	Tanuja Agarwala Chapter-5	08
TOTAL NO. OF SESSIONS		40

Text Book:-

1. Tanuja Agarwala. "Strategic Human Resources Management", Oxford University Press.

Suggested Readings:-

1. Ekta Sharma, "Strategic Human Resource Management and Development, Pearson Education
2. Jeffrey A. Mello, "Strategic Human Resources Management", Cengage Learning
3. Tanuja Agarwala. "Strategic Human Resources Management", Oxford University Press.
4. Freed R.David, "Strategic Management", Pearson Education.
5. Robert L. Mathis and John H. Jackson. "Human Resource Management", Thomson South Western.
6. K. Prasad, "Strategic Human Resource Management - Text and Cases", MacMillan India Ltd.
7. Charles R.Greer, "Strategic Human Resource Management", Pearson Education
8. Srinivas R.Kandula, "Strategic Human Resource Development", PHI
9. Sharma, Anuradha. "Strategic Human Resource Management: An Indian perspective", Sage Response Books.

MANAGEMENT EDUCATION & RESEARCH INSTITUTE
MASTER OF BUSINESS ADMINISTRATION
SEMESTER II (Batch: 2025-2027)
MS 104- FINANCIAL MANAGEMENT
L-3, Credits-3
COURSE OUTLINE
Course Instructor: Dr. Sarita Yadav

LEARNING OBJECTIVES:-

The course is aimed to provide an understanding of the essential elements of financial management and the financial environment in which the business firm operates. The paper will examine the objective of shareholder wealth maximization which encompasses much of modern corporate finance and its implication for decision making in the present context.

PREREQUISITES:-

1. Basic knowledge of journal entries and types of account.
2. Basic knowledge of Excel.

COURSE OUTLINES:-

CO1: Demonstrate the sound understanding of the concept, functions and importance of financial management for a business firm.
CO2: Analyze the convolutions associated with management of short-term and long-term funds in the corporate capital structure.
CO3: Demonstrate the ability to assess and manage financial risks and recommend an optimum capital portfolio for a firm.
CO4: Combine the knowledge of financial management and investment, financing, dividend policy and working capital decisions for ensuring optimum valuation of a firm.

PEDAGOGY: -

The pedagogy will be Lectures, Illustrations, Discussions and Presentations, quizzes, assignments & mid-term tests.

EVALUATION:

Besides the Semester end- examination, the students will be continuously assessed during the course on the following basis:

(a)	End Term Exams	: 60 marks
(b)	Written Assignments/ Case Analysis/ Presentation	: 10 marks
(c)	Attendance/Discipline	: 10 marks
(d)	Mid Term Test	: 15 marks
(e)	Club Contribution	: 5 marks
	Total:	**:100 marks**

COURSE CONTENT:-

The program will unfold as per the following **Session-wise Teaching-Learning Plan:**

Detailed Course Outline	Sessions	References
UNIT I		
1. Financial Objectives, impact of financial and economic environment on financial management 2. Time value of Money, Computation of EMI, Annuity Due 3. Fund Flow Analysis, Cash Flow Statement and its interpretation (AS3) **Illustration to be solved based on time value of money.** **Assignment:** Assignment on Objective, scope and functions of financial management and time value of money. **Hypothetical Case on management functions** **E-Learning Module on emerging issues in Finance: https://youtu.be/xZiLMeGyN0g?si=a7150uK2wzAEhjji**	3+3+4	M.Y Khan D.K Goel Chapter 2
UNIT II		
1. Determinants of capital Structure, theories (Net income, Net operating income approach, MM hypothesis, Traditional approach.) 2. Cost of Equity, Cost of retained earning, Preference capital, Cost of debt, WACC & marginal cost of capital. 3. Concept & classification of Leverage, Operating & Financial leverage and combined leverage 4. EBIT-EPS Analysis, Capital Gearing **Assignment:** Assignment on Capital Structure Theories **Case study**: A hypothetical case study on Sources of finance and numerical on cost of capital, WACC and EBIT–EPS Analysis + Quiz	3+4+2+2	D.K Goel Chapter 3 M. Y Khan and I. M. Pandey
UNIT III		
1. Conventional (Payback period, ARR), DCF method (NPV, IRR, PI), Capital Budgeting under Risk (RADR & Certainty Equivalent approach) 2. Decision Tree, Independent and Dependent Risk Analysis 3. Replacement Decision, Sensitivity Analysis **Assignment:** Numerical assignments based on different methods of capital budgeting **Group Discussion** on best technique of Capital Budgeting.	7+3+3	D.K Goel Chapter 2 Notes

