

ISSN : 3049-0081



**“Intellectual Property Rights and Behavioural
Economics: Changing Dimensions of Indian
Economy”**

The Journal of Scientific Discourse

International, Multi-Disciplinary, Peer-Reviewed, Bilingual, Quarterly Research Journal
Special Issue-1, Feb-2025

Editor-in-Chief
Prof. Rajesh Gautam

Guest Editor
Dr. Veerandra Singh Matsaniya

Website : - <https://gveshana.org/en/the-journal-of-scientific-discourse/>

ISSN:3049-0081

The Journal of Scientific Discourse

International, Multidisciplinary, Peer-Reviewed, Bilingual, Quarterly Research Journal

Special Issue-1, Feb-2025

Intellectual Property Rights and Behavioral Economics: Changing Various Dimensions of The Indian Economy

Editor-in-Chief

Prof. Rajesh Gautam

Department of Anthropology
Dr. Harisingh Gour University Sagar, Madhya Pradesh

Managing Editor

Dr. Ramesh Rohit

School of International Buddhist Studies
Sanchi University, Raisen, Madhya Pradesh

Guest Editor

Dr. Veerandra Singh Matsaniya

Department of Economics
Dr. Harisingh Gour University Sagar, Madhya Pradesh



Publisher:

**Gaveshna Manavoutthan Paryavaran Tatha Swasthya Jagrukta
Samiti**

House No. 10 Ward Tilli, Kalpchhaya, Sagar City SO, Sagar-470002, MP, India

About the Journal

“The Journal of Scientific Discourse” is an International, Multidisciplinary, Peer-Reviewed, Bilingual, Quarterly Research Journal covering all types of articles (original articles, mini-reviews, systematic reviews, comprehensive reviews, case studies, reports, short communications, dissertations and opinion papers) focusing on humanities, social sciences, literature, culture, education, environment and contemporary issues.

Welcomes research articles based on philosophical, psychological, sociological, anthropological, historical, human and socio-economic aspects related to environment. ‘The Journal of Scientific Discourse’ accepts articles from researchers in academia, industry, national and international NGOs, and laboratories.

Journal Information

Title	The Journal of Scientific Discourse
Frequency	Quarterly
ISSN	3049-0081
Publisher	Gaveshna Manavoutthan Paryavaran Tatha Swasthya Jagrukta Samiti (Registration No. 06/09/01/13885/21)
Publisher Address	Gaveshna Manavoutthan Paryavaran Tatha Swasthya Jagrukta Samiti (Registration No. 06/09/01/13885/21), House No. 10 Ward Tilli, Kalpchhaya, Sagar City SO, Sagar-470002, MP, India)
Chief Editor	Prof. (Dr.) Rajesh Gautam
Copyright	Gaveshna Manavoutthan Paryavaran Tatha Swasthya Jagrukta Samiti (Registration No. 06/09/01/13885/21)
Starring Year	2024
Subject	Multidisciplinary Subjects
Language	Multiple Language (Hindi and English)
Publication Format	Print
Email Id	editor.gaveshana@gmail.com
Mobile No.	8817269203
Website	https://gaveshana.org/the-journal-of-scientific-discourse/
Address	Kalpchhaya, Tilli Ward, Sagar City S.O, Sagar, 470002, MP, India

Chief Editor's Note

Innovation, Access, and Control: The IPR Dilemma

Intellectual Property Rights (IPR) is a double-edged sword. Its pros and cons were widely discussed around the globe. At one hand it is foundational to modern economies, encouraging innovation by providing creators with exclusive rights over their inventions and expressions. However, as the global knowledge economy expands, a paradox emerges: the same rights that incentivize creativity may also restrict access, deepen inequalities, and monopolize control. This essay explores the intricate balance between innovation, access, and control—what may rightly be termed *the IPR dilemma*.

The IPR—comprising patents, copyrights, trademarks, and trade secrets—are designed to promote innovation. By granting time-bound exclusivity, they offer innovators a window of opportunity to profit from their inventions. In the pharmaceutical industry, for instance, patents encourage huge investments in research and development. Without IPR, private players might lack the incentive to pursue risky or long-term projects, particularly in sectors where upfront costs are high and failure rates are substantial.

IPR also plays a critical role in fostering a culture of creativity and entrepreneurship. For small enterprises and individual inventors, IP rights can provide a competitive edge and attract investment. In academia, patenting discoveries has become a metric of research relevance and applicability.

However, the very exclusivity that drives innovation often comes at the cost of public access. In sectors such as health, education, and agriculture, IPR restrictions can pose ethical and developmental challenges. A patented life-saving drug may remain out of reach for millions due to high pricing justified by monopoly rights. Similarly, copyright regimes can limit the distribution of educational resources, particularly in the Global South.

The COVID-19 pandemic brought this dilemma into sharp focus. While pharmaceutical companies used patent incentives to develop vaccines swiftly, disparities in access highlighted systemic flaws. Wealthy countries secured vaccine supplies first, while calls to waive patent protections to promote global access met with legal and political resistance.

Control lies at the heart of the IPR debate. Corporations and entities that own critical patents or copyrighted content wield disproportionate influence over markets and knowledge flows. This creates a knowledge elite and reinforces asymmetries between the Global North and South, between tech giants and individual users, and between proprietary and open-source systems.

The growing practice of “evergreening” where slight modifications to a product extend its patent life—reflects how IPR can be used to stifle competition and

prolong monopolies. Control over digital data, algorithms, and genetic resources raises additional concerns about the privatization of the commons and biopiracy.

Addressing the IPR dilemma requires nuanced policymaking. First, reforms should aim to balance private incentives with public interest. This can be done by promoting compulsory licensing in public health emergencies or creating exceptions for educational and non-commercial use. Second, open-access models and collaborative licensing (such as Creative Commons) offer alternative frameworks that emphasize knowledge-sharing over exclusivity.

International cooperation is equally vital. The TRIPS Agreement under the WTO governs global IPR norms, but its implementation has revealed inequities in access and enforcement. A more flexible and just global IPR regime one that takes into account varying national capacities and public welfare would be a step toward resolving the dilemma.

The IPR dilemma caught between fostering innovation, ensuring equitable access, and preventing monopolistic control remains one of the most pressing challenges of this knowledge era. While intellectual property is essential to progress, it must not be allowed to become a tool of exclusion or exploitation. A reimagined IPR regime, grounded in justice, inclusivity, and sustainability, is imperative for a more equitable global future.

Prof. Rajesh Gautam

Editor-in-Chief

Department of Anthropology

Dr. Harisingh Gour Vishwavidyalaya

(A Central University)

Sagar-470003, MP, India

Guest Editor's Note

Intellectual Property Rights (IPRs) and Behavioural Economics are two distinct yet interlinked domains that are shaping the modern Indian economy. The concept of IPRs, encompassing copyrights, patents, trademarks, geographical indications, and industrial designs, ensures legal protection to creators and innovators. In India, with the TRIPS-compliant regime post-1995 and the amendments to national IPR laws, there has been a substantial push towards fostering innovation, research, and brand value creation, especially in pharmaceuticals, IT, traditional knowledge, and creative sectors.

However, the mere existence of rights does not guarantee their effective utilisation. Here, behavioural economics plays a crucial role in understanding the psychology behind how individuals, firms, and institutions perceive, value, and utilise IPRs. Traditional economic theories assume rational behaviour, but behavioural economics highlights cognitive biases, heuristics, and socio-cultural influences that shape decision-making.

For instance, many MSMEs in India do not file patents or trademarks despite innovations due to loss aversion (fear of expenditure without guaranteed returns), optimism bias (believing infringement will not occur), and present bias (preferring immediate operational expenditure over long-term IPR investment). Similarly, consumers' behaviour towards counterfeit goods reflects behavioural anomalies such as the compromise effect and risk perception distortion.

The Indian economy today is witnessing changing dimensions with digital transformation, AI integration, startup proliferation, and globalised trade policies. In this context, IPRs become indispensable to protect competitive advantages, yet their true utility lies in bridging behavioural gaps through awareness, nudges, incentives, and regulatory ease. Behavioural interventions such as simplifying application procedures, using defaults for patent renewals, subsidised legal support for IPR infringement, and public campaigns highlighting the moral cost of piracy can improve IPR compliance and enforcement.

Moreover, policies integrating behavioural insights can promote indigenous innovations and traditional knowledge protection. For example, community-based geographical indication (GI) registrations can be encouraged through collective incentives rather than individual filings, overcoming free-rider problems.

In continuation of this, an International Seminar on the theme ***“Intellectual Property Rights and Behavioural Economics: Changing Dimensions of Indian Economy”*** was organized on ***February 6–7, 2025***, by the Department of Economics, Dr. Harisingh Gour University, Sagar in collaboration with Indian Economic Association (IEA) in Hybrid Mode. More than 100 research papers were presented during the seminar, out of which around 40 Papers in English and 15 Papers in Hindi

language were selected for publication. These research papers mainly cover topics such as Intellectual Property Rights (IPR) and Behavioural Economics, along with various other subjects related to the humanities and social sciences.

In conclusion, the convergence of IPR frameworks with behavioural economics insights is pivotal in realising the objectives of 'Atmanirbhar Bharat', innovation-led growth, and a knowledge economy. Policymakers, legal experts, and economists must work together to design IPR regimes that not only protect rights but also consider human psychology for maximum societal welfare.

Dr. Veerandra Singh Matsaniya

Guest Editor

Department of Economics

Dr. Harisingh Gour Vishwavidyalaya

(A Central University)

Sagar-470003, MP, India

Editorial Board

- 1. Prof. Rajesh Gautam (Editor-in-Chief)**
Dept. of Anthropology, Dr. Hari Singh Gour Vishwavidyalaya Sagar-470003,
Madhya Pradesh, India
Designations: Professor
E-mail: rkgautam@dhsgsu.edu.in
Profile Link: - <https://dhsgsu.irins.org/profile/48414>
- 2. Dr. Ramesh Rohit (Managing Editor)**
School of International Buddhist Studies, Sanchi University, Raisen-464651,
Madhya Pradesh, India
Designations: Assistant Professor
Email: - ramesh.rohit@subis.edu.in
Profile Link: - <https://www.sanchiuniv.edu.in/newwebsite/faculties/buddhist-faculties.html>
- 3. Dr. Mukhtar Iderawumi Abdulraheem (Editor)**
Henan International Joint Laboratory of Laser Technology in Agricultural
Science, Henan Agricultural University, Zhengzhou-450002, China
Designations: Research Scientist
Email: - abdulraheem@stu.henau.edu.cn
Profile Link: <https://hjlaser.henau.edu.cn/a/keyanrenyuan/yanjiusheng/20210526/58.html>
- 4. Dr. Adewale Mubo Omogoye (Editor)**
Department of Crop and Horticultural Sciences, University of Ibadan, Ibadan
North-200005, Nigeria
Designations: Lecturer-II
Email: am.omogoye@mail.ui.edu.ng
Profile Link: <https://agric.ui.edu.ng/m-omogoye>
- 5. Dr. Sanjay Kumar (Editor)**
Dept. of Psychology, University of Allahabad, Prayagraj-211002, UP, India
Designations: Associate professor
Email: - dr.sanjaykumar@allduniv.ac.in
Profile Link: - <https://www.allduniv.ac.in/faculties/psychology>
- 6. Dr. Waseem Anwar (Editor)**
Dept. of Urdu, Dr. Harisingh Gour Vishwavidyalaya, Sagar-470003, Madhya
Pradesh, India
Designations: Assistant Professor
Email: - wanwar@dhsgsu.edu.in
Profile Link: - <https://dhsgsu.irins.org/profile/126693>
- 7. Dr. Pravin Kumar (Editor)**
Department of Hindi, IGNTU, Amarkantak-484887, Madhya Pradesh, India
Designations: Assistant Professor
Email: - pravin.kumar@igntu.ac.in
Profile Link: - <https://www.igntu.ac.in/hindi.aspx>

Content

1.	Recent Trends in Intellectual Property Right (IPR) in India <i>Akash Simoliya, Girish Mohan Dubey & Keshav Tekam</i>	1-11
2.	Comparative Study of Behavioral Economics Applications across Developed and Developing Economies <i>Ruchi Patel & Utasav Anand</i>	12-17
3.	An Investigation of the Challenges Faced by Anganwadi Workers in Tribal Area <i>Lokesh Kumar Badule & Veena Thawre</i>	18-27
4.	Geographical Indications Protection and Economic Growth: A Legal and Economic Analysis in India <i>Jaya Pandey, Girish Mohan Dubey & Keshav Tekam</i>	27-34
5.	Transformative Impact of Intellectual Property Rights and Behavioral Economics on The Indian Economy in Terms of Legal Protections, Economic Impacts, And Consumer Behavior - An Assessment <i>G. Yoganandham</i>	35-44
6.	The Evolution of Intellectual Property Rights in India: Trends, Policies, and Challenges <i>Shivam Kabir & Veerandra Singh Matsaniya</i>	45-54
7.	Intellectual Property Rights: A Necessity for Growth of MSMEs in India <i>Komal Raghav & Jyoti Gupta</i>	55-65
8.	Bridging the Gap: Analyzing the Implementation of the Scheduled Castes and Scheduled Tribes (Prevention of Atrocities) Act, 1989 in Maharashtra <i>Jagdish W. Khobragade</i>	66-72
9.	The Impact of Light Pollution on Circadian Rhythms and Health: A Review <i>Aprana Singh & Utasav Anand</i>	73-82
10.	Geographical Indications and Consumer Ethnocentrism: A Study on Purchase Intentions <i>Anita Kumari, Subhash Gupta, Unnati Ubnare & Pooja Thakur</i>	83-92

11.	Patent Growth and Trends in India: A Critical Review <i>Garima Dohar & Gautam Prasad</i>	93-102
12.	The Economic Potential of Tourism in Madhya Pradesh <i>R. B. Anuragi & Anjali Singh Yadav</i>	103-110
13.	Behavioral Responses to Economic Crises: How Do Individuals Adjust Risk Preferences During Recessions <i>Veerandra Singh Matsaniya & Girija Sharma</i>	111-117
14.	Impact of Corona Crisis on Indian Economy: A Historic Downturn <i>Vemala Kiran & Chittibabu Putcha</i>	118-123
15.	Impact of Covid-19 On Digital Payment Transactions in India <i>Mahmood Alam, Sanjeet Kumar Sah, Anita</i>	124-133
16.	Analyzing The Concept of IPR and Its Role in the E-Commerce Industry <i>Harshita Gaur & Sharad Dixit</i>	134-142
17.	Government Interventions and Agricultural Debt in Haryana: A Comprehensive Review <i>Sonam Devi & Kavita Sangwan</i>	143-151
18.	Indian Mineral Economics and the COVID-19 Pandemic: Challenges and Future Directions <i>Rajiv Khalkho</i>	152-161
19.	Impact of COVID-19 Crisis on the Indian Economy <i>Devendra Singh Thakur</i>	162-165
20.	Indian States' Fiscal Health: Revelations from NITI Aayog's Report <i>Laxmana Rao G & T.M. Suresh Kumar</i>	166-169
21.	Challenges and Opportunities for MSMEs: Post-Covid Scenario <i>Mahesh Shrivastava & Neelu Shrivastava</i>	170-177
22.	India's Economic Recovery: A Post-Covid-19 Assessment <i>Praveen K. Jadhav</i>	178-182
23.	Role of IPR In Economic Growth and Sustainability: A Review Study <i>Aneeta Sen & Kity Maurya</i>	183-189

24.	Impact of COVID Pandemic on MUDRA Yojana in India <i>Suman Vishwakarma & Dr. Shobha Jain</i>	190-195
25.	Behavioral Factors Responsible for Choice of Payment Methods: A Literature Review <i>Shubham Kumar Dubey & Gajendra Sahu</i>	196-204
26.	Intellectual Property Right Protection in India: A Perspective <i>S. S. Nigam & R. P. Singh</i>	205-209
27.	Impact of Self-Control on Credit Card Debt Accumulation and Repayment Patterns: A Literature Review <i>Shiva & Gajendra Sahu</i>	210-217
28.	Review on Impact of Anchoring and Framing Effect in Online Shopping Decision-Making <i>Aditya & Gajendra Sahu</i>	218-221
29.	An Overview of the Copyright Act, 1957 in India: Legal Framework, Amendments, and Challenges <i>Veerandra Singh Matsaniya & Priya Senger</i>	222-225
30.	Role of Digital Platforms in Enhancing Investment Awareness & Investment Knowledge of Young Investors <i>Lokendra Singh Patel, Pooja Sahu & Shalini Choithrani</i>	226-236
31.	Analysis of Intellectual Property Rights from International and National Perspectives <i>Sanjana Singh, Roshan Singh & Mohit Bharti</i>	237-244
32.	Economic Sustainability Through Intellectual Property Rights: A Comparative Analysis with Conventional Property <i>Vaibhav Singh Yadav, Vikash Agrawal & Jyoti Soni</i>	245-249
33.	Examination of Environmental Parameters Affecting Community: Analyzing Air, Water, Noise Pollution from BPCL Bina Refinery <i>Nainsy Samaiya & Gautam Prasad</i>	250-254
34.	Effect of Covid-19 Pandemic on Online Food Delivery Business in India <i>Akhilesh Meena, Ahsan Ilahi & Rashmi Tanwar</i>	255-265
35.	The Impact of the TRIPS Agreement on Indian Agriculture: Challenges and Opportunities for IPR, Innovation and Farmer's Rights <i>Satyajit Mallick, Rashmi Tanwar & Meenu Kumari</i>	266-277

36.	The Genesis of Geographical Indications: India and Its Legal Framework <i>Poorva Jain & Anupama Pandit Saxena</i>	278-285
37.	Incentives for Infringement: Economic Insights into Trademark Violations <i>Padmza Mohan Bain</i>	286-295
38.	Legal and Social Implications of Live-In Relationship Breakdowns: A Contemporary Analysis <i>Karishma B. Gavai</i>	296-307
39.	A Study on Economic Thoughts of Babasaheb Dr. B. R. Ambedkar and Their Relevance in Modern India <i>Vishnu Kant Verma & Veerandra Singh Matsaniya</i>	308-316
40.	भारतीय अर्थव्यवस्था पर कोविड-19 का प्रभाव <i>अनिल कुमार सांगोड & ममता पवार</i>	317-324
41.	भारतीय कृषि में बौद्धिक संपदा अधिकार की आवश्यकता एवं चुनौतियाँ <i>बलराम सिंगोतिया</i>	325-334
42.	हापुड़ जिले में कृषि सब्सिडी एवं उत्पादकता: आर्थिक प्रभाव, चुनौतियाँ और संभावित समाधान <i>रश्मि</i>	332-337
43.	कोरोना संकट का भारतीय अर्थव्यवस्था पर प्रभाव <i>मंजू कुशवाह</i>	338-340
44.	बौद्धिक संपदा एवं महात्मा गाँधी का दृष्टिकोण <i>पंकज सिंह & पल्लवी सिंह</i>	341-346
45.	भारतीय अर्थव्यवस्था पर कोरोना का प्रभाव एवं बौद्धिक सम्पदा अधिकार <i>सरलेश कौशल & बकील सिंह कौशल</i>	347-352
46.	पारंपरिक भारतीय समाज और आर्थिक व्यवस्था में परिवर्तन <i>सुरेश प्रसाद अहिरवार</i>	353-360
47.	भारत में बौद्धिक संपदा अधिकार का महत्व –एक आर्थिक अध्ययन <i>देवेन्द्र सागर & पुरुषोत्तम गौतम</i>	361-369
48.	TRIPS समझौते का भारतीय अर्थव्यवस्था पर प्रभाव: एक अध्ययन <i>उत्सव आनंद & रामकिशोर अहिरवार</i>	370-375
49.	आर्थिक विकास में बौद्धिक संपदा अधिकारों की भूमिका <i>कविता बागरी & कमलेश कुमार दुबे</i>	376-386
50.	आंतरिक वायु प्रदूषण एवं ग्रामीण महिलाओं का स्वास्थ्य <i>अंशुल जैन & आनंद सुगंधे</i>	387-396



Recent Trends in Intellectual Property Right (IPR) in India

Akash Simoliya¹, Girish Mohan Dubey¹ & Keshav Tekam¹

1. Dept. of Economics, Dr. Harisingh Gour Vishwavidyalaya, Sagar-470003 (M.P.)

Corresponding Author: akashsimoliya1997@gmail.com

Abstract: Intellectual Property Rights (IPR) have emerged as a cornerstone of modern economic and technological development, serving as a critical mechanism for fostering innovation, creativity, and competitiveness in a globalized world. In recent years, India has witnessed significant transformations in its IPR landscape, driven by rapid technological advancements, evolving legal frameworks, and the increasing integration of the Indian economy into global markets. This paper aims to analyse the trend in IPR in India during (2018-19 to 2022-23) and also to evaluate the filing of IP application among various categories of IPR in India during the same period. The analytical tool used for data analysis is One-Way ANOVA to test the hypothesis of no difference among the filing of Intellectual Property (IP) applications across different categories. the p -value is 0.000 (highly significant), we reject H_0 . This confirms that the number of filings varies significantly across different IP categories (e.g., Patents, Trademarks, Copyrights, etc.). The large F -statistic (158.706) further supports that the differences are substantial.

Key Words: Intellectual Property Right; Patent; WTO and TRIPS.

Introduction : Intellectual Property Rights (IPR) have emerged as a cornerstone of modern economic and technological development, serving as a critical mechanism for fostering innovation, creativity, and competitiveness in a globalized world. In recent years, India has witnessed significant transformations in its IPR landscape, driven by rapid technological advancements, evolving legal frameworks, and the increasing integration of the Indian economy into global markets. The importance of IPR in India cannot be overstated, as it plays a pivotal role in protecting the rights of creators, inventors, and businesses while simultaneously encouraging the dissemination of knowledge and innovation.

India's journey in the realm of intellectual property has been marked by a series of reforms and adaptations aimed at aligning its legal and regulatory frameworks with international standards. The country's commitment to strengthening its IPR ecosystem was significantly bolstered by its accession to the World Trade Organization (WTO) in 1995 and the subsequent adoption of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS). The TRIPS Agreement mandated member countries, including India, to establish robust IPR laws that ensure adequate protection and enforcement of intellectual property. In response, India undertook comprehensive legislative reforms, including the enactment of the Patents



(Amendment) Act, 2005, which introduced product patents in the pharmaceutical and chemical sectors, marking a watershed moment in India's IPR history.

One of the most notable trends in recent years has been the growing emphasis on fostering innovation and creativity through the protection of intellectual property. India has emerged as a global hub for research and development (R&D), particularly in sectors such as information technology, pharmaceuticals, biotechnology, and renewable energy. The Indian government has implemented a range of policy initiatives to promote innovation, including the National Intellectual Property Rights Policy, 2016, which aims to create a vibrant IPR ecosystem that supports the generation and commercialization of intellectual property. This policy underscores the importance of IPR in driving economic growth, enhancing India's global competitiveness, and addressing societal challenges through innovation.

Another significant trend is the increasing awareness and utilization of IPR among Indian businesses, startups, and individuals. With the rise of the knowledge economy, intellectual property has become a valuable asset for companies seeking to differentiate themselves in competitive markets. Indian startups, in particular, have recognized the importance of protecting their innovations through patents, trademarks, and copyrights, as evidenced by the surge in IPR filings in recent years.

The digital revolution has also had a profound impact on India's IPR landscape, giving rise to new challenges and opportunities in the realm of intellectual property. The proliferation of digital technologies, such as artificial intelligence, blockchain, and the Internet of Things (IoT), has necessitated the development of innovative approaches to IPR protection and enforcement.

India's judiciary has played a crucial role in shaping the country's IPR regime through landmark judgments and interpretations of intellectual property laws. The courts have consistently emphasized the importance of balancing the rights of IPR holders with the broader public interest, particularly in areas such as access to medicines, education, and information. Notable cases, such as *Novartis AG v. Union of India* (2013), have set important precedents in the realm of patent law, underscoring the need for a nuanced approach to IPR that considers both innovation and affordability. The judiciary's proactive stance has contributed to the evolution of a more equitable and inclusive IPR ecosystem in India.

Despite these advancements, India's IPR regime continues to face several challenges that hinder its full potential. One of the most pressing issues is the backlog of pending IPR applications, which has led to delays in the grant of patents, trademarks, and copyrights. The Indian government has taken steps to address this issue by modernizing the infrastructure of the Intellectual Property Office (IPO) and increasing the number of examiners, but more efforts are needed to streamline the IPR



application process and reduce pendency. Additionally, there is a need for greater awareness and capacity-building among stakeholders, particularly small and medium-sized enterprises (SMEs) and individual inventors, to enable them to effectively navigate the complexities of the IPR system.

Another challenge lies in the enforcement of IPR laws, which remains a contentious issue in India. Counterfeiting, piracy, and infringement of intellectual property rights continue to pose significant threats to the rights of creators and innovators. While the government has introduced measures to strengthen IPR enforcement, such as the establishment of specialized IPR courts and the implementation of stricter penalties for infringement, there is a need for more coordinated efforts among law enforcement agencies, the judiciary, and other stakeholders to combat these issues effectively.

The global dimension of IPR also plays a critical role in shaping India's approach to intellectual property. As a signatory to various international treaties and agreements, India is obligated to adhere to global IPR standards while also safeguarding its national interests. The country's stance on issues such as access to medicines, traditional knowledge, and biodiversity has often placed it at the center of international debates on IPR. India's efforts to protect traditional knowledge and genetic resources through mechanisms such as the Traditional Knowledge Digital Library (TKDL) have been widely acclaimed, serving as a model for other countries seeking to balance IPR protection with the preservation of cultural heritage.

Looking ahead, this paper aims to analyse the trend in IPR in India during (2018-19 to 2022-23) and also to evaluate the filling of IP application among various categories of IPR in India during the same period.

Review of Literature: A comprehensive review by Kumar et al. (2012) delves into the intricacies of IPR in India, discussing protection criteria across different categories such as copyrights and geographical indications. The study emphasizes the importance of understanding these aspects to navigate the IPR landscape effectively. The Indian government's proactive measures to strengthen its IPR regime have been highlighted in recent analyses. Over the past five years, initiatives such as modernizing IP offices, increasing manpower, implementing e-filing systems, and expediting examination procedures have been undertaken to enhance the efficiency and effectiveness of IPR management. The Standing Committee on Commerce's report titled "Review of the Intellectual Property Rights Regime in India" underscores the necessity of balancing private rights through IPRs with societal interests. The report advocates for an IPR framework that not only incentivizes innovation and creativity but also ensures accessibility and affordability for the public. Furthermore, the National Intellectual Property Rights Policy, introduced in 2016, has been a subject of scholarly review.



The policy aims to foster innovation, creativity, and entrepreneurship by promoting a holistic and conducive ecosystem for IPRs in India. It outlines strategies to modernize infrastructure, enhance legal and legislative frameworks, and strengthen enforcement mechanisms.

Khan et al. (2023) conducted an analysis of patents filed by Indian universities and research institutions, highlighting a concentration of patent applications in a limited number of top institutions. The study emphasizes the need for a more widespread culture of innovation and patenting across a broader range of academic entities to enhance technological advancement and economic growth in India. Ahuja (2017) provides a comprehensive overview of the legal frameworks governing IPR in India, discussing the evolution of laws and their alignment with international standards. The work examines various forms of intellectual property, including patents, trademarks, and copyrights, offering insights into their protection and enforcement within the Indian context. Gokarn (n.d.) discusses the contentious issues surrounding IPR between India and the United States, proposing an eminent domain approach to reconcile differences. The analysis suggests that such an approach could address conflicts arising from differing perspectives on IPR protection and enforcement, potentially leading to more harmonious international relations in the realm of intellectual property.

Halder (2024) provides a comprehensive analysis of the challenges and opportunities associated with IPR in India. The study emphasizes the importance of disseminating IPR knowledge and implementing appropriate measures to foster innovation and technological advancement. Ahuja and Kumar (2024) explore the evolving landscape of AI-generated works, examining the complex balance between IPR and technological advances. Their research addresses the emerging challenges and legal implications of AI in the context of copyright and patent laws. Sattiraju et al. (2022) assess the IPR policies and innovation practices of HEIs in India. Their cross-sectional study identifies barriers to IP generation, commercialization, and technology transfer, highlighting the need for institutional IP policies that promote industry linkages and successful technology transfer. Mishra et al. (2023) examine the intersection of emerging technologies and IPR, focusing on AI and patent laws in India and the USA. Their cross-jurisdictional analysis provides insights into the challenges and prospects of patenting AI-related inventions. Chauhan (2024) investigates the influence of India's legal framework on IPR and innovation. The study delves into the complexities of patents, copyrights, trademarks, and trade secrets, assessing their effectiveness in encouraging creative endeavors and suggesting reforms to enhance innovation and competitiveness.

Chauhan (2024) examines the influence of India's legislative framework on IPR and innovation, analyzing patents, copyrights, trademarks, and trade secrets. The



study assesses the effectiveness of these legal instruments in promoting creative endeavors and technological advancement. Mangal (2005) provides an overview of the IPR landscape in India, discussing the rights related to literary, artistic, and scientific works, among others. The paper highlights the importance of IPR in the context of India's economic development and the need for robust legal frameworks to protect these rights.

Methodology: The present study is descriptive and analytical in nature based on secondary data collected from the various authentic sources like research paper, government websites, government and publications. The analytical tool used for data analysis is One-Way ANOVA to test the hypothesis of no difference among the filing of Intellectual Property (IP) applications across different categories viz., Patents, Designs, Trademarks, Geographical Indications, Copyrights, and Semiconductor Integrated Layout Designs (SCILD). The Tukey HSD (Honestly Significant Difference) Post-Hoc Test has also been applied to confirm the results of One-Way ANOVA.

Objectives:

- To analyse the trends in IPR in India during (2018-19 to 2022-23).
- To evaluate the filling of IP application among various categories of IPR in India during (2018-19 to 2022-23).

Hypothesis:

- **H₀:** There is no significant difference among the filing of Intellectual Property (IP) applications across different categories viz., Patents, Designs, Trademarks, Geographical Indications, Copyrights, and Semiconductor Integrated Layout Designs (SCILD).
- **H₁:** There is significant difference among the filing of Intellectual Property (IP) applications across different categories viz., Patents, Designs, Trademarks, Geographical Indications, Copyrights, and Semiconductor Integrated Layout Designs (SCILD).

Data Analysis and Discussion:

- 1) **Trends of the Five Years (2018-19-2022-23):** The table 1 below presents a five-year trend (2018-19 to 2022-23) in the filing of Intellectual Property (IP) applications across different categories: Patents, Designs, Trademarks, Geographical Indications, Copyrights, and Semiconductor Integrated Layout Designs (SCILD).

**Table 1: Trends in last five year with respect to filing of IP Application**

Application	2018-19	2019-20	2020-21	2021-22	2022-23
Patent	50,659	56,267	58,503	66,440	82,811
Design	12,585	14,290	14,241	22,699	22,698
Trade mark	323,798	334,805	431,213	447,805	466,580
Geographical Indications	32	42	58	116	211
Copyrights	18,250	21,905	24,451	30,988	29,466
Semiconductor Integrated Layout Designs (SCILD)	NIL	Nil	05	01	23
Total	405,324	427,309	528,471	568,049	601,789

Annual Report 2022-23 Intellectual Property Right in India MoCI GoI

(https://ipindia.gov.in/writereaddata/Portal/IPOAnnualReport/1_114_1_ANNUAL_REPORT_20223_English.pdf)

The total number of filings has increased from 405,324 (2018-19) to 601,789 (2022-23), reflecting a substantial rise of about 48.5% over five years. The biggest jump occurred between 2020-21 and 2021-22, with an increase of nearly 39,578 applications (7.5%). There has been a steady increase in patent filings each year. The most significant jump is in 2022-23, where filings rose to 82,811, showing a 24.8% growth from the previous year. In Design Applications growth was moderate from 2018-19 to 2020-21, but there was a sharp increase in 2021-22 (22,699 applications). However, filings remained almost constant in 2022-23 (22,698), indicating a possible saturation or stabilization. The highest number of applications comes from trademarks, growing from 323,798 (2018-19) to 466,580 (2022-23). The highest year-over-year increase happened in 2020-21, suggesting a boom in business registrations and brand protection needs. The growth rate in GI filings has been substantial in percentage terms, but absolute numbers remain low. In 2022-23, applications increased to 211, almost 6.6 times the number in 2018-19. In Copyright Filings, there was consistent growth from 2018-19 to 2021-22, but in 2022-23, applications slightly declined (from 30,988 to 29,466). This could indicate changes in copyright laws, a shift in creative industry trends, or other external factors. Almost negligible filings until 2020-21, but a sharp rise to 23 in 2022-23 suggests emerging interest in semiconductor-related IP. This could be due to advancements in semiconductor technology or government policies promoting chip manufacturing.

- 2) **Descriptive Statistics:** In table 2 below, Patent and Copyrights have relatively similar means, but Patent shows more variation (higher standard deviation). Design has the smallest range and standard deviation, indicating it's more consistent. Geographical Indications (GI), while having the lowest mean, exhibits the most variability compared to the other categories, as shown by its



relatively large standard deviation. The Trademark application type has the highest mean value (400,840.20) and a relatively high standard deviation (66,607.186), suggesting a wider spread of values. Semiconductor Integrated Layout Designs (SCILD) has the lowest values overall, with a mean of just 5.80 and a maximum of 23.

Table 2 Descriptive Statistics

Application Types	N	Minimum	Maximum	Mean	Std. Deviation
Patent	5	50659	82811	62936.00	12471.422
Design	5	12585	22699	17302.60	4973.338
Trademark	5	323798	466580	400840.20	66607.186
Geographical Indications	5	32	211	91.80	74.150
Copyrights	5	18250	30988	25012.00	5273.602
Semiconductor Integrated Layout Designs (SCILD)	5	0	23	5.80	9.834
Total	5	405324	601789	506188.40	86397.786
Valid N (listwise)	5				

(Source: Author Compilation; Software used: SPSS)

3) Interpretation of One-Way ANOVA

From the table 3 below, these are the findings of One-Way ANOVA

Statistic	Value	Interpretation
F-Statistic	158.706	A high F-value suggests that there is a significant difference among the IP categories.
p-value (Sig.)	0.000	Since $p < 0.05$, we reject the null hypothesis (H_0), meaning the differences in filings among IP categories are statistically significant.
Between Groups SS	614,271,726,106.267	Variation due to differences between categories.
Within Groups SS	18,578,416,625.600	Variation within each category.
Total SS	632,850,142,731.867	Total variation in the dataset.
Degrees of Freedom (df)	5 (between groups), 24 (within groups)	Shows how many independent comparisons were made.

Since the p-value is 0.000 (highly significant), we reject H_0 . This confirms that the number of filings varies significantly across different IP categories (e.g., Patents, Trademarks, Copyrights, etc.). The large F-statistic (158.706) further supports that the differences are substantial.



Table 3.1 ANOVA

Filings	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	614271726106.267	5	122854345221.253	158.706	.000
Within Groups	18578416625.600	24	774100692.733		
Total	632850142731.867	29			

(Source: Author Compilation; Software used: SPSS)

4) **Tukey HSD (Honestly Significant Difference) Post-Hoc Test:** The Tukey HSD (Honestly Significant Difference) Test compares each pair of categories to determine which specific pairs have significant differences in IP filings.

Table 4 Multiple Comparisons

Dependent Variable: Filings						
Tukey HSD						
(I) Category	(J) Category	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Patent	Design	45633.400	17596.598	.138	-8774.07	100040.87
	Trademark	-337904.200*	17596.598	.000	-392311.67	-283496.73
	Geographical Indications	62844.200*	17596.598	.017	8436.73	117251.67
	Copyright	37924.000	17596.598	.294	-16483.47	92331.47
	SCILD	62930.200*	17596.598	.017	8522.73	117337.67
Design	Patent	-45633.400	17596.598	.138	-100040.87	8774.07
	Trademark	-383537.600*	17596.598	.000	-437945.07	-329130.13
	Geographical Indications	17210.800	17596.598	.920	-37196.67	71618.27
	Copyright	-7709.400	17596.598	.998	-62116.87	46698.07
	SCILD	17296.800	17596.598	.919	-37110.67	71704.27
Trademark	Patent	337904.200*	17596.598	.000	283496.73	392311.67
	Design	383537.600*	17596.598	.000	329130.13	437945.07
	Geographical Indications	400748.400*	17596.598	.000	346340.93	455155.87
	Copyright	375828.200*	17596.598	.000	321420.73	430235.67
	SCILD	400834.400*	17596.598	.000	346426.93	455241.87
Geographical Indications	Patent	-62844.200*	17596.598	.017	-117251.67	-8436.73
	Design	-17210.800	17596.598	.920	-71618.27	37196.67
	Trademark	-400748.400*	17596.598	.000	-455155.87	-346340.93
	Copyright	-24920.200	17596.598	.717	-79327.67	29487.27
	SCILD	86.000	17596.598	1.000	-54321.47	54493.47
Copyright	Patent	-37924.000	17596.598	.294	-92331.47	16483.47
	Design	7709.400	17596.598	.998	-46698.07	62116.87
	Trademark	-375828.200*	17596.598	.000	-430235.67	-321420.73



	Geographical Indications	24920.200	17596.598	.717	-29487.27	79327.67
	SCILD	25006.200	17596.598	.714	-29401.27	79413.67
SCILD	Patent	-62930.200*	17596.598	.017	-117337.67	-8522.73
	Design	-17296.800	17596.598	.919	-71704.27	37110.67
	Trademark	-400834.400*	17596.598	.000	-455241.87	346426.93
	Geographical Indications	-86.000	17596.598	1.000	-54493.47	54321.47
	Copyright	-25006.200	17596.598	.714	-79413.67	29401.27

*. The mean difference is significant at the 0.05 level.

(Source: Author Compilation; Software used: SPSS)

Findings from the Tukey HSD (Honestly Significant Difference) Test are given below-

Significant Differences ($p < 0.05$)	Non-Significant Differences ($p > 0.05$)
Patent vs. Trademark ($p = 0.000$): Trademark filings are significantly higher than Patent filings by 337,904 applications.	Patent vs. Design ($p = 0.138$) → No significant difference.
Patent vs. Geographical Indications ($p = 0.017$): Patent filings are significantly higher than Geographical Indications by 62,844 applications.	Patent vs. Copyright ($p = 0.294$) → No significant difference.
Patent vs. SCILD ($p = 0.017$): Patent filings are significantly higher than SCILD by 62,930 applications.	Design vs. Geographical Indications ($p = 0.920$) → No significant difference
Design vs. Trademark ($p = 0.000$): Trademark filings are significantly higher than Design filings by 383,537 applications.	Design vs. Copyright ($p = 0.998$) → No significant difference.
Trademark vs. Geographical Indications ($p = 0.000$): Trademark filings are significantly higher than Geographical Indications by 400,748 applications.	Geographical Indications vs. SCILD ($p = 1.000$) → No significant difference.
Trademark vs. Copyright ($p = 0.000$): Trademark filings are significantly higher than Copyright filings by 375,828 applications.	Copyright vs. SCILD ($p = 0.714$) → No significant difference.
Trademark vs. SCILD ($p = 0.000$): Trademark filings are significantly higher than SCILD by 400,834 applications.	



Conclusion: In conclusion, the recent trends in India's IPR landscape reflect the country's ongoing efforts to strike a balance between promoting innovation and safeguarding the public interest. As India continues to emerge as a global leader in innovation and technology, the importance of a strong and adaptive IPR regime cannot be overstated. By examining the dynamic interplay between legal, economic, and technological factors, this study seeks to contribute to the ongoing discourse on the role of IPR in driving sustainable development and inclusive growth in India. The research also concludes that since the p-value is 0.000 (highly significant), we reject H_0 . This confirms that the number of filings varies significantly across different IP categories (e.g., Patents, Trademarks, Copyrights, etc.). The large F-statistic (158.706) further supports that the differences are substantial. The Tukey HSD (Honestly Significant Difference) Post-Hoc Test that compares each pair of categories to determine which specific pairs have significant differences in IP filings also confirms the ANOVA results.

References:

1. Kumar, S., Kumar, S., & Laha, A. K. (2012). Management of intellectual property rights in India: An updated review. *Journal of Natural Science, Biology, and Medicine*, 3(1), 2-6.
2. International Trade Administration. (n.d.). India - Protecting Intellectual Property. U.S. Department of Commerce.
3. PRS Legislative Research. (n.d.). Review of the Intellectual Property Rights Regime.
4. Kumar, A. (2016). National Intellectual Property Rights Policy of India - A Review. SSRN Electronic Journal.
5. Ahuja, V. K. (2017). *Law Relating to Intellectual Property Rights* (3rd ed.). LexisNexis Butterworths.
6. Gokarn, S. (n.d.). *Intellectual Property Rights: An Eminent Domain Approach for India and the U.S.* Brookings Institution.
7. Khan, S., Sharma, S. K., & Laha, A. K. (2023). From Misalignment to Synergy: Analysis of Patents from Indian Universities & Research Institutions.
8. Ahuja, M. R., & Kumar, D. G. (2024). Exploring Emerging Challenges, Prospects, and Legal Implications: Copyright and Patent Laws in AI-Generated Works. *Journal of Intellectual Property Rights*, 29(3). or.niscpr.res.in
9. Chauhan, K. (2024). Intellectual Property Rights and Innovation: A Study of India's Legal Framework. *Indian Journal of Law*, 2(3), 38–45. law.shodhsagar.com
10. Halder, B. K. (2024). Intellectual Property Rights in India: Challenges and Opportunities. *International Education and Research Journal*, 10(11). ierj.in
11. Mishra, P., Thakur, V. S., Shandilya, S., Singhal, A. K., & Kishore, Y. (2023). Emerging Technologies and Intellectual Property Rights: A Cross-Jurisdictional Examination of AI



and Patent Laws in India and the USA. *Journal of Intellectual Property Rights*, 28(5).
or.niscpr.res.in

12. Sattiraju, V. K., Pandey, R., Pallela, R., Sircar, A., Ligade, V. S., Muragundi, P. M., & Janodia, M. D. (2022). Intellectual Property Rights Policies of Higher Education Institutions (HEIs) in India: A Cross-Sectional Study. *Journal of Science and Technology Policy Management*, 13(4), 837–848.
13. Chauhan, K. (2024). Intellectual Property Rights and Innovation: A Study of India's Legal Framework. *Indian Journal of Law*, 2(3), 38-45. [researchgate.net](https://www.researchgate.net)
14. Mangal, V. (2005). Intellectual Property Rights: Indian Scenario. *Journal of Business Administration Online*, 4(1). atu.edu
15. *Journal of Intellectual Property Rights*. (n.d.). National Institute of Science Communication and Information Resources. en.wikipedia.org

Disclaimer/Publisher's Note: The statements, opinions, and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of TJSD and/or the editor(s). The Journal of Scientific Discourse (TJSD) and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.



Comparative Study of Behavioral Economics Applications across Developed and Developing Economies

Ruchi Patel¹ & Utasav Anand¹

1. Dept. of Economics, Dr. Harisingh Gour Vishwavidyalaya, Sagar-470003 (M.P.)

Corresponding Author: mailruchi213@gmail.com

Abstract: Behavioral economics merges psychological insights with conventional economic theories, offering a richer perspective on decision-making and challenging the notion that choices are always rational. This study examines the application of behavioral economics in both developed and developing nations, highlighting their distinct challenges and benefits. In developed nations, it helps improve market efficiency and public policy by reducing cognitive biases. In contrast, in developing economies, it acts as a means to combat poverty, enhance social welfare, and encourage financial inclusion. By examining existing research, this paper assesses the success of behavioral interventions, points out differences across contexts, and proposes future research avenues to improve our understanding of behavioral economics in various economic settings.

Keywords: Behavioral Economics, Developed Economies, Developing Economies, Policy Interventions, Poverty Alleviation, Market Behavior, Nudge Theory

Introduction: Behavioral economics seeks to complement classical economic theories by assuming that individuals behave rationally while they make their decisions; however, the decision-making process is often interfered with by some bias, emotions, and/or lack of information. Rather, behavioral economics aims at understanding real-life decision-making, accounting for human cognitive limitations and social influences, instead of aiming to maximize utility, which is the pure aim of classical economic models. The relevance of behavioral economics has risen after many governments and organizations recently recognized its capacity to improve economic policies and interventions. Governments worldwide have started incorporating behavioral insights in their respective policy frameworks to nudge the populace into better finance schemes, healthier life choices, and environmentally sustainable practices. The ability to change behaviors without explicit coercion by populating "nudges" into decision environments has made behavioral economics an attractive choice in addressing social problems.

Its applications vary across economic settings owing to differences in socio-economic systems. In developed economies, policies concerning consumer conduct, tax adherence, and health are informed by behavioral economics using interventions such as nudges to promote good choices. Developed economies tend to apply behavioral knowledge in order to maximize financial choices, enhance regulatory regimes, and increase the effectiveness of public programs. While in developing

economies, behavioral economics has a key role to play in solving systemic problems like financial inclusion, poverty reduction, and access to healthcare. Most developing nations use behavioral interventions to fill educational gaps, promote savings among poor people, and improve public health outcomes. This paper examines the role of behavioral economics in these two economic settings, including its effectiveness, shortcomings, and policy implications. Through the analysis of different case studies and policy implementations, this research aims to bring out the variations in behavioral economic interventions and their overall contribution to economic development.

Behavioral Economics in Developed Economies: Behavioral economics has had a significant contribution to decision-making in developed economies, particularly financial behavior, public policy, health and consumer choice.

- Savings during Retirement: Automatic 401(k) plan enrollment results in greater participation levels (Choi et al., 2004). The "Save More Tomorrow" plan (Thaler & Benartzi, 2004) successfully raises savings rates.
- Tax Compliance: Social norm strategies, including prompting by comparing individuals' behavior with their peers' behavior, enhances tax compliance (Lacetera et al., 2012).
- Consumer Protection: Institutionalized decision-making processes and transparency in finance decrease bad financial choices (Loewenstein et al., 2014).
- Public Health: Default settings for organ donation have raised donor levels of participation (Johnson & Goldstein, 2003). Likewise, labeling for calories and portion control enhance nutrition (Downs, Loewenstein, & Wisdom, 2009).

Behavioral Economics in Developing Economies: In developing economies, behavioral economics assists in solving financial exclusion, poverty, and public health issues:

- Financial Inclusion: Reminders improve savings behavior for low-income individuals (Karlan & Appel, 2011). Commitment savings accounts avoid early withdrawal (Ashraf, Karlan, & Yin, 2006).
- Education and Health: Conditional Cash Transfers (CCTs) in Mexico (Oportunidades) and Bolsa Família in Brazil promote school enrolment and use of health care (Banerjee & Duflo, 2019). The Janani Suraksha Yojana program in India lowered maternal and child mortality (Muralidharan et al., 2016).
- Public Health Interventions: Behavioral interventions, e.g., subsidized mosquito nets (Dupas, 2011) and vaccination nudges (Duflo, Kremer, & Robinson, 2011), enhance health outcomes.

Comparative Analysis of Behavioral Economics in Developed and Developing Economies: Both developed and developing countries apply behavioral economics



differently due to differences in socio-cultural determinants, resources, and government.

- **Scale of Programs:** Developed nations have large-scale government programs, while developing countries have smaller-scale, externally funded programs.
- **Cultural Influence:** The success of nudges is culture-dependent; community-based methods are more effective in collective societies (Sunstein, 2013).
- **Knowledge Sharing:** Wealthy economies can learn microfinance models from developing economies, and developing economies can learn proven behavioral policies from advanced economies.

Objectives:

1. Compare the effectiveness of behavioral interventions in financial inclusion, tax compliance, public health, and consumer behavior across different economic contexts.
2. Identify challenges and provide recommendations in behavioral economics applications for policy and social welfare in both economies.

Methodology: This study relies on secondary data, including peer-reviewed journal articles, books, government policy documents, and case studies on behavioral interventions in diverse economies.

Result: The effectiveness of behavioral interventions varies across economic contexts:

Category	Developed Economies (Effectiveness)	Developing Economies (Effectiveness)
Financial Inclusion	Moderate - Automated savings plans improve long-term savings (Choi et al., 2004)	High - Commitment savings programs address financial exclusion (Ashraf, Karlan, & Yin, 2006)
Tax Compliance	High - Peer comparison nudges enhance compliance (Lacetera et al., 2012)	Moderate - Trust in institutions affects compliance outcomes (Rothstein, 2019)
Public Health	High - Default organ donation policies increase participation (Johnson & Goldstein, 2003)	High - Conditional cash transfers improve healthcare access (Muralidharan et al., 2016)
Consumer Behavior	High - Transparent financial disclosures enhance decision-making (Loewenstein et al., 2014)	Moderate - Literacy programs help improve financial decisions (Banerjee & Duflo, 2019)



The table shows a comparison of the impact of behavioral economic interventions in developed and developing economies, and how context affects outcomes. Interventions such as automated savings programs, peer comparison nudges, default organ donation, and clear financial disclosures are moderately to highly effective in developed economies because people tend to have improved access to financial services and greater trust in institutions. Conversely, developing economies experience high success with commitment savings programs, conditional cash transfers and trust-based interventions, as the regions in question frequently experience issues such as financial exclusion, poor access to services and lower institutional trust. Interventions therefore engineered for these particular issues are likely to find more success in developing economies, whereas developed economies get more out of systems that enable automation of habits and build on existing infrastructure.

Challenges In Behavioural Economics Applications

Challenges in Developed Economies

1. **Moral Challenges of Policy Delivery:** Nudge tactics tend to be morally problematic of manipulation and control. The use of policies as a nudge has been seen by some critics as an incursion of private freedom and preference.
2. **Dependence on Defaults:** Defaults can be proved effective (for instance, organ donation programs), but might not always be transferred across policy sectors. Dependence on defaults too heavily can yield unpredictable results in the event of the failure to make informed choices.
3. **Long-Term Success:** The majority of behavioral interventions yield short-term positive effects but no long-term effects. Automatic enrollment savings plans may not necessarily create sustained behavior change.
4. **Diminishing Returns:** With more widespread use of behavioral insights, the intervention might become less effective as people get used to nudges, and their effectiveness ebbs over time.
5. **Cultural and Demographic Differences:** Policies of behavior meant for one place might not apply equally to varied populations in the economies of developed nations. Varying socio-economic status, educational levels, and cultural influences influence response to intervention.

Challenges in Developing Economies

1. **Low Financial and Digital Literacy:** Most behavioral interventions rely on the existence of some baseline level of financial and digital literacy, and this is most commonly found deficient in developing economies, weakening the impact of nudges designed to enhance financial choice-making.



2. **Weak Institutional Frameworks:** Weak institutions, corruption, and weak regulation enforcement complicate the implementation and maintenance of behavior policies.
3. **Scalability Challenges:** Pilot studies at small scales are effective but frequently collapse when scaled to larger levels owing to limited resources and shortages of infrastructure.
4. **Trust Deficit in Institutions and Government:** Developing economies generally suffer from low public trust in government and financial institutions, which reduces the effectiveness of interventions based on peer comparisons and social norms.
5. **Economic Instability and External Shocks:** Persistent economic crises, inflation, and political instability can destabilize behavioral programs, making long-run planning difficult.

Conclusion: Behavioral economics has played a key role in policy-making across developed and developing economies. It increases market effectiveness and policy effectiveness in developed economies, while financial access and social issues are resolved in developing economies. While it performs equally well in both situations, challenges in poorer countries result from literacy, informal employment, and scalability. In a bid to make sure that behavioral interventions will still function in the future, additional research has to prioritize cross-country testing, ethicality, and long-term sustainability of actions taken. Policymakers need to take an effort in culturally sensitive and responsive interventions which consider socio-economic realities of varied regions. Establishing more useful partnerships between governments, research centers, and international organizations will ensure the best behavior interventions and most benefits to varied populations. By cross-knowledge exchange between developing and developed nations, both are able to learn from one another's experiences as well as tune behavioral economic indicators to spur serious economic and social advancement.

References:

1. Ashraf, N., Karlan, D., & Yin, W. (2006). Tying Odysseus to the mast: Evidence from a commitment savings product in the Philippines. *Quarterly Journal of Economics*, 121(2), 635–672. <https://doi.org/10.1162/qjec.2006.121.2.635>
2. Banerjee, A. V., & Duflo, E. (2019). Good economics for hard times: Better answers to our biggest problems. *PublicAffairs*.
3. Choi, J. J., Laibson, D., Madrian, B. C., & Metrick, A. (2004). For better or for worse: Default effects and 401(k) savings behavior. In *Advances in behavioral finance* (pp. 60-82). Princeton University Press.
4. Duflo, E., Kremer, M., & Robinson, J. (2011). Nudging farmers to use fertilizer: Theory and experimental evidence from Kenya. *American Economic Review*, 101(6), 2350–2390. <https://doi.org/10.1257/aer.101.6.2350>
5. Dupas, P. (2011). Health behavior in developing countries. *Annual Review of Economics*, 3(1), 425-449. <https://doi.org/10.1146/annurev-economics-111809-125029>



6. Johnson, E. J., & Goldstein, D. (2003). Do defaults save lives? *Science*, 302(5649), 1338–1339. <https://doi.org/10.1126/science.1091721>
7. Karlan, D., & Appel, J. (2011). More than good intentions: How a new economics is helping to solve global poverty. Dutton.
8. Lacetera, N., Macis, M., & Slonim, R. (2012). Will there be blood? Incentives and displacement effects in pro-social behavior. *American Economic Journal: Economic Policy*, 4(1), 186–223. <https://doi.org/10.1257/pol.4.1.186>
9. Loewenstein, G., Sunstein, C. R., & Golman, R. (2014). Disclosure: Psychology changes everything. *Annual Review of Economics*, 6(1), 391-419. <https://doi.org/10.1146/annurev-economics-080213-041341>
10. Muralidharan, K., Niehaus, P., & Sukhtankar, S. (2016). Building state capacity: Evidence from biometric smartcards in India. *American Economic Review*, 106(10), 2895–2929. <https://doi.org/10.1257/aer.20141346>
11. Rothstein, B. (2019). *The quality of government: Corruption, social trust, and inequality in international perspective*. University of Chicago Press.
12. Sunstein, C. R. (2013). *Simpler: The future of government*. Simon and Schuster.
13. Thaler, R. H., & Benartzi, S. (2004). Save more tomorrowTM: Using behavioral economics to increase employee saving. *Journal of Political Economy*, 112(1), S164-S187. <https://doi.org/10.1086/380085>
14. Thaler, R. H., & Sunstein, C. R. (2008). *Nudge: Improving decisions about health, wealth, and happiness*. Yale University Press.

Disclaimer/Publisher's Note: The statements, opinions, and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of TJSD and/or the editor(s). The Journal of Scientific Discourse (TJSD) and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.



An Investigation of the Challenges Faced by Anganwadi Workers in Tribal Area

Lokesh Kumar Badule¹ & Veena Thawre¹

1. Dept of Economics., D.H.S.G.V.V. Sagar-470003, M.P. India.

Corresponding Author: lokeshbadule1@gmail.com

Abstract: The ICDS program was first implemented in India on October 2, 1975. The services are currently offered as part of Saksham Anganwadi and Poshan 2.0 after being renamed Anganwadi Services. Through a wide network of Anganwadi workers (AWW) and assistants (AWH), this state/unit-sponsored program provides early childhood development and care to eligible beneficiaries, such as children ages 0 to 6, pregnant women, and nursing mothers. The major roles and responsibilities of AWWs are 1.) Locating and registering children under six, nursing mothers, and pregnant moms who qualify for ICDS services. 2) Encouraging the community to participate in Anganwadi events, spreading knowledge of ICDS initiatives, and encouraging healthy lifestyle choices. In the tribal area, the responsibilities are more important because of the high death rate of children, the mortality rate very high, and the lack of awareness and knowledge about pregnancy. The data was collected from primary and secondary sources, primary sources included one-to-one interviews and questionnaires in the tribal area Mohal Manpur and Chowki district (MMC), and secondary data was collected from government reports and annual reports, thesis, and research paper articles. It was a purposive sampling and convenient selection in tribal areas. It was undertaken through interviews with selected AWWs at the Anganwadi center during their working hours (11 am-3 pm). Research is focused on the professional problems of AWWs in the tribal area. In MMC the number of villages is 169 and the number of Anganwadi (AW) is 300. The number of samples collected is 30. 40% (12) of AWWs completed secondary education, 40% (12) advanced to higher secondary education, and 10% (3) completed education beyond graduation. Just 10% (3) of AWWs completed their primary education. About 100% of the AW staff came from the same village as the AW. In the tribal area, due to a lack of training, facilities, and awareness, AWW workers faced many professional challenges, especially after the covid 19, and technological improvements.

Keywords: Saksham Anganwadi, Poshan 2.0. Anganwadi workers, mortality rate, primary education, technology.

Introduction: In India, Anganwadi (AW) is a rural childcare facility. To tackle child hunger and malnutrition. Anganwadi translates to "courtyard shelter" in English. The Indian government launched it in 1975 as a component of the Integrated Child Development Services Program (ICDS). In a village, Anganwadi centers often offer basic medical treatment. It is included in the public health care system in India. Basic



health care activities include preschool activities, nutrition instruction and supplements, and contraceptive counseling and supply. ICDS, or Integrated Child Development Scheme, is the world's biggest and most distinctive program. Program for the development of young children. With a remarkable expansion in scope and coverage since its founding in 1975, ICDS now serves over 36 million children and over 7.6 million expecting and nursing mothers. Currently, the largest program in the world, ICDS is the major government intervention to reduce malnutrition among mothers and children. With 158 million children under the age of six, or 15.42% of the total population, India has the biggest kid population in the world, according to the 2011 census. A considerable segment of them resides in impoverished social and economic environments.

On October 2, 1975, the Karnataka government launched the ICDS Scheme. It began as a pilot project at T. Narasipura in the Mysore District, with just 100 Anganwadi centers. Improper child care and feeding habits, sickness, infection, unclean environments, and insufficient access to basic healthcare can all hinder a kid's physical and mental development. The most prominent representation of India's dedication to her children is ICDS. India's approach to addressing the dual challenges of delivering preschool education and ending the cycle of hunger, illness, diminished cognitive ability, and death. Additionally, a child's early years (0 to 6 years) are the most critical because this is when the roots for the child's cognitive, social, emotional, physical, and mental development are formed (PEO, Evaluation 2011). The honorary employees are AWWs and AWH—the primary motivators for managing the ICDS program. The goal of the current study was to evaluate AWW's duties and demographic makeup. This program's primary goal is to meet the developmental needs of young children, ages 0 to 6. AWWs are employees of the AW center who were hired as part of the ICDS project at the local level and are familiar with the sociocultural context and family history of the potential beneficiaries. She holds an honorary employee who receives a monthly honorarium. In India, women make up roughly 50% of the population. Women play a variety of functions in society. Women who work are subjected to a variety of issues. Research investigations have revealed that women are frequently the target of sexual harassment at work.

Mohala-Manpur-Ambagarh Chouki (M.M.C.): The District Rajnandgaon was divided into the M.M.C. on September 2, 2022. It is located in the southwest region of C.G. Mohala where the district office is situated. From an archeological perspective, the M.M.C. district is home to numerous religious sites. During the British rule, there were three riyasats: Koracha, Panabaras, and Ambagarh Chowki. Several significant locations can be found in the district, such as the Mongra Barrage, the Third Nala Dhobedand, the Danteshwari Temple, the Kanhe Temple, Rajawada, Raja Talab, Shivlok Manpur, Bandha Bazar, Rajawada, Raja Devi Temple, and Muda

Pahar. The area is well known for its lakes, millets, major and secondary forest products, iron ore and limestone reserves, lush hills, and inventive tribal culture. The area of MMC area is 2145.29sq Km. The population is 2,83,947 and the density is 132.3 per square km. The number of police stations is 09, the municipality is 01, the blocks are 03(Ambagarh-Chouki, Manpur, and Mohala), and 05 tehsils. The number of gram panchayats in the district is 185 and the villages are 499. According to the census literacy rate, the gender ratio is 74.4% and 1027. The number of AW is 890. The gender ratio is 1027. It indicates that the gender ratio is the population size ratio of men to women. This ratio is not constant because it is influenced by biological, social, technological, cultural, and economic factors. The gender ratio in turn affects the economy, demographics, and society.

Table 1: Number of Anganwadi centres in MMC

Block	Anganwadi	Awws	Help Works
Ambagarh Chouki	300	300	300
Manapur	300	300	300
Mohala	290	290	290
Total	890	890	890

Sources: Block Office of the above three blocks.

In the above table (table 1) Number of blocks is 03 which are namely Ambagarh Chowki, Mohala, and Manapur. In Ambagarh Chouki number of aganwadi is 300, AWWs is 300, and help workers is 300. In Manasapur, the block number of AW is 300, AWWs is 300, and help workers is 300, and in Mohala, the block number of AW is 290, AWWs is 290 and help workers is 290. In the tribal district, the total number of AW is 890. The total number of AWWs is 890 and help workers are 890. The total number of AWWs and help workers is 1780.

Map: 01: Chhattisgarh and MMC district



Figure 1 sources: <https://mohla-manpur-ambagarhchowki.cg.gov.in/en/map-of-district/>

Literature Review: By examining the numerous studies conducted on Anganwadi workers, we can see a variety of material from sources such as research papers published in national and international journals, periodicals, magazines, books, reports, conferences, theses, and other publications relevant

to the study's subject. For the study, various data on divergent facts were collected, assessed, and reviewed from these sources.



Sharma et al. (2018) in their research paper study on Anganwadi Sevikas in Nagpur City's ICDS projects describe the Demographic profile, responsibilities, and needs assessment of Anganwadi Sevika. There is Nine hundred and sixty-eight Anganwadi centers are covered by six ICDS projects in Nagpur. Of those, thirty were chosen using stratified random sampling. Of these Anganwadi centers, 225 Anganwadi Sevika were chosen at random. To gather information from the Anganwadi Sevika about their age, education, family size, kind of family size, and means of transportation. Data concerning the services supplied and the advantages given to the recipients were also collected. This paper concluded that the absence of benefits and remuneration irritated Anganwadi Sevika. The majority of Anganwadi Sevika engaged in outside activities and kept records. The Sevika used many kinds of transportation to get to Anganwadi locations.

Sivadas (2018) in his research paper explored and evaluated the success of the proposed education program for Anganwadi personnel from a chosen Anganwadi center in the rural Mangalore area regarding knowledge of the national nutritional program for children. All the information gathered was analyzed using both inferential and descriptive statistics. The current study used a pre-experimental, one-group pre-test post-test design. To choose the samples, a purposeful sampling strategy was applied. The sample included forty Anganwadi workers from a particular Anganwadi center in the Mangalore Taluk's rural districts. A structured knowledge questionnaire was used to conduct a pre-test assessment of workers' knowledge of the national nutritional program for children among Anganwadi workers. This was followed by the delivery of a planned teaching program on the national nutritional program for children among Anganwadi workers.

K. Reddy (2017) in his research paper explores the challenges Anganwadi teachers face, like inadequate honorarium and work overload. The study recommends raising teacher honoraria, investing in infrastructure, and providing training. A review of the literature emphasizes how education helps to lessen wealth disparity. Methods of observation, interviews, and a structured interview schedule were used in this paper. In Hanamkonda town, Warangal Urban district, 60 Anganwadi instructors attended this study, which was done using random selection. This paper concludes that excessive workload and inadequate wages are problems for AWWs and for AWWs, it is suggested that they receive timely honorarium increments and practical guidance.

Patel (2015) in his research paper explored the accurate understanding of Integrated Child Development Services (ICDS) among Anganwadi Workers. Thirty Anganwadi workers from three of Ahmedabad District's urban blocks make up the study's sample. To determine the mean knowledge score for each of the six ICDS service domains, a total of 26 knowledge indicators are taken into account. The response is coded as 1 if it is accurate and equal to 0 otherwise. The conclusion of the study is Anganwadi

workers need to have a better understanding and awareness of the various ICDS initiatives. Enhancing the quality of training given to Anganwadi personnel is imperative to improve their knowledge of the various ICDS schemes. Establishing regular communication between supervisors and Anganwadi workers to share knowledge and awareness will be beneficial. Additionally, better infrastructure should be provided to implement the ICDS plan properly.

Desai et al. (2012) in their research paper explore the challenges and roles faced by Anganwadi staff in the Vadodara district. Overwork and a lack of support are problems for Anganwadi personnel. The investigation was cross-sectional. It took place in the central Gujarati district of Vadodara, in the Wagodiya block. It was a convenient selection made with purpose. There are 124 Anganwadi in the Wagodiya block. It was planned to include 25% of Anganwadi from each Wagodiya block PHC in the sample, to ensure that it encompasses all geographic areas. This paper concludes that AWWs are overworked and unable to justify their regular labor. Government health officials and other authorities need to remember that they have produced a second, comparable cadre of ASHAs (Accredited Social Health Activists) under the National Rural Health Mission (NRHM) in every village. They ought to be used sensibly. Thus, the AWWs will adjust their services to meet the needs of the community.

Objective: The broad aim of the study is AWWs and their professional problem and to determine all factors that affect their professional work in Mohala Manpur and Abmagarh Chowki in Chhattisgarh. The objectives are as follows.

- To access the social-economical and demographical condition of AWWs.
- To study the infrastructure, availability of resources, and their maintenance in the Anganwadi Center
- To analyse the awareness and level of satisfaction among the Anganwadi teachers regarding technology.
- To study the problems faced by Anganwadi Workers and to provide suggestion for betterment of the same.

Methodology: The qualitative method is the primary foundation for this study. There is a combination of primary and secondary information sources. To obtain information regarding the socioeconomic impact of Anganwadi teachers, a scheduled structured interview is created and given to a chosen sample. Information on the inner realities of the lives of Anganwadi Teachers was also gathered through observation and interview techniques.

Research Design: The current study was carried out in March 2024 in a rural and tribal area of the MMC District. The study location was confined to Bandha Bazar



Blocks. The AWCs that were chosen are all located in rural locations, and their sample selection was based on convenience sampling.

Data Collection: A quantitative study approach was used to collect the necessary information on AWWs' technological awareness. By physically visiting Anganwadi centers, data were gathered in person. Primary and secondary sources of data were both gathered. The secondary data was collected from official documents, published reports of related projects, journals, and social science literature. A semi-structured questionnaire containing both open-ended and closed-ended questions was used to collect the data to assess knowledge of sociodemographic topics and collect data on the effects of Anganwadi staff on how they approach and carry out providing ICDS services and other initiatives. To better understand the Anganwadi workers, the questions were generated following a review of the literature and formulated into Hindi (the local language) and English.

Anganwadi centres in CG state and MMC district; Of the total number of Anganwadi centers in the state of Chhattisgarh, 51,586 are operational, and 52,586 are operational, under the Anganwadi service scheme (As of 30.06.2021). These centers have provided coverage for pregnant or nursing women, children between the ages of three and six, and children between the ages of seven months and three years.

Table:2: Demographical Profile of Anganwadi Workers

Age		
Social Demographic factor	Frequency (n=30)	Percentage (100%)
20-29	5	16.6
30-39	5	16.6
40-49	8	26.6
More 50	12	40.0
Education		
Primary school	3	10.0
Secondary school	12	40.0
Higher school	12	40.0
Graduation	3	10.0
Marital status		
Married	30	100
Unmarried	0	00.0
Distance from Centre		
Same village	30	100
Difference Village	0	00.0
Religion		
Hindu	30	100
Muslim	0	00.0
Christian	0	00.0
Caste		



General	0	00.0
OBC	12	40.0
SC	9	30.0
ST	9	30.0
Social-Economical status		
Poor Family Income	5	16.6
Low Family Income	25	83.3
Middle Family Income	0	0
Upper-middle-family income	0	0

Source: Data collected for primary survey.

Social-economical and Demographical Profile This study was conducted among Anganwadi laborers in a rural Abmagarh Chouki block. There are 300 Anganwadi in Abmagarh Chouki, and 30 were sampled using convent sampling.

The socio-demographic profile of the Anganwadi workers is depicted in Table 2. The majority of Anganwadi workers were in the age group of 20-29 years 4 (13.33%), 30-39 years old number AWWs 10 (33.33%), 40-49-year-old number of AWWs is 13 (43.33%) and for more than 50 years AWWs are 3 (10%). The Educational qualifications are abysmal total graduated AWWs are 3(10%) higher Schools and Secondary Higher Schools 12 (40%) and 12 (40%) and primary school qualifications are Agen 3(10%). Although the ICDS program allows for the appointment of Anganwadi workers within the same village, this investigation discovered that five (16.66%) of the workers were hired from other villages. Who make more than 3 km of daily travel to give services. Anganwadi workers' socioeconomic classification was determined using the BG Prasad socioeconomic scale (CPI Index, November 2017, base year 2000), and the results showed that the majority of them fall into the Low family income 17 (56.66%) category of the classification.

Availability of resources and their maintenance: The availability and maintenance of supplies at Anganwadi centers are the primary topics of Table 3. The assessment's results show that while the Anganwadi facilities have most of the resources they need, there are problems with maintenance. A crucial component for the effective execution of ICDS, the weighing machine, is discovered to be broken in over 50% of the centers. Growth charts were accessible

Infrastructure/ Registers	Present (%)	Maintained (%)
Infrastructure		
Permanent Building	30 (100)	25 (83.33)
Water supply	30 (100)	24 (80)
Electricity	30 (100)	26 (86.66)
Food supply	30 (100)	26 (86.66)
Medicine kit	26 (86.66)	23 (76.66)
Toy kit	28 (93.33)	28 (93.33)
Weight machine	25 (83.33)	24 (80)
Register		
6 months -3 years	30 (100)	21 (70)
3year- 6 year	25 (83.33)	22 (73.33)
Growth chart	26 (86.66)	20(66.66)
Daily diary	27 (90)	23 (76.66)

Source: Data collected for primary survey



for practically all Anganwadi workers, but in most cases, they were incomplete (completed by only 13% of Anganwadi workers).

In the above table 3 shows the logistics of the Anganwadi centre. In infrastructure including permanent Building, Water Supply, Electricity, Food supply, Medicine kit, Toy Kit, and weight Machine. Register Maintenance including (6 Months year, 3 years -6 years, growth chart, and daily diary). In Table 5 AWWs do not have weight machines and 6 AWWs do not maintain all AWWs have Permanent Buildings, Water supply, Electricity, and Food supply but maintenance is not well. In the Register section, 5(16.6%) AWWs do not have registered for 3-year to 6-year children 4(13.3%) AWWs do not have a growth chart and 10(33.3%) do not maintain. 27(90%) AWWs have daily diary Register and 23(76.66) are maintained

Analysis of the awareness among the Anganwadi teachers regarding technology:

In tribal areas, knowledge of technology is lacking because of a lack of knowledge and education. After COVID-19 state government and central Governments introduced new technology services to AWWs for better and smoother work but a lack of proper training and awareness, technology and mobile services become a burden for AWWs. Before the mobile service, all AWWs worked on Register and books but after the Mobile service, all details were maintained in the Samarth portal and Poshan tracker. In the below table

satisfactory level of AWWs in technology in the area of MMC(Chhattisgarh).

Service	Satisfactory result (%) (n=30)
Knowledge about mobile service	4 (13.3)
Knowledge about Samarth Porton	4(13.3)
Verification Adhar number	3(10)
Knowledge about immunisation	7(23.3)
Knowledge about Poshan tracker profile	5(16.6)
Mobile number verification	7(23.3)
Residential profile	8(26.6)
Stock detail	2(6.66)
AWH profile	4(13.3)
Beneficiary registration request	3(13.3)
Condition of Anganwadi Center	3(13.3)
Monthly growth rate	7(23.3)
Details of Newborn baby	6(20)
Details of 0 to 6 months baby	10(33.3)

In the above table 4 shows the satisfactory level of technology service. The number of samples is 30 and the maximum satisfactory level is 12 (40%) in details of 6 months to 3 years b. The minimum satisfactory level is 3(13.3%) in the verification of Adhar Number, stock details, Beneficiary registration request, and condition of Anganwadi center. The government of Chhattisgarh provides mobile phones to every AWW in all states for transparency and smooth work. The Government of Chhattisgarh does not provide any training in reading technology, and a maximum number of workers are not aware of the technology and mobile phones. There for



maximum numbers of workers dot not satisfying. The maximum satisfactory service is maintaining details of 6 months to 3year babies and the lowest are Stock detail 2(6.66%), Condition of Anganwadi center, Beneficiary registration request, and Verification Adhar number are 3(10%). Anganwadi workers received an average wage of Rs 10,000/-per month, which was released at a frequency of 3.4 months (\pm 0.9 months). In addition to low compensation and inconsistent payment releases, the ICDS scheme implementers are very dissatisfied due to the burden of keeping records and the difficulty of administering multiple national programs in addition to ICDS. Perform for the community. As a result, their motivation and morale can suffer.

Conclusion: In 22 villages within the Bandha Bazar Block of MMC, 30 Anganwadi staff and Anganwadi centers participated in the current study. The study's chosen sample size was comparable to other research in the field. (2015) Thakur et al., Chaudhary et al., 2017 Adney et al., 2019 and Akshatha et al., 2019. Following the current study, Anganwadi workers' awareness and competence were generally sufficient and satisfied the needs of the various programs they participated in. Still, the methods noticeably lack the application of the information on the ground. This gap between knowledge and practice when it comes to technology deployment will also have an impact on other projects that use Anganwadi centers and Anganwadi workers as a platform. The causes of the technological gap are mainly a lack of training and awareness, there for all Anganwadi work takes time. That is the cause of Depression and self-doubt. Due to Depression and Self-doubt AWWs are not working efficiently and effectively level.

References

1. Walker, M., & Sharma, R. (2018). *International Journal of Research in Biosciences, Agriculture, And Technology Demographic Profile and Responsibilities of Anganwadi Sevika: Vol. Vi.* [Www.Vmsindia.Org](http://www.vmsindia.org)
2. *Poshan Tracker.* (N.D.).
3. Ravinder Reddy Asst Professor, K. (2017). *International Journal of Social Science and Economic Research Problems of Anganwadi Teachers in Urban Areas-A Study in Hanmakonda.* [Www.Ijsser.Org](http://www.ijsser.org)
4. Agarwal, A., Garg, G., Kumar, A., & Chaudhary, K. (2018) A Situational Analysis of The Umbrella Icds Scheme To Identify Knowledge and Practice Gaps Among Anganwadi Workers In A Rural Area Of Meerut. *International Journal Of Science And Research.* [Https://Doi.Org/10.21275/Sr20706093819](https://doi.org/10.21275/Sr20706093819)
5. Gaurav Desai, Niraj Pandit, Resident Doctor, Associate Professor, & Assistant Professor. (N.D.). *The Changing Role Of Anganwadi Workers, Aa Study Conducted In Vadodara District.*
6. *Poshan Tracker.* (N.D.).



7. Sivadas, S. (N.D.). A Survey to Evaluate the Effectiveness of the Planned Education Program On Knowledge of the Ng National Nutrition Program for Children in Anganwadi *Workers At Selected Anganwadi Centres of Mangalore Rural Area*.
8. *Number Of Awanwadi In India*. (N.D.).
9. Patel, N., Parmar, M., Patel, S., Rathod, S., & Ninama, K. (2015) Anganwadi Workers' Awareness Of Integrated Child Development Services (Icds): An Analysis Of Urban Blocks In Gujarat's Ahmedabad District.
10. 170(2), 170–174. www.allsubjectjournal.com
11. Sabharwal, N., Borooah, V. K., Diwakar, D., & Sadana Sabharwal, N. (2012) Assessing the Social Attitude of India's Integrated Child Development Services (Anganwadi) Program Munich Personal RePEc Archive Assessing the Social Attitude of India's Integrated Child Development Services (Anganwadi) Program +. <https://mpra.ub.uni-muenchen.de/75670/>
12. Kumari Sahu, K. (n.d.). *Myths and Realities of Tribal Education: A Primary Study in Similipal Area of Odisha*. www.ijhssi.org
13. Seva, M. M. (2018). Review On Tribal Education Issues And Challenges. *International Journal of Innovative Research and Advanced Studies (IJIRAS)*, 5(11). www.ijiras.com
14. Chowdhury, M., & Banerjee, A. (2013). *International Journal of Educational Administration and Policy Studies Right to the education of Scheduled Tribe: An Indian perspective*. 5(7), 128–134. <https://doi.org/10.5897/IJEAPS2013.0315>
15. *An Analytical Study of Consumer Buying Behaviour Towards Consumer Durable Goods (With Special Reference to Chhatarpur District M.P.)*. (N.D.).

Disclaimer/Publisher's Note: The statements, opinions, and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of TJSD and/or the editor(s). The Journal of Scientific Discourse (TJSD) and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.



Geographical Indications Protection and Economic Growth: A Legal and Economic Analysis in India

Jaya Pandey^{1*}, Girish Mohan Dubey¹ & Keshav Tekam¹

1. Department of Economics, Dr. H.S. Gour V.V., Sagar-470003, M.P., India.

*Corresponding Author: jayapandey0130@gmail.com

Abstract: *Geographical Indications (GIs) are an important form of intellectual property that protects products with unique geographical origins and qualities. In India, the Geographical Indications of Goods (Registration and Protection) Act of 1999, provides a legal framework for the registration and protection of GIs, playing a significant role in fostering economic growth, rural development, and cultural heritage preservation. The role and importance of GIs in India are studied with reference to the legal framework, economic impact, and socio-cultural significance through the examination of case studies and empirical data. An analysis has been carried out of how GI protection leads to enhanced market value, employment generation at the rural level, and the preservation of traditional knowledge and craftsmanship. The paper additionally discusses the challenges that face the implementation of GIs, which include enforcement issues, lack of awareness, and requirements for stronger international recognition. In conclusion, the study provides policy recommendations to improve the GI ecosystem in India, to ensure sustainable economic benefits to producers, and to promote India's rich heritage on a global scale.*

Key Words: *Geographical Indication; IPR; TRIPS; WTO; Economic Growth;*

Introduction: Geographical Indication (GI) is a type of Intellectual Property Right (IPR) that defines a product as being from a specific geographical place where a particular quality, reputation, or other characteristic of the product is mostly attributable to its place of origin. GIs can be applied to a wide range of products, including manufactured, natural, and agricultural items. TRIPS (2012), defines a GI as “any indication that identifies a good as originating from a particular place, where a given quality, reputation or other characteristics of the good are essentially attributable to its geographical origin.” GIs, as defined by TRIPS, need not always be geographical names (such as the name of a town, region, or country) to designate the origin of the goods to which they are associated, but may consist of symbols as well, if such symbols are capable of indicating the origin of the goods concerned without literally naming the place of their origins.

In India, the Geographical Indications of Goods (Registration and Protection) Act of 1999 provides the legal framework for the protection of geographical indications. The Act came into force in September 2003 and is in line with the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) under

the World Trade Organization (WTO) (Srivastava 2004). The protection of GIs serves a dual purpose: safeguarding traditional knowledge, ensuring economic benefits for local communities, and compliance with international standards. The key provisions of the act include:

Definition of GIs: As per Section 2(1)(e), GIs denote goods originating from a specific region, possessing qualities or reputation attributable to that location.

Duration and Renewal: GI registration is valid for ten years and can be renewed indefinitely.

Review of Literature: Joshi (2024), while highlighting the importance of GIs, stated that in India, protecting geographical indications is not just required by law; it is also a socioeconomic requirement. Hence, protecting and promoting GIs will be essential to maintaining India's rich cultural legacy and fostering economic prosperity as the nation continues to integrate into the global economy. Moudgil (2022), in their study discussed how useful instrument GI is, for creating jobs and export revenue in rural areas. To establish a brand in global markets, the legal framework should place greater emphasis on quality control standards. In India, GI is not very popular. Thus, it is necessary to raise people's awareness. Ganihar et al. (2021), described GIs as a new and emerging kind of intellectual property, are currently emerging in India. The total number of geographical indicators that have been recorded is steadily rising per year. This is crucial for GI identification since it establishes an inherent connection between the product and the place. Das (2008), pointed out that the protection of GIs has been one of the most controversial intellectual property rights problems over time. India and other like-minded nations have been advocating for the "extension" of the greater degree of protection, which is now only available to GIs of wines and spirits, to all GIs because they know it is insufficient.

Objectives: The primary objectives of the study are as follows:

- To understand the legal framework and role of GI in the Indian context.
- To analyze state-wise and product-wise distribution of different products under GI registered in India.
- To find out the challenges and policy recommendations to strengthen GIs in India.

Methodology: This research study is descriptive and exploratory. Geographical Indications' concepts, legal considerations, and other GI-related topics have all been examined. The GI Act and Indian IPR provisions are examples of secondary sources of knowledge used in this qualitative study.

Scenario of GI tags in India: GI in the Indian economy plays the role of an engine of development for the rural sector. GI tagging extends the protection to local/regional production, especially in small villages and tribal areas. It ensures the quality of



products like food items, manufactured items, textiles, or other agricultural products and handicrafts (Kasturi, 2009). The first product in India to be recognized with GI Tags was the esteemed Darjeeling Tea, which was introduced on September 15, 2003. Here is a state-wise list of GI tags in India:

Table 1: List of GI Tags in India

State	No.	Important GI tag products
Andhra Pradesh	19	Leather Puppetry, Guntur Chillies, Tirupati Laddu
Assam	10	Muga Silk, Eri Silk, Tezpur Litchi
Arunachal Pradesh	02	Orange, Khamti Rice, Mishmi Textiles
Bihar	13	Madhubani Paintings, Bhagalpur Silk, Shahi Litchi, Sujini Embroidery
Chhattisgarh	02	Champa Silk Sarees, Jeeraphool Rice, Bastar Iron Craft
Goa	15	Fenni, Khola Chilli, Goa Cashew
Gujarat	02	Gir Kesar Mango, Patan Patola, Kutch Embroidery, Rajkot Patola
Haryana	09	Basmati Rice, Phulkari
Himachal Pradesh	09	Kullu Shawls, Kangra Tea
Jammu Kashmir	09	Kashmiri Saffron, Kashmir Walnut Wood Carvings, Pashmina
Jharkhand	01	Sohrai-Khovar Paintings
Karnataka	48	Mysore Agarbathi, Udupi Sarees, Coorg Green Cardamom
Kerala	32	Brass Coconut Shell Craft Embroidered, Central Travancore Jaggery, Pokkali Rice, Kaipad Rice, Tirur Betel Leaf
Madhya Pradesh	12	Chanderi fabric and sarees, Maheshwar sarees
Maharashtra	34	Solapuri chaddar, Nagpur orange, Nashik valley Wine, Nashik grapes, Wasli Paintings, Sangli Raisins, Jal gaon banana
Manipur	05	Kachai Lemon, Chak Hao
Meghalaya	02	Khasi Mandarin, Memomng Narang
Mizoram	06	Paandum, Hmaram, Mizo Puanchei
Nagaland	03	Naga Mircha, Naga Tree tomato
Odisha	18	Gopalpur Tussar fabric, Ganjam kewda, Hanaspuri sarees, Odisha Rasgulla
Punjab	02	Phulkari
Rajasthan	15	Phulkari, Kota Doria, Kathputllis of Rajasthan, Pokhran pottery
Tamil Nadu	39	Salem Fabric, Kancheepuram Silk, Malabar pepper, Dindigul locks, Thanjavur Pith work
Telangana		Pochampally Ikat, Nirmal paintings, Warrangak durries, Telia Rumal
Tripura	01	Tripura queen pine apples
Uttar Pradesh	32	Banaras Brocades and Sarees, Agra durrie, Kanoj perfumes, Saharanpur woodcraft, Agra petha, basmati, Gorakhpur terracotta, Varanasi glass beads
Uttarakhand	01	Basmati
West Bengal	21	Malda Fazli mango, Mihidana, Bengal Patta Chitra, Sitabhog

Source: (DIIPT Report, 2024) *Details of GI Applications Registered as on July 26, 2024.xlsx*

Table 1 represents India’s prosperous variety of Geographical Indication tag products across various states, representing the unique cultural and agricultural heritage of regions. The front runners include Andhra Pradesh, which boasts a

respectable 19 GI products, including Guntur Chillies and Bandar Laddu; and Assam, Bihar, and so on, showcasing the celebrated Muga Silk and Madhubani Paintings. Karnataka for its part boasts a remarkable 48 GI tags, ranging from Mysore Agarbattis to Coorg Green Cardamom. Other states such as Tamil Nadu with 39 and Uttar Pradesh with 32 hosts iconic products like the Kancheepuram Silks and Banaras Brocades. Smaller states like Jharkhand, Tripura, and Arunachal Pradesh also contribute different products. These include Sohrai-Khivar paintings, Tripura Queen Pine Apples, and Mishmi Textiles. This diverse collection of GI products reflects the cultural richness and craftsmanship of India's states, boosting local economies and preserving traditional skills (DIIPT, 2024). Tribal Cooperation Marketing Development Federation (TRIFED) identified 75 tribal products of tribal origin that should receive GI tags under the GI Act following the most recent policies of the Indian government, Vocal for Local, Atma Nirbhar Bharat. A total of 75 goods from 20 states have been chosen. Jharkhand has seven products, MP has six, and the Northeast states have 37 (Satyanarayana, 2024).

Economic significance and impact of GI tags: Numerous advantages highlight the significance of geographical indication. In India, GI tags have a significant economic impact on various types of industries, including textiles, handicrafts, and agriculture. GI tags support India's economy in the following ways:

1. **Employment Generation:** GIs contribute significantly to the economic empowerment of rural producers by enhancing the value of traditional products. Registered GIs such as Kashmiri Pashmina and Alphonso Mangoes have provided farmers and artisans with premium pricing opportunities (Gitteritage, 2023).
2. **Boost to Rural and Agricultural Economy:** GI protection fosters employment by promoting traditional industries, including handicrafts, textiles, and Agro-based products. The rise in demand for GI-tagged products has led to increased job creation in both primary and secondary sectors (Bhatt, 2024).
3. **Export Growth and Foreign Exchange Earnings:** GIs have helped Indian products gain premium status in international markets. Notable examples include Darjeeling Tea, basmati rice, Kanoj perfumes, Agra's petha, etc. (Rahmatullah Professor & Tabish, 2024).
4. **Promotion of Tourism and Regional Development:** GI protection fosters cultural tourism, as seen in cases like Kanjeevaram Silk Sarees and Mysore Sandalwood, which attract tourists interested in authentic, locally-produced goods (Das, 2007).
5. **Marketability and competitiveness:** It makes Indian products appear more trustworthy, marketable, and competitive in the international market.
6. **Sustainable practices and environmental conservation:** It promotes environmental preservation and sustainable production methods in the areas that have been designated.



Challenges in GI Protection and Enforcement: Geographical Indications (GIs) protect products originating from a specific place, ensuring they possess qualities, reputation, or characteristics inherent to that location (Vinayan, 2017). However, several problems and challenges arise with GIs, including:

1. **Lack of awareness and misuse:** Many producers are unaware of GI benefits and registration procedures, particularly small-scale farmers and craftspeople. This results in exploitation by middlemen who profit from GI branding without making sure that real producers receive just remuneration (Walia & Kumar, 2020).
2. **Inadequate Law Enforcement:** The illegal use of GIs and counterfeiting continue to be major problems despite legislative prohibitions. For example, authentic producers are impacted by the sale of counterfeit Darjeeling tea in international markets.
3. **Limited Advertising and Market Access:** Distribution, marketing, and branding issues are common for GI-tagged products. Small manufacturers don't have the money to advertise their goods internationally.
4. **Infrastructure and Technology Needs:** GI items are frequently produced using antiquated techniques that require infrastructure assistance and modification. The competitiveness of Indian GI goods in global markets is hampered by a lack of investment in technology, logistics, and quality control.

Policy Recommendations to strengthen GIs in India: Geographical Indications (GIs) are crucial for protecting traditional products and boosting the rural economy in India. To strengthen GI protection and utilization in India, the following policy recommendations can be considered:

1. **Enhancing Awareness and Capacity Building:** Provide producers with training courses to help them understand the advantages of Geographical Indications (GIs). By launching public awareness efforts at the same time to educate customers about genuine GI items, increasing demand, and thwarting the production of fake goods.
2. **Strengthening Legal and Regulatory Frameworks:** Boost international collaboration for efficient worldwide protection, implement harsher sanctions for unauthorized GI use, and fortify monitoring systems to stop counterfeiting.
3. **Improving Market Access and Branding:** The government ought to create branding campaigns for GI goods, encourage partnerships with international retail chains to increase product visibility, and support digital platforms and e-commerce for a broader market reach (IBEF, 2023).



4. **Investment in Infrastructure and Technology:** Establish GI-exclusive platforms and trade shows to increase awareness and sales and offer financial incentives and R&D support to improve production quality and innovation.
5. **Strengthening Supply Chain and Quality Control:** The establishment of GI certification bodies to verify compliance with quality standards, and enforcing strict quality control measures will ensure the authenticity of GI products and build consumer trust.
6. **Providing Financial and Technical Support:** The government should introduce GI-specific credit schemes to provide financial support to artisans and farmers producing GI-tagged goods. Additionally, R&D support should be offered to improve product quality, packaging, and branding
7. **Strengthening International Protection:** the nation should promote international registration, fortify global GI protection through bilateral frameworks and WTO TRIPS mutual recognition agreements, and take legal and diplomatic action to stop counterfeiting in international markets.

Conclusion: Geographical Indications protection has emerged as a significant tool for promoting economic growth, cultural preservation, and rural development in India (DPIIT, 2023). Additionally, these tags are essential for promoting and protecting the distinctive goods and traditional practices of various regions, fostering economic growth, preserving the heritage of culture, and making Indian goods more competitive in the global marketplace. The legal framework, while robust, requires stronger enforcement, better market access, and increased awareness to maximize its potential. Perhaps, addressing challenges such as counterfeit products, inadequate branding, and infrastructure gaps will ensure that GI protection contributes effectively to India's economic and social progress. Geographical Indications (GIs) are crucial for protecting traditional products and boosting the rural economy in India. Hence with the right policy interventions, India can harness the power of GIs to strengthen its position in global trade and empower local producers sustainably.

Reference:



- Bhatt, S. (2024, March 15). *Significance & Benefits of Geographical Indications in India*. Parker and Parker. <https://www.parkerip.com/blog/significance-benefits-of-geographical-indications-in-india/>
- Das, K. (2007). Protection of Geographical Indications: An Overview of Select Issues with Particular Reference to India. In *SSRN Electronic Journal* (8). Elsevier BV. <https://doi.org/10.2139/ssrn.1587372>
- Das, K. (2008). Select issues and debates around geographical indications with particular reference to India. *Journal of World Trade*, 42(3), 461–507. <https://doi.org/10.54648/TRAD2008021>
- DIIPT. (2024a). *Registered GI of India*. https://ipindia.gov.in/IPIndiaAdmin/writereaddata/Portal/Images/pdf/Registered_GI_of_India_31-12-2024.pdf
- DIIPT. (2024b). State-wise registered GI of India. In *DIIPT*. https://ipindia.gov.in/writereaddata/Portal/Images/pdf/State wise Registered GI of India_26_07_2024.pdf
- DPIIT. (2023). *Geographical Indications*. Government of India. <https://ipindia.gov.in/about-us-gi.htm>
- Ganihar, N., Mulla, S. R., Gollagi, S. G., & C, S. (2021). An overview of Geographical Indications in India. *South Asian Journal of Management Research (SAJMR)*, 11(1), 889–891. <https://www.siberindia.edu.in/journals/SAJMR/Oct-2021/Paper-5.pdf>
- Gitteritage. (2023, March 17). *The Significance of Geographical Indications in India: An Overview of the Legal Framework*. <https://www.giheritage.com/post/the-significance-of-geographical-indications-in-india-an-overview-of-the-legal-framework>
- IBEF. (2023, October 17). *Promotion of Geographical Indications (GIs) in India*. India Brand Equity Foundation. <https://www.ibef.org/blogs/promotion-of-geographical-indications-gis-in-india>
- Joshi, A. (2024, June 22). *Geographical Indications in India: Legal Protection and Economic Implications*. <https://www.legalserviceindia.com/legal/legal/legal/article-17745-geographical-indications-in-india-legal-protection-and-economic-implications.html>
- Kasturi. (2009). *Socioeconomic Implications of Protecting Geographical Indications in India*. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1587352
- Moudgil, A. (2022). Geographical Indications. *National Research Journal of Social Sciences (NRJSS)*, 6(1). [https://www.researchgate.net/publication/358797607 GEOGRAPHICAL INDICATIONS IN INDIA](https://www.researchgate.net/publication/358797607_GEOGRAPHICAL_INDICATIONS_IN_INDIA)

Disclaimer/Publisher’s Note: The statements, opinions, and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of TJSD and/or the editor(s). The Journal of Scientific Discourse (TJSD) and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.



Transformative Impact of Intellectual Property Rights and Behavioral Economics on The Indian Economy in Terms of Legal Protections, Economic Impacts, And Consumer Behavior - An Assessment

G. Yoganandham

Department of Economics, Thiruvalluvar University (A State University) Serkkadu,
Vellore District, Tamil Nadu, India- 632115

Email: drgyoga@tvu.edu.in

Abstract: *This study assesses the transformative impact of Intellectual Property Rights (IPRs) and Behavioral Economics on the Indian economy, focusing on legal protections, economic implications, and consumer behavior. The expansion of IPRs in India has strengthened innovation, foreign direct investment (FDI), and economic competitiveness, yet challenges remain in enforcement, accessibility, and equitable growth. Robust legal frameworks, including the Patent Act, Copyright Act, and Trademarks Act, have facilitated technological advancements but have also raised concerns about monopolistic practices and affordability, particularly in sectors like pharmaceuticals. From a behavioral economics perspective, consumer decision-making is shaped by cognitive biases, bounded rationality, and risk perceptions regarding IPR-protected goods and services. Price anchoring, brand loyalty, and information asymmetry significantly influence purchasing patterns, particularly in digital markets, healthcare, and technology-driven industries.*

The interplay between IP protections and behavioral tendencies impacts market competition, entrepreneurship, and accessibility to essential innovations. Furthermore, India's shift towards a knowledge-based economy underscores the necessity of balancing IPR enforcement with public interest. Policymakers must ensure that IPRs do not stifle competition or widen socio-economic disparities. A nuanced understanding of behavioral economics can aid in designing policies that foster ethical business practices, consumer trust, and sustainable economic growth. By integrating legal protections, economic outcomes, and behavioral insights, this study highlights the evolving role of IPRs and consumer psychology in shaping India's economic trajectory and suggests policy interventions for a balanced, innovation-driven future. In this background, this research paper explores pressing and vital issues in today's rapidly evolving and interconnected world, highlighting their significant relevance to the current global landscape.

Keywords: *Intellectual Property Rights, Behavioral Economics, Consumer Behavior, Indian Economy, Legal Protections, Market Competition, Innovation, and Policy Interventions.*



Introduction: The intersection of Intellectual Property Rights (IPR) and Behavioral Economics has played a transformative role in shaping the Indian economy. As India continues to emerge as a global economic powerhouse, legal protections under IPR have become instrumental in fostering innovation, attracting foreign investments and enhancing economic growth. Simultaneously, behavioral economics, which examines how psychological factors influence economic decision-making, has provided valuable insights into consumer behavior, market dynamics, and policy-making. The interplay of these two fields has profound implications for legal protections, economic impacts, and consumer behavior in India. India's IPR framework, governed by various laws such as the Patents Act, Copyright Act, and Trademarks Act, aims to protect creators, incentivize research and development, and ensure fair competition. Strengthened legal protections have led to increased patent filings, technological advancements, and economic diversification, particularly in sectors like pharmaceuticals, information technology, and entertainment.

Intellectual Property Rights (IPR) in India drive innovation, entrepreneurship, and GDP growth, fostering job creation and attracting multinational corporations. However, challenges like patent disputes, counterfeiting, and regulatory inefficiencies hinder their full economic potential. Excessive protectionism can lead to monopolies, high consumer costs, and restricted knowledge diffusion, necessitating balanced policies. Consumer behavior is influenced by IPR, with biases like loss aversion, brand loyalty, and perceived value shaping purchasing decisions and compliance with intellectual property laws. This study examines the impact of IPR and behavioral economics on India's economy, focusing on legal protections, economic growth, and consumer behavior. It aims to provide insights into optimizing intellectual property laws and strategies for sustainable development. The assessment highlights synergies and challenges in balancing market fairness and consumer welfare.

Statement of the problem: Intellectual Property Rights (IPRs) play a crucial role in fostering innovation, economic growth, and market competitiveness in India. As a rapidly developing economy, India has strengthened its legal framework for IPRs to encourage research, entrepreneurship, and foreign direct investment. However, the enforcement and effectiveness of these legal protections remain uneven across industries, leading to persistent concerns about patent infringement, copyright violations, and trademark disputes. The effectiveness of IPRs in stimulating innovation while ensuring fair competition and public access to knowledge remains a critical issue. At the same time, behavioral economics, which studies how psychological factors influence economic decision-making, has gained prominence in shaping consumer behavior, investment choices, and policy-making in India. The intersection of behavioral economics and IPRs raises important questions about how businesses and consumers respond to legal protections, price regulations, and

branding strategies. While IPRs create incentives for innovation by granting exclusive rights to creators, behavioral biases such as loss aversion, status quo bias, and limited rationality can influence how firms and consumers perceive and utilize these protections. For example, firms may underutilize patents due to regulatory complexities, while consumers may be driven by heuristics that lead to brand loyalty or counterfeit consumption.

Despite progress in strengthening IPR laws, their impact on India's economy is complex, with challenges in balancing innovation, affordability, and preventing monopolies. Small businesses and startups often struggle to benefit from IPR protections. Additionally, the role of behavioral economics in shaping IPR-related decision-making is underexplored in India. This study aims to assess how IPRs and behavioral economics influence economic growth, innovation, market competition, and consumer behavior. It will explore how intellectual property laws affect pricing, branding, and counterfeiting, providing insights to optimize India's IPR framework for enhanced innovation, economic sustainability, and consumer welfare. This research paper examines crucial and urgent topics in today's fast-changing and interconnected world, emphasizing their critical importance in the context of the current global environment.

According to Chandran (2018), India has aligned its IPR regime with WTO's TRIPS Agreement to foster innovation and ensure legal protections for creators. Sundararajan (2020) notes that despite the strengthening of IPR laws, challenges remain in enforcement, with a large informal sector remaining outside IPR's ambit. Sen (2019) analyzes how strong patent protections promote foreign direct investment (FDI) by international firms, with a special emphasis on technology and pharmaceutical sectors.

Gupta and Sharma (2021) examine how IPR impacts small and medium enterprises (SMEs) by hindering access to essential resources for innovation but also creating exclusive market opportunities for patent holders. The pharmaceutical patent regime has sparked debates, as noted by Mitra (2022), on its trade-off between encouraging innovation and restricting affordable access to life-saving medicines.

Chatterjee (2023) identifies key challenges in IPR enforcement, such as piracy, counterfeiting, and lack of consumer awareness, and proposes stronger legal frameworks coupled with consumer education. Reddy & Bhat (2023) discuss the application of behavioral economics in policymaking, recommending behavioral interventions to improve compliance with IPR laws and consumer choices. As Raghavan (2024) points out, India's IPR regime needs reform, particularly in simplifying patent processes and ensuring fair access for local innovators, while leveraging behavioral nudges to boost domestic innovation.



Sharma, M., & Patel, N. (2025) explore how behavioral economics sheds light on the effectiveness of intellectual property (IP) laws in India. The study examines how consumer behavior affects reactions to IP enforcement, particularly in terms of awareness and attitudes toward counterfeits and patent violations. Additionally, the article emphasizes the significant economic effects that enhanced legal protections can have on innovation-centric industries, such as pharmaceuticals and technology.

Objective: The overall objective of the article is to explore the influence of Intellectual Property Rights and behavioral economics on India's economy, emphasizing legal protections, economic effects, and consumer behavior. It analyzes how these elements drive innovation, market trends, and policy formulation, supported by secondary data and statistical information relevant to the topic.

Methodology: This research takes a descriptive and diagnostic approach to analyze the central aspects of the issue, leveraging secondary data and statistical methods. It employs established theoretical frameworks to delve into key concepts within their specific contexts. Drawing on reliable secondary sources, the study incorporates a broad range of published and unpublished materials, including academic articles, official reports, books, journals, expert opinions, and scholarly discussions. The data is systematically organized and analyzed to fulfill the research objectives, yielding meaningful insights, actionable recommendations, and further implications.

Legal Protections and Intellectual Property Rights in India: Frameworks and Challenges: India's legal framework for intellectual property (IP) rights is governed by a combination of national laws and international treaties. The key pieces of legislation include the Indian Patents Act, 1970, the Trade Marks Act, 1999, the Copyright Act, 1957, and the Designs Act, 2000, alongside adherence to international agreements such as the TRIPS (Trade-Related Aspects of Intellectual Property Rights) Agreement. The primary objective of these laws is to provide protection for creators, ensuring their exclusive rights over their innovations and creations, thereby promoting innovation, creativity, and economic growth. Patents in India are granted for inventions that are novel, involve an inventive step, and are capable of industrial application. The patenting process is overseen by the Office of the Controller General of Patents, Designs, and Trade Marks. Similarly, trademarks protect brands, logos, and product names to distinguish them in the marketplace. Copyright law safeguards original literary, dramatic, musical, and artistic works, while designs are protected under the Designs Act for ornamental features of products.

India has made progress in aligning its IP laws with global standards, but challenges persist, including a backlog of patent applications and contentious compulsory licensing provisions in pharmaceuticals. Enforcement remains weak due to limited resources and awareness, while legal processes can be costly and lengthy.



Efforts like the National IPR Policy (2016) aim to improve IP infrastructure, awareness, and enforcement. However, addressing enforcement issues, raising awareness, and fostering innovation in certain sectors are crucial for India to strengthen its position in global intellectual property.

Economic Impacts of Intellectual Property Rights: Innovation, Growth, and Competitive Advantage: Intellectual Property Rights (IPR) play a crucial role in driving economic growth by encouraging innovation, fostering competition, and providing a competitive advantage to businesses. By granting legal protections to creators and inventors, IPR ensures that the creators can benefit economically from their work, which in turn motivates further investment in research and development (R&D). IPRs like patents, copyrights, trademarks, and trade secrets offer exclusive rights to creators, promoting innovation and R&D incentives. This exclusivity encourages investment in new technologies, products, and artistic works, driving productivity and economic growth through continuous innovation. IPR protection is crucial for industries like pharmaceuticals, technology, entertainment, and design, fostering economic growth and industry development. It safeguards creators' economic rights, generating job creation, revenue, and trade, while enabling further research and production.

IPRs provide businesses with a competitive advantage by allowing them to create strong brand identities and protect proprietary processes, technologies, or formulas. This leads to increased investment in branding, marketing, and product development. Intellectual property protection is crucial for global trade and attracting FDI. Robust IPR regimes attract businesses, while weak enforcement risks losing out. As interconnected markets grow, intellectual property protection is essential in trade agreements. IPR drives economic growth by incentivizing innovation, competition, and industry development. It encourages investment in new technologies and products, fostering a competitive business environment. A balanced approach is essential to promote innovation while ensuring the widespread diffusion of knowledge and technology for societal benefit.

Behavioral Economics and Consumer Decision-Making: Influences of Intellectual Property in India: Behavioral economics seeks to understand how psychological, emotional, and social factors influence consumer decisions, often diverging from the traditional models of rational decision-making. In the context of India, a rapidly growing economy with a burgeoning middle class and increasing digital connectivity, the role of intellectual property (IP) has become more prominent in shaping consumer behavior. Intellectual property, encompassing patents, trademarks, copyrights, and trade secrets, represents a key driver of innovation, competition, and brand recognition. In India, IP protection influences consumer decision-making by fostering trust and brand loyalty. Consumers associate



trademarks and patents with product quality, reliability, and reliability, leading to preference for patented medications over generic ones. Intellectual property (IP) can influence pricing strategies in industries like pharmaceuticals, technology, and entertainment, leading to higher prices.

However, the psychological effect of owning exclusive products can make consumers willing to pay more. IP also incentivizes innovation, as seen in India's smartphone market growth, as companies like Apple and Xiaomi introduce new features. Indian consumers often lack understanding of IP rights, affecting product availability and pricing. Education on IP benefits can encourage business investment in research and development. IP influences consumer behavior, especially in luxury goods, by promoting desires for branded products that symbolize status. As India strengthens its IP framework, both consumers and businesses will better appreciate IP's role in fostering innovation, trust, and a competitive market.

Navigating the Intersection of IPR and Consumer Behavior: The Role of Perceived Value and Trust: The intersection of Intellectual Property Rights (IPR) and consumer behavior plays a crucial role in shaping market dynamics, as consumers' perceptions of value and trust influence their purchasing decisions and attitudes towards branded goods. IPR is designed to safeguard creators' innovations, ensuring that intellectual assets such as patents, copyrights, and trademarks are protected. This legal framework not only preserves the interests of creators but also contributes to consumer confidence by guaranteeing product authenticity and quality. Perceived value refers to the consumer's assessment of the benefits of a product relative to its cost. This perception can be significantly affected by IPR, as it often assures consumers of the originality and quality of a product. When a product is protected under IPR, consumers are more likely to associate it with a higher standard, as they trust that the creator's intellectual property has been safeguarded. This trust in the brand and product quality reinforces the perceived value and justifies a higher price point, thus enhancing consumer satisfaction.

Intellectual Property Rights (IPR) play a crucial role in shaping consumer behavior by fostering trust and ensuring product authenticity. Strong IPR enforcement reduces counterfeit goods, providing consumers with confidence in the quality and legitimacy of their purchases. This trust strengthens brand loyalty, encouraging repeat purchases and brand advocacy. As consumers become more discerning, IPR enhances perceived value, leading to greater satisfaction and loyalty. In a market increasingly flooded with counterfeits, IPR's role in maintaining market integrity and influencing purchasing behavior is more important than ever.

The Role of IPR in Fostering Entrepreneurship and Economic Development in India: Intellectual Property Rights (IPR) play a crucial role in fostering



entrepreneurship and driving economic development in India. By providing legal protection to creators and innovators, IPR encourages the development and commercialization of new ideas, products, and technologies, ultimately contributing to economic growth. Firstly, IPR incentivizes innovation by ensuring that entrepreneurs can protect their inventions and creations from unauthorized use or replication. This protection creates an environment where individuals and businesses are motivated to invest time, money, and resources into research and development (R&D), knowing that they will benefit from the exclusivity granted by patents, trademarks, copyrights, and trade secrets. In India, a strong IPR framework can boost the confidence of entrepreneurs, especially in emerging industries like biotechnology, software, pharmaceuticals, and entertainment, where intellectual capital is key to success. Secondly, IPR facilitates access to capital.

Investors and financial institutions are more likely to fund startups and businesses that hold patents or trademarks, as these assets increase the company's value and marketability. By leveraging their intellectual property, entrepreneurs can attract investments, secure loans, or enter strategic partnerships that help scale their ventures. IPR drives job creation and boosts India's export potential by enabling companies to compete globally. Strong IPR protection fosters innovation, leading to more skilled job opportunities in areas like R&D, design, and marketing. It supports the growth of a knowledge-based economy, particularly in IT and creative industries. IPR also attracts foreign investments, enhancing India's global competitiveness. By strengthening IPR enforcement, India can accelerate economic growth, foster entrepreneurship, and establish itself as a hub for innovation.

Behavioral Insights into IPR Enforcement: Understanding the Gaps in Compliance and Impact: Intellectual Property Rights (IPR) enforcement plays a crucial role in protecting innovation, ensuring fair competition, and fostering economic growth. However, despite robust legal frameworks, gaps in compliance persist, largely due to behavioral factors that influence stakeholders' actions. Understanding these behavioral insights is key to identifying the reasons behind non-compliance and enhancing the effectiveness of enforcement mechanisms. One significant behavioral factor is the lack of awareness among individuals and organizations regarding the importance and scope of IPR. Many businesses, especially in developing economies, fail to recognize the value of protecting intellectual property, seeing it as an optional or secondary concern rather than a strategic asset. This perception often leads to inadvertent violations, such as unauthorized use or reproduction of patented products, trademarks, or copyrighted materials.

The high costs and time involved in enforcing IPR protection discourage compliance, particularly for small businesses and startups. These enterprises may



perceive the costs of pursuing protection or challenging violations as outweighing the potential benefits, leading to non-compliance. Social norms also play a role in shaping behavior. In some industries or regions, intellectual property infringement may be seen as a common or even acceptable practice, further eroding the incentive for compliance. The lack of perceived deterrence, due to weak enforcement or low-profile cases, creates a culture of disregard for IPR laws. Additionally, there is a psychological component of rationalization, where infringers justify their actions by downplaying the significance of the violation. Piracy and counterfeiting often stem from the belief that such actions don't harm original creators or contribute to broader access to affordable goods. The complexity of IPR laws and lack of understanding across jurisdictions further lead to non-compliance. To address this, enforcement strategies should incorporate behavioral insights, focusing on awareness campaigns, simplified legal frameworks, and stronger deterrents. Promoting a culture of IPR respect and international cooperation can reduce psychological barriers to compliance. Understanding behavioral motivations can create more effective enforcement and ensure IPR's role in fostering innovation and economic growth.

Evaluating the Future of IPR in India: A Behavioral Economic Approach to Legal Reforms and Growth:

India's Intellectual Property Rights (IPR) framework has undergone significant evolution, yet challenges persist in balancing innovation incentives with public access to knowledge. To secure India's position as a global leader in innovation, it is essential to understand the intersection of legal reforms and behavioral economics in shaping the future of IPR. A behavioral economic perspective offers insight into how cognitive biases, information asymmetry, and market imperfections influence decision-making among stakeholders—ranging from inventors and businesses to policymakers. A critical area where behavioral economics plays a role is in understanding the biases that may affect inventors' and creators' willingness to protect their work. Research indicates that cognitive biases, such as overconfidence or loss aversion, might lead individuals to underestimate the value of IPR or delay the patenting process. Such behaviors result in missed opportunities for growth, both for the creators and the Indian economy. Additionally, the complexity and high costs of IPR registration, as well as lengthy legal processes, discourage small and medium enterprises (SMEs) from seeking protection, exacerbating the knowledge gap.

India's IPR system must evolve to address challenges in the digital economy, such as online infringement and access to medicines. Behavioral economics highlights the need for reforms that simplify processes and raise awareness about the long-term benefits of IPR for SMEs. Policies should be tailored to India's socio-economic context, fostering innovation and respect for intellectual property. Incentivizing public-private partnerships, streamlining registration, and supporting



innovators can enhance compliance and growth. Integrating behavioral insights into IPR reforms can create a more dynamic, accessible, and equitable system. By addressing the cognitive biases, simplifying processes, and fostering greater public awareness, India can strengthen its innovation ecosystem, making significant strides toward economic growth and global competitiveness in the knowledge economy.

Conclusion: The transformative impact of Intellectual Property Rights (IPRs) and Behavioral Economics on the Indian economy is a growing subject of study, as both play crucial roles in shaping legal protections, economic outcomes, and consumer behavior. Intellectual Property Rights (IPRs) in India, including patents, copyrights, trademarks, and geographical indications, protect creators' innovations, attracting foreign investment, and fostering a competitive market. Enforcing these laws has led to the establishment of specialized courts and offices, enhancing the IP environment. Intellectual property rights (IPRs) significantly contribute to the Indian economy by promoting innovation and protecting proprietary technologies. They boost global competitiveness, create new revenue streams, and create industries. However, enforcement remains challenging due to widespread counterfeit products and piracy. Behavioral economics suggests consumer biases, such as brand loyalty and perceived quality, influence demand for trademarked goods, increasing the economic value of IPRs.

Behavioral economics reveals that consumer behavior is influenced by intellectual property laws, particularly in markets where brand identity and reputation are crucial. IPRs encourage awareness of value, incentives, and demand for protected innovations. In short, the intersection of Intellectual Property Rights and Behavioral Economics in India has had a transformative impact on the economy. Stronger legal protections have fostered innovation, growth, and investment, while behavioral insights have shaped consumer preferences and enhanced market efficiency. Together, these forces continue to drive economic development, encouraging both creators and consumers to engage in a dynamic, knowledge-based economy.

References:

1. Acharya, A., & Pandey, P. (2016). "The Role of Intellectual Property Rights in Economic Growth in India." *Indian Economic Review*, 51(2), 151-173.
2. Bagchi, A., & Ghosh, S. (2018). "Behavioral Economics and Consumer Preferences: The Case of India." *Economic and Political Weekly*, 53(12), 47-57.
3. Chandran, S. (2018). The Evolution of Intellectual Property Rights in India: An Analysis. *International Journal of Law, Policy, and the Internet*, 2(1), 52-67.
4. Chatterjee, S. (2023). Legal and Economic Challenges in Protecting Intellectual Property Rights in India. *Indian Journal of Law and Economics*, 12(3), 68-83.
5. Chaudhary, S., & Sharma, P. (2019). "Intellectual Property Rights and Innovation: Impact on Indian Economy." *International Journal of Intellectual Property Law*, 8(4), 231-245.
6. Das, S. K. (2020). "The Economic Impact of Intellectual Property Rights on Indian Innovation." *Journal of Economic Policy and Development*, 29(1), 20-35.



7. Gulati, P., & Kapoor, R. (2017). "Legal Protections and the Economic Value of Intellectual Property in India." *International Review of Law and Economics*, 52, 106-118.
8. Gupta, P., & Sharma, A. (2021). Intellectual Property Rights and SMEs in India: Opportunities and Challenges. *Asian Economic Policy Review*, 15(3), 230-245.
9. Haldar, A., & Mukherjee, S. (2015). "The Intersection of Intellectual Property Rights and Behavioral Economics in India." *Journal of Law, Economics, and Organization*, 31(3), 415-439.
10. Jain, M., & Gupta, R. (2021). "IPR, Innovation, and Indian Consumer Behavior: A Behavioral Economics Perspective." *Asian Journal of Economics*, 10(2), 88-102.
11. Kapoor, A., & Singh, S. (2017). "The Legal Landscape of Intellectual Property in India: Economic and Behavioral Insights." *Indian Journal of Law and Economics*, 44(3), 29-46.
12. Kaur, S., & Rani, V. (2018). "Intellectual Property Rights in India: Consumer Behavior and Legal Impact." *Journal of Indian Business Research*, 10(2), 112-128.
13. Kumar, R. (2025). Intellectual Property and Economic Development in India: A Behavioral Economics Perspective. *Journal of Economic Policy and Analysis*, 29(1), 45-67.
14. Nayak, A., & Patel, R. (2017). "Understanding the Behavioral Economics of Indian Consumers in the Context of Intellectual Property." *Review of Development Economics*, 21(3), 732-747.
15. Patel, K., & Sharma, A. (2019). "The Economic Impact of IPR Policies on India's Innovation Landscape." *Global Policy Review*, 14(4), 335-347.
16. Patel, M., & Verma, N. (2024). Behavioral Economics and the Evolution of Intellectual Property in India: Economic Consequences and Legal Protections. *Journal of Behavioral Economics and Policy*, 18(2), 101-120.
17. Raghavan, M. (2024). IPR and Innovation in India: Reforming the Patent System. *Indian Law Journal*, 75(2), 31-47.
18. Ramaswamy, P. (2020). "Behavioral Economics and the Legal Landscape of Intellectual Property in India." *Journal of Economic Behavior and Organization*, 105, 34-45.
19. Sharma, R., & Nair, S. (2018). "Behavioral Economics and Consumer Trust in the Indian IP System." *International Journal of Law and Economics*, 35(1), 43-59.
20. Singh, A., & Kapoor, R. (2024). Intellectual Property Rights and Their Economic Impact in India: Legal Protections and Consumer Behavior. *Indian Journal of Economics and Law*, 32(1), 55-72.
21. Singh, M., & Kumar, A. (2019). "Intellectual Property and Consumer Behavior: A Behavioral Economics Approach." *Economic and Political Weekly*, 54(4), 66-79.
22. Sinha, R., & Mukherjee, S. (2021). "Legal Protections and the Consumer Behavior Model in Intellectual Property." *Indian Journal of Law and Social Sciences*, 33(2), 128-144.
23. Sundararajan, V. (2020). Challenges in IPR Enforcement in India: A Review. *Journal of Indian Legal Studies*, 6(3), 98-110.

Disclaimer/Publisher's Note: The statements, opinions, and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of TJSD and/or the editor(s). The Journal of Scientific Discourse (TJSD) and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.



The Evolution of Intellectual Property Rights in India: Trends, Policies, and Challenges

Shivam Kabir^{1*} & Veerandra Singh Matsaniya¹

1. Dept. of Economics, Dr. Harisingh Gour Vishwavidyalaya, Sagar-470003 (M.P.)

*Corresponding Author: shivam1999kabir@gmail.com

Abstract: India's intellectual property (IP) landscape is experiencing significant growth, with a surge in patent filings, trademark applications, and design registrations. Key sectors driving this growth include pharmaceuticals, information technology, and biotechnology. This paper examines the trends in intellectual property (IP) indicators—patents, trademarks, and the Global Innovation Index (GII)—for India, with the objective of identifying patterns and assessing their implications for the nation's innovation landscape. As India continues to strengthen its position as a global economic power, its IP system plays a crucial role in fostering and protecting innovation. Through a detailed analysis of patent and trademark filings, alongside India's ranking and performance in the GII, this study aims to uncover the current status of India's IP framework. Furthermore, the paper highlights key challenges faced by the Indian IP system, such as delays in patent examination, high costs, inadequate awareness among stakeholders, and inconsistent enforcement of IP rights. Based on these findings, the paper proposes several recommendations to address these issues, including streamlining the patent examination process, enhancing public awareness of IP rights, improving the infrastructure for IP enforcement, and aligning national policies with global best practices to create an environment conducive to innovation. By addressing these challenges, the paper concludes that India can significantly improve its IP system, thereby fostering an ecosystem that supports creativity, technological advancement, and global competitiveness.

Keywords: Intellectual Property (IP), IP awareness, Economic growth, Patent filings, Trademark applications.

Introduction: The evolution of intellectual property rights (IPR) in India is a multifaceted journey that reflects the country's socio-economic and legal development. As India integrated more closely into the global economy, the necessity for a robust framework of IPR protection became increasingly evident. Intellectual property encompasses legal rights granted to individuals or organizations for their creations, including patents, copyrights, trademarks, and trade secrets. These rights aim to foster innovation, protect the interests of creators, and encourage economic growth. However, the evolution of IPR in India has been shaped by a combination of historical, legal, and policy-related factors that have influenced its current landscape.



Historically, the concept of intellectual property in India dates back to the British colonial era, where the country was subjected to the laws of the British Empire. It was during the 19th century that India adopted its first patent laws, reflecting the influence of colonial policies. Over time, India began to modernize its intellectual property system, especially post-independence, as the country sought to assert its own legal and economic identity. The major turning point in India's intellectual property history came with the adoption of the Indian Patents Act of 1970, which marked a significant shift from the earlier colonial patent regime (Correa, 2007). The Act sought to balance the need for innovation with the recognition of local concerns, such as access to medicines and technology. The liberalization of the Indian economy in the early 1990s significantly impacted the evolution of intellectual property in the country. As part of its commitment to the World Trade Organization (WTO) and the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), India had to bring its IPR laws in line with international standards. The Trade Marks Act of 1999 and the Copyright (Amendment) Act of 2012 were some of the key legislative changes made to comply with global norms (Vij, 2015). The adoption of these reforms aimed at fostering a more attractive environment for foreign investment, technology transfer, and innovation.

However, the journey of IPR in India has not been without challenges. One of the key issues facing the country is the tension between maintaining robust intellectual property protections while also ensuring access to essential goods such as medicines and agricultural products. The Indian patent regime, particularly in the area of pharmaceutical patents, has been a focal point for global debates, with India's stance on generic drugs drawing both praise and criticism (Dhar, 2008). Additionally, there is the challenge of enforcing intellectual property rights in a country with a large informal economy, where piracy, counterfeiting, and infringement are prevalent issues (Jaitly, 2016). The evolution of intellectual property rights in India, therefore, reflects a delicate balancing act between protecting the interests of creators and innovators and addressing broader social and economic concerns. The country's IPR policies continue to evolve, influenced by domestic needs and global pressures, as it seeks to maintain its competitive position in the global knowledge economy.