UNIT IV		
1. Dividend Theories: Walter model, Gordon model, MM approach, Linter Model 2. Working Capital Management Concept & nature, Estimation of Working capital 3. Inventory & Payable management and Management of inventories 4. Management of Cash (Various theoretical model), Management of Receivables, Marketing Securities **Assignment: -** Assignment on topic Dividend Policy, Working Capital + Quiz + Hypothetical case study on working capital Management **Illustration** on dividend models and inventory management **Presentation by Students on topics:** Cash Management, Receivables Management, Inventory Management	3+2+3+2	D.K Goel Chapter 4 and 5 M. Y Khan and I. M. Pandey
TOTAL NO. OF SESSIONS	**44**	

PRESECRIBED TEXT:-

1. D. K. Goel and Shelly Goel, Financial Management, Avichal Publishing Company

REFERENCE BOOKS:-

1. I.M. Pandey, Financial Management, Vikas Publishing House Pvt. Ltd., Fourth edition
2. Dr. R.P. Rustagi, Financial Management, Taxmann's , 13th edition
3. M.Y. Khan and P. K. Jain, Financial Management, Tata McGraw Hill, 8th edition

Link for Quiz: https://forms.gle/ZQRMp9cjSdoFPKaw6

*****************************Happy Learning***************************

Annexure 1

Assignment 1

Q. 1 “The concept of finance function has changed and keeps changing along with the evolution of the content of finance as a business management activity.” Elucidate

Q.2 “A rational human being has a time preference for money.” What are the reasons for such a preference?

Assignment 2

Q.3 “The total value of a firm remains unchanged regardless of variations in its capital structure.” Discuss the statement and point out the role of arbitraging.

Q. 4 Explain “A bird in hand is better than two in the bush” in context of Gordon’s dividend model.

Assignment 3

Q.5 What are the objectives of Cash Management? What methods can be adopted for showing down the disbursement of cash?

Q.6 “Fund must be sufficient adequate.” Elaborate the statement in context of working capital management.

Annexure 2

Case Studies

Case 1

Ramesh is running a real estate construction company. He has to meet clients on a regular basis in order to make deals. For every decision he makes he has to be really cautious as he knows once he has made a decision he can't go back which will mean abandoning of the project. So he evaluates every decision before he makes it. That is why he pays a lot of attention to what his clients are saying and figures out which portion of the deal is in his capacity and favour. Recently his company pumped an amount of Rs. 50 crores in a project and he knows this project can affect the returns of the firms in the long run both positively as well as negatively. All this is a part of the business in which he has established himself. He knows that the funds invested are only likely to give returns in the future and impact the future prospects of his business. The chances of success in any business are more when one does a lot of research. He has to involve a considerable portion of his funds and block them in long term projects. A thorough research is required in order to grow funds at the lowest cost possible. He is a very stable minded entrepreneur.

Q.1 Which concept of management has been highlighted in the above case?

Q.2 Identify its types highlighted in the above case.

Case 2

There are two brothers: Shobhit and Mohit. Shobhit starts a tourist and travel agency. His idea is to take his business to great heights. Though he doesn't have experience in this business yet he wants to give this business a try. He feels that if he gives the best quality services then his business will reach great heights. Mohit starts a thermometer manufacturing business. He too like his brother wants to take his business towards great success. He is new to this business and is busy getting to know about the technical side of the business as much as possible. He wants to make the best quality thermometers which are ultrasensitive to temperature changes and can resist shocks. Despite all these good ambitions in mind a sudden shock takes place for both the brothers. The economy shows sign of recession and within a few months is totally engulfed by it.

Q. What will happen to the working capital requirement of the two businesses described in the above case? Which of the two businesses do you think will see greater impact of this change?