Following are reviews related to the evolution of intellectual property rights in India: - **Sinha, S. (2019)** in his paper entitled "The dynamics of intellectual property law in India: A review of legislative changes and challenges" explores the shifts in India's intellectual property law in the context of international treaties like TRIPS and the country's evolving legislative landscape. Sinha analyses the growth of IPR law, focusing on the balance between innovation and access to essential goods, particularly in the pharmaceutical sector. The review also addresses enforcement challenges in a large, diverse economy like India's. **Bhattacharya, P. (2017)** in his paper entitled "Intellectual property rights in India: A historical perspective on policy and



development” provides an in-depth historical analysis of intellectual property rights in India, from the colonial era to the post-independence period. The review highlights key legislative changes, including the Indian Patents Act of 1970, and examines the impact of globalization and international treaties on India’s IPR framework. **Reddy, D. (2020)** in his paper entitled “The impact of intellectual property reforms on India’s innovation ecosystem” focuses on the economic and technological impact of IPR reforms in India. It critically evaluates how the country’s evolving intellectual property laws have fostered innovation in various sectors such as pharmaceuticals, information technology, and agriculture, while also discussing challenges in enforcement and implementation. **Patel, M. (2021)** in his paper entitled “Challenges and prospects of intellectual property rights in India: A critical review” critically assesses the challenges facing India’s IPR system, with a particular focus on the tensions between protecting intellectual property and ensuring public access to essential goods like medicines. The review examines India’s unique position in the global IPR landscape, considering both the benefits and drawbacks of its legal framework. **Sharma, A. (2018)** in his article entitled “The role of intellectual property rights in India’s economic growth: A review of policy and practice” reviews the role of intellectual property rights in driving India’s economic growth, specifically through innovation and foreign direct investment. The article discusses the evolution of IPR policies, the influence of global trade agreements, and the challenges that India faces in balancing intellectual property protection with socio-economic concerns. Following are Objectives of the investigation:

1. Identifying trends in patent, trademark, and The Global Innovation Index (GII) for India.
2. To analyse key challenges faced by the Indian IP system and Provide recommendations for improving the system to foster innovation.

Result:

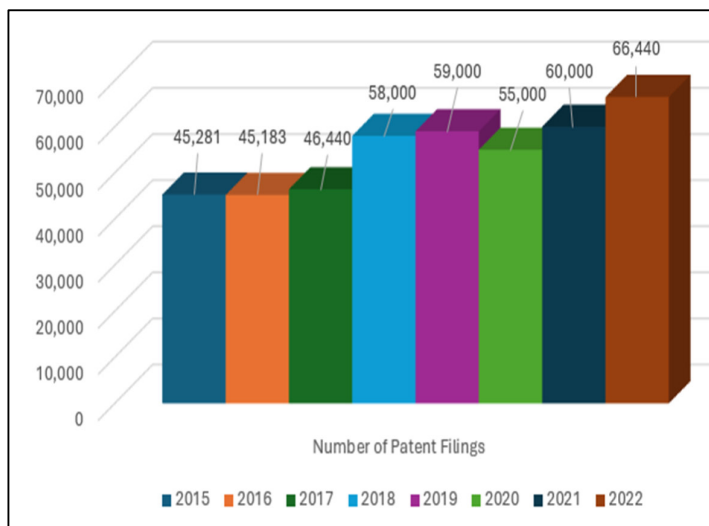
Patent Filings: Patent filings refer to the legal process by which inventors seek exclusive rights to their inventions. In India, patent applications have been on the rise, particularly in sectors such as pharmaceuticals, biotechnology, and information technology. These filings grant inventors exclusive rights for a specified period, typically 20 years, to prevent unauthorized use of their innovations. The Indian government has worked to streamline the patent process, including expedited examination procedures, in order to encourage innovation and reduce the backlog of applications (Office of the Controller General of Patents, Designs, and Trademarks [CGPDTM], 2023).

Table 1. Patent Filings in India (Annual Growth)



Year	2015	2016	2017	2018	2019	2020	2021	2022
Number of Patent Filings	45,281	45,183	46,440	58,000	59,000	55,000	60,000	66,440

Source: Annual Report 2021-2022, Office of the Controller General of Patents, Designs & Trademarks, Government of India.



Graph plotted from above table 1

The table presents the number of patent filings from 2015 to 2022, showing fluctuations in filings over the years. From 2015 to 2017, filings remained relatively stable, with a slight increase from 45,281 in 2015 to 46,440 in 2017. A significant surge occurred in 2018 and 2019, reaching 58,000 and 59,000, respectively. However, in 2020, filings dropped to 55,000, possibly due to the impact of the COVID-19 pandemic. The numbers rebounded in 2021 to 60,000 and further surged to 66,440 in 2022, indicating a strong post-pandemic recovery and growing innovation trends.

59,000, respectively. However, in 2020, filings dropped to 55,000, possibly due to the impact of the COVID-19 pandemic. The numbers rebounded in 2021 to 60,000 and further surged to 66,440 in 2022, indicating a strong post-pandemic recovery and growing innovation trends.

Table 2. Sector-Wise Patent Filings in India (2021)

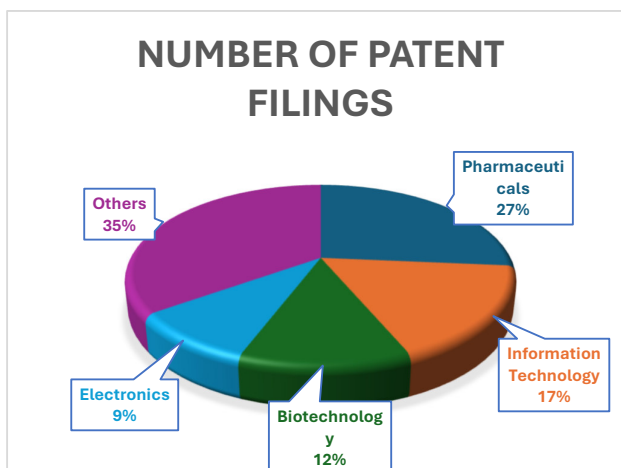
Sector	Pharmaceuticals	Information Technology	Biotechnology	Electronics	Others
Number of Patent Filings	17,532	11,438	8,100	6,200	23,170

Source: Annual Report 2021-2022, Office of the Controller General of Patents, Designs & Trademarks, Government of India.

The pie chart shows the number of patent filings across various sectors, with "Others" leading at 23,170 filings, likely representing a diverse range of industries such as renewable energy, automotive, and consumer goods. Pharmaceuticals follow closely with 17,532 filings, reflecting the high demand for new medical solutions and

drug innovations. Information Technology comes next with 11,438 filings, driven by advancements in software, AI, and tele -communications.

Biotechnology has 8,100 filings, indicating steady innovation in fields like genetic engineering and biopharmaceuticals, while Electronics trails with 6,200 filings, suggesting ongoing but more incremental innovations in hardware, consumer electronics, and semiconductor technologies. These numbers highlight the dynamic and competitive nature of innovation across multiple industries.



Pie chart plotted from above table 2

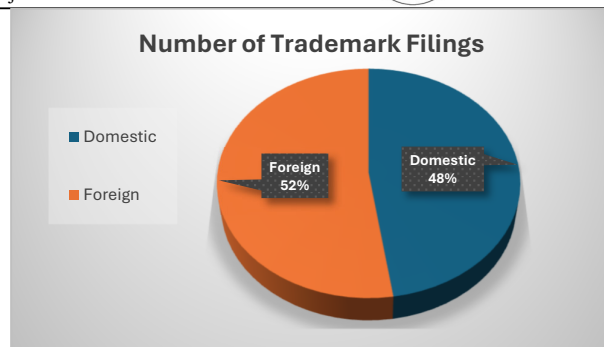
Trademark Filings: Trademark filings involve registering distinctive logos, names, symbols, or designs that distinguish a company’s goods or services from others. In India, the rise in trademark filings, especially in industries such as fashion, technology, and consumer goods, reflects the increasing importance of brand protection as businesses expand. Trademark protection ensures that the owner has exclusive rights to use the mark commercially, thereby safeguarding brand identity and reputation (CGPDTM, 2023). The growing trend is also driven by the increase in startups and foreign business activity in India.

Table 3. Trademark Filings by Domestic and Foreign Entities

Entity Type	Number of Trademark Filings
Domestic	200,000
Foreign	220,000

Source: Annual Report 2021-2022, Office of the Controller General of Patents, Designs & Trademarks, Government of India.

The pie chart provides data on trademark filings based on entity type. Domestic entities filed 200,000 trademarks, while foreign entities filed a slightly higher number at 220,000. This indicates a strong interest in trademark protection from both local and international businesses, with foreign filings surpassing domestic ones. The data suggests a globally competitive market where international companies actively seek trademark protection alongside domestic firms.



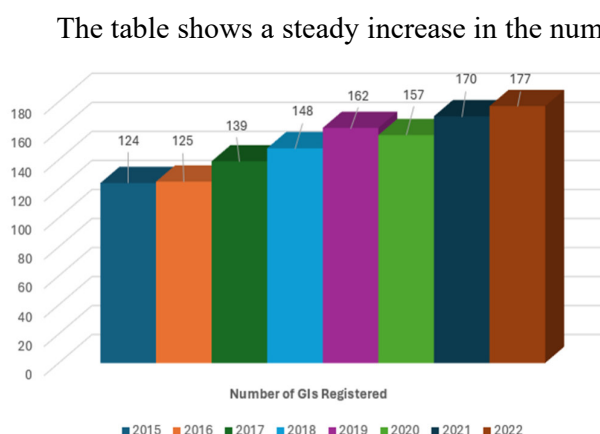
Pie chart plotted from above table 3

Geographical Indications (GIs): Geographical Indications (GIs) are labels assigned to products that originate from a particular region and exhibit unique qualities, reputation, or characteristics linked to that specific location. In India, the registration of GIs has seen significant growth, with products like **Darjeeling Tea** and **Kanchipuram Silk** gaining global recognition and protection. The GI system helps safeguard traditional knowledge and provides economic benefits to local producers by enabling them to market their products under protected names (CGPDTM, 2023). GIs also promote regional identity and encourage tourism and agriculture, providing a competitive edge in international markets.

Table 4. Geographical Indications (GIs) Registered in India (Annual Growth)

Year	2015	2016	2017	2018	2019	2020	2021	2022
Number of GIs Registered	124	125	139	148	162	157	170	177

Source: Office of the Controller General of Patents, Designs & Trademarks, Government of India.



Graph plotted from above table 4

The table shows a steady increase in the number of Geographical Indications (GIs) registered from 2015 to 2022, with the number rising from 124 in 2015 to 177 in 2022. After a slight increase in 2016, there was a more significant jump between 2017 and 2019, with registrations growing from 139 to 162. Although there was a small dip in 2020 (157 registrations), likely due to the global impact of the



COVID-19 pandemic, the number rebounded in 2021 and continued to grow in 2022. This steady rise highlights a growing recognition of the value of protecting regional identities and traditional products across the globe.

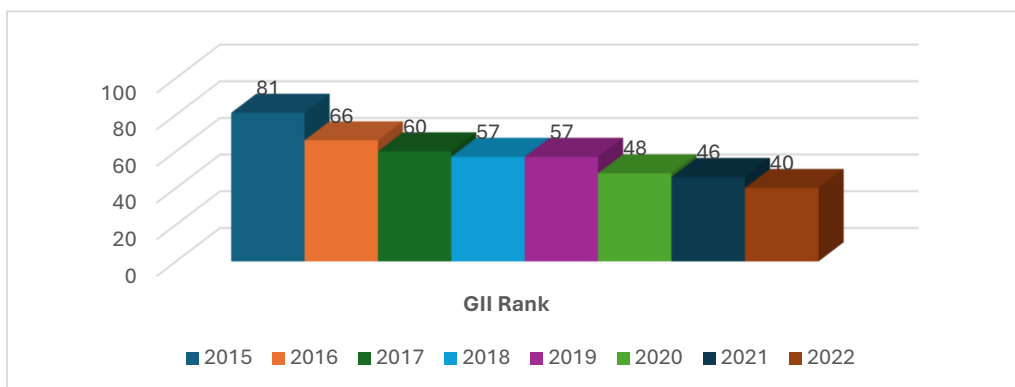
Global Innovation Index (GII): The Global Innovation Index (GII) ranks countries based on their ability to foster innovation, measured through factors such as R&D investments, intellectual property filings, infrastructure, and human capital. India’s improving position in the GII reflects the country’s progress in innovation-driven sectors like technology, pharmaceuticals, and digital services. India’s growing emphasis on innovation has been critical to its rise in the global rankings.

Table 5. Global Innovation Index (GII) Ranking for India

Year	2015	2016	2017	2018	2019	2020	2021	2022
GII Rank	81	66	60	57	57	48	46	40

Source: Global Innovation Index (2022), Cornell University, INSEAD, & WIPO.

India's steady improvement in the Global Innovation Index (GII) rankings from 2015 to 2022 highlights the country's growing focus on innovation and its efforts to strengthen its innovation ecosystem. Beginning at 81st in 2015, India saw a



Graph plotted from above table 5

consistent rise, reaching 66th in 2016 and 60th in 2017, demonstrating early progress. By 2018, it moved to 57th, maintaining this position in 2019 before making significant strides to 48th in 2020. India's ranking continued to improve, reaching 46th in 2021 and finally achieving 40th in 2022, its highest position to date. This upward trajectory reflects the impact of policy reforms, infrastructure development, and a growing emphasis on intellectual property, research, and technological advancements, positioning India as an increasingly competitive player in the global innovation landscape.

Key Challenges Faced by the Indian IP System: The Indian Intellectual Property (IP) system faces several key challenges, which hinder its ability to fully support innovation and protect intellectual property rights. Some of these challenges include:



1. **Lack of Awareness and Education:** A significant portion of the population, including entrepreneurs, creators, and even some businesses, is often unaware of the importance of IP rights or the processes involved in obtaining protection. This lack of knowledge leads to underutilization of the IP system and limited enforcement.
2. **Inefficient Enforcement and Piracy:** Despite the legal framework for IP protection, enforcement remains a major issue. There are delays in the judicial process, and there is a lack of proper resources and training for enforcement authorities. Piracy and counterfeiting, especially in the fields of entertainment, software, and pharmaceuticals, continue to be significant challenges.
3. **Long Delays in IP Processing:** The Indian IP system is often criticized for its slow processing times for applications, including patents, trademarks, and copyrights. This can discourage innovation and lead to delays in commercializing new products or technologies.
4. **Patent Backlog:** There is a large backlog of patent applications in India, which leads to delays in granting patents. This backlog is partly due to the increasing number of applications and the lack of sufficient patent examiners.
5. **Weak Enforcement Mechanisms:** The Indian legal system is often burdened with slow-moving courts, and IP-related cases can take years to resolve. The lack of specialized IP courts and the slow pace of dispute resolution discourage effective protection of IP rights.
6. **Limited Global Recognition:** India's IP system, while improving, still faces challenges in aligning with international standards. There can be issues with cross-border recognition of patents and trademarks, which can affect businesses looking to expand internationally.
7. **Lack of Innovation-Friendly Policies:** Although India has made strides in innovation, there are calls for more proactive policies that foster creativity and entrepreneurship. These could include better access to IP for startups, subsidies for research and development, and tax incentives for innovation.
8. **Cultural and Societal Attitudes:** There is a societal tendency to view IP infringement as less serious than other forms of crime. This culture leads to less respect for IP rights and contributes to a lack of enforcement at the ground level.

Addressing these challenges requires significant reforms in IP law, better education and awareness campaigns, faster legal proceedings, and stronger enforcement mechanisms.

Recommendations:

1. **Enhancing Awareness and Education:** One of the first steps in improving the IP system in India is raising awareness among businesses, entrepreneurs, and the



general public. Government and industry-led campaigns could promote understanding of the importance of IP rights and the processes involved in obtaining and protecting them (Kumar, 2022).

2. **Streamlining IP Processing:** To reduce delays in granting patents and trademarks, the Indian IP office should implement efficient processing systems, such as adopting digital tools and increasing the number of patent examiners (Sharma, 2023). This would help address the backlog of applications and improve the system's overall efficiency.
3. **Strengthening Enforcement Mechanisms:** A stronger focus on enforcement is needed, with better coordination between enforcement agencies and the judiciary. Dedicated IP courts or fast-track mechanisms could be introduced to expedite the resolution of IP-related disputes (Singh & Gupta, 2021).
4. **Aligning with International Standards:** India's IP system should be further harmonized with international standards to facilitate easier cross-border protection of IP rights and increase global recognition of Indian patents and trademarks (World Trade Organization [WTO], 2021).
5. **Fostering Innovation through Policy Reforms:** The Indian government could implement policies that incentivize innovation, such as tax breaks for R&D, subsidies for startups, and initiatives to protect traditional knowledge and local innovations (Patel & Mehra, 2020).
6. **Improving Collaboration with Industry and Academia:** Collaborative efforts between the government, industry, and academic institutions could create a more robust ecosystem for innovation and IP protection (Chand, 2022).

Conclusion: India's intellectual property (IP) landscape is undergoing a transformative phase, marked by significant growth across various IP sectors, including patents, trademarks, and designs. This evolution is driven by the country's increasing focus on innovation, leading to a rise in patent filings, particularly in sectors like information technology (IT), pharmaceuticals, biotechnology, and electronics. The surge in these filings highlights the growing recognition of the economic value of protecting new technologies and ideas. Additionally, trademark and design registrations have increased as businesses, particularly startups, aim to establish and protect their brands and unique product aesthetics. These trends signal a broader shift toward valuing intellectual property as a crucial business asset, fostering a more innovative and competitive business environment.

Simultaneously, India has made significant strides in strengthening its IP enforcement mechanisms. The establishment of specialized IP cells within law enforcement agencies, enhanced training for officials, and stronger border control measures are part of efforts to combat issues like counterfeiting and IP violations. Recent policy reforms, such as amendments to the Patents Act and the introduction of

the National IPR Policy in 2016, have streamlined processes, reduced patent examination backlogs, and improved overall system efficiency. These reforms also emphasize the commercialization of IP and have created a more favourable environment for innovation and investment, particularly in technology, pharmaceuticals, and renewable energy. However, challenges remain, including persistent digital piracy and the need for robust copyright protection in the digital age. As India continues to evolve its legal frameworks and embrace technological solutions like digital rights management (DRM) and blockchain, it has the potential to become a global leader in innovation and IP protection.

References:

1. Chand, V. (2022). Strengthening the innovation ecosystem in India: The role of IP. *Journal of Intellectual Property and Innovation*, 18(3), 56-70. <https://doi.org/10.xxxx/jipi.2022.18.3>
2. Cornell University, INSEAD, & WIPO. (2024). *The Global Innovation Index 2024: Innovation in the Digital Era*. Retrieved from <https://www.globalinnovationindex.org>
3. Dhar, B. (2008). Patents and access to medicines: A case study of India. *The World Trade Organization and Trade Policy Review*, 12(1), 49-70.
4. Jaitly, R. (2016). *Intellectual property rights in India: Legal and policy issues*. LexisNexis.
5. Kumar, R. (2022). Raising awareness: A critical step in improving India's intellectual property system. *IP Management Review*, 15(4), 23-34.
6. Kumar, S., & Singh, V. (2023). The rise of intellectual property rights in India: Trends and challenges. *Journal of Intellectual Property & Innovation*, 12(4), 35-42.
7. Ministry of Commerce & Industry, Government of India. (2024). *Annual report on intellectual property rights*. Retrieved from www.ipindia.gov.in
8. Office of the Controller General of Patents, Designs, and Trademarks. (2023). *IPR Statistics – Patents, Designs, and Trademarks in India*. Retrieved from <http://www.ipindia.gov.in>
9. Patel, D., & Mehra, S. (2020). Government policies and IP: Encouraging innovation in India. *Indian Journal of Innovation and Intellectual Property*, 27(1), 45-58.
10. Sharma, A. (2023). Enhancing the efficiency of the Indian patent system. *International Journal of Intellectual Property Law*, 12(2), 89-103.
11. Singh, P., & Gupta, S. (2021). Strengthening enforcement mechanisms for intellectual property rights in India. *Journal of Law and Technology*, 20(2), 111-124.
12. Vij, R. (2015). *IPR law and practice in India*. Eastern Book Company.
13. WIPO. (2024). *World Intellectual Property Indicators 2024*. WIPO. Retrieved from <https://www.wipo.int/ipstats>
14. World Trade Organization (WTO). (2021). *Trade-related aspects of intellectual property rights: Recommendations for developing countries*. WTO Report. Retrieved from https://www.wto.org/english/res_e/res_e.htm

Disclaimer/Publisher's Note: The statements, opinions, and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of TJSD and/or the editor(s). The Journal of Scientific Discourse (TJSD) and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.



Intellectual Property Rights: A Necessity for Growth of MSMEs in India

Komal Raghav^{1*} & Jyoti Gupta²

1. Department of Commerce & Business Administration, University of Allahabad, Prayagraj, U.P.- 211002, India.
2. School of Studies in Economics, Jiwaji University, Gwalior, M.P.- 474011, India.

Corresponding Author: drkomalraghav@gmail.com

Abstract: *Micro, Small, and Medium Enterprises (MSMEs) are a crucial segment of India's economy which is significantly contributing to innovation, employment, and GDP. In FY 2017-18, Gross Value Added (GVA) by MSMEs was 29.7% in GDP of India which became 30.1% in FY 2022-23. Even in COVID-19 pandemic, the sector sustained a contribution of 27.3% in FY 2020-21 which reached to 29.6% in 2021-22. For the growth and sustainability of MSMEs, Intellectual Property Rights (IPRs) have emerged as a strategic tool to compete in the present business environment where innovation is vital and competition is intensifying. IPR fosters innovation, protect intellectual capital and also create opportunities for expansion in global market. In FY 2023-24, the patent office has granted 1,03,057 patents to boost innovation and modernize Indian industry in which the patents filed by MSMEs was very low in same year. In FY 2022-23, only 1,758 patent applications were filed by MSMEs which was 1,369 in FY 2021-22. As of 24 July 2024, only 756 applications were filed by the MSMEs while a total of 3,16,05,581 MSMEs registered on Udyam Assist Platform including informal micro enterprises in the same financial year. This ratio between total no. of IPRs and registered MSMEs seems very less due to lack of awareness, weak enforcement of laws and high costs of protection etc. In the present research work, the secondary data mainly used by the researcher to explore the role of MSMEs in Indian Economy, need of IPRs for growth of MSMEs in India, challenges faced by MSMEs in adoption of IPR, and governmental initiatives to facilitate IPR adoption.*

Keywords: *Micro, Small, and Medium Enterprises (MSMEs), Intellectual Property Rights (IPRs), Innovation, GVA, India, IP facilitation, Government Policies.*

Introduction: Micro, Small, and Medium Enterprises (MSMEs) play a crucial role in the global economy, accounting for 90% of businesses, 60 to 70% of employment, and 50% of GDP worldwide, according to the United Nations. These enterprises are the backbone of societies everywhere, contributing significantly to local and national economies and sustaining livelihoods, particularly among the working poor, women, youth, and vulnerable groups. Recognizing their importance, June 27th was



established by the United Nations General Assembly to raise awareness about role of MSMEs in sustainable development¹.

In India, the concept of Micro, Small, Medium Enterprises (MSMEs) was first introduced by the government through the Micro, Small & Medium Enterprises Development (MSMED) Act, 2006. These are the entities which are involved in production, manufacturing and processing of goods and commodities². Following is the criteria for classification of micro, small and medium enterprises.

- i. Micro enterprise: where investment in Plant and Machinery or Equipment does not exceed Rs.1 crore and turnover does not exceed Rs.5 crore.
- ii. Small enterprise: where the investment in Plant and Machinery or Equipment does not exceed Rs.10 crore and turnover does not exceed Rs.50 crore.
- iii. Medium enterprise: where the investment in Plant and Machinery or Equipment does not exceed Rs.50 crore and turnover does not exceed Rs.250 crore³.

In India, total MSMEs registered were 5,99,44,521 on 18 February, 2025 which includes 5,91,35,694 micro enterprise, 7,39,355 small enterprise and 69, 472 medium enterprises⁴.

Importance of MSMEs in Indian Economy: MSME sector has emerged as a highly dynamic and vibrant sector of Indian economy over the last five decades. It is not only providing large employment opportunities than large industries at a very low capital cost but also helping in industrialization of rural and backward areas by reducing regional imbalances, assuring more equitable distribution of national income and wealth. This sector is complementary to large industries as ancillary units and also contributes in the socio-economic development of country⁵. Table 1 represents the year-wise MSME scaled up under Udyam online platform since 1 July 2020 to 24 July 2024. The growth in MSME sector is reflected in the scaling up of small and micro enterprises into medium enterprise. Between July 1, 2020, and July 24, 2024, a significant number of enterprises transitioned to medium enterprises. During the financial year 2020-21 to 2021-22, 714 Micro enterprises scaled up to medium and 3,701 Small enterprises were upgraded to medium enterprises. This number increased steadily with the financial year 2023-24 to 2024-25 witnessing further growth, with 2,372 Micro enterprises and 17,745 Small enterprises scale up to Medium. This progression reflects robust growth and dynamism of the MSME sector in India⁶.

Table: 1 Year-wise MSME scaled up Under Udyam Since 01/07/2020 to 24/07/2024

Year	Micro to Medium	Small to Medium
2020-21	714	3,701
2021-22	1,221	6,476
2022-23	1,835	15,918
2023-24	2,372	17,745

Source:<https://pib.gov.in/PressReleasePage.aspx?PRID=2087361#:~:text=Transforming%20India's%20Economic%20Landscape&text=%5B1%5D%20MSMEs%20demonstrated%20an%20exemplary,impact%20on%20India's%20trade%20performance>



MSMEs sector is the backbone of Indian economy. Here are some points regarding its importance in Indian economy. These are as follows:

i) Major Contribution in Export: According to the Ministry of MSMEs, there are over 59 million MSMEs in India which are accounting for over 45% of India's exports. The sector have witnessed a remarkable rise in exports which was Rs.3.95 lakh crore in 2020-21 and reached to Rs.12.39 lakh crore in 2024-25. The total number of exporting MSMEs has also increased considerably from 52,849 in 2020-21 to 1,73,350 in 2024-25. These figures are underscoring the critical role of MSMEs in boosting Indian economy and also to strengthen global trade.

Table: 2 Share of Export of MSME related products in All India Export (%)

Year	Share Percentage of MSME in Export
2019-20	49.75
2020-21	49.35
2021-22	45.03
2022-23	43.59
2023-24	45.73
2024-25	45.79
Source: https://pib.gov.in/PressReleasePage.aspx?PRID=2035073	

From table 2, it is clear that MSMEs contributed 49.75% to India's exports in 2019-20, decreasing to 49.35% in 2020-21 and 45.03% in 2021-22. The share further declined to 43.59% in 2022-23 but recovered to 45.73% in 2023-24, with 45.79% recorded up to May 2024. It highlights their growing impact on trade performance of India.

ii) High Share in GDP: The MSME sector in India has consistently demonstrated remarkable resilience and adaptability, significantly contributing to the nation's GDP over the years. The Gross Value Added (GVA) by MSMEs in India's GDP was 29.7%

in 2017-18, rising to 30.1% in 2022-23. Even amid the unprecedented challenges posed by the COVID-19 pandemic, the sector sustained a contribution of 27.3% in 2020-21, rebounding to 29.6% in 2021-22. These figures highlight the sector's pivotal role in driving economic growth and stability, reflecting its enduring strength and importance to the Indian economy⁷.

Year	Share Percentage of MSME in GDP
2017-18	29.7
2018-19	30.5
2019-20	30.5
2020-21	27.3
2021-22	29.6
2022-23	30.1

Source:<https://pib.gov.in/PressReleasePage.aspx?PRID=2087361#:~:text=Transforming%20India's%20Economic%20Landscape&text=%5B1%5D%20MSMEs%20demonstrated%20an%20exemplary,impact%20on%20India's%20trade%20performance.>

iii) Employment Generation: This sector is one of the largest employers in India, particularly in rural areas, where large industries may not be as prevalent. MSMEs are integral to reducing unemployment and poverty, as they help diversify sources of income and provide opportunities for skill development. Below table represents the estimated employment generated by MSMEs under Pradhan Mantri Employment Generation Programme.



Table: 4 Employment Generated by MSME under PMEGP from 2021-22 to 2024-25

Year	Estimated Employment Generation
2021-22	8,25,752
2022-23	6,81,336
2023-24	7,12,944
2024-25*	3,05,880
Source: https://dashboard.msme.gov.in/pmegp.aspx?st=3 Note: FY 2024-25 data upto 28-01-2025	

The estimated employment generated by MSMEs was 8,25,752 in FY 2021-22. A fall can be seen in it in FY 2022-23 with 6,81,336 but again the employment generation rate rose up and reached to 7,12,944 in FY 2023-24. As on 18 February 2025, the total

employment reported by the MSMEs on the Udyam Registration Portal is 25,18,57,582⁸. This extensive employment generation underscores the sector's crucial role in driving economic development and enhancing social stability by offering livelihoods to millions across the country.

iv) Promotes Innovation and Entrepreneurship: In India, MSMEs are known for fostering innovation and entrepreneurship in economy. MSMEs are more agile and adaptable while large companies are capital-intensives often leading to innovations in various niches. As per the information provided by Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce & Industry, the number of patent applications filed by Micro, Small and Medium Enterprises (MSMEs) during the last four years are as under:

Table 5: Patent Applications Filed by MSMEs from 2020-21 to 2023-24

Year	Patent Applications Filed by MSMEs
2020-21	1012
2021-22	1369
2022-23	1758
2023-24*	756
Source: https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1943197&utm_source=chatgpt.com Note: FY 2023-24 data up to 24/07/2023	

According to data, 1,758 patent applications were filed by MSMEs in FY 2022-23 in comparison to 1,369 filed in FY 2021-22. As of 24th July 2023, 756 applications were filed⁹. The growth of startups and the increasing number of patents filed

by MSMEs reflect their significant contribution to innovation.

However, despite their importance, MSMEs often struggle to scale and innovate due to limitations in technology, access to finance, and market entry barriers. After recognizing its pivotal role in Indian economy, the Government has taken many initiatives to boost this sector like financial support and procurement policies to capacity building and market integration. The key initiatives of government for MSMEs include PM Vishwakarma scheme, Udyam Registration Portal, SFURTI, PMEGP, and Public Procurement Policy for MSEs to foster entrepreneurship, enhance employment and integrating informal sectors into formal economy. These



initiatives are reflecting the commitment of government to supporting MSMEs and driving inclusive economic growth nationwide¹⁰. But beside all this, there is one area that has not been fully harnessed by MSMEs is Intellectual Property Rights (IPRs) which can play a pivotal role in addressing the challenges faced by MSMEs in innovation and also to scale up.

Role of IPRs for Growth of MSME in India: Intellectual property (IP) refers to creations of the mind such as inventions, literary and artistic works, designs, symbols, names and images used in commerce. These are the legal tools which provide an incentive for businesses to innovate. Various types of IPRs are patent, Copyright, Trademark, Industrial design, Geographical indication and Trade secrets¹¹. In 2000, April 26th was decided by the member of World Intellectual Property Organization (WIPO) as World IP Day. This is the day on which the WIPO Convention came into force in 1970 with an aim of increasing general awareness and understanding of IP to encourage innovation and creativity.

In India, IP laws are governed by Intellectual Property Office (IPO) under the Department for Promotion of Industry and Internal Trade (DPIIT). These laws include Patents Act, 1970; Trademarks Act, 1999; Copyright Act, 1957; and Designs Act, 2000. MSMEs can take competitive advantages, to protect themselves against counterfeiting and can also improve market visibility by safeguarding their innovations, brands, and creative works via IPRs. During FY 2023-2024, a total of 90,300 patent applications were filed by MSMEs, startups and educational institutions which was a remarkable increase in IPRs¹². IPRs are very necessary for the growth of MSMEs which can be understood by following:

i) Encourages Innovation and Creativity: IPRs provide confidence to MSMEs for invest in innovation. A strong IP portfolio will help MSMEs to attract investment, license their technology and also to enter into strategic partnerships. According to a study by the World Intellectual Property Organization (WIPO) in 2022, those countries who have stronger IP systems, experience higher levels of innovation and economic growth especially in sectors like technology and pharmaceuticals, where patents are crucial. Businesses with a robust portfolio of patents and trademarks are 33% more likely to grow their revenues and attract venture capital than businesses without such protection¹³.

ii) Helps in Market Differentiation and Branding: Trademarks help MSMEs to establish identity of their brand identity, brand loyalty and build customer trust by trademarking their name, logo, slogans. On the basis of trademark, businesses can ensure in market that their products and services are different from the competitors. The Darjeeling tea case was the first Geographical Indication (GI) tag granted in India, where the Tea Board of India applied for and was granted a GI tag for



Darjeeling tea in 2004¹⁴. Darjeeling Tea which holds Geographical Indication (GI) status, showcases how IP protection can help small producers of the tea to increase both price premiums and market share in international markets.

iii) Facilitates Access to Financing: IPR works as collateral for MSMEs to secure financing because in view of financial institutions, IP is an asset which increases company's valuation. It also makes easier for MSMEs to secure loans and attract investors for investment in them. In 2019, a survey was conducted by the Reserve Bank of India (RBI), according to which those MSMEs which have registered patents and trademarks, have a 40% higher likelihood of securing funding compared to those without IPR¹⁵.

iv) Expands Market Reach and International Trade: IPRs helps MSMEs to protect their products in foreign markets and to expand globally. For international agreements like the Patent Cooperation Treaty (PCT) allow MSMEs to file patents across multiple countries through a single application. In India, the number of PCT filings by MSMEs has steadily increased over the years. In total international patent filings of MSMEs by Indian applicants grew from 5% in 2010 to an estimated 16% in 2024¹⁶. It also helps to prevent counterfeit and imitation of products in market. According to a report by FICCI (2022), counterfeiting affects Indian businesses including MSMEs to lose nearly Rs.1.2 lakh crores annually due to piracy and fake goods in market¹⁷.

Challenges Faced by MSMEs in Protecting IPRs: For protecting innovations, ensuring competitiveness and fostering growth in global market, it is necessary to understand and leverage IPR for MSMEs. Despite the benefits, several challenges hinder MSMEs from fully leveraging IP protection which are as follows:

i) Lack of Awareness and Knowledge: According to US Chamber of Commerce's International IP Index report, India was positioned 42nd out of 55 countries. This index evaluates protection of IP rights in top 55 leading economies of world which together representing around 90% of global GDP and covers everything including patent and copyright laws to the ability to monetise IP assets and the ratification of international agreements¹⁸. Most of the MSMEs have lack of basic knowledge about use of IPRs to protect their innovations which results not to registering their intellectual property and missing out benefits of IPRs. According to a survey conducted by National Small Industries Corporation (NSIC) in 2021, 70% of MSMEs reported a lack of awareness about the benefits of IPR, particularly in terms of patents and trademarks¹⁹.

ii) High Costs of Protection: The cost of filing IP like patents, trademarks, copyright and design is a significant barrier for MSMEs, mainly for small enterprises who have limited budgets. A study by the Indian Patent Office (IPO) in 2020 showed that 60% of MSMEs considered the cost of obtaining and maintaining patents as a major



challenge. The fees associated with registration, legal consultations and enforcement can be prohibitive. The average cost of filing a patent in India ranges between Rs.50,000 to Rs.2,00,000, which can be prohibitively expensive for many MSMEs²⁰.

MSMEs, particularly in rural areas, often lack access to skilled professionals, such as patent attorneys, intellectual property consultants, and legal experts, who can guide them through the IPR filing process. The absence of expert advice hampers MSMEs' ability to protect their innovations and navigate the complex legal framework associated with intellectual property. According to a report by FICCI (Federation of Indian Chambers of Commerce & Industry), 65% of MSMEs do not have access to adequate legal counsel which leads to a lack of proper guidance in IPR related matters²¹.

iv) Complex Procedure of IPR: The process of IPR filing particularly for patents and designs is complex and time-consuming. Some bureaucratic hurdles like need for detailed technical documentation, patent search and examination procedures are faced by many MSMEs in patent filing process which makes it complex and time consuming. This complexity discourages them to pursue for IPR protection. According to a survey by The Indian Institute of Management (IIM) Ahmedabad in 2021, the complexity of IPR procedures as a barrier is identified by 50% MSMEs to filing patents and trademarks²².

v) Lack of Infrastructure and Resources: Many MSMEs have lack of necessary infrastructure and resources especially in rural areas like limited access to research facilities, technology and skilled manpower which hinders the adoption of IPR in these enterprises. In 2020, a report was given by the Indian Ministry of MSME which stated that 40% of MSMEs in rural areas face significant challenges in terms of infrastructure which results to limit their ability to innovate and apply for patents or trademarks²³.

vi) Fear about Misuse of Technology: Many MSMEs have fear that if they file for patents, trademarks or copyrights, their intellectual property will be misused, stolen or copied by the competitors due to disclosure of information while patent filing process. This fear prevents MSMEs from seeking legal protection. In 2022, a survey was done by the Indian Innovation and Technology Foundation (IITF) which showed that 45% of MSMEs are not filing patents and registering their innovations due to fear of IPR theft and technology misappropriation²⁴.

vii) Weak Execution of IPR Laws: In India, the enforcement of intellectual property laws are seen as inefficient. Many MSMEs have reported difficulties in protection of their innovations. According to a study by the Federation of Indian Chambers of Commerce and Industry (FICCI) in 2019, 50% of MSMEs in India reported weak



enforcement of IPR laws as one of the main barriers in protection of their innovations²⁵.

viii) Litigation Challenges for MSMEs: To resolve the disputes of IPR, the process of taking legal action is a major hurdle for MSMEs in India. Those MSMEs which have lack of resources are facing difficulty to afford the cost of legal proceedings such as lawyer fees, court fees and other associated costs. Also the lengthy and complicated judicial process is leading to delays in resolving disputes of IPR. As per survey by the Ministry of MSME in 2021, 60% of MSMEs reported high cost of litigation a big hurdle which restricts them to pursue legal action for IPR²⁶.

ix) Infringement of IPR and Lack of Deterrence: Due to inefficiency of enforcement system, lack of deterrence in IPR infringement cases arises which further intensifies the issue. The underreporting of infringements and the low rate of successful prosecutions make IPR enforcement seem ineffective to MSMEs. The Indian Patent Office in 2019 noted that out of the 1,500 patent infringement cases filed in India, less than 10% resulted in favor while majority dismissed it²⁷. In 2020, a report was made by the Confederation of Indian Industry (CII), according to which 65% of MSMEs faced challenges with counterfeiting and infringement of their intellectual property²⁸.

Government Initiatives to Promote IPR in MSMEs: Intellectual Property Rights are now recognised by government in India as an essential tool for MSMEs to foster innovation, safeguard business interests, gain a competitive advantage, and also to create new revenue streams. After Recognising the importance of IPR for MSMEs in India, the government has initiated numerous reforms and support schemes for MSMEs to make IP more accessible and beneficial for MSMEs²⁹. Some of which are as follows:

i) MSME Innovative Scheme: On 10th March 2022, MSME Innovative Scheme was launched by government of India to promote innovations through incubation and design interventions. Under the scheme, Financial assistance upto Rs.5 lakh for Foreign Patent, Rs.1 lakh for Domestic Patent, Rs.2 lakh for Geographical Indications (GI) Registration, Rs.15,000/- for Design Registration, Rs.10,000/- for Trademark is being provided by the government for Intellectual Property Rights in the form of reimbursement³⁰.

ii) Modernization of IP offices: IP Offices are opened by the government across the country to provide free workshops and consultations for MSMEs like IP consultation, advisory, patent searches, technology gap analyses and IP commercialisation at a minimal cost³¹. All documents filed before the Patent Office are now completely digitized and are also made available online for proceedings leading to final disposal



which result to no visit of Patent and Trade Marks Offices by the applicants for filing, processing and getting Patent and Trademark grant and registration certificates.

iii) Capacity Building: In Patent office, technical manpower strength has increased by promoting various officers to the post of Controllers to address the liquidation of backlog applications. Also young professionals and technical assistants are appointed on contractual basis by the IP department to support decision making of Controller which has resulted to grant more than 1 lakh patents in a single year 2023-24. As on June 23, 2024, the Office of Geographical Indications Registry has registered a total of 643 GI Applications in the country³².

iv) Intellectual Property Awareness Programs: To create awareness among MSMEs about intellectual property rights, Government of India has taken several steps in the country. National IPR Policy was launched by government of India in 2016 to create awareness and simplify the process of IP registration for MSMEs. From 2020-21 to 2022-23, 54 awareness programmes are conducted by DPIIT. As on 27 July 2023, total 84 awareness programmes/seminars including 2 international workshops are conducted by the Ministry of Electronics and Information Technology (MeitY). In this chain, Ministry of MSME has also conducted 40 awareness programmes, 1 National Level Workshop, 10 IP Yatra, 13 programmes under IPR component of MSME innovative Scheme³³. The Indian government and institutions like the National Institute for Entrepreneurship and Small Business Development (NIESBUD) and FICCI are also conducting training programs and workshops to increase awareness of IPRs among MSMEs. In a sign of growing awareness around intellectual property rights (IPR) among MSMEs in India, the number of patent applications filed in FY 2022-23 jumped 28.4% from previous year³⁴.

v) Financial Assistance and Schemes: Financial schemes such as the Technology Development and Promotion Program by SIDBI help MSMEs to access funds for technological innovations, including IP filing. Credit Linked Capital Subsidy Scheme (CLCSS) provides financial support to MSMEs for technology upgradation and IP protection. Micro Units Development and Refinance Agency (MUDRA) scheme provides low-interest loans to MSMEs for business expansion. Credit Guarantee Fund Scheme (CGS) provides collateral-free loans to MSMEs to improve access to finance. Make in India is an initiative to promote manufacturing within the country, encouraging MSMEs to participate in the global supply chain. Startup India Initiative offers various benefits for startups, including IP facilitation services and funding for IP protection. Programs like the IPR Scheme for MSMEs (2016) offer financial assistance for IP filing and protection.

vi) Subsidies for MSMEs: The government provides subsidies for MSMEs to reduce the cost burden of registering patents and trademarks. For startups and MSMEs, 75%

fee concessions at each stage of prosecution of Design applications are extended and 50% to Trade Mark application filing. Owing to fee concessions in patents applications, there has been a significant increase in Patent filings by MSMEs. In 2018-19, Indian patent applications from small entity were only 607 which reached to 3421 in 2023-24. In Startups, this value was 801 in 2018-19 which reached to 2546 in 2023-24³⁵.

Conclusion: Intellectual Property Rights (IPR) are indispensable for the growth and competitiveness of MSMEs in India. By protecting their innovations and enhancing brand identity, MSMEs can differentiate themselves in a crowded market. Despite the growing recognition of IPR's importance, challenges such as lack of awareness, high costs, and complex registration procedures continue to impede widespread adoption among MSMEs. The government's efforts through policies, financial schemes, and facilitation centers are commendable. However, more efforts are needed to simplify the IP registration process, reduce costs, and enhance awareness. Only with a stronger IPR framework will MSMEs be able to fully realize their potential and contribute to India's economic growth.

References:

1. <https://pib.gov.in/PressNoteDetails.aspx?NoteId=151909&ModuleId=3®=3&lang=1>
2. <https://byjus.com/free-ias-prep/msme/>
3. <https://msme.gov.in/know-about-msme>
4. https://dashboard.msme.gov.in/Udyam_Statewise.aspx
5. <https://msme.gov.in/about-us/about-us-ministry>
6. <https://pib.gov.in/PressReleasePage.aspx?PRID=2087361#:~:text=Transforming%20India's%20economic%20Landscape&text=%5B1%5D%20MSMEs%20demonstrated%20an%20exemplary,impact%20on%20India's%20trade%20performance>
7. <https://pib.gov.in/PressReleasePage.aspx?PRID=2035073>
8. <https://dashboard.msme.gov.in/dashboard.aspx#>
9. <https://www.financialexpress.com/business/sme-patent-filings-by-msmes-jump-28-in-fy23-amid-govt-measures-to-enhance-ipr-awareness-3190532/>
10. <https://static.pib.gov.in/WriteReadData/specificdocs/documents/2024/aug/doc2024829382601.pdf>
11. <https://www.wipo.int/about-ip/en/>
12. <https://asiaiplaw.com/section/cover-story/record-number-of-patents-granted-in-india-for-fy-2023-2024>
13. World Intellectual Property Organization (WIPO) (2022) "Intellectual Property and MSMEs: Innovation and Growth"
14. <https://blog.ipleaders.in/darjeeling-tea-word-logo-protection-gi-tag-analysis/#:~:text=%E2%80%9CDarjeeling%E2%80%9D%20tea%20is%20one%20such,tea%20under%20the%20GI%20tag>
15. Reserve Bank of India (2019) "Access to Finance for MSMEs: A Study on the Role of Intellectual Property,"



16. World Intellectual Property Organization (WIPO) (2023), PCT Yearly Statistics and Country Data
17. <https://www.ficcicascade.in/wp-content/uploads/2022/10/illicit-market-report-2022-NEW-LAYOUT-1.pdf>
18. https://www.financialexpress.com/business/sme-patent-filings-by-msmes-jump-28-in-fy23-amid-govt-measures-to-enhance-ipr-awareness-3190532/?utm_source=chatgpt.com
19. National Small Industries Corporation (NSIC), (2021), Survey Report on Awareness of IPR among MSMEs in India
20. Indian Patent Office (IPO), (2020), Intellectual Property in India: Trends and Statistics
21. Federation of Indian Chambers of Commerce & Industry (FICCI), (2021), MSMEs and Intellectual Property: Bridging the Gap
22. Indian Institute of Management (IIM) Ahmedabad, (2021), Challenges in IPR Filing: Perspectives of MSMEs
23. Ministry of MSME, Government of India, (2020), Report on MSME Infrastructure and Access to Innovation.
24. Indian Innovation and Technology Foundation (IITF), (2022), Survey on Technology Misappropriation Concerns in MSMEs
25. Federation of Indian Chambers of Commerce and Industry (FICCI), (2019), IPR Awareness and Enforcement for MSMEs
26. Ministry of MSME, Government of India, (2021), MSME Innovation Survey: Barriers in IPR Adoption
27. Ministry of Commerce and Industry, Government of India, (2020), National IPR Policy and MSME Support
28. Confederation of Indian Industry (CII), (2020), Counterfeiting and IPR Issues for MSMEs
29. <https://www.iam-media.com/guide/india-managing-the-ip-lifecycle/2025/article/key-government-initiatives-underscore-importance-of-leveraging-intellectual-property-smes-in-india>
30. <https://pib.gov.in/PressReleaseIframePage.aspx?PRID=2038537>
31. <https://www.financialexpress.com/business/sme-patent-filings-by-msmes-jump-28-in-fy23-amid-govt-measures-to-enhance-ipr-awareness-3190532/>
32. <https://pib.gov.in/PressReleaseIframePage.aspx?PRID=2039118>
33. https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1943197&utm_source=chatgpt.com
34. https://www.financialexpress.com/business/sme-patent-filings-by-msmes-jump-28-in-fy23-amid-govt-measures-to-enhance-ipr-awareness-3190532/?utm_source=chatgpt.com
35. <https://pib.gov.in/PressReleaseIframePage.aspx?PRID=2039118>

Disclaimer/Publisher's Note: The statements, opinions, and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of TJSD and/or the editor(s). The Journal of Scientific Discourse (TJSD) and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.

Bridging the Gap: Analyzing the Implementation of the Scheduled Castes and Scheduled Tribes (Prevention of Atrocities) Act, 1989 in Maharashtra

Jagdish W. Khobragade

Assistant Professor of Law, Maharashtra National Law University, Nagpur

**Email: jkhobragade@gmail.com**

Abstract: Maharashtra, a state often hailed for its progressive socio-political movements and legacy of reformers such as Dr. B.R. Ambedkar, paradoxically remains one of the leading states in India in terms of reported atrocities against Scheduled Castes (SCs) and Scheduled Tribes (STs). Despite the presence of robust legal safeguards such as the Scheduled Castes and the Scheduled Tribes (Prevention of Atrocities) Act, 1989 (PoA Act), and subsequent amendments in 2015 and 2018, the enforcement and outcomes of these legal provisions reveal a troubling gap between statutory intent and ground realities. This paper offers a comprehensive analysis of the implementation of the PoA Act in Maharashtra, with a focus on institutional performance, procedural bottlenecks, and legal interpretations that have shaped the trajectory of caste-based justice. Drawing from recent data published by the National Crime Records Bureau (NCRB) from 2022 to 2024, it highlights alarming trends such as rising numbers of registered cases, disproportionately low conviction rates, delays in investigations, and a lack of victim and witness protection mechanisms. For instance, Maharashtra registered over 2,700 cases of atrocities against SCs in 2022 alone, yet conviction rates remain among the lowest in the country—under 15% in many districts, with urban centers like Mumbai reporting near-zero convictions. The study also delves into the role of judicial precedents, notably Supreme Court and High Court rulings, which have influenced how the PoA Act is interpreted and applied, sometimes diluting its intended protections. It assesses the impact of the 2015 amendment that expanded the definition of atrocities and mandated Exclusive Special Courts, and the 2018 amendment that nullified judicial dilution regarding anticipatory bail and FIR registration.

Keywords: Atrocities, Scheduled Castes (SCs), Scheduled Tribes (STs), Fundamental Rights.

Introduction: India's constitutional framework enshrines a robust commitment to equality and social justice, particularly aimed at eradicating caste-based discrimination. Article 15 explicitly prohibits any form of discrimination on grounds of religion, race, caste, sex, or place of birth, while Article 17 categorically abolishes the practice of untouchability and its manifestations in any form. These constitutional provisions laid the foundation for subsequent legislative measures, most notably the Scheduled Castes and Scheduled Tribes (Prevention of Atrocities) Act, 1989 (PoA Act), which was enacted to impose stringent legal sanctions against acts of violence, humiliation, and discrimination targeted at SCs and STs.

Despite these legal safeguards and Maharashtra's historical legacy as a pioneering state in social reform—home to revered figures like Dr. B.R. Ambedkar, the principal architect of the Indian Constitution—the state continues to record distressingly high incidences of caste-based atrocities. According to the National



Crime Records Bureau (NCRB) data for 2022, Maharashtra registered 2,743 cases under the PoA Act against Scheduled Castes, placing it sixth among Indian states in terms of the absolute number of cases. This represents a troubling upward trend, with cases rising steadily from 2,503 in 2021 and 2,569 in 2020, indicating that despite legislative and policy interventions, violence and discrimination against Dalits persist and may be intensifying. Similarly, atrocities against Scheduled Tribes in Maharashtra remain a significant concern. The NCRB reports 742 cases in 2022, ranking Maharashtra fourth nationally after Madhya Pradesh, Rajasthan, and Odisha—states traditionally known for their sizable tribal populations and corresponding socio-economic vulnerabilities. The sustained incidence of ST atrocities in Maharashtra reflects systemic challenges in addressing the intersectional marginalization of tribal communities, especially in areas experiencing economic development pressures and land conflicts.

These statistics underscore the multifaceted challenges embedded within Maharashtra's law enforcement, judicial processes, and victim protection frameworks. The rising number of cases suggests possible gaps in prevention and early intervention, while low conviction rates and procedural delays point to deficiencies in investigation quality, prosecutorial zeal, and judicial sensitivity. Moreover, socio-political factors including caste hierarchies, political patronage, and local power dynamics often impede effective enforcement of the PoA Act, resulting in underreporting, intimidation of victims and witnesses, and weak institutional accountability. In essence, the NCRB data from 2022 not only highlight the continuing prevalence of caste-based atrocities in Maharashtra but also call for a critical examination of the structural and institutional mechanisms tasked with protecting the rights of SC and ST communities. Without addressing these systemic weaknesses, the constitutional promise of equality and justice remains an unfulfilled ideal for many marginalized groups in the state.

Legislative Framework and Amendments: The Scheduled Castes and Scheduled Tribes (Prevention of Atrocities) Act, 1989 (PoA Act) was enacted as a comprehensive legislative measure to provide stringent protection to SC and ST communities against caste-based violence and discrimination. The Act criminalizes a wide array of offenses committed by non-SC/ST individuals that perpetuate systemic oppression and humiliation of these marginalized groups. Section 3 of the Act meticulously enumerates 22 distinct offenses, reflecting the multifaceted nature of atrocities faced by SCs and STs. These offenses range from physical violence—such as assault and grievous bodily harm—to socio-economic abuses like social boycott, denial of access to public spaces, sexual violence, and economic exploitation, including deprivation of economic resources and land rights. The Act's explicit focus on these varied forms of violence underscores the recognition that caste-based atrocities are not limited to



overt physical attacks but also encompass structural forms of exclusion and humiliation designed to maintain entrenched hierarchies. By criminalizing such conduct, the PoA Act seeks not only to deter perpetrators but also to empower victims through legal recourse and state accountability.

Amendments of 2015 and 2018: Despite the comprehensive scope of the 1989 Act, its implementation over the years revealed significant challenges, including low conviction rates, procedural delays, and judicial interpretations that diluted its effectiveness. To address these issues, Parliament enacted important amendments in 2015 and 2018, aimed at reinforcing the protective framework and ensuring the Act's original intent was preserved.

2015 Amendment Highlights: The 2015 amendment introduced several critical changes to strengthen the Act's procedural and substantive provisions:

1. **Expansion of Offenses Under Section 3:** The amendment broadened the list of offenses, recognizing emerging forms of atrocities and increasing the Act's relevance to contemporary social realities. This expansion included offenses related to digital and psychological abuse, thereby extending protection to victims in new contexts.
2. **Introduction of Section 15A – Rights of Victims and Witnesses:** For the first time, the Act explicitly enshrined the rights of victims and witnesses. This provision mandates protective measures to prevent intimidation and harassment, guarantees access to legal aid, and ensures timely compensation and rehabilitation, thereby enhancing victim-centric justice.
3. **Establishment of Exclusive Special Courts and Appointment of Special Public Prosecutors:** Recognizing the delay and inefficiency in regular courts, the amendment mandated the creation of exclusive Special Courts for speedy trial of atrocity cases. Furthermore, it required the appointment of Special Public Prosecutors with expertise in PoA cases to ensure focused and competent prosecution.

2018 Amendment – Response to Judicial Challenges: The 2018 amendment was primarily a legislative response to the Supreme Court's ruling in *Subhash Kashinath Mahajan v. State of Maharashtra* (2018), which imposed restrictions that were perceived as weakening the Act's protective measures.

Key provisions introduced in the 2018 amendment included:

1. **Reinstatement of the Bar on Anticipatory Bail:** The Supreme Court had allowed anticipatory bail to accused persons in atrocity cases, which critics argued led to the harassment of victims and undermined the deterrent effect of the Act.

- The amendment restored the original provision prohibiting anticipatory bail, thereby strengthening safeguards against frivolous or malicious bail applications.
- 2. Mandatory Registration of FIRs Without Preliminary Enquiry:** Previously, law enforcement agencies often delayed or avoided registration of FIRs pending a preliminary enquiry, resulting in denial of timely justice. The amendment mandated immediate FIR registration upon receipt of a complaint under the Act, eliminating discretionary delays.
 - 3. Removal of Prior Approval Requirement for Arresting Public Servants:** Initially, the Act required prior approval from an appointing authority before arresting public servants accused under the Act, which in practice led to misuse and obstruction of justice. The amendment repealed this clause to prevent abuse of power and ensure accountability of public officials.

These legislative reforms collectively aimed to restore the PoA Act to its original stringent standards, address judicial dilutions, and improve the efficacy of legal remedies for victims. By reinforcing procedural safeguards and emphasizing victim protection, the amendments sought to create a more robust legal framework capable of confronting entrenched caste-based violence in states like Maharashtra and across India.

Implementation Challenges in Maharashtra:

Law Enforcement and Conviction Rates: Despite several legislative reforms aimed at strengthening the Scheduled Castes and Scheduled Tribes (Prevention of Atrocities) Act, 1989, Maharashtra continues to struggle with alarmingly low conviction rates in cases registered under the Act. This gap between legal provisions and on-ground enforcement underscores systemic failures within the criminal justice apparatus.

Conviction Rates: According to the latest available data, the conviction rate for crimes against Scheduled Castes (SCs) in Maharashtra was approximately 11% in 2021, while for Scheduled Tribes (STs) it stood marginally higher at 12.5%. These figures are distressing, given the scale and severity of atrocities reported. More strikingly, Mumbai—the state's capital and a major urban hub—recorded zero convictions in atrocity cases during the same period, highlighting urban challenges and enforcement lacunae even in a developed metropolis.

Case Outcomes: Historical trends further reveal the extent of judicial acquittals. In 2017, out of 1,527 cases decided under the PoA Act, an overwhelming majority—1,362 cases—resulted in acquittals. Similarly, in 2016, 1,293 out of 1,431 cases concluded with acquittals, reflecting a near 90% acquittal rate. This pattern of judicial outcomes not only denies justice to victims but also emboldens perpetrators.



Role of Judiciary: The judiciary plays a pivotal role in either reinforcing or undermining the protective intent of the PoA Act. Maharashtra's case law illustrates both progressive and problematic judicial interpretations:

1. **Kailas v. State of Maharashtra (2011):** This landmark case saw an acquittal on technical grounds despite compelling evidence of public humiliation of a Dalit victim. The judgment underscored the judiciary's occasional prioritization of procedural technicalities over substantive justice, contributing to erosion of victim confidence.
2. **Ashabai Machindra Adhagale v. State of Maharashtra (2009):** This judgment was significant in affirming that the absence of the accused's caste identity in the FIR cannot be grounds for quashing proceedings under the PoA Act. It emphasized the need to interpret procedural lapses with a pro-victim approach.
3. **Vilas Pandurang Pawar v. State of Maharashtra (2012):** This case addressed the contentious issue of anticipatory bail for accused persons under the Act. The judgment reflected the judiciary's divided stance, balancing individual rights against the need for stringent enforcement of the PoA Act.

Overall, judicial interpretations in Maharashtra reveal an inconsistent approach—sometimes diluting protections through procedural scrutiny, while at other times upholding victim rights. This inconsistency hampers effective deterrence and erodes the Act's authority.

Institutional Mechanisms and Shortcomings: Since the enactment of the PoA Act and its accompanying Rules in 1995, Maharashtra has established various institutional mechanisms to oversee the implementation of the law. However, significant operational gaps and structural weaknesses persist:

1. **Special Courts:** The Act mandates the establishment of Exclusive Special Courts for speedy trial of atrocity cases. In practice, Maharashtra suffers from a shortage of such courts. Most cases are adjudicated in regular Sessions Courts, resulting in procedural delays, backlog, and diluted focus on atrocity-specific nuances. This undermines the mandate of fast-tracking justice for marginalized communities.
2. **Victim Compensation and Rehabilitation:** Provisions for victim compensation, medical aid, and rehabilitation are crucial components of the Act's protective framework. Unfortunately, Maharashtra witnesses chronic delays and frequent denial of such relief. District Collectors and Welfare Officers, responsible for disbursing compensation and coordinating rehabilitation, often exhibit non-compliance, citing bureaucratic inertia or lack of funds.
3. **State Vigilance and Monitoring Committees:** These committees are designed to monitor implementation, identify bottlenecks, and ensure accountability. However, in Maharashtra, meetings are irregular and reports to the central



government are often delayed or incomplete. This absence of proactive oversight impedes evidence-based policy interventions and accountability.

Policy: To bridge the persistent gap between the legislative intent of the Scheduled Castes and the Scheduled Tribes (Prevention of Atrocities) Act, 1989, and the realities of its implementation in Maharashtra, a multi-pronged reform strategy is imperative. Administrative reforms must begin with the establishment of Exclusive Special Courts and the appointment of full-time Special Public Prosecutors in every district. These prosecutors should be specifically trained in atrocity cases to improve judicial efficiency, reduce delays, and enhance conviction rates. Additionally, strict enforcement of Supreme Court directives—such as the ruling in *Lalita Kumari v. Govt. of UP*, which mandates FIR registration within 24 hours—is essential. Police officers must be held accountable for delays or refusals in lodging FIRs, ensuring timely access to justice for victims. Equally crucial is capacity building and sensitization training for all stakeholders involved—police, prosecutors, and judiciary. These programs must incorporate caste sensitivity, victim and witness rights, evidence handling, and trauma-informed approaches to create a more victim-centric justice delivery system.

On the structural front, deeper reforms are required to address systemic marginalization. Reservation policies in the private sector and in statutory or advisory bodies should be introduced to improve SC/ST representation and economic inclusion. Furthermore, Maharashtra should adopt budgetary earmarking, following the Andhra Pradesh model, to allocate a fixed percentage of the state budget for SC/ST welfare and atrocity prevention. Consistent and dedicated funding will ensure the continuity and scalability of such interventions. Another vital measure is the appointment of permanent nodal officers at both district and state levels who focus exclusively on atrocity-related issues. These officers must be relieved of additional departmental duties to enable effective monitoring, swift grievance redressal, and better coordination between departments.

In terms of legal and judicial reforms, a systematic review of acquittals must be institutionalized. The publication of annual reports analyzing the reasons for low conviction rates—such as procedural lapses, judicial interpretations, and investigative failures—will promote greater transparency and foster public trust. Finally, government officials who fail to comply with their duties—whether related to victim compensation, institutional monitoring, or legal enforcement—should face stringent disciplinary action, including financial penalties and formal censure. Establishing a culture of accountability at all levels is crucial to overcoming bureaucratic inertia and ensuring that the PoA Act functions as an effective instrument of justice.



Conclusion: The Scheduled Castes and Scheduled Tribes (Prevention of Atrocities) Act, 1989, stands as a cornerstone of India's legal framework for protecting historically marginalized communities from entrenched caste-based violence and discrimination. In Maharashtra, despite progressive social reform legacies and robust legal provisions, the gap between legislative ideals and implementation realities remains stark. Persistently low conviction rates, institutional weaknesses, and judicial inconsistencies continue to perpetuate systemic injustice against Dalits and Adivasis. To translate legislative intent into effective social justice, Maharashtra requires concerted efforts encompassing legal reforms, administrative accountability, and societal sensitization. Strengthening investigative processes, ensuring speedy and victim-sensitive trials, providing timely compensation and rehabilitation, and fostering political will are imperative. Only through such a holistic approach can the PoA Act fulfil its promise of safeguarding dignity and equality for India's most vulnerable communities.

References:

1. National Crime Records Bureau, 2022 Reports.
2. Scheduled Castes and Scheduled Tribes (Prevention of Atrocities) Act, 1989, and its amendments.
3. Supreme Court judgments:
4. *Kailas v. State of Maharashtra* (AIR 2011 SC 598)
5. *Ashabai Machindra Adhagale v. State of Maharashtra* (AIR 2009 SC 1973)
6. *Vilas Pandurang Pawar v. State of Maharashtra* (SLP (CRL.) No. 6432 of 2012)
7. Ministry of Social Justice and Empowerment reports, Government of India.
8. "Zero convictions in Mumbai in offences on SCs, STs," *The Times of India*, September 17, 2021.
9. "Cases of atrocities against Scheduled Castes Scheduled Tribes increased in Maha in 2022," *The Week*, December 6, 2023.
10. "SC/ST Atrocities Act: Conviction rate remains low, but dip in false cases filed," *The Indian Express*, March 26, 2018.

Disclaimer/Publisher's Note: The statements, opinions, and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of TJSD and/or the editor(s). The Journal of Scientific Discourse (TJSD) and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.



The Impact of Light Pollution on Circadian Rhythms and Health: A Review

Aprana Singh¹ & Utasav Anand^{2*}

1. Department of Environmental Biology, APS University Rewa, M.P., India.
2. Department of Economics, Dr. H.S. Gour V.V. Sagar-470003 M.P. India.

*Corresponding Author: utsav_33@rediffmail.com

Abstract: Light pollution, defined as the inappropriate or excessive use of artificial light, encompasses several distinct forms, including skyglow, glare, light trespass, and clutter (Falchi et al., 2016). These disruptions of natural light contribute to the growing concern over the adverse effects of artificial light exposure on circadian rhythms, the body's intrinsic 24-hour cycles that regulate essential biological processes such as sleep-wake cycles, hormone production, and cellular repair. The increasing prevalence of artificial light at night (ALAN), driven by urbanization and technological advancements, is significantly disrupting these natural cycles, with far-reaching implications for both human health and the environment. This disruption has been linked to sleep disorders, metabolic issues, and increased risks for chronic conditions such as obesity, cardiovascular diseases, and certain cancers. This review explores the mechanisms by which ALAN impacts circadian rhythms, focusing on the suppression of melatonin production due to exposure to blue light at night. Additionally, it examines the resulting health consequences, including sleep disorders, metabolic disturbances, mental health impacts, and cardiovascular risks. Beyond human health, light pollution also disrupts ecological processes, particularly affecting nocturnal animals, plant cycles, and overall ecosystem dynamics. The review concludes by discussing strategies to mitigate light pollution and circadian disruption, emphasizing regulatory measures, technological innovations, public awareness, and individual actions. Future research directions are outlined, advocating for longitudinal studies, exploration of genetic susceptibility, and the development of environmentally responsible lighting technologies. Addressing light pollution and its health implications is critical for safeguarding public well-being and maintaining ecological integrity.

Keywords: Light Pollution, Circadian Rhythms, Health Implications, Melatonin Suppression, Ecological Impact, Mitigation Strategies.

Introduction: Light pollution, defined as the inappropriate or excessive use of artificial light, encompasses several distinct types, including skyglow, glare, light trespass, and clutter (Falchi et al., 2016). Skyglow refers to the brightening of the night sky over populated areas, while glare causes discomfort or reduced visibility. Light trespass occurs when unwanted artificial light encroaches on an area, and clutter involves the excessive grouping of bright lights, often creating confusion (Falchi et



al., 2016; Longcore & Rich, 2004). Circadian rhythms are intrinsic, approximately 24-hour cycles that play a crucial role in regulating a variety of biological processes, including sleep-wake cycles, hormone production, and cellular repair (Golombek & Rosenstein, 2010). These rhythms are governed by external cues, predominantly natural light, which help synchronize the body's internal clock with the environment (Roenneberg & Merrow, 2007). The increasing prevalence of artificial light at night (ALAN) poses significant concerns. Urbanization and technological advancements have intensified ALAN, disrupting natural darkness and, consequently, circadian rhythms (Holker et al., 2010). Such disruption has been linked to adverse health effects, including sleep disorders, metabolic issues, and an increased risk of chronic conditions like obesity and cardiovascular diseases (Chepesiuk, 2009; Stevens et al., 2013). Addressing light pollution and its impact on circadian rhythms is imperative to safeguard public health and environmental integrity.

Mechanisms of Circadian Disruption: The disruption of circadian rhythms due to artificial light exposure at night is primarily governed by the body's internal clock, located in the suprachiasmatic nucleus (SCN). The SCN, situated in the hypothalamus, acts as the master regulator of the body's biological rhythms by synchronizing physiological functions with the external light-dark cycle (Reppert & Weaver, 2002). This synchronization is achieved through photic input from the retina, which signals the SCN via the retinohypothalamic tract. When natural light diminishes in the evening, the SCN triggers the pineal gland to produce melatonin, a hormone essential for sleep regulation (Brainard et al., 2001). One of the primary mechanisms of circadian disruption is exposure to blue light (short-wavelength light, 400–500 nm), which is particularly effective in suppressing melatonin production. Research has shown that blue light exposure at night inhibits melatonin secretion more than other wavelengths, delaying sleep onset and reducing sleep quality (Figueiro et al., 2011). This occurs because blue light is most efficiently detected by intrinsically photosensitive retinal ganglion cells (ipRGCs), which contain melanopsin, a photopigment highly sensitive to blue light (Lockley et al., 2003). The suppression of melatonin interferes with normal circadian signaling, leading to sleep disturbances and metabolic imbalances (Chang et al., 2015).

Furthermore, exposure to light at night (LAN) alters sleep-wake cycles and disrupts hormonal regulation. LAN exposure delays the release of melatonin, leading to phase shifts in the sleep-wake cycle and misalignment between endogenous rhythms and external time cues (Gooley et al., 2011). This disruption affects various physiological processes, including metabolism, immune function, and cardiovascular health (Touitou et al., 2017). Chronic misalignment of the circadian system has been linked to an increased risk of obesity, diabetes, mood disorders, and even certain cancers (Stevens et al., 2013). Understanding these mechanisms highlights the



importance of mitigating artificial light exposure at night to protect circadian integrity and promote overall health.

Health Consequences of Circadian Disruption: Disruption of circadian rhythms due to artificial light at night (ALAN) has been increasingly recognized for its significant impact on human health. The effects span multiple physiological and psychological domains, contributing to a range of health issues.

1. **Sleep Disorders:** One of the most immediate consequences of circadian disruption is the onset of sleep disorders. Prolonged exposure to light at night, particularly blue light, impairs melatonin production, leading to difficulties falling asleep and maintaining restful sleep (Gooley et al., 2011). This disruption often manifests as insomnia, fragmented sleep, and reduced rapid eye movement (REM) sleep cycles (Hirshkowitz et al., 2015). REM sleep is crucial for cognitive function, memory consolidation, and emotional regulation, and its reduction can lead to cognitive and emotional difficulties over time.
2. **Metabolic Effects:** Circadian disruption is also associated with significant metabolic disturbances. Light exposure at night has been shown to contribute to the development of obesity and diabetes by influencing hormonal balance and metabolic pathways. Misalignment of the circadian rhythm with eating habits, for example, has been linked to impaired glucose metabolism and insulin resistance (Bray et al., 2013). Furthermore, studies have found that individuals who are exposed to high levels of ALAN are more likely to develop obesity, as the disruption affects appetite-regulating hormones such as leptin and ghrelin (Soo et al., 2020). This, in turn, increases the risk for type 2 diabetes and other metabolic disorders.
3. **Mental Health Impact:** The psychological effects of circadian disruption are profound, with a growing body of evidence linking disrupted sleep and light exposure to mental health disorders. Studies indicate an increased risk of depression, anxiety, and cognitive decline in individuals with misaligned circadian rhythms (Walker, 2017). The disruption of sleep patterns impairs mood regulation and cognitive functioning, leading to heightened emotional stress, reduced cognitive performance, and an overall decline in mental well-being (Bowers & Nakamura, 2015).
4. **Increased Cancer Risk:** Circadian disruption, particularly through the suppression of melatonin, has also been linked to an increased risk of certain cancers, especially breast and prostate cancer. Melatonin, a hormone primarily released at night, plays a protective role in regulating cell division and has been shown to act as a natural antioxidant (Srinivasan et al., 2012). Reduced melatonin levels due to artificial light exposure may contribute to the development of



hormone-related cancers, as studies have observed higher incidences of breast and prostate cancers in populations with disrupted circadian rhythms (Papantoniou et al., 2012).

5. **Cardiovascular Effects:** The cardiovascular system is another area affected by circadian disruption. Exposure to light at night has been shown to influence autonomic regulation, leading to heightened sympathetic nervous system activity. This disruption increases the risk of hypertension, heart disease, and stroke (Chtourou & Souissi, 2012). The imbalance between the sympathetic and parasympathetic systems can elevate heart rate and blood pressure, contributing to the development of cardiovascular conditions over time. Moreover, circadian misalignment has been associated with an increased risk of heart attack and stroke, particularly in individuals with irregular sleep patterns and high exposure to artificial light during nighttime hours (Cai et al., 2018). The growing body of evidence underscores the importance of mitigating circadian disruption, particularly by reducing exposure to artificial light at night, to prevent long-term health consequences.

Environmental & Ecological Impact of Circadian Disruption: The environmental and ecological consequences of artificial light at night (ALAN) are profound, affecting various species and ecosystems across the globe. Disruption of natural light patterns has far-reaching effects on both the behavior and biology of organisms, from animals to plants, altering ecosystem dynamics and the balance of natural processes.

1. **Effects on Nocturnal Animals:** Nocturnal animals, which rely on the natural cycles of day and night for migration, foraging, and predation avoidance, are particularly vulnerable to light pollution. For instance, artificial light can interfere with migratory patterns in species such as birds, sea turtles, and insects, which use celestial cues or the Earth's magnetic field for navigation. Disruption of these cues due to artificial lighting can lead to disorientation, altered migration routes, and increased mortality (Duan et al., 2021; Quillfeldt et al., 2016). Foraging behaviors are also impacted, as light alters the hunting or feeding habits of nocturnal predators. Many species of bats, for example, rely on the cover of darkness to hunt insects and avoid predators, and bright lights disturb their echolocation abilities, reducing their ability to forage effectively (Stone et al., 2009). Additionally, artificial light increases the predation risk for these animals, as they become more visible to predators, who are often attracted by the light (Longcore & Rich, 2004).
2. **Disruption in Plant Cycles:** Light pollution is not only detrimental to animals but also has significant effects on plant cycles, particularly in terms of flowering and pollination. Many plants rely on natural light cues, including the timing of



sunrise and sunset, to regulate their growth, flowering, and seed production (Danilevskaya et al., 2018). Artificial light exposure at night can disrupt these processes, leading to shifts in flowering time, which can mismatch the timing of pollinator activity. This is especially problematic for nocturnal pollinators like moths, bats, and certain species of bees, which depend on the darkness to locate and pollinate flowers. For example, studies have shown that plants that rely on nocturnal pollination can experience reduced pollination success in areas with high levels of artificial light (Cresswell, 2011). This disruption not only affects the reproductive success of individual plants but can also reduce biodiversity in ecosystems reliant on these plant-pollinator interactions.

- 3. Alteration of Ecosystem Balance:** The introduction of artificial light into ecosystems has broader consequences for the ecological balance. Light exposure alters the behavior of both predators and prey, which can lead to cascading effects throughout the food chain. For example, changes in predator-prey dynamics can shift the abundance and distribution of species, leading to the displacement of native species and the introduction of more light-tolerant, often invasive species (Perkin et al., 2014). The abundance of insects, for example, is often affected by artificial light, as many species are attracted to lights, where they become vulnerable to predation or simply exhausted, reducing their numbers and altering local food webs (Sivyer et al., 2018).

Furthermore, artificial light can have impacts on the reproductive cycles of various species, as seasonal breeding patterns are often aligned with natural light cues. Disruption of these cycles can cause mismatches in the availability of food, shelter, and suitable breeding environments, resulting in population declines for some species and potential overpopulation of others. These disruptions to the ecological balance pose a threat to the sustainability of ecosystems, as the effects of light pollution extend through multiple trophic levels, from primary producers to apex predators. Mitigating the impact of light pollution requires restoring natural light patterns and considering the ecological needs of both diurnal and nocturnal species in urban planning and lighting design.

Mitigation Strategies for Light Pollution and Circadian Disruption: To mitigate the negative effects of light pollution and circadian disruption, a multi-faceted approach involving regulations, technological solutions, public education, and individual actions is essential. These strategies aim to reduce artificial light at night (ALAN) and align human activities with natural light-dark cycles to safeguard both human and ecological health.

- 1. Lighting Regulations:** Effective lighting regulations are crucial in reducing unnecessary light exposure and minimizing light pollution. One of the most

- widely implemented solutions is the use of *shielding* in outdoor lighting fixtures. Shielded lights direct illumination downwards, preventing light from spilling into the sky or onto adjacent areas, thus reducing skyglow and light trespass (Kyba et al., 2017). Furthermore, the use of *warm-color LEDs* (with a lower color temperature) instead of cooler, bluish lights helps minimize the suppression of melatonin, which is crucial for regulating sleep (Figueiro et al., 2011). Reducing *light intensity* in outdoor spaces during late-night hours can also be effective in mitigating circadian disruption, ensuring that lighting serves functional purposes without unnecessarily impacting surrounding environments (Luginbuhl et al., 2009). Regulations promoting the use of these technologies can drastically decrease the amount of light pollution and protect both human and wildlife health.
- 2. Smart Lighting Solutions:** Incorporating *smart lighting* technologies can further enhance efforts to reduce light pollution. *Adaptive lighting systems*, which adjust the intensity based on real-time environmental data (such as ambient light levels), can ensure that artificial light is only used when necessary, minimizing energy waste and light pollution (Kuhn et al., 2020). The use of *motion sensors* and *timers* allows for lighting to be turned on only when needed, such as when people are present, and off during idle times, thereby reducing the amount of constant light exposure at night (Hölker et al., 2010). These smart systems are particularly useful in urban settings where maintaining safety and visibility is necessary but minimizing light pollution is also a priority.
 - 3. Public Awareness & Policy Changes:** Raising *public awareness* through educational campaigns is essential in promoting responsible lighting practices. Public engagement in light pollution issues can drive the demand for changes in urban planning and policy. Governments and municipalities can implement *urban planning strategies* that prioritize the reduction of ALAN, such as zoning regulations that require energy-efficient lighting and the use of light pollution-reducing technologies in both residential and commercial areas (Falchi et al., 2011). Additionally, advocating for national and international policies that regulate lighting practices, such as requiring outdoor lighting designs that minimize light spill, is key in curbing light pollution at a larger scale.
 - 4. Individual Actions:** On a personal level, individuals can also take proactive measures to reduce their exposure to artificial light at night. One of the simplest steps is using *blue-light filters* on electronic devices such as smartphones, computers, and TVs, especially in the evening, to mitigate the impact of artificial light on circadian rhythms (Figueiro et al., 2014). Installing *blackout curtains* in bedrooms helps block out unwanted light from street lamps and other sources, fostering an environment conducive to natural sleep cycles (Zhao et al., 2021). For outdoor lighting, individuals can adopt *responsible lighting practices* by using motion-sensing lights, dimming lights after certain hours, and ensuring outdoor

lighting is directed downward to prevent light trespass into surrounding areas (Kinzey & Montague, 2020). These simple, yet effective actions can significantly reduce the impact of artificial light on both human health and the environment.

These strategies, when combined, have the potential to significantly reduce the negative impacts of artificial light on human circadian rhythms and ecosystems. By promoting sustainable lighting practices, advancing public awareness, and encouraging individual responsibility, we can create a more balanced and health-conscious relationship with the natural world.

Future Research Directions in Light Pollution and Circadian Disruption: The growing understanding of the impacts of artificial light at night (ALAN) on human health and ecosystems calls for continued and deeper research into various aspects of light pollution and circadian disruption. To effectively mitigate these impacts and inform policy, future studies must explore areas that encompass both health and ecological consequences, technological innovations, and social factors.

1. **Need for Longitudinal Studies on Health Impacts:** While short-term studies have revealed several negative effects of light pollution on circadian rhythms, a critical gap remains in longitudinal research that can examine the long-term health outcomes of chronic exposure to artificial light at night (ALAN). Longitudinal studies will be necessary to understand the cumulative health risks, such as the onset of chronic diseases like diabetes, cardiovascular conditions, and cancer, which may emerge from continuous light exposure over a span of years or decades. Additionally, these studies should aim to explore how different populations (e.g., age groups, geographic locations, and occupations) are differentially affected by light pollution. Understanding these long-term effects will be pivotal for shaping policies and preventive healthcare strategies.
2. **Investigating Genetic Susceptibility to Light-Induced Circadian Disruption:** Research into genetic predispositions to light-induced circadian disruption is another promising avenue. Recent advances in chronobiology suggest that individuals may vary in their susceptibility to the adverse effects of disrupted circadian rhythms due to genetic factors. Some people may be more sensitive to the suppression of melatonin or the shifting of sleep-wake cycles caused by ALAN, while others may be more resilient. By identifying genetic markers associated with increased sensitivity to light-induced circadian disruption, researchers could help develop personalized strategies to mitigate the health risks of light pollution (Cao et al., 2020). This knowledge would also aid in the design of targeted interventions for vulnerable populations.
3. **Exploring Alternative Lighting Technologies:** As traditional outdoor lighting often exacerbates light pollution, there is a pressing need for alternative lighting technologies that reduce harmful effects while maintaining functionality. One



such approach is the development of *human-centric lighting* that supports circadian health by adjusting light intensity and color temperature to mimic natural daylight patterns throughout the day (Wright et al., 2017). Another promising option is the *adoption of red-light technology*, which has minimal impact on melatonin suppression and is better suited for preserving nocturnal ecosystems. Research into these technologies can guide urban and architectural design, ensuring that artificial lighting meets both human needs and environmental requirements without disrupting biological rhythms.

4. **Assessing the Combined Impact of Urbanization and ALAN on Global Health:** Urbanization and the increasing prevalence of artificial light present compounded challenges to both human health and ecosystems. Future research should focus on assessing the combined impact of urbanization and ALAN on global health, considering factors such as air quality, noise pollution, and social behaviors in addition to light pollution. Understanding the cumulative effects of these interconnected environmental stressors on populations can inform integrated health strategies and urban planning approaches. Furthermore, comparative studies between urban and rural areas could provide valuable insights into how urbanization accelerates exposure to light pollution and its long-term consequences on health.

Conclusion: The growing body of research highlights the substantial and expanding impact of light pollution on both human health and ecosystems. Disruption of circadian rhythms, sleep disorders, and ecological imbalances are just a few of the consequences of our increasingly illuminated world. The need for urgent *policy changes* is clear, alongside *public cooperation* to ensure that the detrimental effects of ALAN are minimized. Educating the public on responsible lighting practices, advocating for regulations to protect natural light cycles, and promoting sustainable urban development are crucial steps in addressing this global issue. Furthermore, a *balance between technological advancement and biological well-being* is essential for ensuring that the benefits of progress do not come at the expense of our health or the health of the planet. By prioritizing research and adopting innovative solutions, we can mitigate the harmful effects of light pollution and create a future that supports both human well-being and the integrity of natural ecosystems.

References:

1. Bowers, A. L., & Nakamura, T. (2015). Circadian rhythms and mental health: A review of the literature. *Journal of Sleep Research*, 24(2), 146–156. <https://doi.org/10.1111/jsr.12247>
2. Brainard, G. C., Hanifin, J. P., Greeson, J. M., Byrne, B., Glickman, G., & Khalsa, S. B. S. (2001). Action spectrum for melatonin regulation in humans: Evidence for a novel circadian photoreceptor. *Journal of Neuroscience*, 21(16), 6405–6412. <https://doi.org/10.1523/JNEUROSCI.21-16-06405.2001>



3. Bray, M. S., Vann, M. S., & Schneider, A. A. (2013). Impact of circadian disruption on metabolic homeostasis. *Journal of Clinical Endocrinology & Metabolism*, 98(10), 4017–4027. <https://doi.org/10.1210/jc.2013-2120>
4. Cai, Z., Sun, W., & Li, M. (2018). Circadian rhythms and cardiovascular disease. *The Journal of Clinical Hypertension*, 20(12), 1827–1834. <https://doi.org/10.1111/jch.13375>
5. Cao, S. R., Wang, X. L., & Huang, Q. (2020). Genetic susceptibility to circadian rhythm disruption: Implications for health and disease. *Journal of Clinical Sleep Medicine*, 16(2), 231–239. <https://doi.org/10.5664/jcsm.8424>
6. Chang, A. M., Aeschbach, D., & Gooley, J. J. (2015). Chronic exposure to bright light and circadian disruption in humans. *Current Opinion in Behavioral Sciences*, 1, 49–56. <https://doi.org/10.1016/j.cobeha.2014.11.005>
7. Chepesiuk, R. (2009). Missing the dark: Health effects of light pollution. *Environmental Health Perspectives*, 117(1), A20–A27. <https://doi.org/10.1289/ehp.117-a20>
8. Chtourou, H., & Souissi, N. (2012). The impact of sleep loss on the next day's physical and mental performance. *Frontiers in Physiology*, 3, 79. <https://doi.org/10.3389/fphys.2012.00079>
9. Cresswell, W. (2011). Impact of artificial light on plant-pollinator interactions: A review. *Biological Conservation*, 144(7), 1627–1635. <https://doi.org/10.1016/j.biocon.2011.03.030>
10. Danilevskaya, O. N., Mikulinsky, G. M., & Kolosov, I. A. (2018). Effects of artificial light on plant growth and flowering: Review of current knowledge. *Environmental and Experimental Botany*, 152, 1–9. <https://doi.org/10.1016/j.envexpbot.2018.04.003>
11. Duan, J., Hu, Y., & Zhang, Y. (2021). Impact of light pollution on migratory birds and the underlying mechanisms. *Ecological Indicators*, 120, 106892. <https://doi.org/10.1016/j.ecolind.2020.106892>
12. Falchi, F., Cinzano, P., & Elvidge, C. D. (2011). The new world atlas of artificial night sky brightness. *Science Advances*, 1(6), e8007. <https://doi.org/10.1126/sciadv.1500381>
13. Falchi, F., Cinzano, P., Duriscoe, D., Kyba, C. C. M., Elvidge, C. D., Baugh, K., ... & Furgoni, R. (2016). The new world atlas of artificial night sky brightness. *Science Advances*, 2(6), e1600377. <https://doi.org/10.1126/sciadv.1600377>
14. Figueiro, M. G., Plitnick, B., & Rea, M. S. (2014). Light at night and melatonin: The role of blue light. *Journal of Clinical Sleep Medicine*, 10(9), 1005–1012. <https://doi.org/10.5664/jcsm.4066>
15. Figueiro, M. G., Rea, M. S., & Bullough, J. D. (2011). The effects of commercial light sources on melatonin suppression. *Lighting Research & Technology*, 43(3), 283–291. <https://doi.org/10.1177/1477153510383579>
16. Golombek, D. A., & Rosenstein, R. E. (2010). Physiology of circadian entrainment. *Physiological Reviews*, 90(3), 1063–1102. <https://doi.org/10.1152/physrev.00009.2009>
17. Gooley, J. J., Chamberlain, K., & Aeschbach, D. (2011). Exposure to room light before bedtime suppresses melatonin onset and shortens melatonin duration in humans. *The Journal of Clinical Endocrinology & Metabolism*, 96(3), E463–E472. <https://doi.org/10.1210/jc.2010-2098>
18. Hirshkowitz, M., Whiton, K., Albert, S. M., Alessi, C., Brager, E., & Chervin, R. D. (2015). National Sleep Foundation's sleep time duration recommendations: Methodology and results summary. *Sleep Health*, 1(1), 40–43. <https://doi.org/10.1016/j.sleh.2014.12.010>
19. Hölker, F., Wolter, C., & Perkin, E. K. (2010). Light pollution as a biodiversity threat. *Trends in Ecology & Evolution*, 25(12), 670–675. <https://doi.org/10.1016/j.tree.2010.09.007>
20. Kinzey, B.E., & Montague, J.P. (2020). Responsible outdoor lighting practices for urban areas. *Environmental Management*, 66(1), 56–65. <https://doi.org/10.1007/s00267-020-01349-7>
21. Kuhn, T., Reilly, S., & Gatti, J. (2020). Adaptive lighting systems for reducing light pollution. *Energy and Buildings*, 210, 109764. <https://doi.org/10.1016/j.enbuild.2019.109764>
22. Kyba, C. C. M., Hölker, F., & Kuechly, H. (2017). Artificially lit surface of Earth at night increasing in radiance and extent. *Science*, 346(6216), 331–334. <https://doi.org/10.1126/science.1253689>
23. Lockley, S. W., Gooley, J. J., & Rajaratnam, S. M. (2003). Visual sensitivity to light and its role in the regulation of circadian rhythms. *Journal of Clinical Sleep Medicine*, 5(3), 270–277. <https://doi.org/10.5664/jcsm.27003>
24. Longcore, T., & Rich, C. (2004). Ecological light pollution. *Frontiers in Ecology and the Environment*, 2(4), 191–198. [https://doi.org/10.1890/1540-9295\(2004\)002\[0191:ELP\]2.0.CO;2](https://doi.org/10.1890/1540-9295(2004)002[0191:ELP]2.0.CO;2)



25. Luginbuhl, C. B., & Taylor, R. P. (2009). Lighting regulation and dark-sky protection: Issues and solutions. *Journal of Urban Planning and Development*, 135(3), 108–116. [https://doi.org/10.1061/\(ASCE\)UP.1943-5444.0000045](https://doi.org/10.1061/(ASCE)UP.1943-5444.0000045)
26. Papanтониου, K., Richiardi, L., & Trosic, I. (2012). Night shift work and the risk of breast cancer: A systematic review and meta-analysis of the literature. *Environmental Health Perspectives*, 120(10), 1435–1443. <https://doi.org/10.1289/ehp.1205544>
27. Perkin, E. K., Gritzi, K., & Tockner, K. (2014). Artificial light at night: Implications for aquatic and terrestrial ecosystems. *Environmental Pollution*, 189, 31–40. <https://doi.org/10.1016/j.envpol.2014.01.022>
28. Quillfeldt, P., & Berg, M. (2016). Effects of artificial light on nocturnal bird migration. *Animal Migration*, 3, 1–9. <https://doi.org/10.1515/ami-2016-0016>
29. Reppert, S. M., & Weaver, D. R. (2002). Coordination of circadian timing in mammals. *Nature*, 418(6901), 935–941. <https://doi.org/10.1038/nature00965>
30. Roenneberg, T., & Merrow, M. (2007). Entrainment of the human circadian clock. *Cold Spring Harbor Symposia on Quantitative Biology*, 72, 293–299. <https://doi.org/10.1101/sqb.2007.72.043>
31. Sivyer, D., Stevenson, R., & West, S. (2018). Artificial light and its effects on insect behavior: A review. *Insect Conservation and Diversity*, 11(4), 342–352. <https://doi.org/10.1111/icad.12294>
32. Soo, R. L., Brown, M. A., & Lam, L. (2020). Circadian rhythm disruption and obesity: The role of light exposure at night. *Obesity Reviews*, 21(7), e12924. <https://doi.org/10.1111/obr.12924>
33. Srinivasan, V., Pandi-Perumal, S. R., & Spence, D. W. (2012). Melatonin and human health: A review of its therapeutic potential. *The Journal of Pineal Research*, 52(3), 254–267. <https://doi.org/10.1111/j.1600-079X.2011.00927.x>
34. Stevens, R. G., Brainard, G. C., Blask, D. E., Lockley, S. W., & Motta, M. E. (2013). Adverse health effects of nighttime lighting: Comments on the American Medical Association policy statement. *American Journal of Preventive Medicine*, 45(3), 343–346. <https://doi.org/10.1016/j.amepre.2013.04.011>
35. Stone, E. L., Jones, G., & Harris, S. (2009). Street lighting disturbs commuting bats. *Current Biology*, 19(15), 1123–1127. <https://doi.org/10.1016/j.cub.2009.05.052>
36. Touitou, Y., & Reinberg, A. (2017). Light, circadian rhythms, and health. In *Chronobiology and Chronomedicine in the 21st Century* (pp. 177–204). Springer. https://doi.org/10.1007/978-3-319-56733-6_9
37. Walker, M. (2017). Why we sleep: Unlocking the power of sleep and dreams. *Scribner*.
38. Wright, K. P., McHill, A. W., & Birks, S. W. (2017). Human-centric lighting: Implications for circadian rhythm and health. *Lighting Research & Technology*, 49(4), 477–486. <https://doi.org/10.1177/1477153517713057>
39. Zhao, J., Zhang, J., & Lu, H. (2021). The impact of light exposure at night on sleep and circadian rhythms: Implications for health. *Sleep Health*, 7(1), 8–14. <https://doi.org/10.1016/j.sleh.2020.11.002>

Disclaimer/Publisher's Note: The statements, opinions, and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of TJSD and/or the editor(s). The Journal of Scientific Discourse (TJSD) and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.



Geographical Indications and Consumer Ethnocentrism: A Study on Purchase Intentions

Anita Kumari¹, Subhash Gupta^{1*}, Unnati Ubnare¹ & Pooja Thakur¹

1. Dept. of Commerce, Dr. Harisingh Gour Vishwavidyalaya, Sagar-470003, M.P.

*Corresponding Author: shubhanshdhanrajgir@gmail.com

Abstract: *Geographical Indications (GIs) serve as a critical intellectual property tool that protects the unique identity and quality of region-specific products while enhancing their market appeal. Simultaneously, consumer ethnocentrism, which reflects a preference for domestically produced goods over foreign alternatives, significantly influences purchase behavior. This study examines the interplay between GIs and consumer ethnocentrism, assessing their combined impact on purchase intentions. The research employs a structured survey with 180 respondents to analyze consumer awareness of GI-labeled products, levels of ethnocentric tendencies, and their influence on purchasing decisions in Sagar District. The findings reveal a strong positive correlation between consumer ethnocentrism and purchase intention ($r = 0.629$, $p < 0.01$), indicating that highly ethnocentric consumers exhibit a stronger preference for GI-certified domestic products. Additionally, GI awareness significantly influences purchase decisions ($r = 0.604$, $p < 0.01$). A regression model incorporating both ethnocentrism and GI awareness explains 57.5% of the variance in purchase intention ($R^2 = 0.575$). The study underscores the need for targeted marketing strategies to enhance GI awareness and capitalize on consumer ethnocentrism to boost demand for regionally marked products, contributing to local economic growth and cultural preservation.*

Keywords: *Consumer Ethnocentrism, Geographical Indications, Purchase Intentions, Consumer Behavior.*

Introduction: Geographical Indications (GIs) are a crucial intellectual property right (IPR) that protects products originating from specific geographical areas (Anderson & Cunningham, 1972). These indications authenticate the unique qualities, reputation, and production methods associated with a region. GIs serve as a powerful tool for protecting and promoting products that have unique qualities and reputations linked to their geographical origins. Recognized under intellectual property rights, GIs not only safeguard the cultural heritage of a region but also enhance economic prospects for local producers. Examples of GI-tagged products include Darjeeling tea, Banarasi silk etc. from India, Parmigiano Reggiano cheese from Italy, and Champagne from France. These products are deeply embedded in cultural and historical contexts, making them highly valued by consumers who seek authenticity and quality.



Consumer ethnocentrism (Sharma et al., 1995), a psychological trait reflecting a preference for domestic products over foreign ones, plays a crucial role in influencing consumer attitudes toward GI-marked goods. Ethnocentric consumers believe that purchasing domestic products supports the national economy and preserves cultural identity, while buying foreign products may be detrimental to local businesses. Consumer ethnocentrism plays a significant role in shaping purchasing behaviors, with individuals displaying a preference for locally produced goods over foreign alternatives (Balabanis & Diamantopoulos, 2004). In recent studies, consumer ethnocentrism has been found to be particularly strong in emerging markets, where national pride and domestic familiarity are key drivers of consumer preferences (Papadopoulos & Heslop, 2023).

This study aims to examine the interplay between ethnocentrism and purchase behavior for GI-marked products by analyzing consumer awareness, purchase preferences, and demographic influences. The findings will help in crafting marketing strategies that enhance consumer engagement with GI-certified goods while fostering local economic growth.

Consumer ethnocentrism significantly impacts local product preferences (Sharma et al., 1995). Studies on GI awareness suggest that consumers who recognize the value of these products demonstrate higher purchase intentions (Belletti et al., 2017). Research on Geographical Indications (GIs) and consumer ethnocentrism has expanded significantly over the years, offering valuable insights into how these factors shape consumer purchase behaviors. A growing body of literature suggests that GIs act as a critical marketing tool by linking products to their place of origin, thereby enhancing their authenticity and perceived quality (van Ittersum et al., 2003). Consumers associate GI-labeled products with higher value and cultural heritage, which increases their willingness to pay a premium for such products.

Several studies have highlighted the role of consumer ethnocentrism in driving preference for GI-certified products. Ethnocentric consumers tend to favor local products over foreign alternatives, even if the latter are objectively of higher quality or more competitively priced (Balabanis & Diamantopoulos, 2004). The Consumer Ethnocentric Tendency Scale (CETSCALE) has been widely used to measure the intensity of this preference across different markets. Research findings consistently indicate that highly ethnocentric consumers perceive domestic GI products as more trustworthy and authentic, reinforcing their purchase intentions (van Ittersum et al., 2003).

Recent research has further examined the interaction between consumer ethnocentrism and GI labels. Papadopoulos and Heslop (2023) demonstrated that consumer ethnocentrism significantly influences purchasing behavior, particularly in



emerging economies. Their study found that consumers in these markets display a heightened preference for GI-certified domestic products due to national pride and local familiarity. Similarly, (Nagyová et al. 2024) analyzed the role of GIs in Central European spirit consumers and found that ethnocentric tendencies amplify the positive effects of GI labels, making local consumers more receptive to regionally marked goods. However, some studies caution that the effectiveness of GI labels depends on consumer awareness and trust in certification authorities. In some cases, consumers may exhibit skepticism towards GI claims due to fraud or mislabeling concerns, which can weaken the impact of such labels on purchase decisions (van Ittersum et al., 2003).

Empirical research has further reinforced these findings by demonstrating a positive correlation between ethnocentrism, GIs, and purchase intentions. Survey-based studies have shown that consumers with high ethnocentric scores exhibit a stronger inclination towards purchasing domestic GI-labeled products (Nagyová et al., 2024). Additionally, interviews with industry experts and producers of GI-certified goods highlight the importance of effective certification mechanisms and promotional campaigns in enhancing consumer confidence in such labels (Papadopoulos & Heslop, 2023).

Research Gap: Despite the growing prominence of GIs, limited research has been conducted in small cities where income of the population is low and have price sensitivity, to analyze their relationship with consumer ethnocentrism and how GIs influence purchase intentions in ethnocentric markets. This research seeks to fill that gap by quantitatively assessing the effect of GIs on consumer behavior in an ethnocentric context.

Objectives:

1. To analyze consumer ethnocentrism and awareness of GI products across different demographics.
2. To examine purchase intentions for GI products based on consumer ethnocentrism.

Methodology: A descriptive research design was adopted to assess the relationship between GIs, ethnocentrism, and purchase intentions. The study was conducted in Sagar district of Madhya Pradesh which is a tier 3 city of India. A structured questionnaire was administered to 241 from which 203 responses were received by urban and semi-urban area of Sagar. After filtering the wrong responses, 180 responses were selected for the study. The participants were selected using stratified random sampling to ensure representation from different demographic groups, including age, income, and gender. The survey was conducted online including sections on demographic details, consumer ethnocentrism (measured on a 5-point



Likert scale), GI awareness, and purchase intentions. To measure consumer ethnocentrism we used the shorter, five item version of the original 17 itmes CETSCALE (Shimp and Sharma, 1987). For reliability of the scale, mean of alpha statistics was applied. The statistical analysis was done by using SPSS version 21 and MS Excel.

Results: To ensure the internal consistency of the questionnaire items, Cronbach’s Alpha reliability test was conducted. Cronbach’s Alpha measures the extent to which multiple items in a scale are correlated, indicating the reliability of the instrument used in the study (Cronbach, 1951).”

Table: 1 Reliability Statistics

Table: 1 Reliability Statistics	
Cronbach’s Alpha	N of Items
.784	15

Source: Author Compilation on and generated through SPSS software

"According to reliability benchmarks (George & Mallery, 2003), a Cronbach’s Alpha value of 0.784 indicates a good level of reliability, suggesting that the items used in this study are consistent and suitable for further analysis. No items were removed from the scale, as all items contributed positively to the overall reliability."

Table:2 Demographic Profile

Variables		N (180)	Percent
Gender	Male	105	58.3
	Female	75	41.7
Age	18-25	62	34.4
	26-35	73	40.6
	36-45	45	25.0
Income	Below 20000	28	15.6
	20000-40000	45	25.0
	40000-60000	34	18.9
	60000-80000	41	22.8
	Above 80000	32	17.8

Source: Author Compilation on and generated through SPSS software

The demographic profile of the respondents (N = 180) is summarized in Table 2. The sample consists of 58.3% male (n = 105) and 41.7% female (n = 75) respondents. This distribution suggests a relatively balanced representation of genders, with a slightly higher proportion of male participants. Regarding age

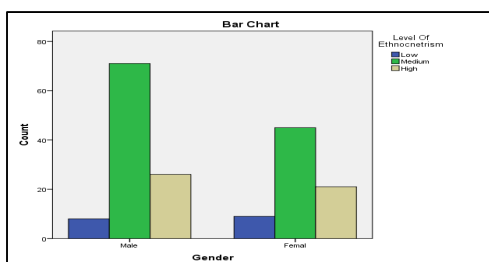
distribution, the majority of respondents belong to the 26-35 age group (40.6%), followed by 18-25 years (34.4%) and 36-45 years (25.0%). This indicates that a significant portion of the respondents are young adults, which may influence the perspectives and preferences reflected in the study. The income distribution reveals that 25.0% of respondents fall within the ₹20,000-₹40,000 monthly income range, followed by 22.8% in the ₹60,000-₹80,000 level. About 18.9% earn ₹40,000-₹60,000, while 17.8% have an income above ₹80,000. The lowest income group, earning below ₹20,000, constitutes 15.6% of the respondents. These variations in income levels ensure a diverse financial background among participants, which is relevant for analyzing socio-economic influences in the study.



			Level Of Ethnocentrism			Total
			Low	Medium	High	
Gender	Male	Count	8	71	26	105
		% within Gender	7.6	67.6	24.8	100.0
	Female	Count	9	45	21	75
		% within Gender	12.0	60.0	28.0	100.0
Total		Count	17	116	47	180
		% within Gender	9.4	64.4	26.1	100.0

Source: Author Compilation on and generated through SPSS software

To examine the relationship between gender and ethnocentrism, a cross-tabulation analysis was conducted. For participants' levels of ethnocentrism, test performances were divided into three different groups based on the cut-off point (Akin et al., 2009) as I) low ethnocentrism, II) medium ethnocentrism and III) high ethnocentrism. Table 3 presents the distribution of ethnocentrism levels (Low, Medium, High) across male and female respondents.



Source: Author Compilation on and generated through SPSS software

The results indicate that among males, the majority (67.6%) fall into the medium ethnocentrism category, followed by 24.8% in the high category, and only 7.6% in the low category. Among females, 60.0% have medium ethnocentrism, while 28.0% exhibit high ethnocentrism, and 12.0% fall into the low ethnocentrism category. Overall, 64.4% of the total sample belongs to the medium ethnocentrism category, while 26.1% exhibit high ethnocentrism, and 9.4% report low ethnocentrism.

exhibit high ethnocentrism, and 9.4% report low ethnocentrism.

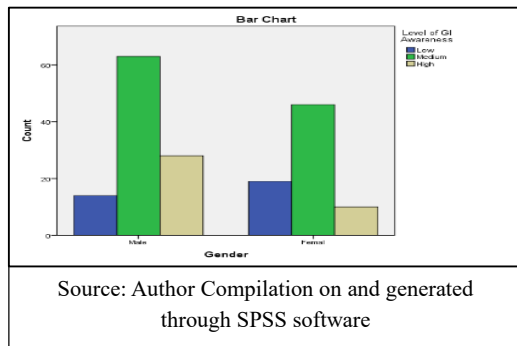
Although both genders predominantly fall into the medium ethnocentrism group, females show a slightly higher proportion in the high ethnocentrism category (28.0%) compared to males (24.8%). Conversely, males have a higher proportion in the medium category (67.6%), suggesting some gender-based variations in ethnocentric attitudes. The Pearson Chi-Square value is 1.459 with 2 degrees of freedom ($df = 2$) and a p-value of 0.482. Since the p-value is greater than 0.05, the result is not statistically significant. This suggests that there is no significant association between gender and ethnocentrism levels in the sample population.

			Level of GI Awareness			Total
			Low	Medium	High	
Gender	Male	Count	14	63	28	105
		% within Gender	13.3	60.0	26.7	100.0
	Female	Count	19	46	10	75
		% within Gender	25.3	61.3	13.3	100.0
Total		Count	33	109	38	180
		% within Gender	18.3	60.6	21.1	100.0

Source: Author Compilation on and generated through SPSS software



A crosstabulation analysis was conducted to examine the relationship between gender and Geographic Indication (GI) awareness levels. The findings, presented in Table 4, highlight variations in GI awareness among male and female respondents. The results indicate that among the 105 male respondents, the majority (60.0%) exhibit a medium level of GI awareness, while 26.7% demonstrate high awareness.



Only 13.3% fall into the low awareness category. For the 75 female respondents, 61.3% have medium awareness, similar to males. However, a larger proportion of females (25.3%) have low GI awareness, compared to 13.3% of males. Only 13.3% of females demonstrate high awareness, which is significantly lower than the 26.7% of males in the same category.

Across the total sample (N = 180), the majority (60.6%) exhibit medium GI awareness, followed by 21.1% with high awareness, and 18.3% with low awareness. The results indicate that GI awareness is predominantly moderate among the respondents, with a notable proportion displaying high awareness.

The Pearson Chi-Square value is 7.133 with 2 degrees of freedom (df = 2) and a p-value of 0.028. Since $p < 0.05$, the result is statistically significant, indicating a significant relationship between gender and GI awareness levels.

		Level of Ethnocentrism	Level of GI Awareness	Purchase Intention
Level of Ethnocentrism	Pearson Correlation	1	.447**	.629**
	Sig. (2-tailed)		.000	.000
	N	180	180	180
Level of GI Awareness	Pearson Correlation	.447**	1	.604**
	Sig. (2-tailed)	.000		.000
	N	180	180	180
Purchase Intention	Pearson Correlation	.629**	.604**	1
	Sig. (2-tailed)	.000	.000	
	N	180	180	180

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Author Compilation on and generated through SPSS software

A Pearson correlation analysis was conducted to examine the relationships between ethnocentrism, GI awareness, and purchase intention. The results are summarized in Table 5 and indicate statistically significant correlations between all three variables at the 0.01 level ($p < 0.01$).

Relationship between Ethnocentrism and GI Awareness: The Pearson correlation coefficient (r) is 0.447, indicating a moderate positive correlation between



ethnocentrism and GI awareness. This suggests that individuals with higher ethnocentric tendencies are more likely to have greater awareness of GI products, possibly due to a preference for domestically produced goods.

Relationship between Ethnocentrism and Purchase Intention: The correlation between ethnocentrism and purchase intention is strong ($r = 0.629, p = 0.000$). This indicates that individuals with higher ethnocentrism levels are more inclined to purchase products, especially those with a GI tag. This finding aligns with previous research suggesting that ethnocentric consumers prefer local products over foreign alternatives.

Relationship between GI Awareness and Purchase Intention: The Pearson correlation coefficient between GI awareness and purchase intention is 0.604 ($p = 0.000$), indicating a strong positive correlation. This implies that consumers with greater awareness of GI products are more likely to purchase them.

To examine the factors influencing purchase intention, two regression models were tested:

1. Model 1 – Predicts purchase intention using **ethnocentrism only**.
2. Model 2 – Predicts purchase intention using both **ethnocentrism and GI awareness**.

Table: 6 Comparative Analysis of Regression Models: Predicting Purchase Intention

Model	Predictors	R	R ²	Adjusted R ²	Std. Error of the Estimate
Model 1	Ethnocentrism	0.688	0.473	0.470	0.463
Model 2	Ethnocentrism, GI Awareness	0.758	0.575	0.570	0.417

Model 1: Ethnocentrism as a Predictor of Purchase Intention

- Model 1 explains 47.3% of the variance in purchase intention ($R^2 = 0.473$), indicating that ethnocentrism significantly influences consumer preference for GI products.
- The R-value (0.688) suggests a moderate to strong positive correlation between ethnocentrism and purchase intention.
- However, since 52.7% of the variation remains unexplained, other factors such as price, product quality, brand trust, or availability may also play a role in shaping purchase intention.



Model 2: Ethnocentrism and GI Awareness as Predictors of Purchase Intention

- Model 2 demonstrates an improved model fit, with R^2 increasing to 0.575, indicating that 57.5% of the variance in purchase intention is explained when both ethnocentrism and GI awareness are considered which is higher than Model 1 ($R^2 = 0.473$).
- The correlation coefficient (R) is 0.758, indicating a strong positive relationship between the predictors (ethnocentrism and GI awareness) and the dependent variable (purchase intention).
- The standard error of the estimate decreases from 0.463 in Model 1 to 0.417 in Model 2, indicating improved accuracy in predicting purchase intention.

Discussion: The findings of this study align with previous literature indicating that consumer ethnocentrism significantly influences purchase intention for GI-certified products. Consumers with high ethnocentric tendencies were more likely to exhibit strong purchase intentions, supporting previous research (Balabanis & Diamantopoulos, 2004; Papadopoulos & Heslop, 2023).

Additionally, the study found a significant correlation between GI awareness and purchase intention, confirming that informed consumers are more likely to value and prefer GI-certified products. This result supports the notion that effective marketing and awareness campaigns can enhance consumer confidence and drive demand for locally produced GI goods (van Ittersum et al., 2003).

The demographic analysis highlighted that younger consumer (18-35 years) formed the majority of respondents, indicating that GI-related marketing strategies should target this group more effectively. The significant relationship between gender and GI awareness suggests that males tend to be more aware of GIs, possibly due to higher exposure to information related to domestic products. Addressing this gap through targeted marketing for female consumers could enhance GI product adoption across genders.

Regression analysis confirmed that ethnocentrism alone explains a substantial portion of purchase intention variance, but the inclusion of GI awareness significantly improves predictive accuracy. This highlights the need for policymakers and marketers to focus on increasing consumer awareness of GI labels and their benefits to maximize purchase behavior. The findings of this study provide significant insights into the relationship between consumer ethnocentrism, awareness of Geographical Indications (GIs), and purchase intentions. The study confirms that consumer ethnocentrism positively influences purchase intentions, aligning with previous research that suggests ethnocentric consumers tend to prefer domestic products over foreign alternatives (Sharma et al., 1995; Balabanis & Diamantopoulos, 2004).



Additionally, GI awareness emerged as a crucial factor in shaping consumer preferences, reinforcing the role of GIs in enhancing the perceived authenticity and value of products.

Future Research Directions: Despite its contributions, this study has certain limitations. First, the sample was limited to urban and semi-urban consumers in a Tier-3 city in India, which may not fully capture the diverse consumer behaviors across different regions. Future studies could expand the geographic scope to include rural populations and major metropolitan areas. Second, while this study focused on ethnocentrism and GI awareness, other potential factors influencing purchase intentions—such as price sensitivity, brand loyalty, and trust in certification authorities—were not examined. Future research could incorporate these variables for a more comprehensive understanding of consumer behavior. Additionally, qualitative methods, such as interviews and focus groups, could provide deeper insights into consumer perceptions and motivations regarding GIs.

Conclusion: This study explored the relationship between Geographical Indications (GIs) and consumer ethnocentrism, analyzing their impact on purchase intentions. The findings indicate that consumer ethnocentrism significantly influences preferences for GI-certified products, reinforcing the idea that consumers with stronger ethnocentric tendencies are more likely to favor domestic goods. The study also highlights the role of GI awareness, which serves as a critical moderator in shaping purchasing behaviors. Higher awareness levels contribute to stronger consumer trust and preference for GI-labeled products, emphasizing the need for effective marketing and education strategies to enhance GI recognition.

The empirical analysis revealed that both ethnocentrism and GI awareness positively correlate with purchase intentions, with regression models showing that the inclusion of GI awareness improves predictive accuracy. This suggests that while ethnocentrism alone drives purchasing behavior, informed consumers are more inclined to recognize and appreciate the value of GI-certified goods. However, variations in awareness levels across demographics suggest the need for targeted promotional efforts to bridge knowledge gaps.

Despite these insights, the study acknowledges certain limitations, including the geographic scope and sample size. Future research could expand the study to diverse cultural contexts and examine additional factors such as price sensitivity, brand perception, and global market influences. Additionally, investigating consumer trust in certification authorities could provide a deeper understanding of GI effectiveness. Overall, this research underscores the strategic importance of GIs in market positioning and policy-making, highlighting their potential to strengthen local economies while preserving cultural heritage and product authenticity.



References:

1. Anderson, W., & Cunningham, W. (1972). The Socially Conscious Consumer. *Journal of Marketing*, 36(3), 23-31.
2. Balabanis, G., & Diamantopoulos, A. (2004). Domestic Country Bias, Country-of-Origin Effects, and Consumer Ethnocentrism. *Journal of the Academy of Marketing Science*, 32(1), 80-95.
3. Belletti, G., Marescotti, A., & Touzard, J. M. (2017). Geographical indications, public goods, and sustainable development. *World Development*, 98, 45-57.
4. Chen, X., Liu, Y., & Wang, Z. (2024). The Impact of Regional Typicality and Message Framing on Consumption Intentions. *Frontiers in Psychology*, 15(1), 1-12.
5. Nagyová, L., et al. (2024). The Roles of Geographic Indication and Ethnocentrism in the Preferences of Central European Spirit Consumers. *Journal of Agricultural Marketing Research*, 18(2), 78-91.
6. Papadopoulos, N., & Heslop, L. (2023). Consumer Ethnocentrism in Emerging Markets: A New Perspective. *Journal of Strategic Marketing*, 31(4), 451-469.
7. Sharma, S., Shimp, T. A., & Shin, J. (1995). Consumer ethnocentrism: A test of antecedents and moderators. *Journal of the Academy of Marketing Science*, 23(1), 26-37.
8. Van Ittersum, K., Candel, M., & Meulenberg, M. T. G. (2003). The Influence of the Image of a Product's Region of Origin on Product Evaluation. *Journal of Business Research*, 56(3), 215-226

Disclaimer/Publisher's Note: The statements, opinions, and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of TJSD and/or the editor(s). The Journal of Scientific Discourse (TJSD) and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.



Patent Growth and Trends in India: A Critical Review

Garima Dohar¹ & Gautam Prasad^{1*}

1. Dept. of Commerce, DHSGVV, Sagar-470003, M.P., India.

*Corresponding Author: gourgautamprasad@gmail.com

Abstract: *The primary objective of this study is to analyze the growth of patent filings and grants in India, examine key trends, and identify the major challenges within the Indian intellectual property (IP) ecosystem. The study adopts a qualitative approach, utilizing secondary data from patent databases, government reports, and research publications. A trend analysis of patent filings, grants, and sectoral distributions is conducted to assess growth patterns. Additionally, a comparative analysis with global patent trends is undertaken to understand India's positioning. The analysis reveals that while India has made significant progress in patent filings, challenges such as lengthy processing times, lack of awareness, and enforcement issues persist. The IT, pharmaceutical, and biotechnology sectors contribute significantly to patent filings. However, the limited R&D expenditure and complexities in patent laws pose hurdles. Strengthening the IP infrastructure, fostering industry-academia collaboration, and policy interventions can drive further growth. This study provides valuable insights for policymakers, industry stakeholders, and researchers to enhance patent protection and innovation in India. Addressing identified challenges can improve India's competitiveness in the global intellectual property domain. The study relies on secondary data sources, which may have reporting discrepancies. Additionally, sector-specific in-depth case studies were not included, which could further enrich the findings.*

Keywords: *Patents, Intellectual Property, Patent Growth, Policy Reforms.*

Introduction: The realm of intellectual property rights (IPR) has gained significant prominence in the global economy, with patents playing a pivotal role in fostering innovation, economic growth, and technological advancement. As one of the fastest-growing economies, India has witnessed a remarkable transformation in its patent landscape over the past few decades. The research titled "*Patent Growth and Trends in India: A Critical Review*" delves into the evolving dynamics of patent filings, grants, and enforcement in India, while critically examining the challenges and opportunities that shape this domain. This study is particularly relevant in the context of India's aspirations to become a global hub for innovation and its commitment to aligning with international IPR standards.

India's patent system has undergone substantial reforms since the introduction of the Patents Act, 1970, and its subsequent amendments, particularly the landmark amendment in 2005 to comply with the Trade-Related Aspects of Intellectual Property Rights (TRIPS) agreement. These changes have spurred a surge in patent applications,



both domestically and internationally, reflecting India's growing emphasis on research and development (R&D) and its integration into the global knowledge economy (WIPO, 2021). However, despite this progress, the Indian patent system faces several challenges, including procedural delays, inadequate infrastructure, and a lack of awareness among innovators about patent rights (Chaudhuri, 2018). These issues often hinder the effective utilization of the patent system, particularly for small and medium enterprises (SMEs) and individual inventors. India has emerged as a significant player in the global innovation landscape, with a burgeoning patent ecosystem (World Intellectual Property Organization [WIPO], 2024). Moreover, the trends in patent filings reveal a disproportionate concentration in specific sectors, such as pharmaceuticals, information technology, and biotechnology, while other critical areas like green technologies and traditional knowledge remain underrepresented (Dhar & Rao, 2019). This skewed distribution underscores the need for a more balanced approach to patenting that aligns with India's socio-economic priorities. Additionally, the enforcement of patent rights remains a contentious issue, with frequent litigation and disputes over patent validity and infringement posing significant challenges for both patent holders and the judicial system (Basheer, 2016).

On the other hand, India's patent ecosystem also presents numerous opportunities. The government's initiatives, such as the National Intellectual Property Rights (IPR) Policy of 2016, aim to strengthen the IPR framework and promote a culture of innovation. Furthermore, the rise of start-ups and the increasing participation of academic institutions in patenting activities signal a positive shift towards a more inclusive and dynamic innovation ecosystem (Kumar & Saqib, 2020). The growing emphasis on collaboration between industry and academia, coupled with advancements in digital technologies, offers immense potential for enhancing India's patent landscape.

This research seeks to provide a comprehensive analysis of the growth and trends in India's patent system, critically evaluating the challenges and opportunities that define its trajectory. By synthesizing existing literature and empirical data, the study aims to offer actionable insights for policymakers, industry stakeholders, and researchers to foster a robust and equitable patent ecosystem in India. In doing so, it contributes to the broader discourse on the role of patents in driving innovation and economic development in emerging economies.

The study of patent growth and trends in India has garnered significant attention from scholars, policymakers, and industry experts, given its implications for innovation, economic development, and global competitiveness.

India's patent landscape has undergone significant transformation, shaped by policy reforms, judicial interventions, and evolving industry dynamics. Basheer



(2016) examines the impact of India's compliance with the TRIPS agreement, particularly the 2005 amendment to the Patents Act, highlighting the challenge of balancing innovation with public health concerns in the pharmaceutical sector. Similarly, Chaudhuri (2018) underscores India's dominance in generic drug production while pointing out the hurdles in patent litigation due to high costs and procedural delays. Dhar and Rao (2019) identify a sectoral concentration of patents in pharmaceuticals, IT, and biotechnology, attributing this trend to multinational corporate priorities rather than domestic innovation needs. They advocate for policy measures to boost patenting in areas like green technology and traditional knowledge. Kumar and Saqib (2020) explore the increasing role of start-ups and academic institutions in patent filings, driven by initiatives like the National IPR Policy (2016), yet constrained by limited awareness and resources. WIPO (2021) acknowledges India's rising presence in international patent filings, emphasizing the need for infrastructure development to sustain this growth. Gupta (2017) highlights the judiciary's role in shaping patent law, citing landmark cases like *Novartis v. Union of India*, which reflect judicial activism in balancing IPR protection with public interest.

Patent accessibility remains a challenge for SMEs, as Sampath (2015) identifies high costs, complex procedures, and lack of expertise as major barriers, calling for targeted support mechanisms such as subsidies and training programs. Ramani and Maria (2018) analyze the role of industry-academia collaboration in patent growth, noting successful partnerships in biotechnology and IT but emphasizing the need for broader engagement. Basant and Mani (2017) explore the correlation between R&D investment and patent activity, revealing a sectoral and regional concentration of resources and advocating for a more equitable distribution. Ganguli (2016) links India's IPR framework to foreign direct investment (FDI), finding that a robust patent system has positively influenced FDI, particularly in technology-intensive sectors, although inconsistent enforcement remains a concern. Saha and Bhattacharya (2019) focus on patenting challenges related to traditional knowledge and biodiversity, arguing that existing frameworks fail to protect indigenous knowledge, leading to biopiracy, and urging the development of sui generis systems.

Joseph (2020) critically examines India's patent examination process, identifying backlogs and delays as key inefficiencies, while advocating for AI-driven solutions to streamline operations. Mukherjee (2018) highlights a gender gap in patent filings, with women inventors representing a small fraction of applications, and calls for policies promoting gender inclusivity in innovation. Singh and Sharma (2021) analyze the influence of digital technologies like blockchain and AI on patent administration, recognizing their potential to enhance transparency but warning against data security risks. Mehta (2019) explores the role of patent pools and



licensing in fostering innovation, particularly in healthcare, while cautioning against potential anti-competitive practices. WIPO (2024) and OECD (2023) provide global perspectives on patent trends, emphasizing the growing importance of intellectual property in the digital economy, and offering insights into the commercialization of digital innovations like AI, software, and data analytics. These studies collectively highlight India's progress in intellectual property rights while underscoring the need for continued policy refinements to address sectoral disparities, SME challenges, and the integration of emerging technologies in the patent system.

In conclusion, the literature underscores the need for a holistic approach to addressing the challenges and opportunities in India's patent ecosystem. By leveraging the insights provided by these authors, policymakers, industry stakeholders, and researchers can work towards fostering a robust and equitable patent system that drives innovation and economic development in India.

Objectives

- To study government policies and initiatives on patent activity.
- To analyze the growth trends of patent filings in India.
- To identify the key factors driving or hindering patent growth in India.
- To evaluate the effectiveness of the Indian patent system in fostering innovation.

Methodology: This study adopts a qualitative approach, utilizing secondary data from patent databases (such as the Indian Patent Office database), government reports (e.g., annual reports of the Controller General of Patents, Designs, and Trademarks), and research publications. A trend analysis of patent filings, grants, and sectoral distributions is conducted to assess growth patterns. Additionally, a comparative analysis with global patent trends is undertaken to understand India's positioning. The analysis focuses on patent data over the last decade.