Analytics Reports

Content production analytics by program, class, and professor

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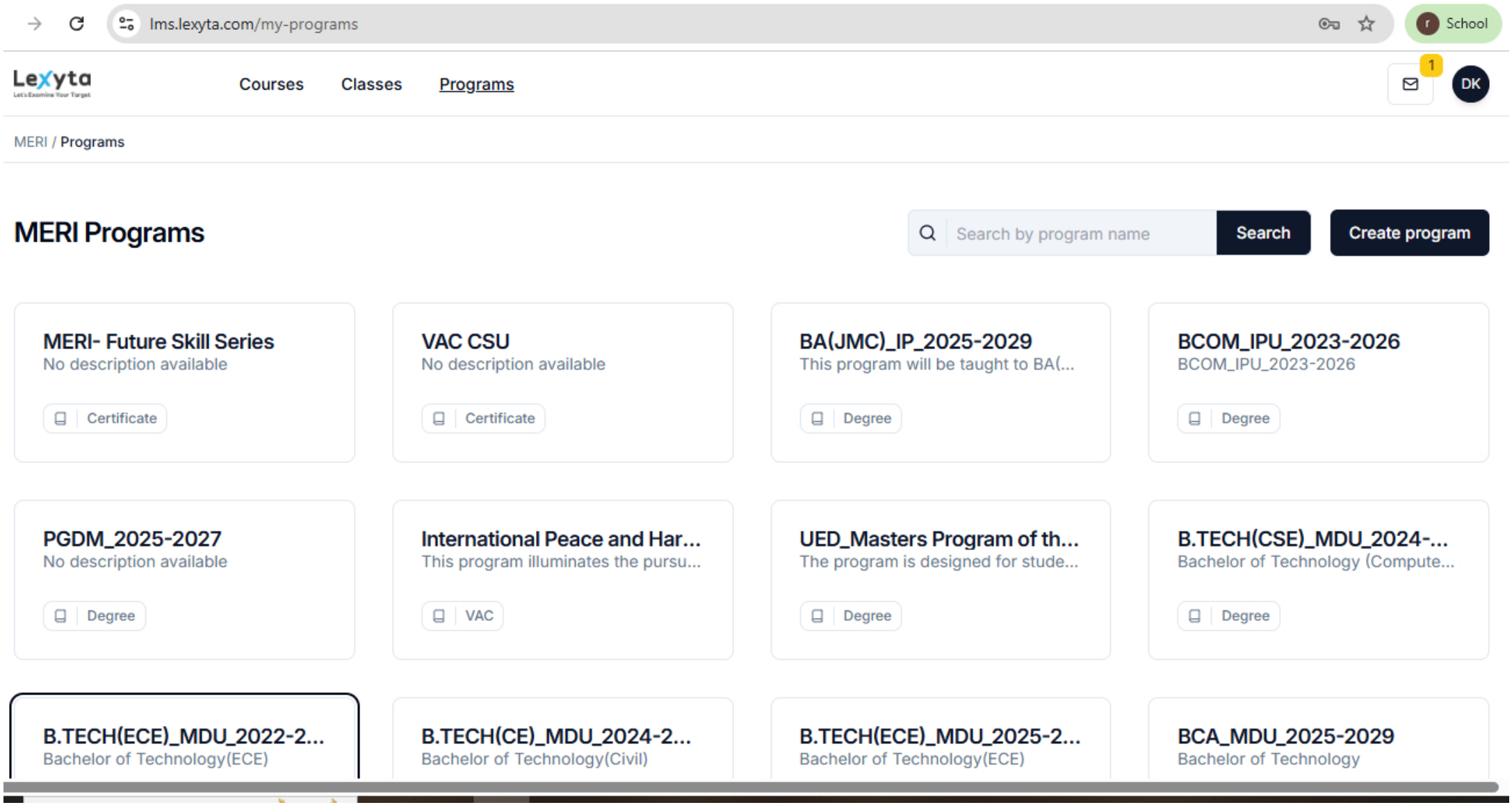
Course Materials