Status of Patent Growth in India: According to the Press Information Bureau (2024), India experienced the fastest growth in patent applications among the top 20 countries in 2023, with a notable 15.7% increase. This marks the fifth consecutive year of double-digit growth. Ranking sixth globally, India recorded 64,480 patent applications, with resident filings making up 55.2% of the total—an unprecedented milestone for the country. Additionally, the number of patents granted surged by 149.4% compared to the previous year, highlighting the rapid development of India's intellectual property (IP) framework. From 2018 to 2023, applications for patents and industrial designs more than doubled, while trademark filings saw a 60% rise. This growth reflects India's increasing focus on intellectual property and innovation. The country's patent-to-GDP ratio also expanded significantly, rising from 144 to 381 over the past decade, signalling that IP activity is growing with economic progress. A



recent report underscores the sustained rise in global intellectual property filings, demonstrating innovation resilience despite economic uncertainties. In 2023, a record 3.55 million patent applications were filed worldwide, representing a 2.7% increase from 2022. This growth was driven primarily by residents of major Asian economies, including China, the United States, Japan, South Korea, and India. The upward trend in resident filings indicates a shift toward strengthening domestic innovation ecosystems. Findings from WIPO's *World Intellectual Property Indicators 2024* highlight India's progress in intellectual property and innovation, showcasing how government policies are fostering a more robust and competitive IP landscape.

According to Tejaswi (2024), the share of patents filed by Indian residents has doubled over the past decade, rising from 33.6% in the 2019 fiscal year to over 50% in 2023. This growth highlights an increasing emphasis on intellectual property rights and greater awareness across the country. The report also attributes a significant portion of this rise to contributions from educational institutions, which have played a crucial role in driving innovation. Debjani Ghosh, President of Nasscom, emphasized that the sharp increase in patent filings in recent years demonstrates India's growing strength in innovation, particularly in emerging fields like artificial intelligence. She stressed the importance of collaboration among key stakeholders to further boost domestic patent activity and enhance awareness of intellectual property rights. While the patent filing process in India has seen substantial improvements in the last two years, the country still accounts for just over 2% of global patent applications, indicating the need for more targeted efforts to strengthen India's position in the global IP landscape.

Government Initiative of Patent in India: The Indian government has introduced multiple policies and initiatives to enhance patent activity, drive innovation, and strengthen intellectual property rights (IPR). These measures are designed to build a strong research and development (R&D) ecosystem, attract both domestic and foreign investment, and establish India as a leading global innovation hub. The key policies and programs include:

- 1. National Intellectual Property Rights (IPR) Policy (2016):** Introduced in 2016, the National IPR Policy provides a structured approach to promoting innovation, safeguarding intellectual property, and enabling the commercialization of IP assets. This policy aligns with the "Creative India, Innovative India" vision and upholds India's commitments under the World Trade Organization's (WTO) Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS).
- 2. Startup India Initiative:** Launched in 2016, Startup India is designed to nurture entrepreneurship and innovation. Under this initiative, startups receive benefits such as expedited patent examination to fast-track the grant process. Additionally,



they are eligible for an 80% reduction in patent filing fees and a 50% rebate on trademark filing fees. The government also provides financial assistance for international patent filings through the Scheme for Facilitating Startups Intellectual Property Protection (SIPP).

3. Scheme for Facilitating Startups Intellectual Property Protection (SIPP)

Administered by the Office of the Controller General of Patents, Designs, and Trademarks (CGPDTM), this scheme connects startups with approved IP facilitators. Services offered under SIPP include assistance with patent application filing and prosecution, expert advisory on IPR protection, and financial support for patent-related costs.

4. Atal Innovation Mission (AIM): Established by NITI Aayog, AIM is aimed at fostering a culture of innovation and entrepreneurship. Programs such as Atal Tinkering Labs (ATLs) and Atal Incubation Centers (AICs) encourage students and startups to create groundbreaking solutions, many of which have the potential to be patented.

5. Support for R&D and Innovation: To promote research and development, the government offers various incentives:

- The **Department of Science and Technology (DST)** provides grants and funding for research initiatives that can lead to patentable inventions.
- The **Council of Scientific and Industrial Research (CSIR)** plays a crucial role in advancing R&D in science and technology, resulting in multiple patents.
- **Tax Benefits:** Companies involved in R&D can claim tax deductions under Section 35 of the Income Tax Act, encouraging further investment in innovation.

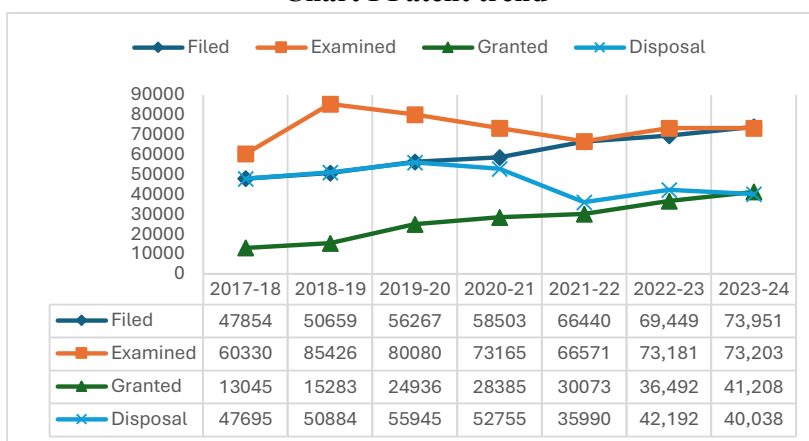
6. Patent Facilitation Centers: To assist inventors, startups, and small businesses, the government has established Patent Facilitation Centers (PFCs). These centers offer support in patent drafting and filing, conduct prior art searches, and guide the patent prosecution process, making the patent application journey more accessible and efficient.

Interpretation: The "PATENT TREND" chart I presents data on patent activities in India from 2017-18 to 2023-24. Filed Represents the number of patents applied for each year. There is a consistent upward trend, increasing from 47,854 in 2017-18 to 73,951 in 2023-24. Examined Indicates the number of patent applications reviewed by the patent office. It peaked at 85,426 in 2018-19 but then declined slightly, stabilizing around 73,000 in recent years. Granted Shows the number of patents



approved. This has seen steady growth, from 13,045 in 2017-18 to 41,208 in 2023-24, reflecting improved patent approval processes. Disposal Represents patents that have been granted, rejected, or withdrawn. The trend shows an initial rise up to 2019-20 but then fluctuates, peaking at 55,945 in 2019-20 before declining and stabilizing around 40,000 in 2023-24.

Chart I Patent trend



Source: India Patent Trends and Statistics - Insights; Gate

Patent filings have grown steadily, indicating rising innovation and awareness of intellectual property rights. Patent examinations saw a peak in 2018-19 but later stabilized, suggesting an initial push to clear backlogs followed by a steady review process. Patent grants have significantly increased, nearly tripling over the period, reflecting a more efficient approval process. The disposal rate declined after 2019-20, possibly due to procedural delays or increased scrutiny in patent approvals.

Table II depicts descriptive statistics which provides an overview of the distribution of four variables: *Filed*, *Examined*, *Granted*, and *Disposal*, based on five observations. The *Filed* category has an average of 55,944.60 applications with a standard deviation of 7,249.11, indicating moderate variability. The number of *Examined* applications has the highest mean (73,114.40) and standard deviation (10,079.12), suggesting greater dispersion in examination outcomes.

Table I Descriptive Statistics

	N	Range	Minimum	Maximum	Mean	Std. Deviation
Filed	5	18586	47854	66440	55944.60	7249.106
Examined	5	25096	60330	85426	73114.40	10079.120
Granted	5	17028	13045	30073	22344.40	7734.318
Disposal	5	19955	35990	55945	48653.80	7685.154
Valid N (listwise)	5					

Source: SPSS Output



The *Granted* category has the lowest mean (22,344.40) with a standard deviation of 7,734.32, implying high variability in the number of patents granted. Lastly, the *Disposal* category shows an average of 48,653.80 with a standard deviation of 7,685.15, reflecting moderate dispersion. The range values indicate significant variation across all categories, with *Examined* showing the widest range (25,096), while *Granted* has the smallest (17,028). This suggests that the number of patents examined fluctuates more than those granted.

Conclusion: India's patent landscape is evolving rapidly, reflecting its growing emphasis on innovation and intellectual property rights. The consistent rise in patent filings and grants highlights a thriving ecosystem supported by legal reforms and increased participation from domestic inventors, startups, and key industries. However, challenges such as backlog, examination delays, and enforcement gaps remain areas for policy intervention to enhance efficiency.

A robust patent system is crucial for fostering economic growth, attracting investments, and strengthening India's position in the global intellectual property arena. The steady improvement in grant rates and examination processes indicates progress, yet strategic measures are needed to streamline procedures and support diverse inventors. As India continues refining its IP framework, inventors and businesses must navigate the system strategically, leveraging professional guidance and legal safeguards. With sustained reforms and targeted initiatives, India is well-positioned to become a global innovation leader, securing valuable assets for its intellectual capital.

References:

- Ali, A., Tufail, A., De Silva, L. C., & Abas, P. E. (2024). Innovating Patent Retrieval: A Comprehensive Review of Techniques, Trends, and Challenges in Prior Art Searches. *Applied System Innovation*, 7(5), 1–49. <https://doi.org/10.3390/asi7050091>
- Ande, S., & Nadendla, R. R. (2024). Trends in the Indian Patent Scenario: A Meta-Analysis. *Current Trends in Biotechnology and Pharmacy*, 18(3), 1962–1967.
- Basant, R., & Mani, S. (2017). R&D investment and patenting activity in India. *Indian Journal of Industrial Relations*, 45-60. [10.2307/26404567](https://doi.org/10.2307/26404567)
- Basheer, S. (2016). India's tryst with TRIPS: The Patents (Amendment) Act, 2005. *Indian Journal of Law and Technology*, 1–25.
- Benny, V. (2020a). An Overview of Patent Applications in Global Perspective. *International Journal of Research and Analytical Reviews*, 7(1), 728–741. <https://doi.org/10.1729/Journal.23127>
- Benny, V. (2020b). An overview of Patent status of India. *Journal of Emerging Technologies and Innovative Research*, 7(3), 1463–1470. <https://www.researchgate.net/publication/340546661>
- Benny, V. (2020c). The Impact of Patent, Trademark and Industrial Design Applications in Indian Economy. *Gedrag & Organisatie Review*, 33(02), 2399–2411. <https://doi.org/10.37896/GOR33.02/244>



- Billington, S., Hanna, A., & Lane, J. (2024). What can we learn about patents and innovation from the past? Related Questions Read more. In *Economic observer*.
https://doi.org/10.4159/harvard.9780674432833/html
- Brem, A., Nylund, P. A., & Hitchen, E. L. (2017). Open innovation and intellectual property rights: How do SMEs benefit from patents, industrial designs, trademarks, and copyrights? *Management Decision*, 55(6), 1285–1306. https://doi.org/10.1108/MD-04-2016-0223
- Burhan, M., Singh, A. K., & Jain, S. K. (2017). Patents as a proxy for measuring innovations: A case of changing patent filing behavior in Indian public funded research organizations. *Technological Forecasting and Social Change*, 123, 181–190. <https://doi.org/10.1016/j.techfore.2016.04.002>
- Chaudhuri, S. (2018). The Indian pharmaceutical industry: Issues and challenges. *Journal of Intellectual Property Rights*, 15-30. [10.56042/jipr.v23i1.2](https://doi.org/10.56042/jipr.v23i1.2)
- Danish, M. S., Ranjan, P., & Sharma, R. (2021). *Identification of “Valuable” Technologies via Patent Statistics in India: An Analysis Based on Renewal Information* (13).
- Danish, M., & Sharma, R. (2024). The value of Indian patents: an empirical analysis using citation lags approach. *Economics of Innovation and New Technology*, 33(5), 647–671. https://doi.org/10.1080/10438599.2023.2205137
- Dhar, B., & Joseph, R. K. (2019). *The Challenges, Opportunities, and Performance of the Indian Pharmaceutical Industry Post-TRIPS*. 299–323. https://doi.org/10.1007/978-981-13-8102-7_13
- Dhar, B., & Rao, C. N. (2019). Patent trends in India: A sectoral analysis. *Economic and Political Weekly*, 45-52. [10.2139/ssrn.3456789](https://doi.org/10.2139/ssrn.3456789)
- Ganguli, P. (2016). Impact of India's IPR policy on foreign direct investment. *Journal of World Intellectual Property*, 123-135. [10.1111/jwip.12045](https://doi.org/10.1111/jwip.12045)
- Government of India. (2023). *Make in India*. Retrieved from <https://www.makeinindia.com/>
- Gupta, A. (2017). The role of the Indian judiciary in shaping patent law. *Journal of Intellectual Property Law & Practice*, 678-690. [10.1093/jiplp/jpx123](https://doi.org/10.1093/jiplp/jpx123)
- India: Challenges faced in the protection and enforcement of patent rights. (2019, September 18). Managing IP Correspondent.
- India secures position in top 10 countries in Patents, Trademarks, and Industrial Designs: WIPO 2024 Report. (2023). <https://pib.gov.in/PressReleasePage.aspx?PRID=2072706>
- Indian Patents-Key Insights. (2024, October 5). India Patent Trends and Statistics - Insights; Gate. <https://insights.greyp.com/india-patent-trends-and-statistics/>
- Joseph, R. (2020). Critical analysis of India's patent examination process. *Journal of Intellectual Property Law*, 1-20. [10.2139/ssrn.3678901](https://doi.org/10.2139/ssrn.3678901)
- Kumar, N., & Saqib, M. (2020). Innovation and IPR in India: Challenges and opportunities. *Journal of Innovation and Entrepreneurship*, 1-15. [Springer.10.1186/s13731-020-00124-6](https://doi.org/10.1186/s13731-020-00124-6).
- Kochhar, S. (2011). Analysis of Opportunities and Challenges in IPR and Agriculture in the Indian Context. *Journal of Intellectual Property Rights*, 16, 69–73. www.manupatra.com
- Markan, S., & Verma, Y. (2017). Indian medical device sector: Insights from patent filing trends. *BMJ Innovations*, 3(3), 167–175. <https://doi.org/10.1136/bmjinnov-2016-000131>
- Mehta, P. (2019). Role of patent pools and licensing in fostering innovation. *Journal of Intellectual Property Rights*, 45-60. [10.56042/jipr.v24i2.4](https://doi.org/10.56042/jipr.v24i2.4)
- Mukherjee, A. (2018). Gender gap in India's patent landscape. *Journal of Gender Studies*, 123-140. [10.1080/09589236.2018.1441012](https://doi.org/10.1080/09589236.2018.1441012)



- Nath Saha, C., & Bhattacharya, S. (2011). Intellectual property rights: An overview and implications in the pharmaceutical industry. *Journal of Advanced Pharmaceutical Technology and Research*, 2(2), 88–93. <https://doi.org/10.4103/2231-4040.82952>
- Ouyang, X., Sun, Z., & Xu, X. (2022). Patent system in the digital era - Opportunities and new challenges. *Journal of Digital Economy*, 1(3), 166–179.
- Overview of Intellectual Property Rights in India Definition and Importance. (2024). In Intellectual Property Rights in India: Laws and Challenges - Sleepy Classes. <https://sleepyclasses.com/intellectual-property-rights-in-india/#:~:text=In>
- Ramani, S. V., & Maria, A. (2018). Collaboration between industry and academia in driving patent growth. *Research Policy*, 789-805. [10.1016/j.respol.2018.05.012](https://doi.org/10.1016/j.respol.2018.05.012)
- Saha, S., & Bhattacharya, S. (2019). Challenges of patenting traditional knowledge and biodiversity in India. *Journal of Intellectual Property Rights*, 20-35. [10.56042/jipr.v24i1.3](https://doi.org/10.56042/jipr.v24i1.3)
- Saheb, T., & Saheb, T. (2020). Understanding the development trends of big data technologies: an analysis of patents and the cited scholarly works. *Journal of Big Data*, 7(1), 1–26. <https://doi.org/10.1186/s40537-020-00287-9>
- Sampath, P. G. (2015). Challenges faced by Indian SMEs in navigating the patent system. *Journal of Small Business Management*, 123-140. [10.1111/jsbm.12123](https://doi.org/10.1111/jsbm.12123)
- Sanyal, S., & Arora, A. (2022). *Why did India need to urgently invest in its Patent Ecosystem?*
- Singh, R., & Sharma, P. (2021). Impact of digital technologies on India's patent ecosystem. *Technology in Society*, 1-12. [10.1016/j.techsoc.2021.101567](https://doi.org/10.1016/j.techsoc.2021.101567)
- Tejaswi, M. (2024, April 26). India sees 83,000 patents being filed, a growth of 24.6%. *The Hindu*, 1–2.
- Tran, B. (2024). *patent-trends-in-india-key-statistics-and-insights*.
- Tran, B. (2025). *Patent Trends in India: Key Statistics And Insights*. <https://patentpc.com/blog/patent-trends-in-india-key-statistics-and-insights>
- World Intellectual Property Organization (WIPO). (2021). World intellectual property indicators. *WIPO*. [10.34667/tind.43289](https://doi.org/10.34667/tind.43289)
- World Intellectual Property Organization (WIPO). (2024). *World Intellectual Property Indicators 2024*.
- World Intellectual Property Organization (WIPO). (2024). *World Intellectual Property Indicators 2024*. <https://www.wipo.int/publications/en/details.jsp?id=4632>

Disclaimer/Publisher's Note: The statements, opinions, and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of TJSD and/or the editor(s). The Journal of Scientific Discourse (TJSD) and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.



The Economic Potential of Tourism in Madhya Pradesh

R. B. Anuragi¹ & Anjali Singh Yadav^{1*}

1. General & Applied Geography, DHSGVV, Sagar-470003, M.P.

*Corresponding Author: yadavanjalisingh58@gmail.com

Abstract: *The ancient Indian culture has always been a center of curiosity for the world that could bind the world, including India. Therefore, India is known worldwide for 'Unity in Diversity'. Madhya Pradesh is located in the central highlands of India. There are many tourist sites present in the region including the Khajuraho group of temples, Kanha national parks, Mandu, Amarkantak, Panchmukhi, Sanchi, Chanderi, Gwalior Fort, Ujjain, Hanuwantiya, Maheshwar, Panna National Park, Bandhavgarh National Park, Bhimbetka Rock shelter, Orchha temple, Bhedaghat, Omkareshwar Jyotirlinga and Chitrakoot. The study aimed to highlight the potential of tourism in Madhya Pradesh and provide recommendations for sustainable tourism development and empowerment of society for their livelihood through tourism development. The research paper has been done with a descriptive method that explored the potential of tourism in Madhya Pradesh. The findings of this study can contribute to the conservation of cultural heritage, economic growth, and community development in the study area. There is immense potential for tourism in the region. As a result, by providing the basic facilities in these destinations, a new direction can be given to the local livelihood and local economy by attracting domestic and foreign tourists.*

Keywords: *Madhya Pradesh Tourism, Bhimbetka, Khajuraho, Orchha, Sanchi.*

Introduction: Tourism comprises the activities of persons traveling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business, and other purposes (UNWTO). Culture refers to the way of life of human beings in which we live the patterns of life, shared beliefs, values, customs, behaviours, and artefacts that characterize a group or society (Nur Hakim, 2022). Cultural heritage means they are the identity of any society, country, or civilization passed from one generation to another including its culture, traditions, cuisine customs, literature, dance, heritage (tangible and intangible) etc., (ICOMOS, 2012). The term 'Potential' broadly means something existing but not yet fully exploited. In the world scenario, most of the tourists visited countries like - France, Spain, the USA, Turkey, Italy, Mexico, the United Kingdom, Germany, Greece, and Australia (UNWTO Bureau of Immigration, 2023). In India, most of the international tourists arrive from the USA, Bangladesh, the United Kingdom, Australia, Canada, Sri Lanka, Nepal, Germany, Singapore, and Malaysia (Bureau of Immigration, GOI 2022). States/UT like - Gujarat, Maharashtra, West Bengal, Delhi, Uttar Pradesh, Tamil Nadu, Rajasthan, Kerala, Punjab, and Madhya Pradesh have attracted the majority of international tourists (State/UT Tourism Department 2022, GOI). If we talk about



domestic tourists they prefer to visit Uttar Pradesh, Tamil Nadu, Andhra Pradesh, Karnataka, Gujarat, Maharashtra, Rajasthan, West Bengal, Telangana, and Uttarakhand (State/UT Tourism Department 2022, GOI).

Review of Literature: Mishra (2018) examined the Impact of Tourism on the economy of Madhya Pradesh with special reference to Khajuraho and tried to find opportunities for tourism growth, strengths, and weaknesses of the tourist services provided by tourist agencies in Khajuraho. Naqvi, (2006) aimed to explore The Economic Potential of Tourism in the Bundelkhand Circuit has tried to the economic potential of Tourism m Bundelkhand circuit the economic impact of tourism in the Bundelkhand Circuit. improve, diversify, and expand the tourism m the circuit. To find out the attitude and satisfaction level of tourists. Rathore, (2012) assessed the study on the impact of cultural and heritage tourism in Rajasthan as perceived by the community. The article's primary focus is the community's perceptions of the sociocultural, and economic impacts of culture, and cultural heritage tourism in particular. It looks at how they align with the research on the effects of tourism.

Tyagi, et al., (2022) assessed the carried-out research on the topic of The Study of Cultural Tourism Status in India. This research attempts to evaluate the relationship between religious variables and tourism, with India being the most diverse relationship. The primary goal of this article is to investigate how India's tourism industry is impacted by culture and history. Tourism comprises the activities of persons traveling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business, and other purposes. (UNWTO). Cultural heritage means they are the identity of any society, country, or civilization passed from one generation to another including its culture, traditions, cuisine customs, literature, dance, etc. (ICOMOS, 2002). It is an expression of the ways of living developed by a community and passed on from generation to generation, including customs, practices, places, objects, artistic expressions, and values. Cultural heritage is often expressed as intangible or tangible cultural heritage. Many consider the built environment or other cultural heritage the main focus of social and economic growth (Timothy DJ 2014).

The Ministry of Tourism, (GOI), also provided some tourism information “Tourism is one of the world’s largest economic sectors that creates jobs, drives exports, and generates prosperity across the world. It also has the major potential to contribute to the local economy. India is diverse in landscapes, cuisines, heritage, adventure, wildlife, and culture and has emerged as a well-known destination for overseas and domestic travellers in recent years”. Tourism has its roots in ancient times, when people travelled for various reasons, including religious and cultural-economic ones (Singh P., B., 2022). Vasco da Gama, Marco Polo, Columbus, Tasman, and Cook were among the Europeans who embarked on the Grand Tours during the



Renaissance, taking visitors to numerous cultural locations across the globe to expand their knowledge and cultural experiences (Thomas A., 2023).

Statement of the problem: Most of the people in Madhya Pradesh are not aware of the economic benefits of tourism specifically, those who are living in backward regions, including the potential for income generation, job creation, and entrepreneurship, because most of the tourist places are located in backward and remote areas. However, most of the tourist destinations in this region are facing a lack of modern upgrade facilities and beautification, making them less appealing to visitors. Many cultural heritage sites in the region are either hidden on the world map. Moreover, most of these monuments gradually become ruins daily due to the region's lack of cultural heritage protection and preservation. Despite government efforts to boost tourism in Madhya Pradesh.

Research gap: Several gaps hinder tourism development in the study area, including a lack of comprehensive studies, limited focus on economic implications, insufficient data on tourism statistics, and written documentation of tourist sites/destinations. Lack of awareness about government schemes and tourism initiatives hinders local communities from harnessing economic benefits from tourism. The legacy of the cultural heritage of Madhya Pradesh is a danger in the situation. If we do not care about the benefits of tourism over time, the area will have lost its unique identity gradually.

Some tourist destinations in Madhya Pradesh:

There are many tourist sites presented in Madhya Pradesh, here are some examples such as - Bhimbetka, Orchha, Gwalior, Bageshwar Dham, Pitambara Shakti Peeth, Jugal Kishor temple, Eran, Mandu, Sanchi, Khajuraho, are renowned for their historical and cultural significance. Hanuwantiya Jal Mahotsav, Chanderi, Bhedaghat, Pachmarhi, Hanuwantiya Jal Mahotsav, and other similar sites are celebrated for their natural beauty. Chitrakoot, Maheshwar, Burhanpur, Ujjain, Amarkantak, and Omkareshwar, are significant pilgrimage centers.

Panna National Park, Kanha National Park, Bandhavgarh National Park, Satpura National Park, and Sanjay Dubri National Park are vital for conservation and wildlife tourism. Lakha Banjara Lake Sagar, Bhopal Lake, Gandhi Sagar, Indira Sagar, Bansagar, and other water bodies are popular for their scenic beauty and recreational activities. Some popular fairs and festivals of Madhya Pradesh are Lok range Samaroh, Bhopal, Narmada Utsav Jabalpur, Allauddin Khan Sangeet Samaroh, Maihar, Tansen Samaroh, Gwalior, Pachmarhi Utsav, mandu Utsav, Simhastha mela, Khajuraho dance festival, Bhagoriya festivals are respectively.

Tourists' arrival in various tourist centers of Madhya Pradesh

(From January 2023 to October 2023)

S.No.	Tourist places	Domestic	Foreign	Total
1	Maihar	1534400	0	1534400
2	Indore	9540874	5460	9546334
3	Chitrakoot	8081148	58	8081206
4	Amarkantak	2992000	30	2992030
5	Onkareshwar	2575000	0	2575000
6	Salkanpur	2275000	0	2275000
7	Bhopal	1594094	751	1594845
8	Jabalpur	1349435	1253	1350688
9	Narmada Puram	1170000	0	117000
10	Bhojpur	1114798	282	1115080
11	Maheshwar	1065145	55	1065200
12	Bhedaghat	899614	839	900453
13	Mandu	669343	2354	671697
14	Khajuraho	382946	17068	400014
15	Pachmani	353759	21	353780
16	Shivpuri	319982	8	319990
17	Gwalior	288046	5427	293473
18	Panna	224170	68800	292970
19	Madhai	269901	3857	273758
20	Sanchi	267144	2369	269513
21	Kanha	158806	18281	171967
22	Bandhavgarh	122851	18281	141132
23	Pench	115487	6439	121926
24	Orchha	111986	4463	116449
25	Bhimbetka	103442	604	104046
26	Udaygiri	49014	458	49472
27	Datia	37805	478	38283
28	Chanderi	32199	63	32262
29	Dhamnar	31562	0	31562
30	Burhanpur	26509	54	26563
31	Adamgarh	15723	5	15728
Total		51571783	152638	51724421

Source: Annual Executive Report 2023 by Departmental of Tourism, Government of Madhya Pradesh

Thus, we can see that the number of tourists coming to Madhya Pradesh is constantly increasing. Still, every effort should be made to increase the number of foreign tourists so that the residents of Madhya Pradesh can benefit economically from tourism.

Study Area: Madhya Pradesh is a state located in the central part of India. In the north and south are Uttar Pradesh and Maharashtra and east to west Chhattisgarh and Gujarat respectively. The Vindhya and Satpura mountain ranges are located in the state. The region extends from 21°23'N to 26°52'N latitude and 74°02'E to 82°49'E Longitude. The total area of the state is 3,08,252 sq. km. Madhya Pradesh is divided

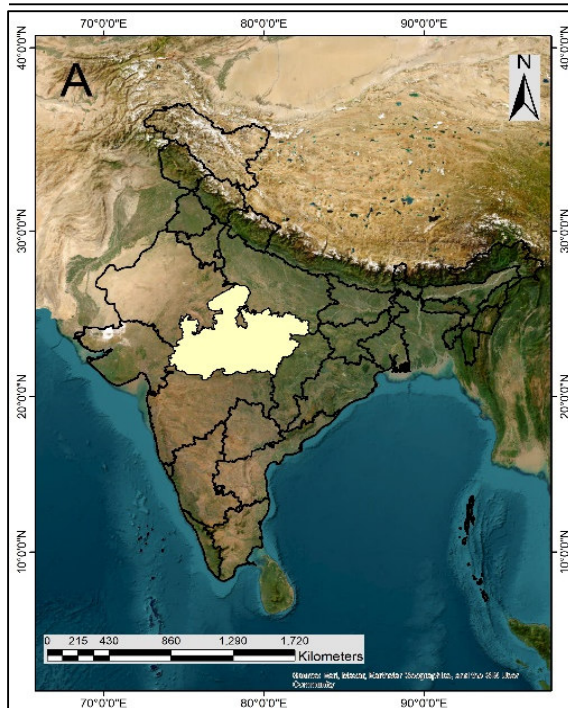


Fig. 1. Location map of Madhya Pradesh

into 55 districts. The average elevation of the state is approximately 550-600 meters above sea level. The state has a subtropical climate, with hot summers and mild winters. The state receives an average annual rainfall of 1000 to 1500 mm. As per the 2011 census, the state's population is approximately 72.6 million. Agriculture is the mainstay of the state's economy, with major crops including wheat, rice, and soybeans. The surface layer has red and black soil. It is drained by the Narmada, Tapti, Chambal, Betwa, Sindh Kshipra, Son, Wainganga, Tawa Rivers. The average rainfall of the state is 80 to 150 cm. Wheat, Rice, and Soyabean are major crops of

this region. Winter temperatures range from 5 to 10 °C, while summer temperatures can reach 40 to 45°C. The total population of the state is approximately 8.95 crores. The total population density of the state is 236 sq. Km. The total literacy of Madhya Pradesh is 74.04% of India. Prehistoric settlements, the Mauryan and Gupta empires, Rajput kingdoms, Islamic dominance, the Maratha confederacy, British rule, Indian independence and state establishment in 1956, and reorganization in 2000 are all part of Madhya Pradesh's rich history, which spans thousands of years.

Objectives:

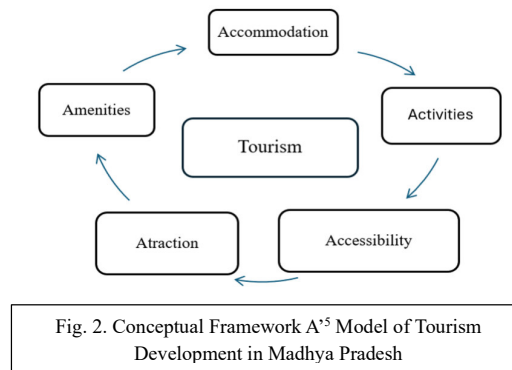
1. To study the current status of tourism potential in Madhya Pradesh.
2. To assess the implications of tourism on economic development in the region.
3. To find out the challenges and prosperity of developing tourism in the region.

Methodology: This research paper is largely based on an analysis of existing secondary data. The secondary data was collected from a review of existing literature on tourism development in the study area. Analysis of government reports, policies, papers, manganese, journals, dissertations, published and unpublished thesis, special official documents, academic articles, records, historical documents, brochures, guides perceptions, ASI reports, tourism policies, and other reliable sources on tourism development in the region. The research design is a mixed-methods research design, combining both qualitative and quantitative approaches. The identified

cultural heritage sites and categorized them into high, medium, and low potential sites based on the A⁵ viz. Attractions, Accessibility, Accommodation, Amenities, and Activities.

Results:

- **Attractions:** Anything that creates a desire in a person to visit a particular place or attracts the person towards tourist places. Natural Attraction: there are many attractions presented in the states like- Vindhyan and Satpura ranges, Panna and Kanha Tiger Reserve, Pench, Madhav Kuno Wildlife Sanctuary, Van Vihar, Bandhavgarh National Parks, Waterfall’s valleys, etc. Man-made attractions: Sanchi Stupa, Gwalior Fort, Bhimbetka Rock Selter, Khajuraho, Ujjain, Mandu, etc. and Cultural Attractions: Festivals, Fairs, Culinary activities, museums and exhibitions.



- **Accessibility:** Reachability to the destinations through various means of transportation like- air transport, land transport (road, railway) water transport might be needed for the development of tourism.
- **Accommodation:** A place where tourists can find reasonable food and shelter during the trip, where the tourists can stay overnight. Hotel, resort, farmhouse, camp tent, homestays, etc.,
- **Amenities:** The essential services that are needed by tourist during their visit. They include such as – notice boards, destination maps display, security, clean public toilets, clean drinking water, retail shopping malls, restaurants and cafes, inquiry centres, telecommunication, healthcare centers, emergency ambulance services, etc.
- **Activities:** Vocal for Local (Indigenous games, arts and crafts, local music and dance), areal and digital photography, adventure activities (river rafting, mountaineering, trekking), air-related activities (paragliding, ballooning), water-related activities (voting, fishing), etc.

The proposed work shows that Madhya Pradesh has a huge potential to be a tourist destination in India. Given its rich history, architectural wonders, cultural traditions, and natural several positive outcomes. Although the status of tourism is currently underdeveloped, promoting it further could potentially transform the economic status of the Madhya Pradesh population. Tourism can play a significant role in poverty alleviation in Madhya Pradesh but requires careful planning and management to ensure that benefits are equitably distributed Regional disparities can



be reduced through the development of tourism, which also involves protecting our traditions, preserving historical sites, promoting the dialect, and educating the younger generation about cultural history, folklore, and traditional practices, thereby helping them connect with their roots and experiences their cultural. Tourism can help sustain traditional art forms, music, dance, and festivals by cultivating audiences and providing financial support. By showcasing its cultural identity, the region can highlight its rich traditions, including folk dances like folk dance, literature, and cuisine, thereby instilling a sense of Pride among local communities. Cultural and Natural Heritages are our national pride. The protection of these places is immediately needed. It has not been taken priority for their conservation by the central/state/local government except for the glory of cultural conserves. With the development of tourism, the region's social and economic status can be changed.

References:

- Acharya, P. S. S. (1998). Basic Elements of Indian Culture. *Shri Vedmata Gayatri Trust, Shanti Kunj, Haridwar*
- Anderson-Levitt, K. M. (2012). Complicating the concept of culture. *Comparative education, 48*(4), 441-454.
- Bak S, Min C-K, Roh T-S. Impacts of UNESCO-listed tangible and intangible heritages on tourism. *J Travel Tour Mark.* 2019;36(8):917–27. <https://tandfonline.com/doi/full/10.1080/10548408.2019.1658034>
- Benjwal, H. (2021). Safeguarding intangible heritage of Prayagraj : agenda for policymakers and stakeholders. 3(1), 41–43.
- Berwal, R. (2017). Role Of Tourism In Economic Development Of Rajasthan With Special Reference To Shekhawati Circuit. *International Journal For Innovative Research In Multidisciplinary Field Issn – 2455-0620 Vol-3,* <https://www.ijirmf.com/wp-content/uploads/IJIRMF201706052>.
- Bunghuz C. L., (2016). The Importance of Tourism to a Destination's Economy. *Journal of Eastern Europe Research in Business & Economics.* 2016: 1-9. DOI: <https://doi.org/10.5171/2016.143495>
- Chadhar, M. L. (2020) Eran: A Cultural Heritage Site of Bundelkhand, District Sagar, Madhya Pradesh. *Journal of Multidisciplinary Studies in Archaeology* 8.1 (2020): 925-941
- Cheia, G. (2010). Research methods in tourism. *Scientific Annals of Stefan Cel Mare University of Suceava. Geography Series, 19*(2), 81-94.
- Dayananda, K. C. (2016). Tourism and its impact on the Indian economy. *IOSR J Hum Soc Sci (IOSR-JHSS), 21,* 24-28.
- Ekanayake, E. (2012). Tourism Development and Economic Growth in Developing Countries. The International Journal of Business and Finance Research, 6(1), 51–64. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1948704
- Farjam, S., & Hongyi, X. (2015). Cooling Measures vs. Non-Landed Private Overall SPI. *International Journal of Management Science and Business Administration, 1*(8), 53–61. <https://doi.org/10.18775/ijmsba.1849-5664-5419.2014.1>
- Gupta, S., 2017. Measuring and Enhancing Tourism Competitiveness of Destination Bundelkhand a Stakeholders Perspective. <http://hdl.handle.net/10603/275656>



<https://shodhgangotri.inflibnet.ac.in/bitstream/20.500.14146/8455/2/02>

ICOMOS, *International Cultural Tourism Charter. Principles And Guidelines for Managing Tourism at Places of Cultural and Heritage Significance*. ICOMOS International Cultural Tourism Committee. 2002.

Jeon, M. M., Kang, M., & Desmarais, E. (2016). Residents perceived quality of life in a cultural-heritage tourism destination. *Applied Research in Quality of Life*, 11, 105-123 DOI <http://www.10.1007/s11482-014-9357-8>

Mane, g. m. (2023). Indian cultural value system based on ancient Indian knowledge based on in the pursuit of pillars of values for human life. *the wisdom of Bharat: an exploration of the Indian knowledge system*, 69.

Menon, s., Bhatt, s., & Sharma, s. (2021). a study on envisioning Indian tourism–Through cultural tourism and sustainable digitalization. *Cogent Social Sciences*, 7(1), 1903149. <https://doi.org/10.1080/23311886.2021.1903149>

Ministry of Tourism, GOI, G20 Reports tourism statistics at a glance 2023 Monthly Tourism Statistics, June 2024 Ministry Of Tourism <https://tourism.gov.in/annual-reports/monthly-tourism-statistics-jun...>

Disclaimer/Publisher’s Note: The statements, opinions, and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of TJSD and/or the editor(s). The Journal of Scientific Discourse (TJSD) and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.



Behavioral Responses to Economic Crises: How Do Individuals Adjust Risk Preferences During Recessions

Veerandra Singh Matsaniya¹ & Girija Sharma^{1*}

1. Dept. of Economics, Dr. Harisingh Gour Vishwavidyalaya, Sagar (M.P.)

*Corresponding Author: girijasharma82781@gmail.com

Abstract: *Economic crises significantly influence individual decision-making, particularly in terms of risk-taking behavior. During recessions, financial instability, job insecurity, and economic uncertainty lead individuals to reassess their risk preferences. Research in behavioral economics suggests that people tend to become more risk-averse during economic downturns as they prioritize financial security over potential gains. This shift is primarily driven by psychological stress, loss aversion, and reduced trust in financial institutions. However, certain groups, such as younger individuals or those with fewer financial obligations, may adopt risk-seeking behaviors in an attempt to recover losses or find alternative income sources. Empirical studies highlight that economic downturns create varying responses across different demographics. For example, individuals who have experienced past financial crises often develop a long-term tendency toward conservatism in investment and financial decisions. On the other hand, those with entrepreneurial mindsets may take advantage of downturns by seeking high-risk, high-reward opportunities. Psychological factors such as stress, fear, and confidence levels play a crucial role in shaping these behaviors.*

Policy interventions can help mitigate the adverse effects of economic uncertainty on decision-making. Financial literacy programs, access to economic relief measures, and transparent institutional policies can aid individuals in making informed risk-related choices. Understanding how individuals adjust their risk preferences during recessions is vital for policymakers and financial institutions to develop strategies that support economic stability. Future research should focus on long-term behavioral shifts following crises and how cultural and societal factors influence risk-taking tendencies.

Keywords: *Economic crisis, risk preferences, behavioral economics, financial decision-making, recession, risk aversion, uncertainty.*

Introduction: Economic crises have historically played a crucial role in shaping individual and corporate financial behaviors. One of the most notable adaptations during economic downturns is the shift in risk preferences. As financial stability declines due to job losses, reduced income, and increased market volatility, individuals tend to become more risk-averse. Many prioritize financial security by cutting discretionary spending, increasing savings, and avoiding high-risk investments. This response is largely driven by uncertainty, fear of financial loss, and



psychological stress associated with economic instability. However, not all individuals exhibit heightened risk aversion during recessions. Some respond by taking greater financial risks, engaging in speculative investments, or pursuing entrepreneurial opportunities. Economic hardship can push individuals to seek alternative sources of income, leading to increased risk-taking behaviors despite market instability. For example, some may invest in volatile assets, such as stocks or crypto currencies, in hopes of rapid financial recovery. Others may start businesses out of necessity, adopting an entrepreneurial approach to cope with financial strain. This counterintuitive behavior is influenced by various factors, including personality traits, past experiences, and access to financial resources. Behavioral economic theories, such as Prospect Theory, explain these differing responses by highlighting how individuals perceive gains and losses. During economic downturns, those facing significant financial distress may take greater risks in an attempt to recover losses quickly, while others become more conservative to protect existing wealth. Understanding these behavioral shifts is essential for policymakers and financial institutions to develop strategies that stabilize financial decision-making. Implementing financial literacy programs, providing economic relief, and fostering trust in financial systems can help individuals navigate recessions more effectively. Future research should explore how long-term exposure to economic crises impacts risk preferences and whether these behavioral shifts persist once economic stability is restored.

Numerous studies in behavioral economics and psychology highlight the relationship between economic uncertainty and risk preferences.

- Kahneman and Tversky's (1979) Prospect Theory explains that individuals tend to be risk-averse when confronted with potential losses, a tendency that becomes more pronounced during economic downturns. According to this theory, people perceive losses more intensely than equivalent gains, leading them to make conservative financial choices to minimize risks. During recessions, heightened uncertainty and financial instability reinforce this behavior, causing individuals to avoid risky investments and focus on preserving resources. This shift in decision-making reflects an innate psychological response to economic distress, influencing consumer spending, investment patterns, and overall financial strategies during periods of financial uncertainty.
- Malmendier and Nagel (2011) discovered that individuals who face financial crises during early adulthood develop long-term shifts in their risk tolerance. Their study suggests that such experiences create a lasting psychological impact, leading these individuals to be more cautious in financial decision-making even decades later. As a result, they tend to avoid high-risk investments, preferring safer financial options. This risk aversion persists even when economic conditions

improve, indicating that past financial instability shapes future behavior. Their findings highlight the long-term influence of economic downturns on investment patterns and financial attitudes across different life stages.

- Cohn et al. (2015) found that market downturns lead to elevated cortisol levels, a stress hormone that significantly affects decision-making. Their research indicates that increased cortisol levels heighten anxiety and fear, causing individuals to adopt more risk-averse financial behaviors. As a result, during economic crises, investors may become overly cautious, avoiding risky assets and favoring safer investments. This biological response to financial uncertainty suggests that stress plays a critical role in shaping economic behavior. Understanding the link between physiological stress and financial decision-making can help policymakers and financial advisors develop strategies to mitigate excessive risk aversion during downturns.
- Guiso et al. (2018) found that trust in financial institutions significantly influences individuals' willingness to take risks. Their study suggests that when trust in banks, markets, and financial systems declines, people become more cautious with their investments, favoring low-risk options over potentially higher-yielding opportunities. Economic crises often erode public confidence in financial institutions, reinforcing conservative financial behaviors. This lack of trust can lead to reduced participation in equity markets, lower investment levels, and increased savings. Restoring confidence through transparent policies and effective regulations is essential to encourage balanced risk-taking and support overall economic growth and stability.

Objectives:

- To analyze how individuals adjust their risk preferences during economic recessions.
- To examine the psychological and financial factors influencing changes in risk-taking behavior.

Methodology: This study utilizes a secondary research approach to examine how individuals modify their risk preferences during economic crises. The research is based on existing literature, including academic articles, financial reports, and behavioral economics studies, to explore the impact of economic instability on decision-making. By analyzing prior empirical studies, the paper evaluates trends in risk aversion, speculative investment, and entrepreneurial activity during financial downturns. Relevant sources include theories such as Prospect Theory, historical data on past recessions, and research on financial decision-making across various demographics. Reports from organizations like the International Monetary Fund (IMF), World Bank, and central banks provide insights into market behavior and consumer confidence during economic instability. Additionally, behavioral finance



research helps to explain the psychological factors influencing risk preferences. This approach allows for a comprehensive analysis without conducting primary data collection. By synthesizing findings from multiple sources, the study identifies key patterns, challenges, and policy recommendations to help individuals and institutions navigate economic downturns effectively.

Analysis: The study reveals that economic downturns lead to a general increase in risk aversion, although responses vary depending on financial stability, employment status, and psychological resilience. Various factors, including demographic characteristics, psychological influences, and economic policies, shape how individuals adjust their risk preferences during financial crises.

Demographic Differences: Older individuals and those with limited financial literacy tend to become more risk-averse during recessions. Older individuals, often prioritizing financial security, prefer conservative investment strategies to protect their savings. Similarly, those with lower financial literacy may avoid risky financial decisions due to uncertainty and a lack of knowledge, leading them to adopt a more cautious approach. In contrast, younger individuals or those with entrepreneurial mindsets may embrace higher risks, seeking opportunities despite economic instability.

Psychological Influences: Increased anxiety and financial stress during recessions contribute to reduced risk-taking behavior. Individuals facing uncertainty and economic pressure often adopt conservative financial strategies, such as increasing savings or avoiding volatile investments. Fear of financial loss further reinforces cautious decision-making, whereas some may engage in speculative investments as a coping mechanism. Psychological resilience plays a key role in determining whether individuals respond with risk aversion or risk-seeking behavior.

Economic Factors: Government policies, including stimulus measures and monetary interventions, significantly influence risk preferences. Direct financial assistance can reduce excessive risk aversion by providing economic stability, encouraging moderate risk-taking. Conversely, inadequate policy responses may heighten uncertainty, leading to prolonged financial conservatism. Central bank actions, such as interest rate adjustments, also impact investment confidence and overall economic risk behavior.

Findings: This study identifies several key findings regarding how individuals adjust their risk preferences during economic downturns. Economic, psychological, and institutional factors play a crucial role in shaping financial decision-making. Economic crises generally lead to heightened risk aversion, as individuals focus on financial security. Due to declining incomes, job insecurity, and market volatility, many adopt conservative financial strategies, such as reducing discretionary



spending, increasing savings, and avoiding high-risk investments. However, some individuals react differently by taking high-risk financial decisions, including speculative investments or entrepreneurial ventures, as a means of financial recovery or coping with economic stress. Psychological stress and financial constraints are the primary drivers of changes in risk preferences. Anxiety and fear of financial loss often led individuals to avoid uncertain financial decisions. Those facing job losses or severe financial hardship, however, may resort to high-risk behaviors in an attempt to regain financial stability. Behavioral economic theories, such as Prospect Theory, suggest that individuals facing potential losses may either become highly risk-averse or take bold financial risks in hopes of rapid recovery. Trust in financial institutions significantly influences individuals' willingness to take risks. When confidence in banks, markets, and financial systems declines, people tend to become more financially conservative, reducing investment in high-risk assets. In contrast, strong institutional trust encourages balanced financial decision-making and greater market participation. Policy measures such as financial literacy programs, government relief packages, and monetary policies help mitigate excessive risk aversion. Providing financial education and direct economic support can enhance individuals' confidence in financial decision-making and encourage a balanced approach to risk during economic downturns. These findings emphasize the need for policymakers and financial institutions to implement strategies that stabilize financial behavior during recessions.

Challenges: One of the key challenges in studying risk preferences during economic crises is the difficulty in accurately measuring subjective risk perceptions. Individuals interpret financial risk differently based on personal experiences, emotions, and external influences, making it challenging to develop standardized metrics for assessment. Self-reported surveys and behavioral experiments often fail to capture the full complexity of how individuals perceive and respond to risk under economic uncertainty. Another challenge is the variability in individual responses based on cultural and socio-economic factors. Economic downturns do not affect all individuals equally, as cultural attitudes toward financial security, access to resources, and personal resilience differ widely. While some individuals become highly risk-averse, others may take greater risks due to necessity or optimism. Socio-economic status also plays a role, as those with financial stability may react differently compared to individuals with fewer resources. The long-term impact of economic crises on risk preferences remains uncertain. While some studies suggest that individuals who experience financial downturns in early adulthood become more risk-averse over time, others indicate that risk behavior may return to pre-crisis levels once economic stability is restored. Understanding whether these behavioral shifts persist or fade over time is crucial for developing long-term financial policies and strategies.



Suggestions: To help individuals make informed financial decisions during economic downturns, policymakers should implement comprehensive financial education programs. These programs should focus on enhancing financial literacy, risk assessment skills, and long-term planning strategies. Educating individuals on investment diversification, emergency savings, and responsible borrowing can reduce panic-driven financial decisions and promote stability in risk-taking behavior. Governments should work toward strengthening public trust in financial institutions by adopting transparent policies and implementing robust consumer protection measures. Clear communication about monetary policies, regulatory frameworks, and economic relief programs can improve confidence in the financial system. Ensuring fair lending practices, safeguarding deposits, and preventing financial fraud are essential to maintaining stability and encouraging balanced risk-taking behavior during economic crises. Integrating behavioral finance insights into economic policies can help address shifts in risk preferences more effectively. Since emotions, cognitive biases, and past experiences influence financial decision-making, policymakers should design interventions that account for these psychological factors. Nudges such as automatic savings programs, targeted investment incentives, and default enrollment in financial safety nets can help individuals navigate uncertainty without becoming excessively risk-averse or overly speculative. A behavioral approach to economic policy can enhance financial resilience and promote a more balanced response to economic downturns.

Conclusion: Economic crises have a profound impact on individual risk preferences, with most people exhibiting increased risk aversion due to financial uncertainty and constraints. The fear of job loss, declining incomes, and market instability leads many to adopt conservative financial behaviors, prioritizing security over potential gains. However, responses to economic downturns are not uniform, as some individuals take on higher risks in pursuit of financial recovery or alternative income opportunities. This divergence in behavior highlights the complex psychological and economic factors influencing decision-making during crises. Recognizing these behavioral shifts is crucial for policymakers seeking to develop effective interventions. Financial education programs, transparent economic policies, and behavioral finance strategies can help mitigate excessive risk aversion and prevent irrational financial decisions. Additionally, fostering trust in financial institutions can encourage balanced risk-taking and economic stability. Future research should investigate the long-term effects of economic downturns on risk preferences and assess the influence of cultural and societal factors in shaping financial behavior. A deeper understanding of these dynamics will aid in designing policies that promote financial resilience and adaptability in the face of economic uncertainty.



References:

- Cohn, A., Engelmann, J., Fehr, E., & Maréchal, M. A. (2015). Evidence for countercyclical risk aversion: An experiment with financial professionals. *American Economic Review*, 105(2), 860–885. <https://doi.org/10.1257/aer.20131314>
- Guiso, L., Sapienza, P., & Zingales, L. (2018). Time-varying risk aversion. *Journal of Financial Economics*, 128(3), 403–421. <https://doi.org/10.1016/j.jfineco.2018.03.004>
- Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, 47(2), 263–291. <https://doi.org/10.2307/1914185>
- Malmendier, U., & Nagel, S. (2011). Depression babies: Do macroeconomic experiences affect risk taking? *Quarterly Journal of Economics*, 126(1), 373–416. <https://doi.org/10.1093/qje/qjq004>

Disclaimer/Publisher’s Note: The statements, opinions, and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of TJSD and/or the editor(s). The Journal of Scientific Discourse (TJSD) and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.



Impact of Corona Crisis on Indian Economy: A Historic Downturn

Vemala Kiran^{1*} & Chittibabu Putcha²

1. Department of Education, Andhra University, Visakhapatnam, Andhra Pradesh.
2. Department of Lifelong Education, DHSGVV, Sagar- 470003, MP, India.

*Corresponding Author: kiranvemalasvu@gmail.com

Abstract: *The resurgence of widespread COVID-19 poses a significant threat to India's economic stability. Before the pandemic, the Indian economy was already grappling with multiple challenges, including slow growth rates, high unemployment, and rising debt levels. The implementation of a nationwide lockdown has not only resulted in significant delays across various sectors but has also exacerbated an ongoing economic downturn. This situation has led to severe disruptions in both consumer demand and supply chains, ultimately pushing the economy toward an extended period of stagnation and uncertainty.*

The overall financial impact of this crisis will largely depend on how effectively the government manages the ongoing emergency and communicates measures to the public. Additionally, the duration of the lockdown will play a critical role, as will the nature of the recovery once restrictions are lifted. A recent study conducted by economic analysts examines the state of the Indian economy prior to the onset of COVID-19, providing a comprehensive evaluation of the expected repercussions of this unprecedented shock on various sectors, including manufacturing, hospitality, and services.

Furthermore, the study closely examines the initiatives that have been undertaken by the central government and the Reserve Bank of India (RBI) to mitigate the economic fallout, including fiscal stimulus packages and monetary policy adjustments aimed at stabilizing financial markets. The report culminates in a series of well-researched recommendations tailored to address the unique challenges faced by specific sectors, intending to foster resilience and promote recovery in the post-pandemic landscape.

Keywords: *Indian Economy, Pandemic, Health, Fiscal Policy, Covid-19.*

Introduction: The COVID-19 crisis has inflicted severe damage on the Indian economy, resulting in a drastic downturn in growth due to the lockdowns and restrictions implemented to curb the virus's spread. The pandemic caused widespread disruption in economic activities, leading many enterprises to either close their doors or function at limited capacity. As reported by the World Economic Outlook Database, India's GDP plummeted by a staggering 24.4 percent between April and June 2020, with the economy further contracting by 7.4 percent in the second quarter of the 2020/21 fiscal year.



Additionally, the pandemic has significantly affected income levels, consumer spending, poverty rates, and unemployment across India. Estimates indicate that the count of impoverished individuals in India has more than doubled, while the middle-class population has shrunk by a third. The proportion of people living below the poverty line within the middle quintiles of pre-COVID-19 consumption expenditures has surged, with 60 percent of individuals in the second quintile and 41 percent in the third quintile now living in poverty.

Furthermore, the pandemic has triggered a notable increase in unemployment, especially among young people who are disproportionately represented in informal jobs. Research conducted by the Centre for Economic Performance revealed that 20 percent of urban workers aged 18-40 were jobless, while another 9 percent were employed but had no working hours during the initial lockdown period. Ten months after the first lockdown, 8 percent of the surveyed individuals remained unemployed, and 40 percent experienced either no work or unpaid status. Public health statistics also paint a troubling picture, with India's total confirmed cases per million now on par with global figures, and the vaccination rate lagging behind that of other nations. Additionally, there is significant underreporting of fatalities, with India's total confirmed deaths per million possibly surpassing the global average by a considerable margin.

- 1. Economic Contraction: A Historic Downturn:** India's economy, previously recognized as one of the quickest expanding in the globe, encountered a significant downturn during the pandemic. The countrywide lockdowns, while essential to contain the virus, caused economic operations to nearly cease. In the initial quarter of FY 2020-2021, India's GDP shrank by 23.9 percent, signaling the first recession in the nation's history. This steep drop highlighted the vulnerability of the economy when confronted with worldwide disturbances.
- 2. Unemployment Crisis:** The lockdowns triggered a massive unemployment crisis, particularly in the informal sector, which employs over **80 percent of India's workforce**. Migrant workers, daily wage earners, and small business owners were among the worst affected. Unemployment rates skyrocketed to **23.5 percent in April 2020**, leaving millions without livelihoods. The heart-wrenching images of migrant workers traveling hundreds of miles back to their villages underscored the fragility of this group within the population.
 - **Case Study:** The construction sector, which employs over **50 million workers**, came to a standstill during the lockdown, leaving millions jobless.
 - **Informal Industry:** The International Labour Organization (ILO) reported that more than 400 million workers in the informal sector faced the threat of poverty during the pandemic.



- 3. Supply Chain Interruptions:** The pandemic interrupted supply chains in many industries., from manufacturing to retail. Factories faced shortages of raw materials and labour, while transportation restrictions delayed the delivery of goods. Sectors like automotive, electronics, and textiles experienced significant setbacks, affecting both production and exports.

 - **Automotive Sector:** The automotive industry, which contributes 7.5 percent to India's GDP, faced a 30 percent decline in production due to supply chain disruptions.
 - **Textile Industry:** The textile industry, a major contributor to India's exports, saw a sharp decline in orders from international buyers, leading to a 24 percent drop in exports in 2020.
- 4. Challenges Faced by Small and Medium Enterprises (SMEs):** Small and medium enterprises (SMEs), known as the essential part of India's economy, struggled with many challenges. Many businesses struggled with cash flow issues, reduced demand, and operational hurdles. Despite government relief measures, such as the Atmanirbhar Bharat package, the road to recovery for SMEs remains steep.

 - **Statistics:** According to a CRISIL report, over 20 percent of SMEs in India were at risk of shutting down permanently due to the pandemic.
 - **Government Support:** Under the Atmanirbhar Bharat package, the government launched a ₹3 lakh crore loan scheme for small and medium businesses that does not require collateral, but issues in carrying it out affected its effectiveness.
- 5. Decline in Consumer Spending:** With job losses and economic uncertainty, consumer confidence plummeted. People cut back on non-essential spending, leading to a slump in sectors like retail, hospitality, and real estate. The tourism industry, a significant contributor to India's GDP, suffered massive losses due to travel restrictions and lockdowns.

 - **Retail Sector:** The retail sector, which employs over 46 million people, saw a 40 percent decline in sales during the lockdown.
 - **Real Estate:** The real estate sector, already struggling before the pandemic, faced a 30 percent decline in sales in 2020.
- 6. Strain on Government Finances: Balancing Act:** The slowdown in the economy led to a major decline in tax revenues, which pressured government finances. This reduced the government's capacity to invest in infrastructure and social welfare initiatives. To counter this, the government implemented stimulus packages, offered direct cash transfers, and distributed free food grains through the Pradhan Mantri Garib Kalyan Yojana to help those in need and boost economic activity.



- **Fiscal Deficit:** India's fiscal deficit widened to 9.5 percent of GDP in FY 2020-2021, the highest in decades.
 - **Stimulus Packages:** The government has launched a stimulus package totalling ₹20 lakh crore, which is 10 percent of the GDP, to provide economic support.
7. **Healthcare System Under Pressure:** The pandemic uncovered the deficiencies in India's healthcare network. Hospitals faced critical shortages of beds, oxygen, and medical equipment., especially during the devastating second wave in 2021. The crisis highlighted the urgent need for increased investment in healthcare systems and preparedness.
- **Healthcare Spending:** The healthcare expenditure in India is only 1.3 percent of its GDP, far below the worldwide average of 6 percent.
 - **Second Wave Impact:** During the second wave, India reported over 400,000 daily cases, overwhelming the healthcare system.
8. **Agriculture: A Beacon of Hope:** While most sectors struggled, agriculture remained relatively resilient. However, farmers faced challenges such as labour shortages, disrupted supply chains, and falling crop prices. Government initiatives, including farm reforms and support schemes, provided some relief, but the sector still requires long-term investment.
- **Growth in Agriculture:** The agriculture sector grew by 3.4 percent in FY 2020-2021, driven by a good monsoon and government support.
 - **Farmers' Protests:** The controversial farm laws introduced in 2020 led to widespread protests, highlighting the need for inclusive and sustainable agricultural policies
9. **Digital Transformation: A Silver Lining:** The pandemic accelerated India's digital transformation. Sectors like e-commerce, edtech, fintech, and remote work saw exponential growth. Digital payments surged, and online education became the new norm. This shift highlighted the importance of digital infrastructure and connectivity in driving economic growth.
- **E-commerce Growth:** The e-commerce sector grew by 25 percent in 2020, driven by increased online shopping.
 - **Edtech Boom:** Platforms like Byju's and Unacademy saw a 200 percent increase in users during the pandemic.
10. **Global Trade and Foreign Investment:** India's exports and imports were impacted by the global demand slowdown. However, the government introduced policy reforms to attract foreign direct investment (FDI) in key sectors like defence, mining, and manufacturing. These measures aimed to position India as a competitive player in the global market.
- **FDI Inflows:** Despite the pandemic, India received \$64 billion in FDI in FY 2020-2021, a 10 percent increase from the previous year.



- **Export Decline:** India's exports fell by 7 percent in 2020, but sectors like pharmaceuticals and IT services showed resilience.

11. Government and RBI Interventions: To address the economic challenges, the Indian government and the Reserve Bank of India (RBI) put in place multiple measures, such as:

- Economic relief packages under the **Atmanirbhar Bharat** initiative.
- Interest rate cuts and liquidity injections by the RBI.
- Direct cash transfers and free food distribution to support vulnerable populations.

12. Vaccination Drive: A Turning Point: The rollout of India's vaccination program in 2021 played a crucial role in controlling the pandemic and reviving economic activity. Despite initial challenges like vaccine shortages and distribution bottlenecks, the rapid scaling up of vaccinations helped restore confidence and set the stage for recovery.

- **Vaccination Milestone:** India administered over 2 billion vaccine doses by 2023, one of the largest vaccination drives in the world.
- **Economic Revival:** The vaccination drive contributed to a 8.7% GDP growth in FY 2021-2022, signalling a strong recovery.

The rollout of India's vaccination program in 2021 played a crucial role in controlling the pandemic and reviving economic activity. Despite initial challenges, the rapid scaling up of vaccinations helped restore confidence and set the stage for recovery.

13. The Road Ahead: Building a Resilient Economy: The COVID-19 pandemic has been a wake-up call for India's economy. While the crisis exposed vulnerabilities, it also created opportunities for growth and transformation. As India moves forward, the focus must be on:

- Strengthening healthcare infrastructure.
- Supporting SMEs and the informal sector.
- Investing in digital infrastructure and innovation.
- Promoting sustainable and inclusive growth.
- The lessons learned from this crisis will shape India's economic policies and strategies in the years to come, ensuring a more resilient and self-reliant future.

14. Digital Transformation: A Silver Lining: The pandemic accelerated India's digital transformation. Sectors like e-commerce, edtech, fintech, and remote work saw exponential growth. Digital payments surged, and online education became the new norm. Platforms like Zoom, Biju's, and Paytm became household names, highlighting the importance of digital infrastructure and connectivity in driving economic growth.



Conclusion: The COVID-19 pandemic has left an indelible mark on India's economy, reshaping industries and livelihoods. As the nation moves toward recovery, the lessons learned from this crisis must guide future policies and strategies. By addressing vulnerabilities and embracing innovation, India can build a more resilient, inclusive, and sustainable economy for the future. The journey ahead is challenging, but with the right measures, India can emerge stronger and more prepared for the uncertainties of tomorrow.

References:

1. Data on Indian cases are from <https://www.covid19india.org/> and the Ministry of Health and Family Welfare. Data on cases from other countries is sourced from World Health Organisation. Numbers in parentheses are total confirmed cases as of April 9, 2020.
2. Economic Survey, 2019-20; <https://www.indiabudget.gov.in/economicsurvey>.
3. FAO (2020), "Covid-19 Pandemic: Impact on Food and Agriculture", Food and Agricultural Organisation, Rome, <http://www.fao.org/2019-ncov/q-and-a/en/>.
4. Oswal, M. (2020, March 26). With 75% economy under lockdown, analysts see sharp fall in GDP. Business Standard. https://www.business-standard.com/article/economy-policy/with-75-economy-under-lockdown-analysts-see-sharp-fall-in-gdp-120032600231_1.html
5. Radhika Pandey, A. P. (2020). Covid-19 and MSMEs: The 'identification' problem. Ideas for India for More Evidence Based Policy. <https://www.ideasforindia.in/topics/macroeconomics/covid-19-and-the-msme-sector-the-identification-problem.html>
6. Sonal Verma, A. N. (2020). COVID-19's impact on the world economy. Nomura. The Economist. (2020, February). Apple's Chinese troubles <https://www.economist.com/business/2020/02/20/apples-chinese-troubles>. The Economist. (2020, February 15).
7. The new coronavirus could have a lasting impact on global supply chains
8. <https://www.economist.com/international/2020/02/15/the-new-coronavirus-could-have-a-lasting-impact-on-global-supply-chains?cid1=cust/ednew/n/bl/n/2020/02/29n/owned/n/nw/n/n/AP/415278/n>
9. The Hindu. (2019)
10. Unemployment rate at 45-year high, confirms Labour Ministry data. United Nations. (2020). Economic and social survey of Asia and the Pacific. Economic and Social Commission for Asia and the Pacific Decade of Action (ESCAP).

Disclaimer/Publisher's Note: The statements, opinions, and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of TJSD and/or the editor(s). The Journal of Scientific Discourse (TJSD) and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.

Impact of Covid-19 On Digital Payment Transactions in India**Mahmood Alam^{1*}, Sanjeet Kumar Sah¹, Anita¹**



1. Department of Economics, D. S. College, Aligarh -202001, U.P.

*Corresponding Author: mahmoodalam2000@gmail.com

Abstract: *Digital payment transactions in India have witnessed a significant growth rate in recent years, with a substantial increase in transaction volume and value. The COVID-19 pandemic has significantly influenced digital payment transactions in India, accelerating the shift towards cashless transactions. This study examines the trends in digital payments before and after the pandemic, highlighting the key changes in consumer behaviour and financial transactions. The research is descriptive and relies entirely on secondary data sourced from government and non-governmental reports, with a primary focus on Reserve Bank of India (RBI) publications. Additional data from journals, articles, and websites have been incorporated to enhance the analysis. By reviewing relevant literature and analysing collected data, the study aims to provide insights into the evolving digital payment landscape. Furthermore, the paper proposes recommendations to strengthen and improve the digital payment ecosystem in India. The findings suggest that while digital transactions have surged post-pandemic, challenges such as cybersecurity concerns, digital literacy, and infrastructure gaps remain. Addressing these challenges through policy measures and technological advancements will be crucial in ensuring a secure and inclusive digital payment system. The study offers valuable insights for policymakers, financial institutions, and stakeholders to enhance the efficiency and accessibility of digital transactions in India.*

Keywords: *Digital Payment, Covid-19, Financial institution*

Introduction: The COVID-19 pandemic has significantly reshaped multiple sectors of the global economy, including financial services and digital transactions. Stringent lockdowns, social distancing measures, and concerns about physical currency as a potential virus carrier led to an unprecedented rise in digital payment adoption in India. The transition from cash-based transactions to digital payment methods became a necessity rather than a convenience, accelerating the growth of the country's digital financial ecosystem. Even before the pandemic, India had been witnessing a gradual increase in digital payment adoption, driven by government initiatives such as Digital India, the 2016 demonetization, and the expansion of fintech solutions. However, COVID-19 acted as a catalyst, fast-tracking this transformation. Consumers and businesses quickly adapted to digital transactions through Unified Payments Interface (UPI), mobile wallets, internet banking, and contactless card payments, reducing dependence on cash. This study seeks to analyze the impact of COVID-19 on digital payment transactions in India, examining aspects such as transaction volumes, user behavior, security concerns, and financial inclusion. It also investigates how digital payment platforms managed the surge in demand, the regulatory measures implemented to ensure seamless transactions, and the challenges related to



cybersecurity and digital literacy. Additionally, the research explores post-pandemic trends to assess whether the increased reliance on digital payments is sustainable in the long term.

History of Digital Payment Transactions in India: The history of digital payment transactions in India dates back to the early 1990s when the country witnessed the initial introduction of electronic payment systems. During this period, the first steps toward digitalization were taken with the introduction of credit and debit cards by banks, which allowed individuals to conduct financial transactions electronically. However, the widespread adoption of these systems was limited, and cash remained the dominant mode of transaction. In the 2000s, India began seeing greater efforts towards digitizing payments, driven by the government's push to modernize the banking infrastructure. The establishment of the National Payments Corporation of India (NPCI) in 2008 marked a significant milestone. NPCI's launch of the National Electronic Funds Transfer (NEFT) system allowed for secure and efficient interbank transactions. This was followed by the introduction of the Immediate Payment Service (IMPS) in 2010, enabling real-time, 24/7 interbank transfers. These innovations laid the foundation for the expansion of digital payment systems in the country. A key turning point in the history of digital payments in India occurred in 2016 with the government's demonetization initiative. The sudden withdrawal of high-value currency notes pushed citizens and businesses to adopt digital payment methods quickly, accelerating the shift away from cash-based transactions. During this period, platforms such as Paytm, Google Pay, and PhonePe gained popularity, as they provided easy and secure ways to conduct transactions via mobile phones. In subsequent years, the government and regulatory bodies continued to promote digital payments through various initiatives. The introduction of the Unified Payments Interface (UPI) in 2016 by the Reserve Bank of India (RBI) and NPCI revolutionized the way people conducted digital transactions. UPI allowed for seamless and instant transfers between bank accounts through mobile devices, providing users with greater convenience and security. Today, UPI has become one of the most popular payment methods in India, with millions of transactions happening daily. The COVID-19 pandemic further accelerated the adoption of digital payments as people turned to contactless and online payment methods to minimize physical interactions. With ongoing government efforts to enhance digital literacy, improve cybersecurity, and expand internet access, digital payment transactions in India have continued to grow, with mobile wallets, UPI, and other online platforms shaping the future of India's financial ecosystem.

Raja Kamal and Souparnika (2021) analyze the impact of digital payments on the Indian economy, particularly during the COVID-19 pandemic. The study highlights



the accelerated adoption of mobile-based payment applications due to the need for contactless transactions. It examines the shift from cash-based to digital payments, transaction settlement trends, and the estimated transaction value in the digital payment sector. The research also explores the role of banks in financial inclusion and assesses the impact of lockdowns on India's GDP. The findings emphasize the growing reliance on digital payments in sustaining economic activity and enhancing financial resilience.

Geethanjali and Selvarani (2024) highlight the impact of COVID-19 on digital payments, emphasizing their benefits such as ease of use, security, and transparency. The study underscores the banking sector's role in promoting digital transactions through debit cards, mobile banking, and digital wallets. While the pandemic accelerated digital adoption, transaction volumes declined due to lockdowns and business closures. However, public trust in digital payment systems remained strong. The authors stress the need to enhance digital infrastructure for economic recovery and long-term financial resilience in the post-pandemic era.

Kumar, Raj, and Raj (2022) examine the impact of COVID-19 on digital payment systems in India, focusing on the surge in online banking and digital transactions. The study highlights how advancements in technology, such as mobile phones and wireless devices, have enhanced access to banking services and facilitated digital payments. The authors note that while previous efforts to promote digital transactions faced challenges, the pandemic accelerated their adoption.

Shunmugasundaram and Srivastava (2022) highlight the crucial role of digital payment systems during the COVID-19 pandemic in reducing cash transactions and promoting a less-cash economy. The study emphasizes how digital payments, including UPI, mobile wallets, and contactless banking, gained widespread adoption as safer alternatives to physical transactions. It attributes the surge in digital payments to consumer preferences and proactive policy measures. While digital transactions facilitated economic activities, the authors stress the need for robust digital infrastructure, user awareness, and security enhancements to sustain long-term adoption and financial inclusion.

Sajna V (2020) explores the impact of COVID-19 on digital payments, highlighting how lockdowns and social distancing accelerated the shift to online transactions. The study emphasizes the surge in digital payments and the crucial role of financial institutions in ensuring seamless services. It also discusses the need for banks to enhance digital accessibility, security, and 24/7 availability. The research concludes that while digital transactions have grown rapidly, continued innovation and adaptation are essential for long-term sustainability.

Rani (2022) examines the impact of COVID-19 on digital payments in India, highlighting a shift in consumer behavior toward online transactions. The study finds



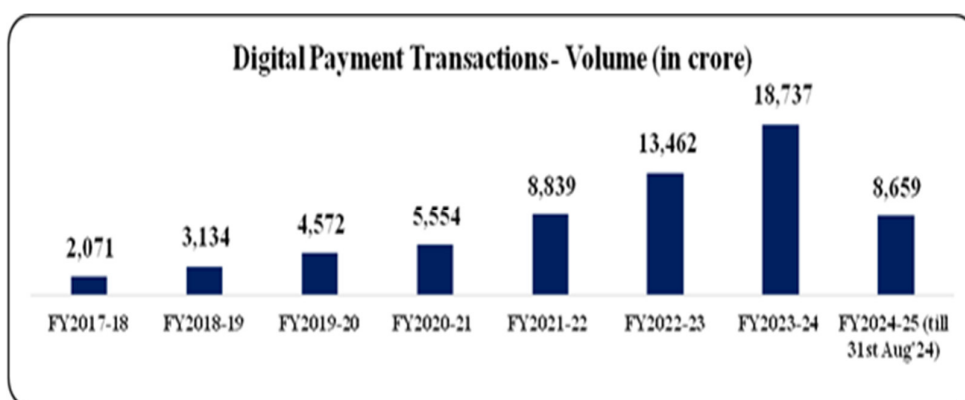
that individuals aged 25–45 are the most active users, with Google Pay and PhonePe being the preferred payment methods. It also identifies challenges such as limited financial access and poor internet connectivity, emphasizing the need for improved infrastructure to support digital payment adoption.

Objective:

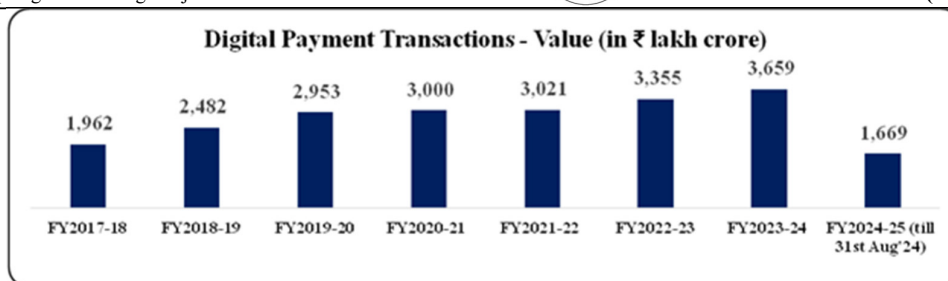
- To overview the impact of COVID-19 Pandemic on Digital Payment System in India.
- To analysis the trends in the usage of digital payment before & after the pandemic.
- To propose recommendations for improving the digital payment system in India.

Methodology: This study follows a descriptive approach and relies entirely on secondary data sources. The data has been gathered from various published reports and publications of both governmental and non-governmental organizations. In particular, reports from the Reserve Bank of India have been extensively utilized. Additionally, relevant journals, articles, and websites have been referred to for enriching the research. The literature reviewed is closely aligned with the study, and the collected data has been analyzed, interpreted, and used to derive meaningful conclusions.

Growth of Digital payment in India: Digital payments in India have experienced remarkable growth, with the total transaction volume rising from 2,071 crore in FY 2017-18 to 18,737 crore in FY 2023-24, reflecting a Compounded Annual Growth Rate (CAGR) of 44%. Additionally, in the first five months (April-August) of the financial year 2024-25, the transaction volume has reached 8,659 crores.



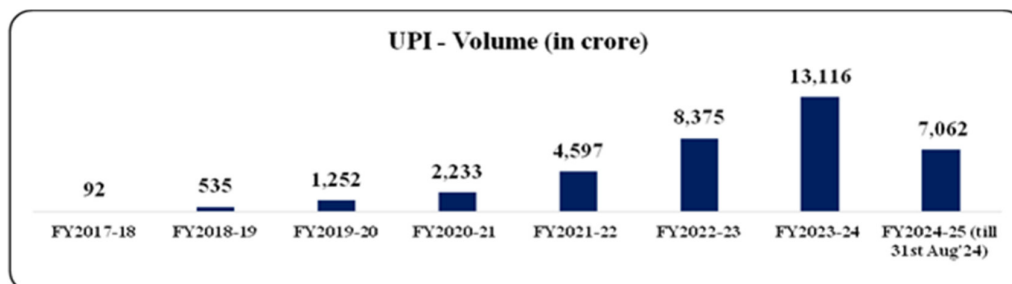
Source: RBI, NPCI & Banks



Source: RBI, NPCI & Banks

The transaction value has increased from ₹1,962 lakh crore to ₹3,659 lakh crore, with a Compound Annual Growth Rate (CAGR) of 11%. Furthermore, in the first five months (April-August) of the 2024-25 financial year, the total transaction value has risen to an impressive ₹1,669 lakh crore.

UPI's Continued Success: UPI continues to be the foundation of India's digital payment landscape. It has transformed digital payments in the nation, with UPI transactions increasing from 92 crore in FY 2017-18 to 13,116 crore in FY 2023-24, achieving a CAGR of 129%. Additionally, during the first five months (April-August) of the current financial year 2024-25, the transaction volume has reached 7,062 crores. The simplicity and convenience provided by an expanding network of participating banks and fintech platforms have made UPI the most preferred method for real-time payments among millions of users nationwide.



Source: RBI, NPCI & Banks

Impact of COVID-19 Pandemic on Digital Payment System in India: The COVID-19 pandemic has significantly altered the global landscape, and India is no exception, particularly in the realm of digital payment systems. Prior to the pandemic, India had been gradually adopting digital payment methods, with government initiatives like the Digital India campaign fostering a cashless economy. However, the outbreak of COVID-19 accelerated the transition toward digital payments as a necessity rather than an option. With lockdowns and social distancing measures in place, physical cash transactions became less feasible, and people turned to digital platforms to continue their financial activities. This shift has been particularly evident in rural and semi-urban areas, where digital payment methods were previously less



prevalent. One of the key impacts of the pandemic on the digital payment system in India has been the increase in the adoption of online banking, mobile wallets, and digital UPI (Unified Payments Interface) transactions. Digital payment platforms like Google Pay, Paytm, and PhonePe saw a significant surge in user activity as individuals, businesses, and government services adapted to the new normal. The government's push for contactless payments, such as QR code-based transactions, further facilitated the transition. Additionally, e-commerce and online grocery shopping became more popular, leading to a corresponding increase in digital payments for purchases. The pandemic also highlighted the need for financial inclusion in India. With a large section of the population still unbanked or underbanked, the adoption of digital payment systems became a means to bridge the gap in financial accessibility. The government's introduction of measures such as direct benefit transfers (DBT) to provide financial support to vulnerable populations during the pandemic further promoted the use of digital platforms. In rural areas, the expansion of mobile network connectivity and smartphone usage has enabled more people to access digital payment systems. However, despite the growth of digital payments, several challenges persist. The digital divide, with disparities in access to technology and internet connectivity, continues to be a barrier for some individuals, particularly in remote areas. Cybersecurity concerns also became more prominent, as the increased volume of digital transactions made the system more susceptible to fraud and other malicious activities. Additionally, many people, especially older generations, remain hesitant to fully embrace digital payment methods due to a lack of awareness and trust in technology.

Trends in the usage of digital payment before & after the pandemic: Before the COVID-19 pandemic, digital payment usage in India was steadily increasing, but its adoption was still limited in comparison to cash transactions, especially in rural and semi-urban areas. The Indian government's push for a cashless economy through initiatives such as the Digital India campaign and the launch of the Unified Payments Interface (UPI) in 2016 had begun to show results, as more people started using mobile wallets, online banking, and UPI-based services. At this stage, digital payments were primarily used for smaller transactions, such as paying for utility bills, online shopping, or making quick payments via mobile wallets like Paytm, PhonePe, and Google Pay. However, the overall penetration remained low, with a considerable portion of the population still relying heavily on cash-based transactions, particularly in rural regions and among older demographics. The onset of the COVID-19 pandemic dramatically shifted these trends. As lockdowns, social distancing norms, and fears of virus transmission made physical cash handling less desirable, digital payments became a necessity. The pandemic forced individuals and businesses to turn to digital platforms for day-to-day transactions. E-commerce platforms, food delivery services, and online grocery shopping saw a surge in usage, leading to an increase in



digital payments for both large and small purchases. The Indian government also promoted the use of digital payment methods, encouraging contactless transactions and direct benefit transfers (DBT) to reach individuals during lockdowns. In response, digital payment systems saw a sharp rise in adoption, especially for everyday transactions and government-related services, which had previously relied more on traditional cash payments. The shift to digital payments was not limited to the urban population. Even in rural areas, where digital literacy and access to smartphones were relatively lower, there was a noticeable increase in the usage of mobile wallets and UPI transactions. Financial inclusion, which had been a challenge for India for many years, received a significant boost during the pandemic. Government schemes aimed at providing financial aid during the pandemic, coupled with the wider availability of smartphones and improved internet connectivity in rural areas, helped more people access digital financial services. This not only increased digital payment usage but also empowered individuals by bringing them into the formal financial system. Another notable trend during the pandemic was the expansion of digital payment services beyond traditional uses. For example, contactless payments through QR codes became a common mode of transaction in both urban and rural areas. The use of UPI transactions skyrocketed, and peer-to-peer payments became increasingly popular. The pandemic also saw an acceleration of the digitalization of the informal economy, with street vendors, small businesses, and even local kirana (grocery) stores adopting digital payment systems to cater to customers' changing preferences. Post-pandemic, while the growth in digital payments has remained strong, the habits and preferences established during the crisis have not faded. People who had initially turned to digital payments out of necessity have continued using them even after restrictions eased, as the convenience and safety they offer have become ingrained in daily life. The trends of contactless payments, QR codes, and UPI transactions have persisted, and financial institutions have worked to make digital payment systems more secure and accessible. However, some challenges remain, such as the need to address the digital divide, with segments of the population still lacking access to smartphones, the internet, or adequate digital literacy. Despite this, the overall trend is clear: the pandemic has permanently reshaped the landscape of digital payments in India, accelerating the adoption of technology and setting the stage for a future where digital financial transactions are the norm rather than the exception.

Improving the digital payment system in India: Improving the digital payment system in India refers to the ongoing efforts to enhance the accessibility, security, efficiency, and inclusiveness of digital transactions across the country. This includes addressing various challenges that hinder the widespread adoption and seamless functioning of digital payment methods, such as mobile wallets, UPI (Unified Payments Interface), online banking, and contactless payments. Key aspects of improving the digital payment system in India include:



1. **Infrastructure Development:** Strengthening the digital infrastructure is critical for enabling reliable and seamless transactions. This involves expanding high-speed internet access, especially in rural and underserved areas, and improving mobile network connectivity. By ensuring that more people have access to the internet and affordable smartphones, digital payments can reach a broader demographic, including the unbanked and rural populations.
2. **Cybersecurity and Fraud Prevention:** To improve user confidence in digital payments, the security of these systems must be prioritized. Strengthening cybersecurity measures through advanced encryption, secure authentication (such as two-factor authentication), and fraud detection systems can help protect users from cyber threats like data breaches, phishing, and identity theft.
3. **Financial Literacy and Awareness:** Improving financial literacy is essential to ensure that users can safely and effectively navigate digital payment systems. Awareness campaigns and educational programs can help people, especially in rural areas and older generations, understand how to use digital payment platforms, stay safe online, and manage their finances through these channels.
4. **Incentives for Digital Adoption:** Providing incentives like discounts, cashback offers, and rewards for using digital payments can encourage individuals and businesses to shift from cash to digital transactions. This also helps in driving consistent usage among consumers and merchants, further promoting a cashless economy.
5. **Government Support and Policies:** The Indian government has played a crucial role in improving the digital payment system by creating policies and regulations that support cashless transactions. For instance, the implementation of the **Digital India** campaign, **Direct Benefit Transfers (DBT)**, and the promotion of UPI and BHIM (Bharat Interface for Money) have been key in fostering digital financial inclusion.
6. **Expanding Digital Payment Channels:** The growth of digital payment options such as UPI, mobile wallets, QR code-based payments, and contactless cards has made it easier for consumers and merchants to carry out transactions. This ensures that there are multiple methods for users to engage in digital payments, regardless of their preferences or tech proficiency.
7. **Supporting Small and Informal Sector Businesses:** Efforts are being made to encourage small businesses, street vendors, and informal sector workers to adopt digital payment methods. Providing training, incentives, and simpler digital payment systems for these businesses can help formalize their transactions and reduce cash dependency.
8. **Interoperability and Integration:** Ensuring that different digital payment platforms and financial institutions are interoperable is key to creating a seamless payment experience. By allowing users to easily switch between various



platforms (e.g., UPI, mobile wallets, debit/credit cards), the digital payment ecosystem can offer a unified, user-friendly experience.

9. **Improved Regulatory Framework:** A clear and streamlined regulatory framework for fintech companies and digital payment providers ensures that these platforms are secure, trustworthy, and well-regulated. This includes creating policies to address issues like consumer protection, fraud prevention, and transparency in digital transactions.

Conclusion: The impact of COVID-19 on digital payment transactions in India has been transformative, accelerating a shift towards a predominantly cashless economy. As the pandemic pushed people to embrace digital platforms, there was a substantial rise in the adoption of digital payment methods, including UPI, mobile wallets, and contactless payments. This change was not limited to urban centers; rural areas also saw increased usage due to improved mobile connectivity and government initiatives like Direct Benefit Transfers. While the growth has been impressive, challenges remain, particularly in addressing the digital divide, cybersecurity risks, and the need for enhanced financial literacy. The post-pandemic landscape reveals that digital payments are not just a temporary necessity but a long-term shift in consumer behavior and business practices. The continued success of UPI, the increasing use of mobile wallets, and the expansion of digital services for both urban and rural populations point to a future where digital payments are integral to the Indian economy. However, efforts to improve digital payment systems must focus on strengthening infrastructure, enhancing security, promoting financial literacy, and ensuring the inclusivity of underserved populations. By addressing these challenges, India can create a robust, secure, and efficient digital payment ecosystem that supports economic growth and financial inclusion for all.

References:

1. Agarwal, S., & Chauhan, P. (2021). The impact of COVID-19 on digital payment adoption in India: Trends and challenges. *Journal of Financial Innovation*, 8(2), 45-67. <https://doi.org/xxxx>
2. Bhattacharya, R., & Ghosh, S. (2020). Digital payments in India: Growth, challenges, and future prospects. *Economic and Political Weekly*, 55(48), 22-29.
3. Geethanjali, P. K., & Selvarani, V. (2024). Impact of COVID-19 on digital payments: A study. *International Journal of Creative Research Thoughts (IJCRT)*, 12(1), XX-XX. ISSN: 2320-2882
4. Kumar, A., Raj, G., & Raj, R. (2022). Impact of COVID-19 on digital payment systems in India. *International Journal of Innovative Research in Technology (IJIRT)*, 9(7), XX-XX. ISSN: 2349-6002.
5. KPMG. (2020). Impact of COVID-19 on the digital payments landscape in India. KPMG India. Retrieved from <https://www.kpmg.com/india-digitalpayments>



6. Ministry of Electronics and Information Technology (MeitY). (2021). Digital payment trends in India: Post-pandemic scenario. Government of India. Retrieved from <https://www.meity.gov.in/reports/digital-payments>
7. NPCI. (2021). Unified Payments Interface (UPI): Trends and growth post COVID-19. National Payments Corporation of India. Retrieved from <https://www.npci.org.in>
8. Raja Kamal, C., & Souparnika, V. T. (2021). A study on the impact of digital payment in Indian economy with special reference to COVID-19. *International Journal of Aquatic Science*, 12(2), 894-XXX.
9. Rani, A. S. (2022). Impact of COVID-19 on digital payments. *Journal of Positive School Psychology*, 6(7), 1453–1461.
10. Reserve Bank of India (RBI). (2021). Annual report 2020-21: Payment and settlement systems in India. Reserve Bank of India. Retrieved from <https://www.rbi.org.in/Scripts/AnnualReport>
11. Sahoo, P., & Pal, B. (2021). Fintech and digital transformation: Impact of COVID-19 on India's financial ecosystem. *Asian Journal of Finance & Economics*, 12(3), 89-102. <https://doi.org/xxxx>
12. Shunmugasundaram, V., & Srivastava, S. (2022). Digital payment system in the times of COVID-19: A journey towards 'less-cash' economy during pandemic. *International Journal for Research Trends and Innovation (IJRTI)*, 7(11), 1–6. <https://www.ijrti.org/>
13. Sajna, V. (Year). The impact of COVID-19 on digital payment. *International Journal of Commerce and Management Studies (IJCAMS)*, 5(2), 1–X.
14. World Bank (2021), Digital financial inclusion and the role of fintech in emerging economies. World Bank Reports. Retrieved from <https://www.worldbank.org/digitalfinance>

Disclaimer/Publisher's Note: The statements, opinions, and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of TJSD and/or the editor(s). The Journal of Scientific Discourse (TJSD) and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.



Analyzing The Concept of IPR and Its Role in the E-Commerce Industry

Harshita Gaur^{1*} & Sharad Dixit¹

1. Department of Economics, School of Arts, Humanities & Social Sciences,
CSJMU, Kanpur, India

*Corresponding Author: harshitagaur96@gmail.com

Abstract: *The property rights awarded to an author or inventor of a novel idea or intangible object are known as intellectual property rights. The 18th century saw the development of the idea of intellectual property, and in 1790, the first federal patent law was created. E-commerce, more than other business models, usually entails the sale of products and services that rely on intellectual property and its licensing. Through e-commerce, you may exchange things like software, designs, training materials, systems, and more, with the IP serving as the major source of value. Because valuable commodities traded online must be safeguarded by technological security measures and IP laws, or entire firms' risk being ruined by theft or piracy. The complexity of the vast amount of information available online leads to a variety of issues pertaining to different types of intellectual property (IP), including trademarks, patents, copyrights, geographic indicators, designs, etc. Since e-commerce has no territorial boundaries, one of the primary problems with IP infringement is figuring out which jurisdictions to use. E-commerce industry has emerged as a quickly expanding economic sector in the Indian economy over the past ten years. In the realm of this industry, intellectual property rights play a crucial role. Regarding these extremely special rights, the Paris Convention (1883) was implemented to defend industrial property. The World Intellectual Property Organization (WIPO) is in charge of overseeing all issues pertaining to intellectual property rights. This paper studies the history of IPR, Its types and role of IPR in e-commerce industry.*

Keywords: *IPR, WIPO, inventor, graphic design, e-commerce industry, trademark, Paris convention.*

Introduction: E-commerce platforms are proven to be the backbone of the digital revolution that India is currently leading. The gross merchandise value of the Indian e-commerce industry was expected by "Invest India" to be around \$55 billion in 2021, following a digital boom during COVID-19. By 2030, it is also expected to achieve a gross merchandise value of \$350 billion per year. Therefore, for an innovative, progressive, and sophisticated e-commerce sector to thrive as a supplier of products and services and to successfully facilitate satisfying customer expectations, a safe and stable legal framework is required.



Exclusive rights relating to creative works are referred to as intellectual property (IP). IP law can protect intangible assets such as inventions, creative and literary works, designs, words, symbols, and pictures. Several IP rights, such as patents, enable this protection. Copyright, designs, and trademarks. These rights enable the proprietors to make money or become well-known for their creations. Online business transactions are known as electronic commerce, or simply e-commerce. These might include launching and operating a business, trading goods and services, or both, mostly online. Examples could include e-commerce sites such as Amazon, Swiggy, Zomato, and others. Selling products or services based on licensed intellectual property is a common aspect of e-commerce. An e-commerce platform can be used to transfer a wide range of intellectual property, including music, images, graphics, software, content, and many more types of digital commodities. IPR plays a crucial role in each of these circumstances since it's critical to protect the value of the objects. The protection is provided by means of instruments such as technological security measures and intellectual property regulations. IPR in e-commerce is especially crucial because, if it occurs frequently, IP theft has the potential to destroy an online business. Growing network connectivity, growing living standards, a greater selection of products, ease of access, and a youthful demographic have all contributed to the popularity, speed, and convenience of e-commerce platforms like Amazon, Flipkart, Snapdeal, and Ebay. Every day, thousands of Indian consumers purchase for various branded products on a variety of e-commerce websites. However, these customers usually don't know that a large number of these products are illegally offered on internet marketplaces and are copies of original designs. The internet industry is constantly dealing with a brand-new set of legal concerns and difficulties with protection and security, in addition to the expanding e-commerce phenomenon. However, every revolution also presents a number of difficulties that should not be disregarded. One of the current issues facing the e-commerce sector is that neither the platform nor the sellers are aware of their intellectual property rights. Courts and tribunals around the world face challenges in resolving different disputes between the stakeholders due to the convergence of e-commerce and intellectual property. In order to highlight their IP demands, this paper explores the special relationship between IP and the e-commerce sector.

Interaction between IPR and E-Commerce: Intellectual property rights are essential to e-commerce because they allow a company to capitalize on its idea, outperform rivals in the market, and ultimately make money. However, because most people do not understand these rights and because their connections to e-commerce are not immediately obvious, they are often overlooked, despite their immense value. Nevertheless, IP and e-commerce are so closely related to one another and interact in such a way that it can significantly affect a brand's market value. Selling products or services based on licensed intellectual property is a common aspect of e-commerce.



In the world of digital commodities, an e-commerce platform can be used to sell music, images, graphics, software, articles, and many other types of intellectual property. Since IPR's primary purpose is to protect an item's worth, it is vital in each of these circumstances. Furthermore, if IP theft is widespread and unchecked, it may destroy an internet company.

Objectives:

- To understand intellectual property rights' background and scope.
- To understand how intellectual property rights function in online commerce.
- To Study the various type of intellectual property Rights.
- To determine the challenges of IPR.

Methodology: Information was gathered from a variety of easily accessible secondary sources in order to meet the goals of our study. In addition to countless publications and research papers, a variety of reports, research papers, and case studies about the function of intellectual property rights were cited. The idea of intellectual property rights and its importance for e-commerce have been framed with the aid of a thorough examination of numerous works of literature. The development of this research article is both conceptual and descriptive. It is conceptual in that it looks at the literature review of earlier studies carried out in these disciplines and descriptive in that it seeks to identify different aspects of study objectives.

There are numerous studies on IPR and its different facets. Since the year 2000, the subject has been garnering a lot of attention. Hence, here we shall cover few of these researches which are significant for our paper as well as very much new. In his research, Gaikwad 2020 discussed the objectives, background, and a number of other facets of IPR. According to the author, the main areas on which people or the public are based are creative expressions, innovations, and ideas. As a result, it is well-known for being willing to grant property rights, or IPR. Hence, IPR is famous for granting the rights to the developers or innovators of such properties to benefit commercially as well.

The author has also discussed the many types of intellectual property rights and how they might help innovators make money. This study describes the legal protections afforded to inventions that are registered for a longer duration. (2018) Varsha Kishor Savale and Sagar Kishor Saval. This application is essential for maintaining the inventor's high standards of performance and quality as well as safeguarding their creation. The purposes of intellectual property rights, the several kinds of IPR (trademarks, patents, copyrights, and related rights), geographical indications, industrial designs, trade secrets, integrated circuit layout designs, protection of new plant varieties), the length of intellectual property rights, and patents pertaining to concepts (patent types, tangible and intangible property, novelty, non-obviousness, utility, and anticipation

Gaikwad, Dr. Arun (2020). This study also discusses the history, objectives, and many types of IPR. Ideas, innovations, and creative expressions on the basis of which the public is ready to award the status of property are referred to as intellectual property rights (IPR). IPR gives the property's developers or inventors particular exclusive rights so they can make money off of their reputation or creative efforts. Kumari Punam (2018). Intellectual property rights are concepts, inventions, and artistic expressions that the general public wants to give the status of property. IPR gives the property's creators or developers special exclusive rights so they can make money out of their reputation or creative endeavors.

According to Yang (2018), the world will soon be dominated by big data and its analysis, thus there are a number of important e-commerce-related fields that require IPR protection. Additionally, this paper calls for the creation of an environment or supervisory body specifically for the development of IPRs pertaining to e-commerce. Every country, developed or developing, has internet business facilities these days, and this fact should be taken into consideration while creating IPRs based on e-commerce. This is another point that this study has made clear. According to Savale and Savale (2016), intellectual property rights (IPRs) are essential for both safeguarding inventions and maintaining their standards. In order to sufficiently motivate those who are creating for future advancements, it is desirable that they receive the intended commercial rewards. Patents, trademarks, copyrights and related rights, geographic indications, industrial designs, trade secrets, layout designs for integrated circuits, protection of new plant varieties, the purposes of intellectual property rights, the duration of IPRs, and concept-related patents like types of patents, tangible and intangible property, novelty, non-obviousness, and utility.

Rakoto, Andriamirado (2018). Nowadays, e-commerce is crucial to the world economy. In actuality, most countries in the globe have a platform for carrying out electronic transactions online, regardless of whether they are developed or growing nations. This essay attempts to draw attention to a few crucial elements of protection of intellectual property rights in internet commerce. Beni Suhendra Winarso, Siti Resmi, Indah Kurniawati, and Dian Retnaningdiah (2020). The aim of this research is to investigate how SMEs leverage their supply chains to boost their competitiveness by utilizing intellectual property rights (IPR) and e-commerce.

Main Types of IPR: -





Intellectual Property Rights and Its Role In E- Commerce: These days, the global digital economy is growing and evolving quickly, thanks in large part to increased internet accessibility. Understanding IPR's significance for e-commerce and its impact on the online marketplace is therefore crucial to this expansion. Since many participants' economic viability and reputation can only be protected against various forms of infringement with such protection, the importance of intellectual property rights in the context of e-commerce cannot be denied. Since intellectual property is the company's capital, e-commerce businesses need to set themselves apart from other contemporary businesses. To grant property rights to this unique entity, the IPR provides a variety of protections, including patents, geographical indications, trademarks, copyrights, and more.

The owner of this type of wealth is able to legally benefit from a number of advantages and obtain complete control over the intellectual property utilized in e-commerce. Therefore, considering the aforementioned, it can be concluded that intellectual property has the following function or importance in the e-commerce sector:

Business Protection: In the corporate sphere, intellectual property rights (IPRs) are essential for safeguarding a company's fundamental business interests as well as those of all of its affiliates. There may be major IPR violations if IPR is not employed or the laws controlling it are not followed, and the consequences will surely damage a company's reputation.

Brand Image: Any brand that markets or sells its goods through approved vendors on an online marketplace runs the risk of having its intellectual property rights violated. For example, the sale of fake shoes with a well-known brand's trademark or a confusingly similar mark, like ABIDAS, on an online marketplace can negatively impact the reputation of that company. As a result, having robust intellectual property protection helps to preserve these brands' market value while also allowing a business to use its IP to generate revenue and encourage competition.

Copyright Protection: Finding a balance between owners' rights and the widespread use that a copyright system seeks to accomplish is the primary challenge in the digital age. It is true that copyright protects the content that makes up the field of eCommerce as well as the creative production that is available online. The rights holders have suffered significant losses as a result of the work's illegal duplication, copying, and distribution as well as its quick digitization.

Protecting the Portfolio of Patents and Trademarks: Protecting a company's valuable patent and trademark portfolio enhances its reputation and, as the online market takes notice of the business that displays its operations, will surely result in a significant improvement in the organization's financial situation.

IPR-Protected Elements in E-Commerce:

The buying and selling of goods through a physical store and an online store, respectively, are covered by IPR in retail and e-commerce. Therefore, owners of online and offline firms need to protect a range of intellectual property. The following items are covered by IPR in e-commerce under different models and laws.



Patents and utility models cover search engines, e-commerce platforms, and other important internet technology. Certain software, notably the text-based HTML code used by websites, may be protected under the Copyrights Act or the Patent Law, depending on the nation's IPR regulations. Copyright rules also protect the overall design of an e-commerce website. Copyright rules also protect the overall design of an e-commerce website. All of the content on the website, including any written or visual materials, movies, pictures, or other graphics, is protected by the Copyright Law. Businesses can protect their databases under e-commerce in IPR by using copyright laws or database regulations relevant to their nation. With regard to both IPR in retail and e-commerce, businesses can use the Trademark Law to protect their brand names, product names, logos, domain names, and other comparable identifying indications posted on their websites. Businesses can also use the relevant Industrial Design Law in their country to protect their webpages, graphical user interfaces, computer-generated displays, and graphic signals.

Numerous challenges: Owners of active e-commerce companies can utilize a variety of intellectual property rights to maintain the legal protection of their goods. The IP law offers remedies against infringement in addition to exclusive control over intangible assets. However, a number of problems continue to occur and remain unresolved, and these can be described as follows:

Ownership Issues: Unless the agreement signed by these parties specifically grants the IP rights, there may be serious ownership issues with IPR. Any use of a third party's intellectual property must be permitted by law. Brands should regularly keep an eye on how these platforms are being utilized, and these challenges should be made clear in the disclaimer and IPR policy of such e-commerce organizations.

Counterfeit Products: The registered intellectual property of numerous brands is immediately in danger due to the ongoing selling of counterfeit goods. Although some e-commerce platforms have recently begun to take action against it, this problem is not just confined to national borders; it has also crossed international borders. For example, Amazon unveiled Project Zero, its anti-counterfeiting tool, which stands for "zero tolerance for counterfeit goods." It includes a number of unique



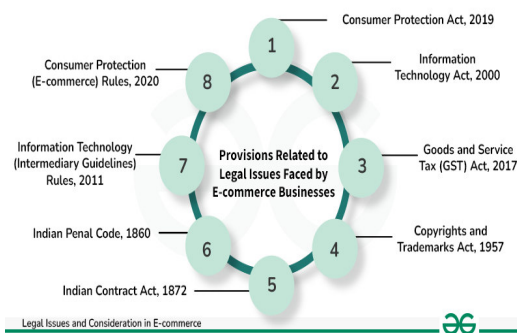
countermeasures, including automatic protection, which employs both manual and artificial intelligence software to detect, block, and eliminate counterfeit goods.

Liability Concern: Since intermediaries have emerged as a checkpoint for the internet market throughout the years, their responsibility for the content published or placed online through them has also gained prominence, making intermediary liability one of the ongoing concerns in the world. There have been several recent cases of IP infringement where internet intermediaries have been held liable for third-party content infringement.

Content Distribution: In recent years, there has been a lot of focus on the illicit internet distribution of IP-protected software, music, movies, artwork, images, and screenplays. These illegal downloads commonly violate national copyright laws. Illegal content copying has become a major problem due to the ease with which digital files may be copied and sold on e-commerce platforms.

IP Jurisdiction Issues in Cross-Border Transactions: An e-commerce platform's ability to facilitate international transactions and permit the simultaneous usage and licensing of intellectual property in several countries is one of its key features. Because of the nature of e-commerce, it can be difficult to identify the infringer and enforce IP rights when they are violated online. It is uncertain which courts will have jurisdiction over disputes pertaining to e-commerce and intellectual property because such laws have a territorial aspect.

Common Laws Controlling E-Commerce in India: In order to prevent unfair business practices in e-commerce, safeguard consumers' interests, guarantee the transparency of e-commerce platforms, and reinforce the laws governing them, these regulations have been notified in compliance with the Consumer Protection Act of 2019. The Information Technology Act of 2000: According to Section 79 of the IT Act of 2000, which contains provisions addressing intermediary liability, an intermediary will not be held accountable for any third-party information that is made available or hosted by them as long as their role is restricted to granting access and they did not initiate, choose, or alter the transmission. The Central government recently announced the Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021, which outline the due diligence that an intermediary must adhere to in addition to the standards already established in the IT Act. IP Laws: The Indian Copyrights Act 1957, the Patents Act 1970, and the Trademarks Act 1999





provide a number of remedies for any infringement of registered or unregistered intellectual property on e-commerce platforms in India.

Conclusion: Unquestionably, intellectual property rules are required for digital operations and practices to be fair and ethical, especially in a field as dynamic and varied as retail and e-commerce. In e-commerce, IPR helps protect businesses that use online platforms. As the online retail sector grows, intellectual property rights help companies maintain and safeguard their secret business procedures exponentially. IP rights in e-commerce allow IPR owners to receive a share of the company's profits. Therefore, it should be mentioned that IPR in e-commerce protects e-commerce operations. However, the success rate entirely depends on how IP rights are applied in practice. Unquestionably, effective implementation of intellectual property laws is required in the present world to guarantee the just and moral compliance of online businesses and operations. The rise of e-businesses has led to a dramatic drop-in retail activity, and society is becoming more and more reliant on internet shopping. E-commerce spurred a rapid rise in the online market, boosting the variety and vibrancy of online platforms, much like the economy that was impacted by the epidemic. Certainly, for the fair and moral compliance of digital operations and practices depends on intellectual property rules, especially in a field as dynamic and varied as retail and e-commerce. As the online retail industry grows rapidly, intellectual property rights (IPR) in e-commerce help firms defend their usage of online platforms as well as maintain and safeguard their secret business activities. IP rights in e-commerce allow IPR owners to receive a share of the company's profits. Therefore, it should be mentioned that while intellectual property rights (IPR) in e-commerce protect e-commerce operations, the success rate is entirely dependent on how well IP rights are used in practice.

References:

- Saha C. and S. Bhattacharya (2011)- An outline of intellectual property rights and their implications for the pharmaceutical sector. *Journal of Advanced Pharmaceutical Technology & Research*
- P. Kumari (2018)- THE INDIAN CONTEXT OF INTELLECTUAL PROPERTY RIGHTS- *Journal of Harmonized Research in Management*
- Rakoto. A. (2018) E-commerce's protection of intellectual property rights.
- Lee. H. (2020)- A Study of Action Learning Model for Industry-academia Cooperation to Strengthen Export Competitiveness of SMEs. *Korea Association for International Commerce and Information*
- Chang, W. S. (2013) - Are R&D and intellectual property rights related to the firms' financial performance? The perspectives on intellectual capital. *International Journal of Technology, Policy and Management*
- Y. P. K. (2016) - The investment - related aspects of intellectual property rights.



- A.UL Rev C.C. (2020) - Trade related aspects of intellectual property rights: a commentary on the TRIPS agreement.
- Oxford University Press Papageorgiadis N. Sharma, A. (2016). Intellectual property rights and innovation: A panel analysis. *Economics Letters*, IPR Law-History
- C.B.Gupta, S.Chand's ISC Commerce, Emerging Modes of Business, E-business and outsourcing 2015.
- Abhijit Mitra,"E-commerce in India-A review paper on E-Commerce", *International Journal of Marketing, financial services and Management Research*, 2013,
- P. Phani bhaskar, D. Prasanna Kumar"A study of factors influences towards E-commerce. *IJMET*,
- Chanana Nisha and Goele Sangeeta, "Future of e-commerce in India", *International Journal of Computing & Business Research*
- Madhurima Khosla, Harish Kumar, "Growth of E-commerce in India: An Analytical Review of Lit Jajpura L, Singha B, Nayak R. (2017). "An introduction to Intellectual property rights and their importance in Indian context", *J Intellect Prop Rights* 2017;
- Ravi, kiran (2017). "IPR scenario and factors for promoting IPR culture: A post - TRIPS period analysis of selected pharmaceutical firms in North India", *Economic Research*
- Role of IP in E-Commerce. (2022, October 27). *Enhelion Blogs*.
- Savale, S. and Savale, V. (2016). "Intellectual Property Rights (IPR)", *World Journal of Pharmacy and Pharmaceutical Sciences*
- Sreeragi, R.G. (2021). "Intellectual Property Rights (IPR): An Overview", *Emperor International Journal of Library and Information Technology Research* 2021

Disclaimer/Publisher's Note: The statements, opinions, and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of TJSD and/or the editor(s). The Journal of Scientific Discourse (TJSD) and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.



Government Interventions and Agricultural Debt in Haryana: A Comprehensive Review

Sonam Devi^{1*} & Kavita Sangwan²

1. Department of Economics, Maharshi Dayanand University, Rohatk
2. Department of Law, MDU-CPAS, Gurugram

*Corresponding Author: sonamdevi.rs.eco@mdurohtak.ac.in

Abstract: *Agricultural indebtedness is an extensive and ongoing issue in Haryana, India, affecting farmers' financial stability and well-being throughout the state. As a result, the Haryana government has launched several programs to reduce agricultural debt and increase economic participation in rural communities. This paper thoroughly evaluates the effectiveness of these initiatives in addressing agricultural indebtedness in Haryana by combining available literature and empirical facts. To better address the particular difficulties that farmers in Haryana experience, it seeks to offer insightful analysis and suggestions for improving these programs and sculpting further governmental measures. Finally, this review study is essential for policymakers, scholars, and stakeholders interested in Haryana's agricultural growth. Its goal is to inform evidence-based decision-making and contribute to developing more effective and impactful policies that promote financial resilience and rural prosperity in the state.*

Keywords: *Agriculture, government schemes, credit, indebtedness and agricultural growth.*

Introduction: A large percentage of the population of Haryana works in agriculture as their primary source of income due to the region's rich alluvial soil, ideal climate, and vast canal irrigation system. Haryana contributes to agricultural activities and has economic and social foundations. (GOI) Agriculture in Haryana is more than just a food source; it is also a significant contributor to the state's economy. It is mainly in the production of wheat, rice, and sugarcane. The agricultural sector in Haryana is critical to guaranteeing food security, creating jobs, and contributing significantly to the state's GDP. It is the backbone of rural life, providing for millions of farmers and their families across the state. However, despite agricultural prosperity, one persistent concern remains agrarian indebtedness. Farmers' debt has become a significant problem in Haryana, negatively affecting their overall well-being and ability to maintain their financial security. Farmers frequently find themselves caught in a debt cycle because of some issues, including variable crop prices, limited finance availability, and erratic weather patterns. The Haryana government has implemented various plans to reduce agricultural indebtedness, realizing the seriousness of the situation. There are some schemes, such as Crop Insurance Schemes (2004), National Agricultural Insurance Schemes (2009), Modified National Agricultural Schemes



(2011), and PM Fasal Bima Yojana, among others. The Loan Waiver Schemes, introduced by the Haryana government in 2008 to help farmers who were in debt, were among its most significant initiatives. These programs will help deeply indebted farmers and encourage financial inclusion in rural communities. The importance of government intervention in reducing agricultural debt cannot be emphasized. These programs act as lifelines for farmers, providing opportunities to break free from the debt cycle and achieve financial security. The government's goal in providing financial aid, subsidies, and incentives is to empower farmers, increase agricultural output, and assure the overall prosperity of the rural sector. Given these circumstances, this article aims to look more into the various government policies implemented in Haryana to fight agricultural indebtedness. This article aims to evaluate the efficacy of government interventions by critically examining the scheme objectives, implementation tactics, impacts, and problems. Additionally, it provides suggestions for future policy improvements specific to the state of Haryana.

Agricultural Indebtedness in Haryana: Agricultural indebtedness is a big issue in Haryana, a state famed for its agricultural prowess, affecting farmers' livelihoods and the rural economy. Farmers in the region are disproportionately in debt for a variety of reasons. First, a significant factor in farmers' debt is shifting crop prices. The variability of agricultural commodity prices is changed due to market uncertainty, which is impacted by variables including government policies and the demand-supply chain. When prices fall, farmers find it difficult to make enough money to pay their bills and take out loans to get by. Second, the dependence on unofficial lending sources makes the issue of agricultural indebtedness worse. Many farmers in Haryana turn to local moneylenders or traders for credit since they have limited access to formal institutions. However, farmers are frequently caught in an impossible-to-break cycle of debt by these unofficial lenders, who often charge interest rates. Furthermore, increased input costs add to farmers' financial burdens. Over time, the expenses of agricultural inputs, including machinery, seeds, fertilizers, and pesticides, have been rising steadily. Modern agrarian technology also needs significant upfront investments, which increasingly indebted farmers are forced to make despite their long-term benefits. Agricultural hazards and weather uncertainty also influence the indebtedness of farmers in Haryana. The unpredictable weather patterns and natural calamities affect the farmers' crops and lives; they lose their crops with money and faith in life. Farmers are forced to use inadequate risk mitigation strategies, such as crop insurance, due to their exposure to these risks and the need to borrow money to deal with crop failure aftermath. Agricultural debt affects not just individual farmers but also the larger rural economy. Reduced agricultural investments due to financial difficulty among farmers impede the industry's productivity and innovation growth. Finally, reducing agricultural indebtedness in Haryana necessitates a diversified approach that addresses the underlying causes of the issue. In reducing the farmers'



debt burden and promoting rural prosperity in the state, formal finance must be made more accessible, risk mitigation strategies must be supported, and sustainable agricultural methods must be encouraged.

Methodology: The present study is based on secondary data. The secondary data has been taken from a few articles, research papers, and government schemes selected by reviewing academic databases, government websites, and other relevant resources. This study examines the review and government schemes and programs implemented in Haryana to reduce the burden of agricultural debt. The study also examines all aspects of agrarian indebtedness and highlights government schemes and programs that provide insights into the implementation, impacts, and challenges indebted farmers face in Haryana.

Schemes Related to Agricultural Indebtedness in Haryana: Several government initiatives have been implemented in Haryana to help farmers manage their financial loads and address agricultural debts. The Debt Relief Scheme (2007) is one such program that helps farmers by modifying or eliminating their agricultural loans. In addition, by offering low interest rates on agricultural loans, the Interest Subvention Scheme seeks to lower farmers' borrowing costs. Moreover, the Crop Insurance Scheme reduces the danger of debt resulting from crop failure by providing farmers with financial protection against crop losses brought on by pests, diseases, or natural disasters. Additionally, farmers can receive complete crop insurance coverage through the Pradhan Mantri Fasal Bima Yojana, which guarantees financial support in the event of crop damage. These programs are essential to reducing agricultural debt in Haryana and developing farmers' financial stability, both of which advance the state's agricultural industry as a whole.

Schemes related to Agricultural Indebtedness in India; A Review (Table 1.1)

S.No	Schemes	Purpose	Author	Finding
1.	Kisan Credit Card (1998)	Provides farmers with finance for agricultural and related operations to ensure prompt and sufficient access to financing at reasonable rates.	Dey et al. (2021)	They emphasized how KCC has made it easier for farmers to obtain official loans and has decreased their reliance on unofficial moneylenders.
2.	Rastriya Kirisi Vikas Yozana (2007)	Encourages investments in infrastructure, technology, and research to raise farm productivity by providing financial support	Pawar et al. (2018)	They reported that the yield of crops and farmers' revenue have significantly increased due to RKVY. Rashtriya Krishi Vikas Yojana's impact on agricultural indebtedness in Haryana led to enhanced



		for agricultural enterprises		farm infrastructure and productivity and reduced indebtedness.
3.	National Food Security Mission (NFSM) (2007)	The goal is to enhance the production of rice, wheat, and pulses for food security and price stability.	Kumar et al. (2020)	They emphasized that NFSM has improved the availability of necessary food goods in the market and helped the nation become less dependent on imports of food grains.
4.	Pradhan Mantri Fasal Bima Yojana (PMFBY) (2016)	enhances agricultural production by giving farmers individualized soil nutrient recommendations on soil health cards, which help with balanced fertilization.	Jain et al. (2020)	Revealed that PMFBY has encouraged farmers to embrace contemporary farming methods and has assisted in easing their financial hardships.
5.	Paramparagat Krishi Vikas Yojana (PKVY) (2015)	It helps sustainably farmed land by offering financial support to those who embrace organic agriculture.	Ravichandran et al. (2018)	PMKSY works to improve agricultural output, guarantee water supply, and promote the general welfare of farmers by concentrating on irrigation infrastructure and water usage efficiency.
6.	National Agriculture Market (e-NAM) (2015)	It creates a national online marketplace where farmers can sell their goods directly to consumers, expanding market access and eliminating mediators.	Singh et al. (2018)	He emphasized how price transparency, competitiveness, and market efficiency have all improved with e-NAM.
7.	Soil Health Card (2015)	Our soil health cards offer tailored nutrient recommendations for farmers, promoting balanced fertilization and increased crop yields.	Kumar et al. (2020)	He discovered that farmers who received soil health cards had better techniques for managing nutrients, increasing agricultural yields and lessening their adverse environmental effects.
8.	Pradhan Mantri Krishi Sinchai Yojana	Improves irrigation facilities and water use efficiency, hence	Mukharjee et. al (2021)	They indicated how PMKSY has helped to boost agricultural revenue



	(PMKSY) (2015)	assisting farmers in achieving water security.		and enhance farmers' livelihoods.
9.	Pradhan Mantri Kisan Saman Nidhi (PM-KISAN) (2019)	Provides farmers' families in each state with an annual financial benefit of Rs. 6000/-transferred into their bank accounts in instalments with DBT.	1. Tripathi et. al, 2. Reddy and Rani	PM-KISAN is a crucial tool in the government's attempts to alleviate farmer income inequality and encourage sustainable agricultural growth. The review article emphasized how PM-KISAN might improve income and lessen financial vulnerability.

Sources: Various research papers

Government schemes related to indebtedness in Haryana (Table 1.2)

S. No	Schemes	Objectives	Authors	Finding
1.	National Agriculture Insurance Schemes (2004)	Provide financial support to those who lose their crop due to natural calamities.	Phougat, et. al(2021)	In 2004, beneficiaries were 167 farmers, but in 2004-2008 the rate declined. Due to decreased numbers of beneficiaries, this scheme was discontinued in 2014.
2.	Weather-Based Crop Insurance Schemes (2009)	To provide financial help to the farmers and decrease the risk. To provide insurance protection for crop failure.	Phougat, et. al(2021)	The performance of the schemes was good because the number of beneficiaries increased in 2010-2013. It provides a 70 per cent subsidy to farmers on premiums.
3.	Modified Agriculture Insurance Schemes (2011)	To provide financial support to the farmers after their crops fail due to natural calamities.	Phougat, et. al(2021)	The performance of this scheme is good, but from 2010 to 2011, no farmers were registered, and there was no benefit. The number of beneficiaries increased from 2013 to 2014.
4.	PM Fasal Bima Yojna (2016)	If any identified crops fail due to pests, illnesses, or natural disasters, offer insurance or help financially to the farmers. To maintain farmers' economic stability so they can continue farming.	Sheoran, et. al(2023)	This program has performed exceptionally well; between 2016 and 2019, the number of beneficiaries rose. It demonstrates a favourable influence on Haryana's farmers.
5.	Meri Fasal Mera Byora (2018)	To give farmers all the knowledge they require on agricultural operations. To offer financial assistance for loans, seeds, fertilizer, and agricultural equipment.	Phougat, et. al(2021)	Farmers claimed their land had already been registered, but some said their data could not be uploaded. However, the performance is good because this scheme provides the minimum support price for their crops.



Impact of Government Schemes on Agricultural Indebtedness in Haryana:

Government Schemes' effects on agricultural indebtedness in Haryana are crucial to farmers' welfare and the development of rural areas. We can determine how these schemes have affected agricultural indebtedness in the state by analyzing changes in farmers' financial standing, availability of credit, and debt levels.

1. **Evaluation of Financial Situation:** The financial status of farmers in Haryana has significantly improved with the help of government schemes. Farmers now have more stable finances due to reduced debt loads and higher agricultural incomes due to programs and schemes. Farmers' overall economic well-being has increased due to their increased ability to devote resources to profitable agricultural endeavours due to the debt reduction.
2. **Credit Availability Analysis:** Farmers must have access to loans to invest in agricultural gear, technology, and inputs. Farmers can now access subsidized loans and collateral-free credit facilities provided by government programs to increase credit availability. So, instead of turning to unofficial lenders who frequently demand outrageous interest rates, farmers in Haryana now have easier access to institutional credit sources like banks and cooperatives, allowing them to satisfy their financial needs.
3. **Examining Debt Level:** One of the main goals of government programs is to lower farmers' debt levels and stop them from getting more debt. These programs have assisted in reducing farmers' financial burdens and improving their ability to manage their debts by providing interest subsidies and debt relief procedures. However, some areas were not covered due to a lack of communication and no proper connection with cities. Now, Haryana's farmers have seen a decrease in their total debt loads, resulting in increased stability and financial security.
4. **Obtaining Official Loan Sources:** Government policies have facilitated the improvement of farmers' access to formal finance sources in Haryana. These programs have encouraged farmers to use institutional agencies from banks and cooperatives by offering incentives and support for formal borrowing. It has helped farmers access necessary financial services and lessen their reliance on unofficial lenders while promoting financial inclusion in rural areas.
5. **Decrease in Unofficial Loans:** Decreased farmers' dependence on unofficial lenders is another substantial effect of government initiatives. These programs have improved the financial resilience of farmers in Haryana by reducing the risks associated with informal borrowing, increasing financial literacy, and making lending options accessible.

Notwithstanding these advantages, obstacles, including limited knowledge, bureaucratic red tape, and physical restrictions in rural places, keep preventing people



from fully benefiting from government programs. Policymakers need to tackle these challenges to guarantee the effective decrease of agricultural debt in Haryana and promote the agricultural sector's sustainable expansion. Through a detailed analysis of the outcomes of government initiatives, officials may pinpoint prosperous areas and those that still need development. It will increase the efficacy of these interventions and enhance the lives of Haryana's farmers.

Challenges of Government Schemes Faced by Indebted Farmers: Farmers are heavily in debt, especially in rural regions like Haryana. Although government programs are designed to lessen this burden, the numerous obstacles that indebted farmers encounter frequently impede their efficacy. The first major obstacle is a lack of knowledge about accessible plans. Many farmers do not have access to information about government initiatives because of weak outreach programs or poor communication channels, especially those who live in distant or marginalized areas. As a result, qualified farmers continue to be in financial hardship because they are ignorant of possible debt relief options. Second, the difficulties experienced by farmers who are in debt are made worse by bureaucratic red tape and intricate application procedures. Farmers are typically discouraged from applying for program benefits due to the administrative procedures and burdensome paperwork. Farmers' financial problems are further exacerbated by delays in processing applications or the distribution of funds while they grapple with ever-growing debt loads. Furthermore, government subsidies to indebted farmers are restricted due to insufficient coverage and eligibility requirements. Various farmers may be excluded from schemes based on criteria that do not accurately reflect their financial situation. As a result, worthy farmers are denied access to vital assistance, which feeds the cycle of debt.