Modules, units, topics and files authored on each course

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Advanced GeoAI Certification Course Taught by Anushka Choudhary	4	8	39	40	
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AI in Management Taught by Deepshikha Kalra, Lalita Yadav, Pooja Singh Negi, Preeti Verma, Sari...	1	1	10	10	
AI in Marketing Taught by Luv Aggarwal	4	8	1	0	
AI SEO Execution Framework Taught by Luv Aggarwal, Navneet Kaur	4	11	22	0	
Aptitude Test Class. Taught by Kamal Chandel	0	0	0	0	
Arbitration in Space Industry Taught by Akhil Jaitly, Ananya Saroha, Dr. Stuti Narula Markan, Himanshu Gopa...	6	6	28	33	
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MERI COLLEGE

MANAGEMENT EDUCATION & RESEARCH INSTITUTE

(Affiliated to G.G.S. Indraprastha University, Recognised by N.C.T.E. & Approved by A.I.C.T.E., Ministry of HRD, Govt. of India)
52-55, INSTITUTIONAL AREA, JANAKPURI, NEW DELHI – 110058
PHONES : 011-28522201, 28522202, 28522203 FAX : 011-28522204
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Physical Facilities: The Institution has adequate infrastructure and other facilities for

- **Teaching – learning, viz., classrooms, laboratories, computing equipment etc**
- **ICT – enabled facilities such as smart class, LMS etc.**

Facilities for Cultural and sports activities, yoga centre, games (indoor and outdoor), Gymnasium, auditorium etc (Describe the adequacy of facilities in maximum of 500 words.)

The Institute's commitment to providing an enriching and holistic educational experience is underscored by its exceptional infrastructure and facilities. These resources are meticulously designed to cater to every facet of a student's development, ensuring a conducive environment for teaching, learning, and personal growth.

In the realm of academics, the Institute boasts a plethora of modern classrooms, each equipped with state-of-the-art amenities. These classrooms are designed to facilitate effective pedagogy and active student engagement. The use of technology is seamlessly integrated into the teaching- learning process, with advanced computing equipment available in dedicated labs, ensuring that students have access to the latest tools and software necessary for their courses.

One standout feature is the Institute's commitment to information and communication technology (ICT)-enabled education. Smart classrooms equipped with interactive smart-screens provide a dynamic and immersive learning experience. The Learning Management System (ERP and Google classrooms) serves as a robust digital platform that empowers both students and facultyto access learning materials, assignments, and collaborate seamlessly, thereby enhancing the overall learning experience.

Beyond the classroom, the Institute recognizes the importance of extracurricular activities in holistic development. Facilities for cultural and sports activities are abundant, offering students aplatform to nurture their talents and hobbies. The auditorium serves as a hub for cultural events, seminars, and guest lectures, fostering a culture of intellectual curiosity and creativity. MERI has incubation centre which facilitate students to grow their business idea from inception to profit incurring unit.

For those seeking physical fitness and wellness, the Institute boasts a well-equipped gymnasium. A dedicated yoga center provides students with a space to practice mindfulness and maintain physical and mental well-being. Additionally, indoor and outdoor game facilities offer a diverse range of options for sports enthusiasts.

The commitment to physical well-being extends to the provision of outdoor sports facilities, including sports fields and courts for various games like football, basketball, cricket, and more. Our sister institute (MERI- CET) is having Basketball Court, Badminton Court, Cricket Pitch and Volleyball Court. We have tie-up arrangement with Hari Nagar Sports Complex for various sports activities. In indoor games we have Chess, Caram board, and Pool Tables.

Institute have 233 computers with latest softwares and media editing labs which are well equipped with latest equipments.

Moreover, the Institute places a premium on the safety and security of its students. Adequate measures are in place to ensure the well-being of all members of the campus community. Well- trained staff and security personnel are vigilant around the clock.

In summary, the Institute's facilities are a testament to its dedication to providing a comprehensive and enriching educational experience. From cutting-edge classrooms and laboratories to ICT-enabled learning and a wide array of extracurricular options, students have access to all the tools and resources needed for their academic and personal development. The emphasis on physical fitness, wellness, and safety underscores the Institute's commitment to nurturing well-rounded individuals. With its state-of-the-art infrastructure and facilities, the Institute creates an environment that empowers students to excel academically, grow personally, and thrive in every aspect of their lives.