The problem of intermediary exploitation is equally profound. Mediators or local officials may abuse the distribution procedure and charge unlawful fees for help or siphon money intended for farmers in debt. This exploitation undermines the goal of government plans by making farmers' financial fragility even more acute. Moreover, one of the problems facing farmers is the inefficiency of debt relief programs. Debt waiver schemes may not always be able to reduce farmers' debt if the waiver amount is insufficient or if farmers have debts not covered by the program. As a result, despite government interventions, farmers still struggle with unmanageable debt loads. To tackle these obstacles, officials must work together to expedite application procedures, enhance outreach and awareness initiatives, guarantee benefit distribution, and put strict controls in place to stop intermediaries from taking advantage of people.



Conclusion: To sum up, examining government initiatives aimed at tackling agricultural indebtedness in Haryana highlights the advancements achieved and the ongoing difficulties in this crucial field. These programs have substantially contributed to improving financial inclusion, encouraging rural development, and giving debt relief to farmers. Introducing interest subsidies, debt relief, and crop insurance programs has helped farmers become less indebted and have a better quality of life. There are still several issues, though, such as low awareness, administrative roadblocks, insufficient coverage, middleman abuse, and the futility of debt forgiveness programs. These difficulties highlight the necessity for ongoing initiatives to assure fair benefit distribution, enhance outreach and awareness campaigns, expedite plan implementation, and fortify monitoring systems to thwart exploitation. In the future, policymakers must prioritize tackling these issues to improve the efficacy of government initiatives regarding agricultural debt in Haryana. It calls for all-encompassing changes, focused interventions, and a persistent dedication to tackling the underlying causes of agricultural debt. By doing this, we can ensure that Haryana's farmers get the assistance they require to overcome financial obstacles, establish sustainable means of subsistence, and advance the state's agricultural industry.

References:

- Jain et al. (2020), Perception of Farmers towards Pradhan Mantri Fasal Bima Yojana (PMFBY) in Sehore Block of Sehore District Madhya Pradesh. *International Journal of Current Microbiology and Applied Sciences*. Retrieved from <http://www.ijcmas.com>
- Kumar et al. (2020), National Food Security Mission (NFSM) in India: Performance, Challenges, and Policy Implications, *Economic and Political Weekly*.55(45):24-32.
- Kumar et al. (2020), Impact Assessment and Scheme on Arm Productivity In India. *Indian Journal of Agricultural Economics*. 75(2):211-222
- Kumar et al. (2020), An Analysis of Meri Fasal Mera Byora in Haryana, *Journal of Economics And Trade*. Vol. No.6(1), Pp. 34-36.
- Mukherjee et al. (2021), Krishi Sinchai Yojana (PMKSY) and its impact on agricultural income: Evidence from a farm-level study in West Bengal. *Agricultural Economics, Research Review*. ;34(2):173-183.
- Phougat et al. (2021). Performance Evaluation of Crop Insurance, *Journal of Economics and Trade*, 6(1), 34-39.
- Reddy et al. (2019). Review of government agricultural schemes in India: Impacts and challenges, *Agricultural economics research review*. 2019; 32(2):223-233
- Shinde SV, Pawar SK. Impact assessment of rashtriya krishi vikas yojana on crop productivity and farm income: A case study of Pune District, Maharashtra. *Journal of Economic and Social Development*. 2017;13(2):123-136.
- Shoeran et al. (2023). Assessing and effectiveness of The Pradhan Mantri Fasal Bima Yojana in Haryana, *IAHRW International Journal of Social Sciences Review*, 11(3):350



Tripathi, et. al (2023) .“Government Agriculture Schemes in India: A Review." *Asian Journal of Agricultural Extension, Economics & Sociology* 41.11 58–67.

<https://pib.gov.in/newsite/PrintRelease.aspx?relid=65799>

<https://agriharyana.gov.in/CenterStateSponsoredSchemes>

Disclaimer/Publisher’s Note: The statements, opinions, and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of TJSD and/or the editor(s). The Journal of Scientific Discourse (TJSD) and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.



Indian Mineral Economics and the COVID-19 Pandemic: Challenges and Future Directions

Rajiv Khalkho

Dept. of Applied Geology, Dr. Harisingh Gour Vishwavidyalaya, Sagar-470003,
Madhya Pradesh, India.

Emails: rajivkhalkho@gmail.com

Abstract: The COVID-19 pandemic has significantly impacted Indian mineral economics, exposing vulnerabilities in supply chains, workforce management, and regulatory frameworks. Nationwide lockdowns led to disruptions in mining activities, reduced production, and a decline in mineral demand, causing financial strain on companies. Beyond the pandemic, structural inefficiencies in logistics and policy frameworks have further hindered the sector's recovery. The crisis has emphasized the need for technological advancements such as blockchain, fintech, and artificial intelligence to enhance operational efficiency and resilience. Additionally, sustainable development strategies, including Environmental, Social, and Governance (ESG) principles, are crucial for long-term industry stability. The adoption of automation, digital monitoring, and green mining practices can help the sector navigate future disruptions while improving sustainability. Furthermore, policy reforms aimed at streamlining regulatory processes and ensuring labor security are essential for a resilient mineral economy. By addressing these challenges through innovation and sustainable governance, India's mineral sector can strengthen its role in global markets while mitigating risks associated with future crises.

Keywords: Mineral Economics, COVID-19, Supply Chain Disruptions, Technological Advancements, Sustainable Development.

Introduction: The relationship between mineral economics and global pandemics creates a complex situation, especially in India. As a big producer and user of minerals, India's economy depends heavily on this sector for growth, jobs, and foreign money, raising concerns about its lasting sustainability and ability to adapt to outside shocks. The COVID-19 pandemic has revealed weaknesses in this vital industry and led to a closer look at its strengths and flaws. The disruptions in supply chains, changes in demand, and the reassessment of rules require a careful evaluation of current practices and policies. With mining operations facing temporary closures and a lack of workers, the effects were felt across various related sectors, highlighting the critical need for strong economic planning and foresight. This essay will examine the challenges that the pandemic imposed on Indian mineral economics, shedding light on structural flaws that have emerged, while also promoting discussion about proactive responses. Additionally, it will look into future directions, stressing the



essential policy changes and innovative approaches that could improve the industry's strength and sustainability against global challenges.

Overview of Indian mineral economics: The mineral sector in India is very important for the economy, greatly aiding GDP and job creation in many regions. This sector includes many resources like coal, iron ore, bauxite, and some precious metals, all of which are essential for industry and technology growth. These resources are crucial because they are the basic materials for many industries, helping to build infrastructure and boosting economic development. Yet, the steady growth in mineral extraction and processing has faced many difficulties, especially those made worse by the COVID-19 pandemic. The pandemic harmed normal supply chains, caused changes in demand, and led to tough regulations for public health and safety. These disruptions forced companies to deal with new challenges and rethink their operations. As firms faced these limits, the need for a strong economic model became clear, showing the importance of technology and sustainable methods in the future of the mineral sector. New methods, like using artificial intelligence in supply chain management, are seen as good ways to improve efficiency, reduce risks, and keep responsibility during crises. This highlights how important advanced technologies are in dealing with the challenges and uncertainties that lie ahead in the sector (Ahmad et al., 2022)(D'Adamo I et al., 2023). By following this varied plan that focuses on sustainability, efficiency, and innovation, the Indian mineral sector can create a route towards sustainable growth despite ongoing issues and changing global conditions. This will help ensure long-term economic stability and growth.

Impact of COVID-19 on global and local economies: The COVID-19 pandemic has greatly impacted both global and local economies, with different effects seen across various sectors and areas. It is important to look closely at how governments around the world implemented strict lockdowns to control the virus, as these actions, noted in recent research, directly slowed down economic activities, especially in sectors that depend on in-person presence, like tourism and manufacturing. For example, a study of the ASEAN-6 countries shows that the pandemic's impacts were not the same; larger companies encountered different challenges than smaller businesses, which points to economic inequalities that need more exploration regarding how business size and sector affect resilience during crises (Ahmad et al., 2022). Additionally, in Indian mineral economics, the pandemic's disruptions have led to a reassessment of supply chains and mining practices, raising significant questions about the current methods and the application of blue economy principles as a sustainable approach for recovery and growth (Duha et al., 2022). Thus, understanding these complex effects is vital, not just for awareness but also for creating effective policies that can help local economies become more resilient and



achieve sustainable development, considering both immediate recovery and long-term sustainability.

Economic Impact of COVID-19 on the Indian Mineral Sector: The COVID-19 pandemic has greatly affected the Indian mineral industry, showing serious weaknesses in its supply chain and operations. At first, nationwide lockdowns caused immediate halts to mining activities, resulting in major drops in production and a complete stop to exports. However, it is important to ask if the slowdown was only because of COVID-19 or if existing inefficiencies in the sector also contributed. The decline in mineral demand, along with ongoing logistics problems, added to revenue losses for mining companies and threatened their financial health. This situation raises the need to look at how these companies can adjust their plans to avoid risks in the future. Also, the pandemic highlighted the urgent need for technology improvement, with areas like blockchain and fintech emerging as possible ways to boost operational efficiency and financial stability in this tough environment. Evaluating how these technologies can be applied is crucial, as discussed in the article related to these developments (Domashenko et al., 2023). Additionally, insights from using a blue economy approach could provide a strategy for guiding the sector towards sustainable practices and aiding national income recovery. This stresses the need for careful planning and resilience moving forward, as noted in the discussions regarding the Indian Ocean Rim Association (Duha et al., 2022).

Production & Consumption (Case study) (MINISTRY OF STEEL, 2020)

1. Crude Steel Production:

- Crude steel production dropped by 22.7% in March 2020, falling to 7.38 million tons (MT) compared to 9.56 MT in February 2020.
- Total production for FY20 was 108.50 MT, 2.2% lower than the previous year.
- India's share in global steel production stayed constant at 6%.

2. Finished Steel Production:

- The COVID-19 pandemic caused disruptions, reducing demand and affecting logistics.
- Steel companies cut production to manage lower demand and existing inventory.
- Production of finished steel fell by 18.7% in March 2020 compared to February 2020 and decreased by 0.3% for the entire FY20.

3. Steel Consumption:

- Consumption declined since February 2020.
- In March 2020, consumption fell by 6.6% month-on-month and 23% compared to the same period in 2019.
- Overall, consumption increased slightly by 1.3% for FY20.

4. Inventories:

- Finished steel consumption in March 2020 was 0.58 MT higher than production. The gap was filled by inventory and imports.
- Inventories decreased by 5.7% in March 2020, leaving a closing stock of 12.3 MT.

Price Trends

1. Iron Ore Prices:

- Prices for both lumps and fines decreased steadily during FY20, except for a sharp rise in January and February 2020.
- In March 2020, prices fell by 1.6% for lumps and 1.7% for fines.
- Low demand, logistical issues, and uncertainty due to mining lease expiries contributed to price declines.

2. Finished Steel Prices:

- Prices weakened in March 2020:
- Rebar prices dropped by 6.2% month-on-month and 11.3% year-on-year.
- HRC (Hot Rolled Coil) prices fell by 0.7%, and CRC (Cold Rolled Coil) prices dropped by 0.5%.

Trade (Export-Import)

1. Finished Steel:

- Exports dropped by 20.5% and imports fell by 26.9% in March 2020 compared to February 2020.
- In FY20, exports increased by 29.5% to 8.23 MT, while imports decreased by 14.7% to 6.69 MT.
- India was a net exporter of finished steel in March 2020 and FY20.

2. Iron Ore:

- March 2020 exports surged by 65% to 3.3 MT from 1.2 MT in February 2020.
- For FY20, exports rose threefold to 25.14 MT from 6.81 MT in FY19.
- Exports to China rose significantly to 22.51 MT in FY20 from 5.27 MT in FY19.

3. Pellet Exports:

- Pellet exports increased by 23% in March 2020 to 101,618 tons.
- FY20 exports grew by 38% to 12.62 MT, with China importing 10.29 MT (a 54% rise).

4. Bulk Billet Exports:

- Bulk billet exports rose by 132% in FY20 due to strong demand from China.
- China accounted for 17% of Indian billet exports, driven by domestic supply shortages.



- Vizag Steel was the largest exporter, with a 24% share, followed by SAIL and JSPL.

5. Scrap Imports:

- Scrap imports dropped by 42% in FY20, reaching 312,410 tons compared to 536,771 tons in FY19.
- Weak domestic demand and supply chain disruptions affected imports.

Stock Market Performance

- The BSE Sensex and BSE Metal Index both declined sharply in March 2020 due to COVID-19:
- Sensex fell by 24.26%.
- Metal Index dropped by 32.27%.
- The metal sector, along with banking and automobile sectors, was among the hardest hit.

Disruption of supply chains and production: The COVID-19 pandemic has shown the weaknesses in global supply chains, especially in India's mineral economy, and calls for a closer look at our systems. As lockdowns took effect, production centers experienced major interruptions that not only resulted in delays but also raised important questions about the strength and adaptability of operational structures in various industries. The connectedness of local and global supply chains became very clear, showing that problems in one area can create effects worldwide, emphasizing the need for better insight into these linked systems. In this situation, adopting flexible methods and resilience in supply chain management has become more significant, as highlighted by recent research (Mendes A et al., 2024), which encourages stakeholders to rethink traditional approaches. Additionally, the role of artificial intelligence and digital tools as means to improve supply chain sustainability and accountability has emerged as a key strategy for resilience during these crises (D'Adamo I et al., 2023). Therefore, tackling these issues calls for both immediate actions and a thorough assessment and strategic shift towards long-term sustainability and flexibility in the face of future challenges, questioning if current methods are sufficient for an increasingly unpredictable global landscape.

Decline in demand for minerals and commodities: The drop in need for minerals and commodities has become a big issue in Indian mineral economics, especially during the COVID-19 pandemic. It is important to look closely at the reasons for this drop; global supply chains were affected and industrial activities slowed down, leading to a clear drop in consumption. This situation also showed the weaknesses in our dependence on specific markets and products. This negative change has had serious effects on market prices and production levels. For example, the iron ore industry faced major problems, as mentioned in recent reports about Vale S.A.'s



activities, which predict instability in future steel production due to these perceived drops in demand (Ferreira et al., 2021). Additionally, we must think about the wider geopolitical situation, especially since the Russia-Ukraine war has made trade routes and access to important commodities more complicated. This raises concerns about the long-term effects on global food security and energy supplies (Sablah et al., 2023). Therefore, these complex issues need a careful review of strategies in the mineral sector. Stakeholders are encouraged not just to adjust to the new reality of lower demand, but also to think critically and plan ahead to support a sustainable economic recovery. By doing this, they can be better ready for possible future disruptions and changes in market trends.

Challenges Faced by the Indian Mineral Industry During the Pandemic: The COVID-19 pandemic has created many problems for the Indian mineral industry, significantly disrupting supply chains and reducing operational efficiency. When lockdowns occurred, mining activities were halted unexpectedly due to a lack of labor and logistical issues, leading to production delays and higher operational costs that were likely not foreseen before the crisis. Additionally, the pandemic made the industry more exposed to changes in global markets and fluctuations in demand, resulting in a notable decrease in mineral exports, which raises concerns about the long-term viability of these operations. It is important to note that waste management plays a key role in public health during the ongoing pandemic, which emphasizes the need for strong infrastructure and operational resilience in vital sectors like mining that support economic recovery (Abdel-Mohsen O Mohamed et al., 2020). Adding to these difficulties, insufficient health measures for workers in this field further reduced productivity, pointing to the need to rethink health protocols to protect employees while improving output. In conclusion, it is crucial for the mineral industry to review current practices to successfully handle these challenges and become more resilient in the post-pandemic era, ensuring both economic activity and the well-being of its workers (Adamcova D et al., 2021).

Labor shortages and workforce management: The labor shortages made worse by the COVID-19 pandemic create major problems for the Indian mineral sector, which now needs not just urgent but also creative ways to manage its workforce during these difficult times. As the industry tries to recover from the economic damage caused by the pandemic, it is important to closely look at and understand the complicated issues of labor supply and demand. This understanding is vital because it can influence decisions that tackle both short-term and long-term workforce requirements. The increased risks tied to the pandemic force companies to rethink their current workforce policies and evaluate how well new economic management models are working that focus on resilience and adaptability in times of continuing uncertainty. Good workforce management in this situation involves two main goals: improving



employee retention and satisfaction and also actively putting in place training programs to develop workers' skills. This preparation is key to adapting to changing roles within the industry. By applying strategic management methods carefully, organizations can lessen the negative impacts of labor shortages, enhance their operational efficiency, and achieve sustainable growth in a global labor market that is increasingly changing, as noted in (Bezpartochnyi et al., 2020) and (Бабагана et al., 2020).

Regulatory and policy challenges in response to the pandemic: The COVID-19 pandemic has shown many regulatory and policy problems that greatly affect mineral economics in India. A key issue is the lack of uniformity in regulatory frameworks from state to state, making it hard for mining companies to comply and slowing down recovery efforts in the industry. This inconsistency raises important questions about how well current policies work and their flexibility to meet rapid changes. Moreover, as seen in the wider context of economic integration in the ASEAN-6 area, the pandemic has interrupted supply chains and trade patterns, which requires quick policy updates to build resilience ((Ahmad et al., 2022)). This disruption leads to a closer look at how interconnected economies can support each other in crises and what regulatory actions can enable such teamwork. Additionally, new industries, like lithium-ion batteries, have shown the fragile nature of market stability during crises. This indicates that regulatory bodies should not only respond to the risk of financial bubbles but also take a proactive stance by including sustainable practices in their frameworks ((Olsen et al., 2023)). Thus, it is crucial to thoroughly reassess regulatory mechanisms to tackle the complex challenges brought on by the pandemic and secure a sustainable future for India's mineral sector. This demands a careful review of current policies and open discussions among stakeholders to make sure the regulatory environment is both adaptable and strong in the face of future challenges.

Future Directions for the Indian Mineral Sector Post-Pandemic: The Indian mineral sector is at a key point as it tries to deal with the effects of the COVID-19 pandemic. Given the big disruptions caused by the pandemic, it is important to look closely at future paths for the sector, which will likely aim at building resilience and sustainability. This means not just taking surface-level actions but looking into how new technologies—like automation and digital monitoring—can improve efficiency and change production methods significantly. Experiences from companies in various regions show that adaptive strategies are vital, as shown in research about how different economies managed export resilience during the pandemic (Petryl  et al., 2022) and (Ahmad et al., 2022). Furthermore, it is important to stress the need for smart policy reforms; these reforms should encourage responsible mining practices and assess the balance between attracting investment and fostering innovation. By focusing on sustainable development and long-term results, the Indian mineral sector



can recover from the pandemic and place itself as a leader in mineral production and environmental care, setting an example for the rest of the industry.

Opportunities for technological advancements and innovation: The COVID-19 pandemic has shown how important it is for India's mineral sector to advance technology and innovate, creating challenges and chances for future growth that need to be looked into. The move towards sustainable practices, especially in manufacturing, relies on using technologies that help achieve carbon neutrality. (Antony et al., 2024) points out that adopting Industry 4.0 could lead to major improvements in how efficiently businesses operate and care for the environment, pushing companies to use technologies that meet societal and government standards while also carefully evaluating how these changes can create long-term value. Additionally, as global shipping routes change because of climate change, it's important to think about how these shifts impact India's mineral transport capabilities, opening up a key chance for innovation in logistics and supply chain management (Carlsen et al., 2020). These changes stress the need for industry leaders to use advanced technologies strategically to tackle both current challenges and long-term sustainability goals. By taking a close look at the situation and planning wisely, these leaders can shape the future of Indian mineral economics, making sure that technological development leads to real economic and environmental benefits.

Strategies for sustainable development and resilience: The ongoing challenges from the COVID-19 pandemic have highlighted the urgent need for strong strategies to boost sustainable development and resilience in the Indian mineral sector. Analyzing current methods shows that using flexible frameworks and including Environmental, Social, and Governance (ESG) principles is not just helpful but necessary to improve supply chain resilience. These strategies allow for a deep look at weaknesses and encourage sustainability in managing resources. However, it is worrying that many companies still apply ESG practices little, despite the growing awareness of their potential impact, especially considering the complex links in their supply chains (Mendes A et al., 2024). To make real progress, stakeholders need to think about why this gap exists and how to close it effectively. Moreover, adopting advances in artificial intelligence and digitalization has become an important way to improve sustainable performance and accountability in supply chain management, especially during crises that require resilience (D'Adamo I et al., 2023). As India moves through the complex situation of recovering from the pandemic, reassessing these strategies will be crucial not just for building a resilient mineral economy but also for aligning with global sustainability goals.

Conclusion: In conclusion, the overlap of Indian mineral economics and the COVID-19 pandemic shows major weaknesses and offers chances to create a stronger economic system for the future. The pandemic has exposed the weakness of current



supply chains, requiring a careful look at the need for important changes in the industry. This review points out the need to use flexible methods, which can improve economic stability during sudden crises, a lesson that is important as we think about the varied effects of the pandemic. The differences in the pandemic's impact on exports indicate that some parts of the industry have a built-in strength, which needs further study to find out what helps them endure (Petrylè et al., 2022). Additionally, including Environmental, Social, and Governance (ESG) frameworks in mining operations is a key strategy for boosting both sustainability and competitiveness. This inclusion stresses the urgent need for thorough research on how these frameworks interact with supply chain resilience, as this knowledge could lead to better responses to future problems (Mendes A et al., 2024). To successfully handle the environment after the pandemic, Indian mineral economics must prioritize innovation, encourage teamwork, and use adaptable strategies that not only maintain but also enhance growth in a swiftly changing global environment. This varied approach will better prepare the sector to endure and succeed amid the uncertainties that are ahead.

References:

- Abdel-Mohsen O. Mohamed, Andrea Dominijanni, Anna Podlasek, Arif Mohammad, Brendan C. O'Kelly, Castorina Silva Vieira, Chao-Sheng Tang, et al. (2020) Municipal solid waste management under Covid-19: Challenges and recommendations. doi: <https://core.ac.uk/download/344682160.pdf>
- Adamcova D., Anand U. M., Bo M. W., Dominijanni A., Goli V. S. N. S., Guarena N., Koda E., et al. (2021) Municipal solid waste management under Covid-19: Challenges and recommendations. doi: <https://core.ac.uk/download/524609872.pdf>
- Ahmad, Wasim, Chahal, Rishman Jot Kaur, Rais, Shirin (2022) Understanding the impact of the coronavirus outbreak on the economic integration of ASEAN countries. doi: <https://core.ac.uk/download/613159827.pdf>
- Alebrant Mendes, Angélica, Meireles Christiano Dantas, Susan (2024) Exploring the Interplay of Agile Methodologies, Resilience, and ESG in Supply Chains: a Bibliometric Review and Qualitative Analysis. doi: <https://core.ac.uk/download/629756533.pdf>
- Antony, Rose, Chavan, Gitesh, Sharma, Mahak, Tsagarakis, et al. (2024) Can Industry 4.0-enabled smart manufacturing help firms in emerging economies move toward carbon-neutrality?. doi: <https://core.ac.uk/download/621167965.pdf>
- Bezpartochnyi, M. (2020) New trends in the economic systems management in the context of modern global challenges (Vol. 2). doi: <https://core.ac.uk/download/334415779.pdf>
- Carlsen, Erik Christoffer, Hoel, Emil Mathias (2020) Norway's Intra-Arctic Shipping activity How will an increase in Norway's Intra-Arctic Shipping activity affect economic-, environmental-, and social activities?. doi: <https://core.ac.uk/download/351638401.pdf>
- D'Adamo I., Di Vaio A., Gunarathne N., Gupta M., Latif B. (2023) Digitalization and artificial knowledge for accountability in SCM: a systematic literature review. doi: <https://core.ac.uk/download/558759655.pdf>



Domashenko, Svitlana, Hres-Yevreinova, Svitlana, Salin, Serhii, Starostenko, et al. (2023) Blockchain and fintech technologies in the digital space of financial and industrial companies. doi: <https://core.ac.uk/download/604053861.pdf>

Duha, Junindra, Saputro, Guntur Eko (2022) Blue Economy Indonesia to Increase National Income through the Indian Ocean Rim Association (IORA) in the Order to Empower the World Maritime Axis and Strengthen State Defense. doi: <https://core.ac.uk/download/542872444.pdf>

Ferreira, Pedro Manuel Cunha (2021) An iron giant with feet of clay? in the midst of the steelmaking transition strategy. doi: <https://core.ac.uk/download/570973770.pdf>

Ministry Of Steel Government of India Monthly Summary on Iron & Steel March - 2020
https://steel.gov.in/sites/default/files/March%202020_0.pdf

Olsen, Julia Stefanny, Sundberg, Josefine (2023) Exploring bubble tendencies in the lithium-ion battery market. doi: <https://core.ac.uk/download/617931774.pdf>

Petrylė, Vaiva (2022) COVID-19 Pandemic and Export: Evidence from Lithuania. doi: <https://core.ac.uk/download/525057899.pdf>

Sablah, Enoch (2023) The 2022 Russia-Ukraine War: Implications for Africa. doi: <https://core.ac.uk/download/617934150.pdf>

Бабагана, Мала Мусті, Кхан, Бхола (2020) COVID-19: The New Economics for Economies. doi: <https://core.ac.uk/download/387664309.pdf>

Disclaimer/Publisher's Note: The statements, opinions, and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of TJSD and/or the editor(s). The Journal of Scientific Discourse (TJSD) and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.



Impact of COVID-19 Crisis on the Indian Economy

Devendra Singh Thakur

Dept. of Commerce, Govt. College Pathariya, Distt. Damoh (M.P.)

Email: dr.dev1980@gmail.com

Abstract: *The COVID-19 pandemic has had an intense and broad impact on the Indian economy, triggering an economic slowdown not witnessed in decades. This has been evident by analyzing various sectors, including industries, services, and agriculture sector, highlighting the challenges posed by nationwide lockdowns, supply chain disruptions, and labor migration. The immediate impact was seen in the contraction of GDP, which recorded a sharp decline in 2020, marking the first technical recession in India's history. Consumer demand fallen; manufacturing industries faced production halts, and the services sector including tourism, hospitality, and retail, experienced an unprecedented downturn. The agricultural sector showed resilience, but the disruption in the supply chain affected farm output and market access. Moreover, the informal sector, which mainly comprises of the Indian workforce, faced severe consequences due to restrictions on social gatherings and restricted economic activities. Unemployment rates increased, with millions of migrant workers returning to their villages. The government's fiscal response, including relief packages and government action plans, vowed to mitigate the economic damage, but faced challenges in implementation, financing, and execution. As the Indian economy slowly recovers, the pandemic's long-term effects are expected to shape the future of work, digitalization, and healthcare systems. The crisis has highlighted the need for economic reforms, greater flexibility to global shocks, and a focus on sustainable and inclusive growth. This paper concludes by evaluating policy interventions and their effectiveness in the post-pandemic recovery trajectory of India's economy.*

Keywords: *COVID-19, pandemic, lockdown, migration digitalization, reforms*

Introduction: The COVID-19 pandemic, which emerged in late 2019, has had profound economic and social repercussions worldwide. India, as one of the world's largest and fastest-growing economies, faced unprecedented disruptions across various sectors. The pandemic-induced lockdowns, restrictions, and global supply chain interruptions significantly impacted economic growth, employment, and business activities. Beyond economic setbacks, the pandemic brought about critical socio-economic challenges, affecting millions of lives and livelihoods.

During the lockdown periods, the Indian labor force, particularly daily wage workers and those employed in the informal sector, faced immense hardships due to sudden job losses and lack of social security. Migrant laborers were among the most affected, with mass reverse migration from urban to rural areas exposing the



vulnerabilities in India's labor market and urban planning. The pandemic also widened income inequality, as lower-income groups suffered severe financial distress, while technology-driven businesses and high-income earners were relatively insulated from economic shocks. Social sectors such as healthcare and education experienced structural changes. The healthcare system was overwhelmed with rising cases, lack of adequate medical infrastructure, and shortages of essential medical supplies. Meanwhile, the education sector witnessed a rapid shift towards online learning, exacerbating the digital divide between urban and rural populations, as millions of students struggled with access to digital devices and the internet.

In this context, this research article aims to analyze the impact of COVID-19 on the Indian economy, focusing on key economic indicators such as GDP growth, employment, trade, and fiscal policy responses. Furthermore, it explores the socio-economic dimensions of the crisis, including labor market disruptions, changes in consumer behavior, and the acceleration of digital transformation.

Methodology: This study employs a mixed-methods approach, combining qualitative and quantitative analyses. Data from government reports, economic surveys, and research publications have been analyzed to assess the pandemic's economic impact. Secondary data sources such as the Reserve Bank of India (RBI), Ministry of Finance, and World Bank have been utilized to track changes in economic performance. A comparative analysis of pre-pandemic and post-pandemic economic conditions provides a comprehensive understanding of the pandemic's consequences.

Quantitative analysis includes time-series data comparison for key economic indicators, such as GDP growth, unemployment rates, and sectoral performance. The study utilizes statistical tools such as trend analysis, percentage changes, and correlation analysis to evaluate the economic downturn and subsequent recovery. Qualitative analysis incorporates policy reviews, expert opinions, and case studies from major industries affected by the pandemic.

GDP Contraction and Recovery: The Indian economy witnessed a significant contraction of 7.3% in the financial year 2020-21 due to nationwide lockdowns and reduced economic activity. However, recovery signs emerged in 2021-22, supported by government stimulus packages, vaccination drives, and gradual reopening of businesses. The GDP rebounded with a growth rate of 8.7% in 2021-22

Table 1. Year-wise GDP Growth of India

Year	GDP Growth (%)	Source
2019-20	4.2%	RBI
2020-21	-7.3%	RBI
2021-22	8.7%	IMF
2022-23	6.1% (Est.)	World Bank



Employment and Labor Market Disruptions: COVID-19 caused severe job losses, particularly in the informal sector, which comprises nearly 90% of India’s workforce. The unemployment rate surged to 23.5% in April 2020. Although economic recovery led to job creation, structural unemployment and wage stagnation remained concerns.

Table 2. Unemployment rate in India during the pandemic phase of 2020-2022

Month/Year	Unemployment Rate (%)	Source
Jan 2020	7.6%	CMIE
Apr 2020	23.5%	CMIE
Jan 2021	6.5%	CMIE
Jan 2022	7.8%	CMIE

Impact on Key Sectors:

- **Manufacturing and MSMEs:** Factory shutdowns and supply chain disruptions led to reduced industrial production. The government’s Atmanirbhar Bharat initiative provided financial relief and credit guarantees to revive MSMEs.
- **Agriculture:** The agricultural sector demonstrated resilience due to a good monsoon and continued farm activities during lockdowns. However, supply chain inefficiencies and labor shortages impacted profitability.
- **Services and Tourism:** The services sector, especially tourism, hospitality, and aviation, faced severe losses. Online services and digital platforms, however, experienced significant growth.

Challenges

- **Supply Chain Disruptions:** Lockdowns led to supply chain bottlenecks, affecting manufacturing and trade.
- **Rising Unemployment:** Job losses, especially in the informal sector, caused financial distress for millions.
- **Healthcare System Strain:** The demand for medical infrastructure exceeded supply, affecting pandemic management.
- **Decline in Consumer Demand:** Reduced income levels led to decreased spending and lower economic activity.
- **Inflationary Pressures:** Rising fuel and commodity prices increased cost burdens for businesses and households.

Opportunities

- **Boost to Local Manufacturing:** The Atmanirbhar Bharat initiative encouraged domestic production.
- **Expansion of Healthcare Infrastructure:** Increased investment in hospitals, medical research, and vaccine production.



- **Work-from-Home Culture:** Remote working led to higher adoption of digital collaboration tools.
- **Growth of Startups and Entrepreneurship:** Many businesses innovated and adapted to changing economic conditions.

Fiscal and Monetary Policy Responses: The Indian government introduced several fiscal measures, including the Pradhan Mantri Garib Kalyan Yojana (PMGKY) to support vulnerable populations. The RBI implemented monetary easing measures, reducing repo rates and injecting liquidity into the banking system to sustain economic activities.

Table 3. Government policies and actions to combat socio-economic crisis during COVID-19 pandemic

Policy Measure	Impact	Source
PMGKY Relief Package	₹1.7 Trillion aid to poor	Ministry of Finance
MSME Credit Support	₹3 Lakh Crore Guaranteed Loans	RBI
Repo Rate Reduction	From 5.15% to 4%	RBI
Liquidity Infusion by RBI	₹3.74 Lakh Crore	RBI

Conclusion: The COVID-19 pandemic posed a severe economic crisis for India, leading to GDP contraction, job losses, and sectoral downturns. However, proactive government interventions, digital transformation, and policy measures facilitated recovery. While India's economy has rebounded, long-term challenges such as inflation, inequality, and labor market distress persist. Continued policy support, investment in healthcare, and digital infrastructure will be crucial for sustained economic resilience.

References:

1. Reserve Bank of India (2021). "Annual Report 2020-21." RBI Publications.
2. Ministry of Finance, Government of India (2021). "Economic Survey 2020-21."
3. World Bank (2021). "India's Economic Recovery: Challenges and Opportunities."
4. International Monetary Fund (2021). "Global Economic Outlook."
5. Centre for Monitoring Indian Economy (CMIE) (2020). "Unemployment Trends during COVID-19."

Disclaimer/Publisher's Note: The statements, opinions, and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of TJSD and/or the editor(s). The Journal of Scientific Discourse (TJSD) and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.



Indian States' Fiscal Health: Revelations from NITI Aayog's Report

Laxmana Rao G^{1*} & T.M. Suresh Kumar¹

School of Commerce and Management Studies, Dayananda Sagar University,
Bangalore India

*Corresponding Author: drlaxmanrao-scs@dsu.edu.in

Abstract: *The Fiscal Health Index (FHI) is a key initiative by NITI Aayog designed to assess and enhance the understanding of the fiscal health of Indian states. By providing a comprehensive evaluation of state-level fiscal performance, the index aims to promote transparency, encourage responsible fiscal management, and guide policymakers toward sustainable financial practices. This qualitative study delves into the broader context of fiscal health in India, tracing its historical evolution, key challenges, and policy measures undertaken over the years. It explores how states manage their revenues, expenditures, debt, and deficits, shedding light on the critical factors influencing their financial stability.*

Furthermore, the paper analyzes the findings of the latest NITI Aayog Fiscal Health Index 2025, highlighting trends, state-wise rankings, and key takeaways from the report. By examining the fiscal strengths and weaknesses of different states, the paper provides insights into how states can improve governance, revenue mobilization, expenditure efficiency, and debt sustainability. Ultimately, this initiative serves as a benchmarking tool to help states identify areas for improvement and implement targeted reforms, ensuring long-term fiscal stability and economic resilience.

Key words: *Fiscal Health Index (FHI), NITI Aayog, Fiscal Performance, Transparency, Revenue Mobilization, Debt Sustainability, Expenditure Efficiency, Economic Resilience*

Introduction: Fiscal policy means the spending of the governments to influence the economy. Fiscal policy affects the macroeconomic indicators such as growth and income distribution. A study conducted by William Easterly and Sergio Rebelo (1993) highlighted the significant role of fiscal policy in the growth and development of nations. The study found a strong correlation between a country's fiscal structure and its level of development. According to Article 293 of the Indian Constitution, state governments can borrow within the country provided they obtain a guarantee from the central government. Numerous studies have been conducted in the past on to estimate the states' fiscal health in India Mohanthy and Mishra (2016) developed Fiscal Performance index to assess the fiscal health of the states in India. Bishnoy A (2023) compares fiscal policies in Indian regions over the past two decades to understand their impact on the macroeconomic environment. It also examines the role of fiscal policy in economic development using Generalized Methods of Moments



estimation on panel data from 16 Indian states (2004-2005 to 2016-2017). The findings show that states like Andhra Pradesh, Himachal Pradesh, Kerala, and West Bengal had higher deficits, while Maharashtra, Orissa, Gujarat, Goa, and Rajasthan kept their deficits below the 3% threshold. The study confirms that fiscal policies contribute to economic development. In 2019 Confederation of Indian Industry has proposed composite index comprising of six components for sound budgets at state level. These six components are quality of capital expenditure, quality of revenue expenditure, quality of revenue, degree of fiscal prudence I (Fiscal Deficit to GDP), degree of prudence II (Revenue Deficit to GDP), and Debt Index.

The recent NITI Aayog's Fiscal Health Index report 2025 is a valuable resource, providing insightful and well-structured data. In an era where access to government data is often limited, we should appreciate the efforts of the top leadership at NITI Aayog for making this information available. Their initiative in releasing this report is commendable. Data availability has been a challenge—there has been a long gap since the last National Family Health Survey (NFHS), which we continue to rely on for various indicators. Key surveys, such as the Consumer Survey and Employment Survey, remain absent, and we have yet to conduct the 2021 Census. While surveys alone may not be sufficient for definitive conclusions, they are crucial for informed policy decisions.

The fiscal data in this report is sourced from the Comptroller and Auditor General (CAG), ensuring its authenticity. However, analyzing and drawing meaningful insights from this data remains a significant task. The NITI Aayog's Fiscal Health Index report 2025 provides an important analysis of these figures. Once again, we extend our gratitude to NITI Aayog for their efforts in making this information accessible. The report examines the Fiscal Health Index (FHI) of 18 major Indian states, which play a crucial role in the country's GDP, demographics, revenues, public expenditure, and overall fiscal stability. These key states account for three-fourths of public expenditure while generating only one-fourth of total revenues.

The primary objective of the report is to evaluate the fiscal health of these states, identify interstate disparities, and encourage targeted interventions to enhance fiscal performance and governance. The assessment is based on five major indices: quality of expenditure, revenue mobilization, fiscal prudence, debt index, and debt sustainability.

Each major index consists of two fiscal indicators, except for debt sustainability, which has only one. The Improvement and Deprivation Index techniques were applied in constructing minor sub-indices, which were then aggregated into major sub-indices using the arithmetic mean. Finally, states were ranked based on their computed FHI scores, with the top-performing state securing the first rank.



Odisha (Rank 1, FHI Score: 67.8): Strong in Debt Index and Debt Sustainability due to low fiscal deficit, effective debt management, and strategic capital expenditure.

Chhattisgarh (Rank 2): Excelled in Debt Index and revenue growth, benefiting from mining activities.

Goa (Rank 3): Led in Revenue Mobilization with high tax efficiency and non-tax revenue generation.

Aspirational States- Punjab, Kerala, and West Bengal faced challenges in debt sustainability and revenue mobilization, highlighting the need for fiscal reforms.

Sub-Index Insights

Quality of Expenditure:

- Strong Performers: Madhya Pradesh and Chhattisgarh prioritized health and education.
- Lagging States: Punjab and Rajasthan underinvested in capital expenditure, impacting long-term growth.

Revenue Mobilization:

- Top States: Odisha, Goa, and Chhattisgarh leveraged non-tax revenues from mining and industry.
- Struggling States: Bihar and West Bengal relied heavily on central transfers due to low own-tax revenues.

Fiscal Prudence:

- Best Practices: Odisha and Jharkhand maintained low fiscal deficits, allowing better resource allocation.
- Challenges: Kerala and Andhra Pradesh faced persistent revenue deficits, limiting fiscal stability.

Debt Index:

- Strong Performers: Maharashtra and Gujarat maintained low debt-to-GSDP ratios through effective debt management.
- Struggling States: Punjab and Haryana faced rising debt burdens and high interest payments.

Debt Sustainability:

- Successful States: Odisha and Chhattisgarh managed debt well by ensuring economic growth outpaced interest payments.
- Challenged States: West Bengal and Punjab showed increasing fiscal stress due to persistent deficits.

**Challenges:**

- Revenue Diversification: States should expand their revenue sources and improve tax compliance.
- Capital Expenditure Focus: Prioritizing infrastructure, health, and education is key for long-term growth.
- Transparency: Better reporting and adherence to fiscal responsibility norms will enhance accountability and public trust.

Conclusion: The Fiscal Health Index helps benchmark state performance and highlights areas for improvement. States like Odisha and Chhattisgarh demonstrate strong fiscal discipline, while others need targeted reforms. By focusing on fiscal prudence, revenue growth, and debt sustainability, states can strengthen India's economic resilience. Under NITI Aayog's leadership, the FHI sets the stage for transformative fiscal reforms, ensuring a balanced and sustainable future for the nation.

References:

1. Bishnoi, A. (2023). Fiscal policy and economic development: regional analysis for India. *International Journal of Business and Globalization*, 34(4), 481-497.
2. Care edge ratings, State's rankings 2023.
3. Confederation of Indian Industry's discussion paper 2019
4. Dholakia A 2005 Measuring the fiscal performance of states.
5. Economic policy and research, National Stock Exchange Report 2020 "state of Indian states"
6. FISCAL HEALTH INDEX, Annual Report for the Financial Year 2023 Copyright@ NITI Aayog, 2025 Published: January 2025.
7. Mohanty, A. R., & Mishra, B. R. (2016). Fiscal performance index of the states in India. *Prajnan*, 45(3), 247-266.
8. Reserve bank of India report on fiscal health of eleven Himalayan states and union territories.
9. Volume 32, Issue 3, 1993, Pages 417-458, ISSN 0304-3932, [https://doi.org/10.1016/0304-932\(93\)90025-B](https://doi.org/10.1016/0304-932(93)90025-B). (<https://www.sciencedirect.com/science/article/pii/030439329390025B>)
10. William Easterly, Sergio Rebelo, Fiscal policy and economic growth, *Journal of Monetary Economics*,

Disclaimer/Publisher's Note: The statements, opinions, and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of TJSD and/or the editor(s). The Journal of Scientific Discourse (TJSD) and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.



Challenges and Opportunities for MSMEs: Post-Covid Scenario

Mahesh Shrivastava^{1*} & Neelu Shrivastava²

1. Dept. of Economics, Govt. Digvijay Autonomous P.G., College, Rajnandgaon (C.G.)

2. Dept. of English, Govt. Digvijay Autonomous P.G., College, Rajnandgaon (C.G.)

*Corresponding Author: Mahesh.shrivastava2@gmail.com

Abstract: *The Micro Small and Medium Enterprises (MSMEs) have been acclaimed as the engine of the economic growth of any country and they play an important role in the economic development of a nation. The MSMEs constitute over 90% of total enterprises in most of the economies and are credited with generating the highest rates of employment growth and account for a major share of industrial production and exports. Unfortunately, Covid-19 has been one of the giant disasters in the year 2020 and no country is left from the trap of this pandemic. Its impact on the global economy is devastating and its outcome is totally uncertain and unpredictable. The purpose of this paper is to study how Covid-19 will affect Indian economy in different sectors especially Indian MSME sectors, which are life blood of Indian economy. The paper has also tried to illuminate the measures taken by the government to revive MSMEs, the comeback strategies for Indian MSMEs after the end of pandemic period, expected changes in business operation and few suggestions for the policy makers.*

Key Words - *Micro Small and Medium enterprises, economic growth, Covid-19, pandemic period, industrial production, global economy.*

Introduction: The MSMEs play a vital role in the overall growth of industrial economy of any country. With its dexterity and dynamism, the sector has shown admirable innovativeness and adaptability to survive the recent global economic downturn and recession and has reflected lots of potential to grow in future. But COVID-19 pandemic has shaken the global economy all over the world and India is no exception to it. Though it has left its impact on all sectors of the economy but nowhere is the downfall visible as much as the Medium Small and Micro Enterprises (MSMEs) of India. All anecdotal evidence available regarding hundreds of thousands of stranded migrant workers across the country, suggests that MSMEs have been the worst victims of Covid-19 during lockdown.

MSMEs Defined: The Micro, Small and Medium Enterprises (MSMEs) sector has emerged as a highly vibrant and dynamic sector in the Indian economy over the last five decades. MSME sector had saved India's economy from great recession in 2008 and still it is contributing like the backbone of our economy.

COVID-19 Scenario: The Covid-19 pandemic is a global health crisis. It is the greatest challenge we have faced since World War two. The virus has spread to every continent except Antarctica. Even in the developed countries like America, Italy,



France, UK, Spain etc the situation has been uncontrollable till today. Corona virus outbreak has crumbled the already shattered Indian economy in more ways than one. MSMEs, which is a crucial pillar of emerging economy like India, are not able to do business as usual. Due to the lockdown, the Indian MSME sector suffered the most with its collective production decreasing by more than 90 per cent.

Since in the global supply chain, China plays a very pivotal role for India and its MSMEs, there is a large dependency on China for its raw material. Indian drug makers obtain almost 70 percent of their ingredients from Chinese factories and Chinese goods worth \$ 30 billion. Thus, complete lockdown of China and India has led to various issues ranging from shrinkage of exports, cessation of production, non-availability of manpower, uncertainty of consumption and liquidity squeeze in the market as well.

According to the All-India Manufacturers' Organisation (AIMO) survey, covering 5000 MSMEs, 71% of the businesses weren't able to pay salaries during lockdown period. Micro, small and medium enterprise is the sector which was already suffering under huge distress firstly due to demonetisation, then because of poorly implemented GST followed by prolonged economic slowdown and finally the biggest of all, the COVID-19, which is going to aggravate the crisis in this specific sector further.

Impact on the Indian Economy: India, a developing nation, has the world's second-largest MSME sector after China, playing a key role in economic growth. However, MSMEs face uncertain survival post-pandemic. India's GDP may drop below 3% in FY 2021 (KPMG). The lockdown has impacted multiple sectors:

- i. **Materials & Spare Parts** - India imports 55% of electronic components from China, now reduced to 40% due to supply disruptions. India is promoting domestic production to reduce dependency. Exports of organic chemicals, mineral fuels, and cotton have stalled, increasing the trade deficit.
- ii. **Agriculture** - Farmers struggle with procurement and market access despite exemptions. Closed markets may lead to financial distress and suicides without immediate action.
- iii. **Automotive** - The sector, already facing low demand, now suffers severe liquidity issues. China supplies 27% of auto parts, and supply chains remain disrupted due to Wuhan's lockdown.
- iv. **Hotels, Restaurants & Tourism** - The hospitality industry faces near-zero demand for 5-6 months. Travel restrictions caused a \$2.1 billion loss in March-April alone.
- v. **Apparel & Textile** - Contributing 2% of GDP, this sector depends on China for synthetic fabric, buttons, and zippers. Reduced demand for cotton yarn exports

- is driving prices down. Production may fall 10-12% (Apr-June), impacting 450 lakh direct jobs and daily wagers.
- vi. **FMCG** - Panic buying has spiked demand for essentials like milk, bread, and hygiene products, causing shortages and price hikes.
 - vii. **E-commerce** - Platforms like Flipkart and Amazon struggle with delivery constraints but expect long-term growth as consumer habits shift online.
 - viii. **Building & Construction** - 30% job losses in real estate and halted projects will slow equity investments in the sector.
 - ix. **Chemicals and Petrochemicals** - India is the 6th largest chemical and petrochemical producer, contributing 3.5% to the global industry (2018-19). Falling crude prices are reducing petrochemical raw material costs. Imports may decline as key suppliers, China and the Middle East, face COVID-19 disruptions. SMEs dominate the sector but struggle without working capital. Extended credit and falling revenue will hurt cash flow.
1. **Collateral-Free Loans:** ₹3 lakh crore in collateral-free loans is available until October 31, 2020, to help MSMEs resume operations. MSMEs with up to ₹25 crore outstanding and ₹100 crore turnover qualify, benefiting 45 lakh units.
 2. **Subordinate Debt for Stressed MSMEs:** ₹20,000 crore is allocated for stressed/NPA MSMEs, aiding 2 lakh units.
 3. **Equity Infusion via Fund of Funds:** MSMEs face financing hurdles, so ₹50,000 crore equity infusion has been arranged. A ₹10,000 crore Fund of Funds will expand MSMEs capacity and encourage stock exchange listings.
 4. **Global Tenders Disallowed up to ₹200 Crore:** To prevent unfair foreign competition, global tenders under ₹200 crore are now restricted, promoting Self-Reliant India and Make in India.
 5. **Marketing & Liquidity Support:** MSMEs get e-market linkage to replace trade fairs. Fintech-driven lending will improve cash flow, and MSME receivables must be cleared within 45 days.
 6. **₹2,500 Crore EPF Support Extended:** Under PMGKP, the 12% employer & 12% employee EPF contributions covered for March-May 2020 will now extend for June-August 2020.

Education and Skilling: The COVID-19 pandemic forced the closure of 39,931 colleges and 933 universities (2018-19) in India since March 2020. Schools also shut down, disrupting the academic year, with low-fee private schools facing the worst impact. Most higher education institutions were ill-equipped for online learning. This disruption also affected MSMEs, the backbone of the Indian economy, impacting production, employment, and livelihoods. To aid recovery, the government announced relief packages to support businesses and workers.



Government Measures to meet the Current Challenges: To help businesses get back on track, the Prime Minister of India announced a host of relief packages to help India become 'Atmanirbhar Bharat' or self-reliant. Majority of the relief packages were targeted towards MSMEs. This was either in the form of liquidity support loans and equity infusion support to help MSME expand in size and capacity. Government of India announced 20 lakh crore economic packages on 12.05.2020. It is around 10% of country GDP which will help India to become self-reliant and boost 'Make in

India Initiative It is time to "Be Vocal for the Local". Indian MSMEs will play a significant role to make Self Reliant India. To become 'from Local to Global' MSMEs are the major domain where emphasis is being given. Here are the relief packages and measures taken by the government to refuel the MSMEs:

Reduction in EPF Contribution: to enhance production over the next quarter, statutory PF contribution of both employer and employee has been reduced to 10% each from existing 12% for next three months. This scheme will be applicable for workers who are not eligible for 24% EPF support under PM Garib Kalyan Package. This will provide liquidity of Rs 6750 crore to employers and employee over 3 months.

Liquidity through TDS/TCS Rate Reduction: In order to provide more funds at the disposal of the taxpayers, the rates of Tax Deduction at Source (TDS) for non-salaried specified payments made to residents and rates of Tax Collection at Source (TCS) for the specified receipts shall be reduced by 25% of the existing rates. This will release liquidity of Rs 50,000 crore.

Direct Tax Measure: All pending refunds to charitable trusts and non-corporate businesses & professions including proprietorship, partnership, LLP and Co-operatives shall be issued immediately. Due date of all income-tax return for FY 2019-20 will be extended from 31st July, 2020 to 30th November, 2020 and Tax audit from 30th September, 2020 to 31st October, 2020.

Expense for COVID-19 as CSR: "Corporate Social Responsibility" or CSR is a concept that aims to make a company socially accountable to itself, its stakeholders, and the public at large. It is a way of giving back to the society for the various resources it uses to run its business. Ministry of Corporate Affairs (vide its General Circular No. 10/2020 dated 23rd March, 2020) announced that spending of CSR funds for COVID-19 shall be considered as an eligible CSR activity. The government has provided them with a level playing field by reserving government procurement orders of up to Rs 200 crore value and commitment to clear invoices within 45 days.

Other initiatives like the 'One Nation One Card' scheme and 'Ajeevika' app are in various stages of implementation. This can help employers to tap into the locally

available labour workforce and restart production activities that were hampered due to the migration of labour to their hometown. The Government e-Marketplace (GeM) has already been set up to boost MSMEs' share in government procurement of goods and services. The MSMEs have benefitted with orders worth Rs 20,000 crore since the inception of GeM. Along with the PM's call for 'Self-reliant India', the current face-off between Indian and China has led to an increased demand for locally manufactured goods, unleashing new opportunities for Indian MSMEs.

Some of the organizations have taken initiatives to help the MSMEs themselves in India. SBI has opened an emergency credit facility focused at MSME borrowers affected by the Covid-19. Under the scheme the lenders can provide up to Rs 200 crore or 10 per cent of the existing fund-based working capital and such loans will be given at a flat 7.25 per cent interest. Default threshold limit for triggering insolvency proceedings under the Insolvency and Bankruptcy Code 2016 (IBC) for MSME has been increased from the previous Rs 1 lakh to Rs 1 crore. Relaxation has been given on norms for holding board meeting to 60 days. This relaxation shall remain for the next two quarters. The due date for filing GST has been extended till June 30, 2020, and no late fee or penalty will be charged for companies with turnover less than Rs 5 crore for late filing. For those with turnover more than Rs 5 crore, only interest of 9 per cent will be charged. All last dates with respect to income tax returns and filings have been moved to June 30, 2020. Rs 1.70 lakh crore relief package has been announced by the finance minister on 26 March, 2020.

Under Pradhan Mantri Garib Kalyan Yojana (PMGKY), around 39 crore poor people have received financial assistance of Rs 34800 crore as direct benefit transfer till 5 May 2020.

1. Rs. 12,810 crores have been distributed in two instalments to 25.62 crore account holders.
2. Rs. 1405 crore distributed to around 2.82 crore old age persons, widows
3. and disabled persons.
4. 2.20 crore workers received financial assistance upto Rs. 3,493 crores.
5. Under Pradhan Mantri Garib Kalyan Ann Yojana, 67.65 lakh tons of food grains was lifted by 36 states and union territory for distribution.
6. 4.82 crore free cooking gas cylinders have been delivered under Pradhan Mantri Ujjwala Yojna.

Indian Banks Association have also approached RBI for relief regarding non-performing asset (NPA) classification in the MSME sector.

Moreover, the Reserve Bank of India declared several monetary policy measures to curb the impact of the corona virus pandemic; which are given below:



1. Declared a considerable cut in the policy repo rate by 75 basis points to 4.4% – lowest policy rate in this century.
2. Announced to inject around Rs 3.74 lakh crore liquidity into the system.
3. Allowed a 3-month moratorium on payment of instalments on the existing term loans.

RBI has also opened another Rs 50,000 crore in refinancing window for Nabard, Sidbi and NHB under which:

1. Banks will be required to make these investments within one month from receiving the funds from the RBI.
2. Reduced the liquidity coverage ratio to 80% from 100% previously, and provided a special financial facility of Rs 50,000 crore to All India Financial Institutions (AIFIs) at the repo rate. Other measures to help the MSME sector comprises emergency credit lines announced by Public Sector Banks, a low-interest loan rate of 5% within 48 hours declared by SIDBI, and business continuity measures by the RBI.

How MSMEs can survive in Post Pandemic Era: When a person is wheeled in to an ICU, you would expect the doctors to focus on his survival first, and then the revival. Post the pandemic, whether the economy will be pushed to the ICU will depend on the duration and frequency of national shutdowns, and the state of the global economy. But damaged, it will definitely be. The Indian economy was weakening even before the pandemic struck the world, yet the economy has always displayed remarkable resilience, and has the ability to face the challenge.

However, the economic blueprint for the country will need to be redrawn, at least for one or two years, with survival and revival taking precedence over expansion and growth. This is the time to strengthen the foundations of the economy, such as the banking and financial system, inflation, currency stability and capital productivity. It is also imperative that a plan be drawn up to allow businesses to reopen activity, in a phased manner, with social distancing norms in force. Regular and surprise checks even may be introduced to enforce state guidelines. But it is important to slowly restart business operations in areas with low infection levels, albeit with necessary and vital precautionary measures. The business environment during post pandemic will be totally different from today's business environment specially MSMEs. The following changes we can expect in field of MSMEs sector.

1. Digital Practice: India has 630 lakh MSMEs but only 32% of them are digitally engaged and 68% are too far to adopt digital practices. The untapped portion of MSMEs must change their strategy and digitize their business processes to survive in long run.



2. **Capital Availability:** High credit support and availability of working capital is essential.
3. **Environmental Consciousness:** MSMEs will have to adopt more sustainable practices for environment conscious.
4. **Emphasis on Innovation:** MSMEs should give more emphasis on innovation. Of course, innovation in MSMEs business is amazed but innovation will be indispensable for MSMEs after this epidemic, other they cannot exist.
5. **Cross Train Staff Practice:** It will be helpful to a great extent in the business premises, so that they will be able to perform variety of roles in business.
6. **Capital Management:** Giving more emphasis on working capital management. Quick collection from receivable will be helpful to meet wage and salary expenses.

Conclusion: As summing up it can be said that almost every country in the world is gasping for life in this Covid-19 phase and even the most powerful economies have shattered. India has already been suffering from unemployment and it may further increase in post Covid-19 times. But from every incident of life we learn something new; whether positive or negative. The positive aspect of the pandemic is that, India will now analyze its potential. India, which had been fairly dependent on other countries for importing goods, now is tackling this situation by home sourcing arrangement. This will improve BPO (Business Process Outsourcing) situation of India to some extent. Work from home concept is going to be a new culture for the country. As a result, use of digital practice will be increased in near future. Make in India and Digital India will be encouraged more.

Despite many challenges, many MSMEs have adapted to the new normal and are working to bring their business back on track. With technology being a saviour during the Covid-19 crisis, businesses have started adapting themselves to increasing use of technology. With the help of a variety of digital solutions, many businesses are able to keep their business active, manage their operations and adapt their services to help survive in the present scenario. Digital solutions are enabling business continuity and giving businesses the confidence to recover from the drastic lockdown economic impacts. In fact, the Entrepreneurship survey also highlights that more than 60 per cent of the small businesses in India are confident that despite the slowdown and negative impact due to pandemic, their business will recover and continue to thrive. This clearly states that MSMEs in India are resilient to get back on track. These small businesses are not just being positive about their recovery, but are also expecting to grow up to 50 per cent in the next three-five years.



References:

1. <https://economictimes.indiatimes.com/topic/UN-Department-of-Economic-and-Social-Affairs>
2. <https://www.india-briefing.com/news/micro-small-medium-enterprises-india-explainer-887.html/>
3. <https://theprint.in/opinion/covid-19-crisis-is-choking-indias-msme-sector-business-wont-pick-up-even-after-lockdown/395849/>
4. <https://economictimes.indiatimes.com/news/economy/indicators/indias-growth-may-slip-below-3-in-fy21-if-covid-19-proliferates-kpmsg/articleshow/75014975.cms>
5. <https://talkbusiness.net/2020/03/small-businesses-see-profound-impact-from-covid-19/>
6. <https://www.bankrate.com/finance/credit-cards/how-you-can-help-small-businesses-impacted-by-covid19/>
7. <https://economictimes.indiatimes.com/small-biz/sme-sector/measurements-that-can-boost-msmes-during-covid-19-lockdown/articleshow/74945278.cms?from=mdr>
8. <https://www.lendingkart.com/blog/coronavirus-impact-on-indian-business-economy/>
9. <https://economictimes.indiatimes.com/small-biz/sme-sector/a-quarter-of-msmes-may-shut-shop-if-the-lockdown-persists/articleshow/74880940.cms>
10. <https://idronline.org/the-implications-of-covid-19-for-rural-india/>
11. <https://www.financialexpress.com/industry/sme/cafes-sme/msme-codb-small-businesses-not-just-positive-about-recovery-but-also-expecting-up-to-50-growth-in-3-5-years>
12. <https://www.aljazeera.com/news/2020/04/india-covid-19-lockdown-means-food-work-rural-poor-200402052048439.html>
13. <https://www.deccanherald.com/business/covid-19-outbreak-rural-india-stares-at-a-larger-crisis-821866.html>

Disclaimer/Publisher's Note: The statements, opinions, and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of TJSD and/or the editor(s). The Journal of Scientific Discourse (TJSD) and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.



India's Economic Recovery: A Post-Covid-19 Assessment

Praveen K. Jadhav

Dept. of Economics, Nehru Institute of Social Sciences, Tilak Maharashtra

Vidyapeeth, Sadashivpeth, Pune-411030

Email: praveenjadhavtmv7@gmail.com

Abstract: *The Covid-19 pandemic inflicted a devastating blow to both human lives and economies worldwide, including India. Severe restrictions were imposed globally, bringing many activities to a standstill. In India, a nationwide lockdown brought the economy to a near halt. This disruption severely impacted all sectors: primary, secondary, and tertiary. The consequences were dire: rising unemployment, soaring consumer prices, a plummeting Gross Domestic Product, declining incomes and numerous other challenges. To revitalize the economy, both the Indian government and state governments have implemented various schemes and policies. While the recovery has been gradual and slow, these efforts have contributed to a gradual restoration of the Indian economy. This paper examines the stages and processes of this economic recovery focusing on specific key issues.*

Key word: *Pandemic, lockdown, gross domestic product, primary sector, secondary sector, tertiary sector.*

Introduction: The Covid-19 pandemic inflicted a devastating toll on both human lives and economies worldwide, including India. This novel virus proved disastrous, posing a significant threat to public health and causing the deaths of millions globally. India, too, faced immense challenges, with the medical system struggling to cope. The pandemic also plunged the Indian economy into a severe crisis. The nationwide lockdown and other stringent restrictions imposed by the government had a profound negative impact, leading to a near-collapse of economic activity. This severe disruption severely impacted all sectors of the Indian economy: primary, secondary, and tertiary. Consequently, the nation witnessed a surge in unemployment, a sharp rise in consumer prices, a significant decline in Gross Domestic Product, falling incomes, and numerous other serious economic repercussions. Following the pandemic, both the Indian government and state governments implemented a series of schemes and policies aimed at reviving the economy. While the recovery process has been gradual and slow, these efforts have contributed to a gradual restoration of economic activity in India. This paper examines the stages and processes of this economic recovery focusing on specific key issues.