Glimpses of well equipped Teaching and ICT infrastructure

- **Classrooms**
- **ERP**
- **Google classrooms**
- **Labs**
- **Incubation Center**
- **Seminar Hall**
- **Auditorium**
- **Library**
- **Indoor/Outdoor Sports**
- **Gymnasium**
- **Fire Drill**

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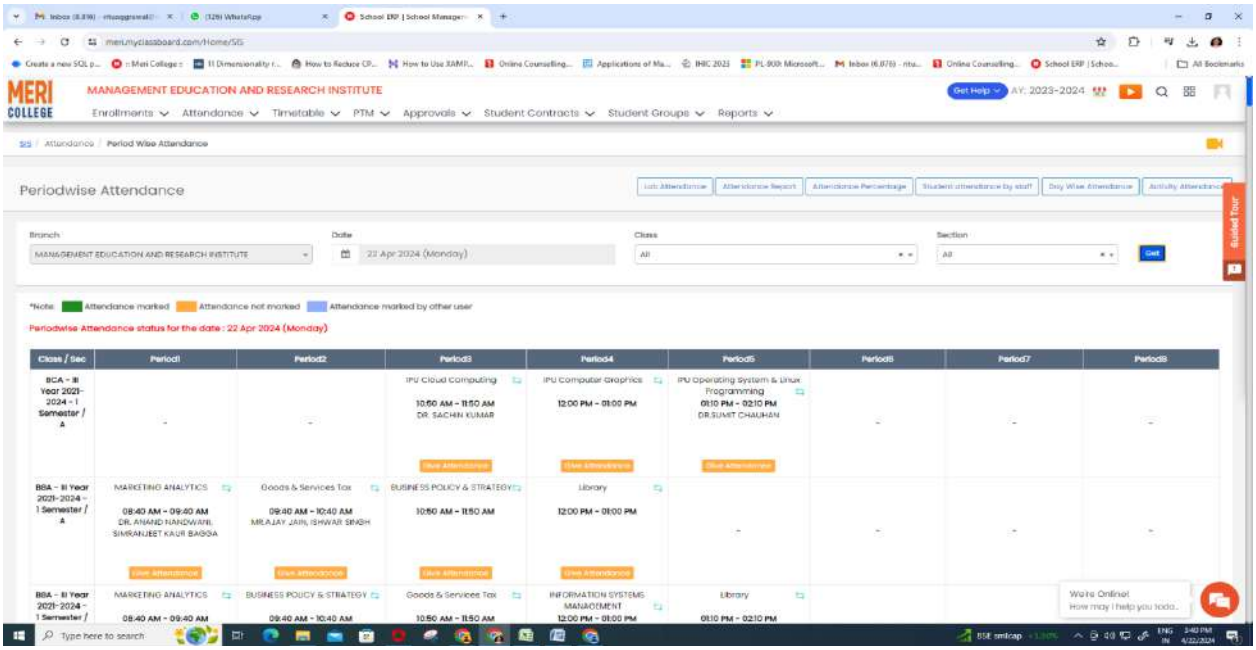
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Classroom



ERP



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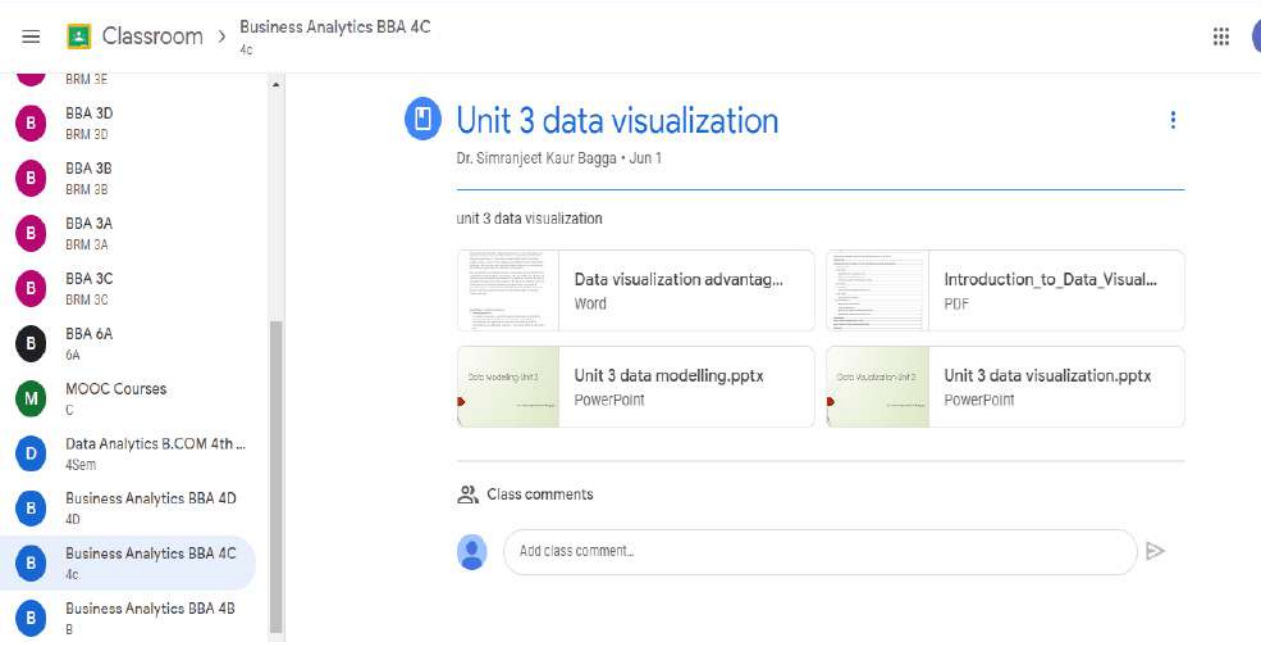
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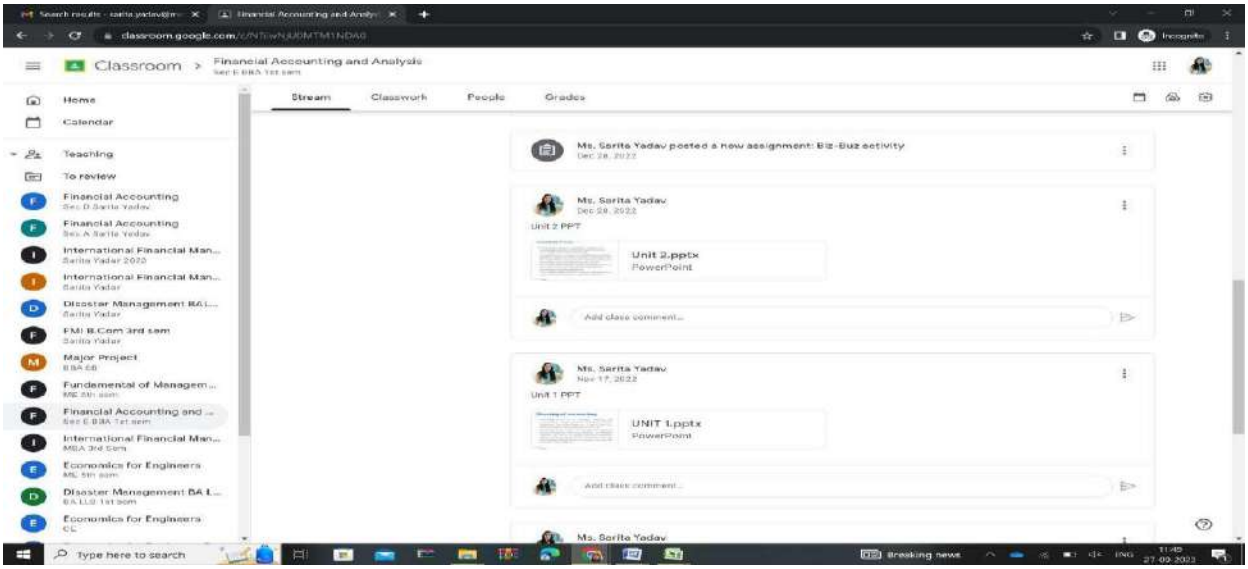
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Google classroom





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Labs





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