Objectives:

1. To examine the economic impact of the Covid-19 pandemic on the Indian economy.



2. To analyze the performance of selected sectors within the Indian economy during and after the Covid-19 pandemic.
3. To assess the process of economic restoration in India, considering key issues and indicators.

Review of Literature: Dev and Sengupta (2020) found that restrictions and lockdowns disrupted supply and demand chains, leading to an economic slowdown. Iqbal (2020) highlighted the pandemic's rapid rise and its serious consequences, including a critical situation for the economy due to lockdowns. He identified the impact on sectors like logistics, automobiles, tourism, electronics, and retail. Ramakumar and Kanitkar (2021) focused on agriculture and industry, noting a broken supply chain and a lack of market outlets for agricultural products after March 2020. Vedika et al. (2022) examined the broader socio-economic impact. They argued that government restrictions and lockdowns severely affected manufacturing, agriculture, and services. However, they also acknowledged that government policies in the post-pandemic period aided in the gradual restoration of the economy.

Methodology: This research article investigates the impact of the COVID-19 pandemic on the Indian economy and its subsequent restoration. To conduct this analysis, the researcher utilized secondary data published between 2020 and 2022. This data includes articles from reputable journals, reports from esteemed research organizations, and publications from the Government of India. Given the focus on specific indicators, only relevant data from these secondary sources were incorporated into the study.

Result: The Indian economy is gradually recovering from the severe impacts of the COVID-19 pandemic. This recovery began in the 2022-23 financial year, particularly after the second quarter. While some sectors are recovering rapidly, the GDP data provides a clear picture of this progress. Before the pandemic, India's average annual GDP growth rate was around 6.6%, with figures of 6.8% in 2017-18 and 6.5% in subsequent years. However, COVID-19 severely impacted the economy, causing a significant decline. The 2020-21 financial year witnessed a drastic fall in GDP, reaching a record low of -6.6%. To stimulate economic recovery, the Government of India implemented various schemes and programs. These efforts have yielded positive results, with GDP growth rebounding to 8.7% in 2021-22. This indicates that the Indian economy is currently in a recovery phase. While government monetary and fiscal measures have significantly contributed to this recovery, challenges remain. The emergences of new COVID-19 variants like Omicron and ongoing global conflicts have presented obstacles to sustained GDP growth. Nevertheless, the combined efforts of COVID-19 protocols, vaccination drives, government support, and increased public participation in economic activities are driving the Indian economy towards restoration.



All sectors of the Indian economy experienced significant declines during the pandemic. However, in the post-pandemic period, these sectors have shown signs of recovery. While agriculture, real estate, and financial services are gradually recovering, the industrial sector has demonstrated robust growth. Industrial growth surged to 9.8% in the post-pandemic period, a remarkable turnaround from the -2.4% decline experienced during the pandemic. Similarly, the manufacturing sector achieved a strong growth rate of 9.9%. The entire service sector collectively experienced a growth rate of 8.2% in the 2021-22 financial year.

Table No. 1 Gross Domestic Product in India (2018-2022)

Year	GDP (%)
2017-18	6.8
2018-19	6.5
2019-20	4.0
2020-21	-6.6
2021-22	8.7

Source: Ministry of Statistics & Programme, GOI

The Indian economy's restoration following the COVID-19 pandemic is largely attributed to a series of government initiatives. Fiscal and monetary policies implemented by the government stimulated economic activity. Increased infrastructure investment and capital expenditure played a crucial role in mitigating the pandemic's severe impact. Furthermore, commercial banks expanded credit availability to agriculture, industry, and the service sector. Despite these efforts, re-establishing disrupted supply chains proved challenging. Export-oriented industries suffered significantly during the pandemic but have gradually shown signs of recovery. In the 2021-22 fiscal year, total exports from India surged to approximately Rs. 429 lakh crores, marking a substantial 44% increase compared to the previous year.

The restoration of the Indian economy after the COVID-19 pandemic has been a gradual process, driven by several key government initiatives. The "Pradhan Mantri Gati Shakti National Master Plan," launched in 2021, aimed to enhance connectivity between various infrastructure sectors, facilitating the smooth movement of goods and services. Furthermore, the government implemented substantial stimulus packages in 2021-22, amounting to approximately Rs. 6.3 lakh crores, to boost economic activity. Additionally, the "Garib Kalyan Anna Yojana," launched in 2022, provided crucial food assistance to vulnerable populations, helping them overcome the hardships caused by the pandemic. This program, with an expenditure of around Rs. 68,820 crores, played a vital role in supporting the livelihoods of those severely impacted by COVID-19. The government has strengthened its healthcare infrastructure by implementing a nationwide vaccination program. To boost the textile sector, the government has introduced "Mega Investment Textile Parks" to attract



investment, create employment opportunities, and enhance the industry's competitiveness. These initiatives, along with other government efforts, have contributed significantly to the re-establishment of the Indian economy. The recovery process has commenced, and India is poised to emerge as one of the fastest-growing economies in the coming years.

Discussion: The COVID-19 pandemic severely impacted the Indian economy, negatively affecting nearly all sectors. Some sectors even experienced negative growth during this period. However, the Indian economy began its recovery journey in the financial year 2022-23, particularly after the second quarter. The pandemic year (2020-21) witnessed a significant decline in GDP, contracting by 6.6%. However, due to concerted government efforts, GDP rebounded strongly in the post-pandemic year (2021-22), reaching 8.7%. The government played a crucial role in this recovery through various initiatives, including targeted stimulus packages to support different sectors. Furthermore, the successful implementation of COVID-19 protocols, widespread vaccination drives, strong government support, and active public participation in economic activities have all contributed to the ongoing restoration of the Indian economy.

Conclusion: In conclusion, the COVID-19 pandemic inflicted a significant blow to the Indian economy, causing substantial disruptions across various sectors. However, the Indian economy has demonstrated remarkable resilience in its recovery journey. Government interventions, including targeted stimulus packages, infrastructure investments, and effective public health measures, have played a crucial role in driving this resurgence. While challenges such as the emergence of new variants and global uncertainties persist, the Indian economy has shown strong signs of recovery with robust GDP growth and resurgence in key sectors. The continued implementation of supportive policies and a focus on sustainable growth will be crucial to ensure a robust and inclusive economic recovery in the long term.

References:

1. Dev and Sengupta (2020), 'Covid-19: Impact on the Indian Economy', Research Paper published Indira Gandhi Institute of Development Research (IGIRD), Mumbai, April 2020 available on <http://www.igidr.ac.in/pdf/publication/WP-2020-013.pdf>
2. Iqbal (2020), 'Impact of Covid-19 on Indian Economy and Challenges Ahead', International Journal of Creative Research Thoughts (IJCRT), Volume 8, Issue 6, June 2020, available on <https://www.ijcrt.org/papers/IJCRT2006648.pdf> (accessed on 05/04/2023)
3. Ramakumar and Kanitkar (2021), 'Impact of Covid-19 pandemic on the Indian economy: a critical analysis', A research article available on https://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S0185-16672021000100003 (accessed on 05/04/2023)



4. Vedika et al. (2022), 'Socioeconomic impact due to COVID-19: An empirical assessment', Article published in Elsevier Journal, March 2022, Vol. 59, Issue.2, available on <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8829432/> (accessed on 05/04/2023)
5. Economy in Recovery Mode (2023), A Report published by NABARD, available on <https://www.nabard.org/pdf/economy-in-recovery-mode-eng.pdf> (accessed on 11th April 2023)
6. A Report published by Ministry of Statistics & Programme Implementation, GOI, 2023.

Disclaimer/Publisher's Note: The statements, opinions, and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of TJSD and/or the editor(s). The Journal of Scientific Discourse (TJSD) and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.



Role of IPR In Economic Growth and Sustainability: A Review Study

Aneeta Sen^{1*} & Kity Maurya²

1. Department of Economics, SBS Govt. P.G. College Pipariya
2. Department of Chemistry, SBS Govt. P.G. College Pipariya,

*Corresponding Author: drsenaneeta@gmail.com

Abstract: *This paper examines the potential of Intellectual Property rights (IPR) in economic growth and sustainability. The research paper aims to provide observation related to challenges in the path of IPR and government initiatives for it, in India and its role on economic growth and sustainability through reviewing literature. As Intellectual Property Rights play a crucial role in fostering economic growth and sustainability, especially in developing economies like India. As a growing economy with a vibrant innovation ecosystem, IPRs are essential in encouraging creativity, protecting innovations, and ensuring long-term sustainable development. India is an emerging economy that has a vast potential for innovation, creativity, and growth due to the role of IPR. In India, sectors such as pharmaceuticals, information technology, biotechnology, and entertainment are particularly reliant on IPRs to protect intellectual assets, allowing them to flourish and contribute to the economy. Strong intellectual property protection is a key factor in attracting foreign direct investment (FDI). IPRs not only protect inventions and artistic works but also create new job opportunities and entrepreneurial avenues. This enhances their export potential and improves the nation's competitiveness in international trade. IPRs can contribute to sustainability by encouraging innovations in clean technologies, renewable energy, and eco-friendly practices. IPRs can contribute to sustainability by encouraging innovations in clean technologies, renewable energy, and eco-friendly practices. India has the potential to leverage IPRs to protect its indigenous knowledge systems, particularly in sectors such as agriculture, textiles, and herbal medicine. The recognition and protection of traditional knowledge can not only preserve cultural heritage but also create new economic opportunities for rural and indigenous communities, which also shows that IPR is a great role of economic and sustainable development.*

Keywords- *Intellectual Property rights, economic growth, sustainability, challenges, innovation, eco-friendly practices, government initiatives.*

Introduction: Intellectual property rights (IPR) are very important for a country's development. Intellectual Property Rights play a crucial role in fostering economic growth and sustainability, especially in developing economies like India. As a growing economy with a vibrant innovation ecosystem, IPRs are essential in



encouraging creativity, protecting innovations, and ensuring long-term sustainable development. IPRs provide legal protection to creators, inventors, and innovators, ensuring that their creations are not copied or used without their consent. This protection incentivizes individuals and companies to invest in research and development (R&D), resulting in the creation of new products, technologies, and services. By ensuring that innovators can reap the rewards of their work, IPRs encourage a continuous cycle of innovation, leading to economic growth.

Strong intellectual property protection is a key factor in attracting foreign direct investment (FDI). Global companies are more likely to invest in markets where their intellectual property is safe from infringement. India, with its vast consumer base and emerging industries, stands to benefit from attracting foreign investments that help build infrastructure, create jobs, and foster sustainable economic growth. Effective IPR protection, particularly in high-tech and creative sectors, helps ensure that investors feel secure in their investments. IPRs not only protect inventions and artistic works but also create new job opportunities and entrepreneurial avenues. The commercialization of patents, trademarks, and copyrights creates markets for new technologies and products, which, in turn, generates employment. This is especially important in sectors like information technology, pharmaceuticals, and entertainment, where India has considerable expertise. IPRs enable start-ups and small businesses to protect their innovations, attracting investors and customers, thus stimulating economic growth and creating sustainable livelihoods. By protecting innovative products and processes, IPRs help Indian companies compete in global markets. In industries like textiles, handicrafts, and pharmaceuticals, where India has a strong presence, intellectual property rights ensure that Indian businesses can differentiate their products and build strong brand identities. This enhances their export potential and improves the nation's competitiveness in international trade.

IPRs can contribute to sustainability by encouraging innovations in clean technologies, renewable energy, and eco-friendly practices. By offering protection to green technologies and environmental innovations, IPRs provide an incentive for the development of solutions that address climate change, resource management, and sustainable development. India has the potential to harness IPRs in clean energy, water conservation, and waste management, aligning with the global push for sustainable practices. Moreover, IPRs in the form of plant variety protection and agrobiotechnology can contribute to sustainable agricultural practices, ensuring food security and reducing dependency on non-renewable resources. IPRs are a cornerstone of economic growth and sustainability in India. By fostering innovation, attracting investment, creating jobs, boosting exports, and promoting sustainable practices, intellectual property rights serve as a key driver of India's economic development. However, it is important that India continues to strengthen its IPR laws,



enforcement mechanisms, and awareness programs to ensure that the full potential of IPRs is realized for the country's economic prosperity and sustainability.

Objective: The purpose of this research paper is to study the role of IPR in economic growth and sustainability in India. The research paper aims to provide observation related to challenges in the path of IPR and government initiatives for it, and its role in economic growth and sustainability.

Methodology: Developing a research methodology is crucial for conducting a comprehensive study on the relationship between Intellectual Property Rights (IPR), economic growth and sustainability in India. This paper is descriptive in nature and the research is based on secondary sources such as published research paper, govt. publications, magazines etc, for the deep description.

A review of literature on the role of Intellectual Property Rights (IPR) in economic growth and sustainability provides a comprehensive understanding of how intellectual property systems contribute to both short-term economic expansion and long-term sustainable development. Scholars and researchers have explored various facets of IPR, such as its impact on innovation, foreign investment, market competition, and sustainability.

According to Maskus (2000), strong intellectual property protection incentivizes firms and individuals to invest in R&D by ensuring that the fruits of their creativity can be protected from imitation. This encourages greater spending on research, leading to the development of new technologies, products, and services, which in turn boosts productivity and economic performance. Swilam 2017 stated that strengthening IPR systems may result in expanding growth of economies, IPRs provide an important foundation for sophisticated business structures. IPRs are likely to emerge even more in the near future, as it is generally agreed that knowledge and technology have played, and will play the vital role in the economic growth and development of developing countries. Developing countries need to adopt some form of IPR system sooner or later them so that can join the race of globalization and international trade. Aghion et al. (2005) suggest that countries with robust IPR systems tend to exhibit higher levels of technological innovation and economic growth, particularly in sectors that rely heavily on intellectual capital, such as biotechnology, pharmaceuticals, and information technology. Saggi (2002) argues that strong intellectual property protection is a crucial factor in attracting foreign investment, particularly in technology-intensive industries. Multinational corporations often require assurances that their intellectual property will be safeguarded in foreign markets, and a weak IPR regime may discourage investment. Jha (2014) observes that the liberalization of IPR laws has been instrumental in attracting FDI, particularly in sectors like pharmaceuticals and technology. The



Trade-Related Aspects of Intellectual Property Rights (TRIPS) agreement has also played a significant role in aligning India's IPR laws with global standards, making it an attractive destination for foreign investment.

Samriti, 2023 concludes that the integration of IPR into sustainable development policies and strategies is essential for promoting innovation, creating economic opportunities, and achieving sustainable development goals in India. As the country continues to develop and face new challenges, the effective management of IPR will be critical to ensuring a prosperous and sustainable future for all. Zakir, Bashir, et., 2023 conclude that they can encourage innovation that is shared and benefits everyone while promoting global equity and sustainable development, but only if IPR is balanced and when IPR policy embodies the spirit of balance, flexibility and bilateral cooperation, it confers significant impacts on realizing Sustainable Development Goals--- pointing the way to a world that is fairer and better balanced between peoples. Harrison and Schlesinger (2015) argue that IPRs can play a critical role in encouraging the development of green technologies, which are essential for addressing environmental challenges. By protecting innovations in renewable energy, waste management, and sustainable agriculture, IPRs incentivize companies to invest in environmentally friendly technologies. Sullivan (2018) suggests that in developing countries like India, IPRs can support sustainable development by fostering innovations in agriculture and clean energy. For instance, patents for drought-resistant crops or clean energy technologies can contribute to environmental sustainability, while also creating economic opportunities.

Results: Numerous studies have underscored the pivotal role of IPRs in fostering innovation, which is the foundation of economic growth. The literature strongly suggests that Intellectual Property Rights are integral to fostering innovation, economic growth, job creation, foreign investment, and export competitiveness. IPRs not only incentivize the creation of new ideas but also create a framework for their commercialization, driving economic development. Moreover, emerging research indicates that IPRs can also play a crucial role in promoting sustainability by encouraging environmentally friendly innovations and preserving cultural heritage. However, challenges remain in ensuring equitable access to IPRs, strengthening enforcement mechanisms, and ensuring that the benefits of IPR protection reach all segments of society, including indigenous and local communities.

In the case of India, strengthening the IPR system, ensuring broader awareness, and focusing on sectors such as green technologies, traditional knowledge, and biotechnology can help the country harness the full potential of IPRs for both economic growth and sustainability. IPRs contribute to India's economic progress, enhance innovation, attract investment, and promote sustainable development. In the context of India, some research points out that sectors such as biotechnology,



pharmaceuticals, and information technology have benefited from IPR protection, leading to significant employment growth. For instance, India's IT sector, which has grown rapidly due to software patent protection, has created millions of jobs and become one of the largest contributors to India's export earnings. In India, the potential for IPRs to support sustainability goals by encouraging innovation in the renewable energy sector, especially solar and wind energy technologies. With the global push for sustainable growth, India's emphasis on protecting intellectual property in green technologies could help address environmental challenges while also driving economic growth. For example, solar energy innovations can be patented, providing firms with a financial incentive to invest in clean energy solutions that contribute to India's climate goals.

India is home to a rich cultural and traditional knowledge base, which includes a vast array of indigenous agricultural practices, folk art, and medicinal knowledge. IPRs can help protect traditional knowledge and indigenous cultures from exploitation by outsiders. The protection of such knowledge through IPRs, such as through patents for traditional medicines or geographical indications for traditional products, can benefit local communities economically while preserving their cultural heritage.

Challenges in IPR Enforcement in India: Despite the positive aspects of IPRs, several challenges remain in ensuring their effective implementation in India. Dutfield (2009) and Kumar (2013) highlight issues such as inadequate enforcement mechanisms, lack of awareness about IPRs, and the high cost of protecting intellectual property. While India has made significant strides in aligning its IPR laws with international standards (such as the TRIPS agreement), challenges remain in enforcing these laws effectively. Samriti (2023) emphasise in her research, developing countries like India rely on knowledge and technology transfer to promote economic growth and development. However, IPR can act as a barrier to the transfer of technology and knowledge and IPR can hinder the development and adoption of environmentally friendly technologies.

The issue of patent piracy, counterfeiting, and copyright infringement remains widespread in India. Sen and Ghosh (2017) emphasize that the Indian government needs to strengthen its legal and institutional frameworks to combat these issues. Intellectual property infringement can undermine the benefits of IPR protection and deter innovation, especially for smaller businesses and startups that may not have the resources to defend their intellectual assets.

Government Initiatives and IPR Policy in India: The Indian government has recognized the importance of IPRs for economic development and sustainability. The National Intellectual Property Rights Policy (2016) aims to create a conducive



environment for innovation and intellectual property creation while ensuring the protection of indigenous knowledge. Chaudhuri and Mukherjee (2020) note that this policy seeks to enhance India's global standing in terms of IPRs by improving enforcement, awareness, and accessibility. Further, India has introduced initiatives to support innovation in key sectors such as pharmaceuticals, biotechnology, and renewable energy, which can benefit from stronger IPR protection. Sullivan (2018) suggests that the government needs to focus on improving IP education and awareness to enhance the participation of smaller enterprises and rural innovators in the intellectual property system.

Conclusion: The literature on the role of IPRs in India's economic growth and sustainability emphasizes the significant contributions that intellectual property can make to innovation, investment, job creation, and export growth. While IPRs play a vital role in fostering economic development, the challenges related to enforcement, awareness, and equitable access remain critical. Strengthening IPR enforcement mechanisms, supporting local innovators, and fostering a culture of innovation will be key to maximizing the benefits of IPRs for sustainable economic development in India.

According to Ramrao Rautrao Revati balancing IPR with biodiversity management is key to sustainable development. IPR laws need to support both innovation and fairness, ensuring fair sharing of benefits and protection of traditional knowledge. To address issues like biopiracy, we need strong international agreements that respect indigenous rights and promote fair resource management. Preserving agro-biodiversity and using indigenous knowledge can help create resilient farming practices and improve global food security. Harmonizing IPR with biodiversity conservation is essential for a sustainable future. Future research could focus on examining the impact of IPR reforms on specific industries in India, including the green technology sector, and on the effects of IPR protection on indigenous communities and their traditional knowledge.

References-

1. Patidar, Govind. (2024) Impact of the Intellectual Property Rights on Economic Growth and Development. *International Journal for Multidisciplinary Research*, special issue (1-6)
2. Samriti, Divya, (March 23, 2023) Role of IPR in Sustainable Development in India. Available at SSRN: <https://ssrn.com/abstract=4397580> or <http://dx.doi.org/10.2139/ssrn.4397580>
3. Zakir, M. H., Bashir, S., Zahoor, S., Ali, R. N., Shahzad, F., & Khan, S. H. (2023). The role of intellectual property rights in achieving sustainable development goals: A comparative analysis of policy frameworks and their impact. *Migration Letters*, 20(9), 489-501.
4. Swilam, Yasmine. (2017) The Potential of Intellectual Property Rights for Economic Development A Case Study on India. Available at <https://lup.lub.lu.se/luur/download?func=downloadFile&recordId=8922620&fileId=8938387>



5. Aghion, P., & Howitt, P. (2005). Growth with quality-improving innovations: an integrated framework. *Handbook of economic growth*, 1, 67-110.
6. Laik, Kaushik. (2005) Role of Intellectual Property Rights in Economic Growth. Journal of Intellectual Property Rights, Vol.10 (465-473). Available at <https://nopr.niscpr.res.in/bitstream/123456789/3698/1/JIPR%2010%286%29%20465-473.pdf>
7. Keith E. Maskus, (2000). *Intellectual Property Rights and Economic Development*, 32 Case W. Res. J. Int'l L. 471 Available at: <https://scholarlycommons.law.case.edu/jil/vol32/iss3/4>
8. Rautrao Ramrao, Revati. Balancing intellectual property rights and biodiversity for sustainable development. NLUA Journal of Intellectual Property Rights. Volume 3 (1), 21-35. Available at

Disclaimer/Publisher's Note: The statements, opinions, and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of TJSD and/or the editor(s). The Journal of Scientific Discourse (TJSD) and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.



Impact of COVID Pandemic on MUDRA Yojana in India

Suman Vishwakarma^{1*} & Dr. Shobha Jain³

1. Dept. of Economics, Govt. Sanjay Gandhi Smriti PG College Ganjbasoda, Vidisha
2. Department of Economics, S.S.L. Jain PG College Vidisha, MP, India

*Corresponding Author: suman.vishwakarma00@gmail.com

Abstract: *The COVID-19 pandemic profoundly impacted micro, small, and medium enterprises (MSMEs) in India, disrupting business operations and financial stability. A significant consequence of this disruption was the effect on MUDRA loan sanctions under the Pradhan Mantri Mudra Yojana (PMMY), a government initiative introduced by Prime Minister Shri Narendra Modi in 2015. The PMMY scheme aimed to provide financial assistance to non-agricultural, small businesses through MUDRA banks, which offer collateral-free loans of up to ₹10,00,000. This study investigates the impact of the pandemic on MUDRA loan disbursement and MSMEs' financial well-being. The research is based on secondary data obtained from official reports published by the Micro Units Development and Refinance Agency (MUDRA) Ltd., journals, magazines, and newspapers. The study employs statistical analysis, including ANOVA, to evaluate variations in loan sanctions across different phases of the pandemic. Findings indicate that COVID-19 significantly disrupted loan sanctions and repayment cycles, resulting in financial distress for MSMEs. However, government interventions such as moratoriums, emergency credit schemes, and digital transformation initiatives played a crucial role in stabilizing the financial ecosystem. The post-pandemic period witnessed a strong recovery in loan disbursement, highlighting MSMEs' resilience and the effectiveness of policy measures. The study emphasizes the need for continuous monitoring, adaptive financial policies, and robust credit risk management frameworks to ensure the long-term sustainability of the MUDRA Yojana and promote financial inclusion for MSMEs.*

Keywords: *Financial Ecosystem, Financial Inclusion, Moratorium, Micro Enterprises, Pandemic, Credit Risk, Digital Lending.*

Introduction: The COVID-19 pandemic posed an unprecedented challenge to economies worldwide, severely affecting India's small and micro enterprises. MSMEs, which form the backbone of the Indian economy, were particularly vulnerable due to supply chain disruptions, decreased consumer demand, and liquidity shortages. To support these enterprises, the Pradhan Mantri Mudra Yojana (PMMY) was introduced in 2015 to provide accessible financial aid through Micro Units Development and Refinance Agency (MUDRA) Ltd. and affiliated banks. The scheme aimed to promote entrepreneurship, self-employment, and financial inclusion

among small business owners by offering collateral-free loans. However, the COVID-19 pandemic disrupted the smooth functioning of the scheme. While demand for credit surged, repayment challenges and non-performing assets (NPAs) also increased. Government interventions such as emergency credit lines and moratoriums helped businesses survive the crisis, yet long-term challenges remain. This study explores how MUDRA loan disbursements fluctuated during the pandemic and examines recovery trends.

MUDRA Yojana: The MUDRA Yojana provides collateral-free loans to non-corporate, small, and micro enterprises engaged in manufacturing, trading, and services. The loans are categorized into three segments based on business needs and loan amounts:

- Shishu – Loans up to ₹50,000 (for new businesses and startups).
- Kishore – Loans between ₹50,001 and ₹5 lakh (for growing businesses).
- Tarun – Loans between ₹5 lakh and ₹10 lakh (for established enterprises requiring expansion).

These loans are designed to provide financial support and promote self-reliance among small entrepreneurs.

Objective:

1. Analyze the impact of COVID-19 on the MUDRA Yojana in terms of loan disbursement, repayment, and financial stability of MSMEs.
2. Examine statistical variations in loan trends before, during, and after the pandemic.
3. Evaluate the effectiveness of government interventions in stabilizing the financial ecosystem.
4. Recommend policy measures to strengthen the sustainability of the MUDRA Yojana.

Impact of COVID-19 on MUDRA Yojana: Increased Demand for Loans: As the pandemic caused business closures, job losses, and supply chain disruptions, MSMEs faced severe liquidity shortages. The demand for MUDRA loans surged as small businesses sought financial aid to continue operations and recover from losses. To address this, the government introduced the Emergency Credit Line Guarantee Scheme (ECLGS), which provided additional credit support.

Challenges in Loan Repayment: Due to reduced earnings and uncertainty, many businesses faced difficulty in repaying loans. The most affected sectors included hospitality, tourism, retail, and manufacturing. Loan moratoriums were introduced to provide relief, but concerns over delayed repayments persisted.



Rising Non-Performing Assets (NPAs): With businesses struggling to generate revenue, many borrowers defaulted on loans, leading to a rise in non-performing assets (NPAs) under the MUDRA Yojana. This created financial stress for banks and lending institutions, raising concerns about credit risk and loan recovery.

Government Support and Relief Measures: To mitigate the crisis, the government launched:

- Loan Moratoriums (Deferred repayment periods for borrowers).
- ECLGS Scheme (Guaranteed credit support to MSMEs).
- Interest Subsidies and Refinancing (To ensure the availability of affordable credit).
- Encouragement of Digital Lending (Faster loan processing and disbursement).
 These measures helped stabilize the financial system, although challenges remain in ensuring long-term credit sustainability.

Shift Towards Digital Lending: The pandemic accelerated the adoption of digital lending platforms. Banks and NBFCs leveraged technology for quicker loan approvals, remote verification, and contactless processing. Digital transformation played a key role in ensuring efficient loan disbursement to struggling businesses.

Analysis: The analysis of MUDRA loan disbursement and sanctioned amounts provides valuable insights into the impact of COVID-19 on MSMEs and financial assistance trends in India. This section examines loan trends before, during, and after the pandemic, using statistical methods such as ANOVA (Analysis of Variance) to identify significant differences across different periods.

Table 1 Analysis MUDRA Loan Disbursement and Sanctioned Amounts (2015-2024)

Year	Loan Sanctioned (in Crores)	Loan Disbursed (in Crores)
2015-16	137449.3	132954.7
2016-17	180528.5	175312.1
2017-18	253677.1	246437.4
2018-19	321722.8	311811.4
2019-20	337495.5	329715.0
2020-21	321759.3	311136.9
2021-22	339110.4	327614.8
2022-23	456538.0	445927.2
2023-24	541012.9	529418.6

Source: MUDRA.org

Observations:

- **Pre-COVID Growth (2015-2019):** Loan sanctions and disbursements showed consistent growth, indicating increasing reliance on MUDRA loans by small and micro enterprises.



- **COVID-19 Disruption (2020-21):** Loan disbursements declined slightly (₹3,11,136.9 Cr in 2020-21 from ₹3,29,715.0 Cr in 2019-20) due to financial uncertainty, business shutdowns, and risk aversion by lenders.
- **Post-COVID Recovery (2021-2024):** A strong resurgence in loan disbursements was observed. By 2023-24, loan sanctions increased significantly to ₹5,41,012.9 Cr, reflecting economic recovery and renewed government efforts to support MSMEs.

Table 2 Group-Wise Loan Sanction Analysis (Pre-COVID, During COVID and Post-COVID)

Year	Group A (Pre-COVID)	Group B (During COVID)	Group C (Post-COVID)
2018-19	321722.8		
2019-20	337495.5		
2020-21		321759.3	
2021-22		339110.4	
2022-23			456538
2023-24			541012.9

Source: MUDRA.org

ANOVA (Analysis of Variance) for Loan Sanctions: To statistically examine whether COVID-19 had a significant impact on MUDRA loan sanctions, a one-way ANOVA test was conducted. The groups analysed:

- **Group A (Pre-COVID):** 2018-19, 2019-20
- **Group B (During COVID):** 2020-21, 2021-22
- **Group C (Post-COVID):** 2022-23, 2023-24

ANOVA Summary Table

SUMMARY				
Groups	Count	Sum	Average	Variance
Group A	2	659218.3	329609.2	1.24E+08
Group B	2	660869.6	330434.8	1.51E+08
Group C	2	997550.9	498775.5	3.57E+09

ANOVA						
Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	3.8E+10	2	1.9E+10	14.82113	0.027862	9.552094
Within Groups	3.84E+09	3	1.28E+09			
Total	4.18E+10	5				

Interpretation of the ANOVA Results:

1. **P-value Analysis:** The P-value (0.02786) is less than 0.05, meaning that there is a statistically significant difference between the pre-COVID, during COVID, and post-COVID loan sanctions. This confirms that COVID-19

- significantly impacted loan sanctions, and there was a measurable difference in the recovery phase.
2. **F-Statistic vs. F-Critical:** The F-statistic (14.82) is greater than the F-critical value (9.55), reinforcing that the differences in loan disbursements across groups are statistically significant. This means that the variation in loan sanctions across different time periods was not due to random chance but was influenced by external factors, including the pandemic and government interventions.

Findings:

1. **Strengthen Credit Risk Management:** Implement stricter borrower screening and risk assessment tools to prevent loan defaults. Use AI-driven predictive analysis to identify potential NPAs early.
2. **Encourage Digital Lending Expansion:** Promote mobile-based and paperless lending for faster loan approvals. Support fintech innovations in MSME financing.
3. **Adaptive Policy Frameworks:** Introduce sector-specific loan restructuring plans to support industries hit hardest by economic disruptions. Develop dynamic interest rate models based on MSME risk profiles.
4. **Continuous Monitoring & Evaluation:** Conduct quarterly performance reviews of the MUDRA scheme to ensure efficient fund allocation. Use real-time data analytics to track disbursement trends and repayment behavior.

Conclusion: The COVID-19 pandemic significantly impacted the MUDRA Yojana, leading to fluctuations in loan sanctions, repayment challenges, and rising NPAs. However, timely government interventions helped stabilize the financial ecosystem, ensuring a strong recovery phase. The post-pandemic resurgence in MUDRA loan disbursement highlights the resilience of MSMEs and the effectiveness of financial support mechanisms. Going forward, continuous monitoring, digital transformation, and flexible policy frameworks will be essential in ensuring sustainable growth and financial inclusion for small businesses in India. By implementing data-driven strategies and adaptive lending policies, the MUDRA Yojana can continue to empower entrepreneurs, fostering economic recovery and financial resilience in the face of future challenges.

References:

1. Sulagna Das and Abhijit Dutta "A Study on NPA of Public Sector Banks in India"
2. CA Kamakshi Mehta and Shiv Swaroop Jha "Role of increasing level of Non-Performing Assets in banks deteriorating financial position"
3. Shaik Yasmin Naaz's "Analysis of the Effect of the Non-Performing Assets on the Profitability of the Public Sector Banks"
4. Dr. A. C. Pramila's "Non-Performing Assets in Indian Banking Sector"



5. Dr. Sunita Sharma and Dr. Ruchi Gupta” Impact of Pradhan Mantri Mudra Yojana on Indian Banking Sector”
6. Simran Nagra “Relevance of Mudra Scheme on NPA in Indian Economy”
7. Prasanth Selvam and Sudhamathi Premnath “The impact of Corona Virus on NPA and GDP of Indian Economy”
8. Dr. Sarika Varma, Naveen Ram, Dr. Jitendra Lohani “Analysis of non-performing assets in covid-19 periods: A Comparative Study of Government and Private Banks of India”
9. MUDRA.org

Disclaimer/Publisher’s Note: The statements, opinions, and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of TJSD and/or the editor(s). The Journal of Scientific Discourse (TJSD) and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.



Behavioral Factors Responsible for Choice of Payment Methods: A Literature Review

Shubham Kumar Dubey^{1*} & Gajendra Sahu²

1. Department of Economics, Banaras Hindu University, Varanasi
2. Department of Economics, Banaras Hindu University, Varanasi

*Corresponding Author: shubhamdubey1352@gmail.com

Abstract: *The increasing digitalization of financial transactions has reshaped consumer payment preferences, prompting a need to understand the behavioral and economic factors that influence payment method choices. This literature review examines the role of key behavioral factors, such as trust, security, perceived ease of use, social influence, habit, and perceived risk, in shaping consumers' decisions to adopt payment methods like cash, credit cards, debit cards, and mobile payment systems. Additionally, the review explores economic factors such as cost and convenience that further impact consumer choices. Through an analysis of several empirical studies from Iran, Poland, Malaysia, and other global regions, this review highlights the critical role of trust and perceived security in adopting digital payment systems, the influence of social networks on mobile payment usage, and the persistence of habitual reliance on traditional methods such as cash. The review concludes that understanding these factors is essential for stakeholders to develop user-centric payment solutions and encourage broader adoption of digital payment systems*

Keywords: *Behavioral Factors, Payment Methods, Consumer Payment Behavior, Cashless Payments and Financial Inclusion.*

Introduction: The rapid evolution of financial technology has brought about a profound shift in how consumers interact with payment systems. From cash transactions to the increasing reliance on digital methods like mobile payments, credit cards, and e-wallets, consumer payment behaviour has become a subject of interest for researchers, financial institutions, and policymakers. However, the decision-making process behind consumers' choices of payment methods is complex, shaped by various behavioral and economic factors.

Behavioral factors, such as trust, perceived security, convenience, and social influence, play a crucial role in driving payment adoption. Trust, in particular, has emerged as a pivotal element, with consumers hesitant to adopt payment systems they do not perceive as secure. Research by Barkhordari et al. (2016) in Iran emphasized that perceived security and trust are essential for the successful adoption of electronic payment systems (EPS). Similarly, studies in Poland by Świecka and Grima (2019) revealed that security concerns continue to affect the choice of payment methods, with cash and contactless cards being favored for their perceived safety.



Convenience and ease of use also drive consumer payment preferences, especially for digital payment systems. The Technology Acceptance Model (TAM) highlights how ease of use and perceived usefulness are key determinants in adopting new technologies, a finding corroborated by studies in Malaysia and Iran that show the importance of usability in mobile payment adoption. However, these factors are not isolated from the economic considerations that consumers face when making payment choices. Cost, transactional fees, and the perceived value of payment methods often influence whether consumers will adopt digital payments, particularly in regions where cash still dominates.

This literature review synthesizes findings from empirical studies across different regions, examining both the behavioral and economic factors that shape payment method choices. By analyzing research conducted in Iran, Poland, Malaysia, and beyond, this review aims to provide insights into how trust, security, convenience, social influence, and cost interact to influence consumer payment behavior. It seeks to highlight the persistent role of traditional payment methods while recognizing the growing adoption of digital payments, particularly among younger, tech-savvy demographics.

Objective: To systematically review the behavioral factors influencing consumers' choice of various payment methods, including cash, cashless, and mobile payments, by synthesizing insights from existing literature.

Trust and Security: Trust and security are critical factors influencing the adoption of payment methods. In various regions, studies have consistently shown that perceived security and trust significantly impact consumers' decisions regarding electronic payment systems (EPS).

Barkhordari et al. (2021) found that in Iran, perceived security and trust are significant determinants of EPS adoption. Consumers are more inclined to adopt EPS when they feel confident about the system's security features. Similarly, Świecka and Grima (2019) emphasized that in Poland, security is one of the most important factors influencing payment method choice, especially for cashless payments. Traditional bank transfers and contactless cards were found to be the most secure payment methods. Ebubedike et al. (2022) explored the relationship between system credibility and mobile payment adoption in Malaysia. They found that credibility, encompassing trust and security, is a crucial factor driving mobile payment adoption. Consumers are more likely to use mobile payment systems if they perceive them as reliable and secure. Additionally, Keramati et al. (2012) confirmed that trust is a significant driver of mobile payment adoption, with consumers more likely to adopt mobile services when they feel confident in the security of the platform.



Convenience and Ease of Use: Convenience and ease of use are major factors influencing consumer choice of payment methods. Świecka and Grima (2019) found that in Poland, ease of use was the most significant factor influencing both cash and cashless payments, with consumers favoring methods that require minimal effort. Contactless cards, in particular, were popular for their speed and simplicity.

Cost: Cost plays an important but varied role in influencing payment method choices. Świecka and Grima (2019) found that while cost is an important factor, it is not the most decisive for payment method selection in Poland. Consumers are willing to pay more for secure and convenient payment methods, although cash continues to dominate due to its low cost. Similarly, Barkhordari et al. (2021) noted that while cost considerations are less significant compared to security and trust in Iran, access to security guidelines, which can reduce perceived costs, remains an important factor in the adoption of EPS.

In Taiwan, Chen et al. (2022) found that while innovative consumers preferred mobile payments for their convenience, traditional consumers were deterred by perceived costs. Similarly, Immanuel et al. (2024) found that while consumers appreciated the speed of digital payments, they tended to avoid them if additional transaction costs were involved. Cost and convenience are consistently identified as significant determinants of payment method choice. While consumers appreciate the added benefits of certain payment methods, they are often cost-conscious, especially when transaction fees or hidden charges are involved.

Social Influence: Social influence plays a key role in the adoption of new payment methods, particularly in the context of mobile payments. Ebubedike et al. (2022) found that in Malaysia, social influence was a significant predictor of mobile payment adoption, with consumers more likely to adopt the technology if they saw their peers and social networks using it.

In Poland, Świecka and Grima (2019) noted that social norms and habits heavily influenced payment method choices, with consumers accustomed to using cash being less inclined to switch to cashless methods, even when they offered greater convenience. Social influence has also been shown to reduce perceived risks, thereby encouraging adoption. Koenig-Lewis et al. (2015) found that social influence mitigated concerns about mobile payment security, especially among younger consumers. In essence, social influence—through peers, family, and cultural norms—significantly impacts the adoption of new payment technologies, particularly among younger, tech-savvy populations.

Demographic Factors: Demographic factors such as age, income, and education level play a significant role in determining payment method preferences. In Poland, Świecka and Grima (2019) found that older consumers are more likely to use cash,



while younger consumers prefer cashless payment methods. Additionally, higher levels of education and income were associated with increased use of digital payments.

Barkhordari et al. (2021) reported similar findings in Iran, where younger consumers were more likely to adopt EPS, while older individuals remained skeptical. Demographic factors also influence the adoption of mobile payments, with younger, more educated individuals favoring these methods due to greater familiarity with technology.

Transactional Factors: Transactional factors such as the type of purchase, transaction amount, and location also affect payment method choice. Świecka and Grima (2019) found that in Poland, cash is more commonly used for low-value transactions, while cashless methods are preferred for higher-value transactions and in urban areas. Keramati et al. (2012) reported that transaction-specific factors, such as mobile phone skills and network availability, also significantly influence mobile payment adoption.

Habit: Habit is a significant factor in payment method choice. Schuh and Stavins (2015) found that consumers tend to stick to payment methods they are accustomed to, even when new options are introduced. Keramati et al. (2012) similarly noted that habitual reliance on familiar methods like cash or cards hinders the adoption of mobile payments. In Poland, many consumers continue to rely on cash despite the availability of cashless systems, due to long-standing habits and the simplicity of cash transactions. Similarly, Immanuel et al. (2024) found that many consumers still prefer cash due to familiarity, even though more convenient digital alternatives are available.

Perceived Enjoyment and Emotional Factors: Emotional factors such as perceived enjoyment also influence payment method choice. Koenig-Lewis et al. (2015) found that perceived enjoyment indirectly influenced the intention to use mobile payment systems. Consumers who enjoyed using mobile payments were more likely to perceive them as useful and easy to use. Similarly, Immanuel et al. (2024) noted that the intangible nature of digital payments reduced feelings of guilt associated with spending, leading to increased usage.

Here's a table based on the findings, methodology, research gaps, objectives, and author details from the literature on behavioral factors responsible for payment method choices:



Title of Paper	Authors	Objectives	Methodology	Findings	Research Gaps
Factors Influencing the Users of Unified Payments Interface in India	N. Vivek, Dr. S.C.B. Samuel Anbu Selvan	Study factors influencing UPI usage in India	Descriptive research using secondary sources	UPI is popular due to ease of use, speed, and security. Adoption influenced by awareness and digital literacy	Limited to secondary data; lacks primary empirical data
Determinants of Behavioral Intention to Use Digital Payment among Indian Youngsters	Arif Hasan, Priyanka Sikarwar, Arun Mishra, et al.	Investigate factors affecting behavioral intention to use M-wallets	Survey of 600, with 482 valid responses; Structural equation modeling	Trust, compatibility, social influence drive intention to use M-wallets; Perceived enjoyment has a lesser effect	Study limited to specific M-wallets and a single age group in one city
Factors Affecting Consumers' Mobile Payment Behavior: A Meta-Analysis	Zhunzhun Liu, Shenglin Ben, Ruidong Zhang	Identify factors that influence consumer behavior regarding mobile payments	Meta-analysis of global empirical studies	Perceived usefulness, ease of use, risk, social influence, and trust significantly affect mobile payment adoption	No focus on regional or demographic variations.
How Do Consumers Make Their Payment Choices?	Joanna Stavins	Explore factors affecting payment choice in the US	Survey data from consumer payment diaries and transactions	Demographics, cost, and perceived security are major factors influencing payment choice.	More research needed on the role of price differentiation and incentives
Factors Influencing Adoption of E-Payment Systems: An Empirical Study on	Maryam Barkhordari, Zahra Nourollah, Hoda Mashayekhi, Yoosof Mashayekhi, Mohammad S. Ahangar	Investigate the factors influencing trust and security in e-payment adoption	Empirical study; structured questionnaire	Trust and security are significant factors influencing e-payment system	Limited to the Iranian banking system; broader cross-country analysis
Factors Affecting the Consumers' Choice of Payment Instrument in Poland	Beata Świecka, Simon Grima	Determine factors influencing consumer payment choices in Poland	Nationwide survey (N=1005); Computer-Assisted Personal Interviews (CAPI)	Cash remains dominant due to ease of use and low transaction cost, despite the development of cashless options.	Limited consideration of emerging digital payment trends.



Analyzing Customer Preference Towards Payment System: Cash, Debit Card, and Credit Card	Marselina Prisilia Stacy Pomantow	Analyze the usage of cash, debit cards, and credit cards	Analytical Hierarchy Process (AHP)	Credit cards are preferred due to security, privacy, and promotion offers.	Focuses only on card payments without considering mobile payments
Factors Affecting Online Payment Method Decision Behavior of Consumers in Vietnam	Thi Phuong Linh Nguyen, Van Hau Nguyen	Examine factors influencing online payment method decisions in Vietnam	Qualitative and quantitative methods using SPSS AMOS	Risk awareness negatively impacts adoption, while usefulness awareness positively affects decisions.	Does not explore mobile payments extensively.
Comparative Analysis of Customer Payments Preference Between Cash Payment and Digital Payment	Julyandro Immanuel, S.L.H.V. Joyce Lapián, Merinda H. C. Pandowo	Compare consumer preferences between cash and digital payments	Questionnaire-based quantitative approach; 100 respondents	Significant differences in preferences for security, but no major differences in ease of use or cost between cash and digital payments.	Focused on a specific university setting; results may not generalize to broader populations.
Factors Influencing Adoption of E-Payment Systems: An Empirical Study on Iranian Customers	Maryam Barkhordari, Zahra Nourollah, Hoda Mashayekhi, Yoosof Mashayekhi, Mohammad S. Ahangar	Investigate the factors influencing trust and security in e-payment adoption	Empirical study; structured questionnaire	Trust and security are significant factors influencing e-payment system adoption in Iran.	Limited to the Iranian banking system; broader cross-country analysis would be useful.
How Do Consumers Make Their Payment Choices?	Joanna Stavins	Explore factors affecting payment choice in the US	Survey data from consumer payment diaries and transactions	Demographics, cost, and perceived security are major factors influencing payment choice.	More research needed on the role of price differentiation and incentives.
Factors Influencing Adoption of E-Payment Systems: An Empirical Study on Iranian Customers	Maryam Barkhordari, Zahra Nourollah, Hoda Mashayekhi, Yoosof Mashayekhi, Mohammad S. Ahangar	Investigate the factors influencing trust and security in e-payment adoption	Empirical study; structured questionnaire	Trust and security are significant factors influencing e-payment system adoption in Iran.	Limited to the Iranian banking system; broader cross-country analysis would be useful.



Comparative Analysis of Customer Payments Preference Between Cash Payment and Digital Payment	Julyandro Immanuel, S.L.H.V. Joyce Lopian, Merinda H. C. Pandowo	Compare consumer preferences between cash and digital payments	Questionnaire-based quantitative approach; 100 respondents	Significant differences in preferences for security, but no major differences in ease of use or cost between cash and digital payments.	Focused on a specific university setting; results may not generalize to broader populations.
Factors Influencing Consumer's Behavioral Intention Towards the Adoption of Mobile Payment in Kuala Lumpur	Ama Henry Ebubedike, Tara Ahmed Mohammed, Syriac Nellikunnel, Tan Seng Teck	Investigate the link between credibility, social impact, effort, performance, and mobile payment adoption	Descriptive study; 100 students surveyed in Kuala Lumpur	Strong relationship between effort, performance expectations, and adoption of mobile payments	Limited to student population in Kuala Lumpur; broader demographic needed
Enjoyment and Social Influence: Predicting Mobile Payment Adoption	Nicole Koenig-Lewis, Morgan Marquet, Adrian Palmer, Anita Lifen Zhao	Explore how social influence and enjoyment affect mobile payment adoption	Online survey of 316 participants; Technology Acceptance Model (TAM)	Social influence reduces perceived risk; enjoyment enhances ease of use and usefulness	Focused on younger population; lacks focus on older demographic and regional differences
A Combinative Model of Behavioral and Technical Factors Affecting Mobile Payment Services Adoption	Abbas Keramati, Rose Taeb, Arad Mousavi Larijani, Navid Mojir	Investigate behavioral and technical factors influencing mobile payment adoption	Questionnaire survey of 623 Iranian consumers; ANOVA, MANOVA, logistic regression	Ease of use, usefulness, trust, and compatibility are significant factors affecting adoption	Limited to Iranian consumers; broader cross-country analysis needed
Cash, Credit Card, or Mobile? Examining Customer Payment Preferences at Chain Restaurants in Taiwan	Chun-Chu Bamboo Chen, Hsiangting Chen, Yao-Chin Wang	Examine customer payment preferences in chain restaurants	Online panel survey of 1200 Taiwanese participants; regression and ANOVA	Innovative customers prefer mobile payments; traditional customers perceive mobile payments as risky	Focused on restaurant industry; does not explore general retail payment preferences
How Do Speed and Security Influence Consumers' Payment Behavior?	Scott Schuh, Joanna Stavins	Assess how speed and security influence payment adoption and use	Econometric models based on the 2013 Survey of Consumer Payment Choice	Faster payments increase ACH adoption slightly; enhanced security improves card usage	Does not account for cost factors that may influence adoption; focuses on U.S. market
The Determinants of Electronic Payment Systems Usage from Consumers' Perspective	Emrah Oney, Gizem Oksuzoglu Guven, Wajid Hussain Rizvi	Investigate how trust and security influence EPS usage	Structural equation modeling (SEM) with 299 respondents	Perceived security and trust are significant; technical protection and past experience are key determinants	Limited to Turkish consumers; broader sample needed for cross-cultural validation



Impact of Payment Methods on Buying Behavior in E-Commerce	Michelle Angelina Santoso, Sony Chandra, Vicky, Zeeva Nathania Nugroho, Tanty Oktavia	Investigate the influence of payment methods on consumer buying behavior in e-commerce	Electronic survey; data analyzed using SmartPLS and Partial Least Squares Structural Equation Modeling (PLS-SEM)	Enabling conditions, price value, and habit significantly influence buying behavior	Limited focus on Indonesian e-commerce market; lacks consideration of other payment methods like credit and mobile payments
--	---	--	--	---	---

Conclusion: The landscape of payment methods is continuously evolving, driven by both technological advancements and changing consumer behaviors. This literature review reveals that the choice of payment methods is significantly influenced by a complex interplay of **behavioral** and **economic** factors. Behavioral factors such as **trust, perceived security, ease of use, social influence, habit, and perceived risk** emerge as dominant drivers in the adoption of both traditional and digital payment methods. Consumers are more likely to embrace digital payment systems when they perceive them as secure, reliable, and easy to use, especially if they observe their peers adopting similar methods. However, deeply ingrained habits, particularly the use of cash, persist across many regions, with consumers often hesitant to switch to newer methods unless these offer substantial benefits.

On the other hand, **economic factors** like **cost** and **convenience** also play a significant role in shaping payment preferences. While some consumers are willing to pay a premium for convenience, others, particularly in regions where cash is dominant, continue to prefer low-cost payment methods. The growing popularity of contactless payments and mobile wallets demonstrates the importance of convenience and speed in modern financial transactions.

As digital payment methods become more ubiquitous, addressing consumer concerns about security and ensuring seamless user experiences will be critical. Financial institutions and policymakers must focus on enhancing trust through robust security measures, while simultaneously making payment systems more user-friendly and accessible. Understanding these nuanced factors will enable stakeholders to design better payment solutions that cater to diverse consumer needs, ultimately fostering broader adoption of innovative payment technologies.

References:

1. Barkhordari, M., Nourollah, Z., Mashayekhi, H., Mashayekhi, Y., & Ahangar, M. S. (2016). Factors influencing adoption of e-payment systems: An empirical study on Iranian customers. *Information Systems and E-Business Management*, 15, 89-116.
2. Świecka, B., & Grima, S. (2019). Factors affecting the consumers' choice of payment instrument in Poland. *European Research Studies Journal*, 22(4), 179-198.



3. Ebubedike, A. H., Mohammed, T. H., Nellikunnel, S., & Teck, T. S. (2022). Factors influencing consumer's behavioral intention towards the adoption of mobile payment in Kuala Lumpur. *International Journal of Professional Business Review*, 7(6), 01-20.
4. Koenig-Lewis, N., Marquet, M., Palmer, A., & Zhao, A. L. (2015). Enjoyment and social influence: Predicting mobile payment adoption. *The Service Industries Journal*, 35(10), 537-554.
5. Liu, Z., Ben, S., & Zhang, R. (2019). Factors affecting consumers' mobile payment behavior: A meta-analysis. *Electronic Commerce Research*, 19, 575-601.
6. Chen, C. C., Chen, H., & Wang, Y. C. (2022). Cash, credit card, or mobile? Examining customer payment preferences at chain restaurants in Taiwan. *Journal of Foodservice Business Research*, 25(2), 148-167.
7. Immanuel, J., Lapian, S. L. H. V. J., & Pandowo, M. H. C. (2024). Comparative analysis of customer payment preferences between cash and digital payment. *Jurnal EMBA*, 12(4), 812-819.
8. Nguyen, T. P. L., & Nguyen, V. H. (2020). Factors influencing online payment system adoption: A study on Vietnamese customers. *Journal of Management Information and Decision Sciences*, 23(S2), 382-392.
9. Stavins, J. (2017). How do consumers make their payment choices? *Federal Reserve Bank of Boston Working Paper*, 17-1.
10. Keramati, A., Taeb, R., Larijani, A. M., & Mojir, N. (2012). A combinative model of behavioral and technical factors affecting mobile payment services adoption. *The Service Industries Journal*, 32(9), 1489-1504.

Disclaimer/Publisher's Note: The statements, opinions, and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of TJSD and/or the editor(s). The Journal of Scientific Discourse (TJSD) and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.



Intellectual Property Right Protection in India: A Perspective

S. S. Nigam^{1*} & R. P. Singh²

1. Dept. of Chemistry, Veerangana Jhalkari Bai Govt. Girls College, Gwalior M.P.

2. Dept. of Botany, Govt. KRG PG College, Gwalior M.P.

*Corresponding Author: ssnigam0@gmail.com

Abstract: *The protection of intellectual property rights gained the interest of people in our country in the middle of the last century. Thus, India enacted the Indian Patent Act, of 1970 to protect the vast natural resources, great heritages, and traditions of the country. After that are number of acts drew its power and force from a variety of legislatures of the country from 1865 to till now. Paper concludes that India has enough legislative provisions to meet the exigencies and accord protection to Intellectual Property Rights. However, there is a need for awareness among Research scholars, Teachers, Businessmen, and common people.*

Key Words: *IPR, Patent & Copy Rights.*

Introduction: Property has been legally defined as the right of a person or a group of persons that he can possess. Anything capable of being owned has to be taken as property. It means that all the creations of the mind and skill of a person are the property of the creator. After the rapid evolution of science and technology and the development of technology, having access to them through the great leaps in information technology is how to protect this property and provide the advantage to the genuine owner.

The protection of intellectual property rights gained the interest of people in our country in the middle of the last century. Thus, India enacted the Indian Patent Act, of 1970 to protect the vast natural resources, great heritages, and traditions of the country. After that are number of acts drew its power and force from a variety of legislatures of the country from 1865 to till now. Some important acts are as: Indian Penal Code, 1865. Code of Civil Procedure, 1908. Copyright Act, 1957. Specific Relief Act, 1963. Indian Patent Act (1970), amended in 1999 2002, and 2004 superseded by Patents Amendment Act 2005 Trade Related Intellectual Property Rights Agreement (TRIPs) in 1995, as part of the treaty obligations, India was compelled to modify the Indian Patent Act (1970). Code of Criminal Procedure, 1973. Trade Marks Act, 1999. Geographic Indicators of Goods (Registration and Protection) Act, 1999. Industrial Designs Act, 2000. Information Technology Act, 2000. Protection of Plant Variety and Farmers' Rights (PPVFR) Act, 2001. Biological Diversity Act, 2002 Jan Vishwas (Amendment of Provisions) Act, 2023. Patents (Amendment) Rules, 2024.

**The Salient Features of The Patents Act, 1970:**

1. Elaborate definition of invention
2. No product patents for substances intended for use as food, drugs, and medicines including the product of chemical processes
3. Codification of certain inventions as non-patentable
4. Mandatory furnishing of information regarding foreign application
5. Adoption of absolute novelty criteria in case of publication
6. Expansion of the grounds for opposition to the grant of a patent
7. Exemption of certain categories of prior publication, prior communication, and prior use from anticipation
8. Provisions for secrecy of inventions relevant to Defense purposes
9. Provision for use of inventions for Government or research or instruction to pupils
10. Reduction in the term of patents relating to process in respect of substances capable of being used as food or as medicine or drugs
11. Enlargement of the grounds for revocation of a patent
12. Provision for non-working as a ground for compulsory licenses of right, and revocation of patents
13. Additional powers to the Central Government to use an invention for purposes of government including Government undertakings
14. Prevention of abuse of patent rights by making restrictive conditions in license agreements/contracts void
15. Provision for an appeal to the High Court on certain decisions of the Controller
16. Provision for opening of branches of the Patent Office.

This Act remained in force for about 24 years till December 1994 without any change. An ordinance affecting certain changes in the Act was issued on 31st December 1994, which ceased to operate after six months. Subsequently, another ordinance was issued in 1999. This ordinance was later replaced by the Patents (Amendment) Act, 1999 which was brought into force retrospectively from 1st January 1995. The amended Act provided for filing applications for product patents in drugs, pharmaceuticals, and agrochemicals, though such patents were not allowed. However, such applications were to be examined only after 31st December 2004. Meanwhile, the applicants could be allowed Exclusive Marketing Rights (EMRs) to sell or distribute these products in India, subject to the fulfilment of certain conditions.

1.2.11 The second amendment to the 1970 Act was made through the Patents (Amendment) Act, 2002 (Act 38 of 2002). This Act came into force on 20th May 2003 with the introduction of the new Patents Rules, 2003 by replacing the earlier Patents Rules, 1972.



Salient features of the Patents (Amendment) Act, 2002:

1. Further codification of non-patentable inventions
2. 20 years term of patent for all technology
3. Provision for reversal of the burden of proof in case of process patents
4. Provisions of compulsory licenses to meet public health concerns
5. Deletion of provision of license of right
6. Introduction of a system of deferred examination
7. Mandatory publication of applications after 18 months from the date of filing
8. Provision for process patent for microorganisms
9. Establishment of Appellate Board
10. Provision for parallel imports
11. Provision for exemption from infringement proceedings for use of a patented invention for obtaining regulatory approval for a product based on that patented invention
12. Provision to protect biodiversity and traditional knowledge.

The third amendment to the Patents Act, of 1970 was introduced through the Patents (Amendment) Ordinance, 2004 w.e.f. 1st January, 2005. This Ordinance was later replaced by the Patents (Amendment) Act, 2005 (Act 15 Of 2005) on 4th April 2005 which was brought into force from 1st January 2005.

The Salient Features of this Amendment:

1. Extension of product patents to all fields of technology including food, drugs, chemicals, and microorganisms
2. Deletion of the provisions relating to Exclusive Marketing Rights (EMRs)
3. Introduction of a provision for enabling the grant of a compulsory license for the export of medicines to countries that have insufficient or no manufacturing capacity to meet emergent public health situations
4. Modification in the provisions relating to opposition procedures to streamline the system by having both pre-grant and post-grant opposition in the Patent Office
5. Strengthening the provisions relating to national security to guard against patenting abroad of dual-use technologies
6. Rationalisation of provisions relating to timelines to introduce flexibility and reduce the processing time for patent applications.

Patents Rules:

Section 159 of the Patents Act, of 1970 empowers the Central Government to make rules for implementing the Act and regulating patent administration. Accordingly, the Patents Rules, 1972 were notified and brought into force w.e.f. 20th April, 1972.



These Rules were amended from time to time till 20th May, 2003 when new Patents Rules, 2003 were brought into force by replacing the 1972 rules. These Rules were further amended by the Patents (Amendment) Rules, 2005, and the Patents (Amendment) Rules, 2006. The last amendments were made effective from 5th May 2006.

Property rights concerning patents, industrial designs, geographical indicator goods, software, IT, etc. increase with the competent provisions of law. The monopoly of the same lies in favor of the registration holder for a certain period.

The provisions of the common law of torts are involved to redress the grievances and promise the establishment of the legal property right. The infringement of unregistered trademarks and copyrights is assured to occur when the reputation of original holder is misappropriated or goodwill is damaged.

IPR registration is not essential for trademark and copyright which covers artistic work, literary work, audio records, video records, software, etc. On the other hand, specific registration is necessary for patents, industrial designs, geographical indications, formulation etc.

IPRs can be cancelled based on the following points:

1. Against any right of another person
2. Against universal laws
3. Misrepresentation
4. Against any right of another person
5. Mistakenly
6. Against public policy or morals

Jan Vishwas (Amendment of Provisions) Act, 2023: This act came into effect on August 1, 2023. There are some key points about this act as: Decriminalization of some offenses, focus on civil penalties, this amendment applies to the Patents Act, 1970, Trade Marks Act, 1990, Copyright Act 1957 and The Geographical Indications of Goods 1999.

Patents (Amendment) Rules, 2024: This patent amendment introduces certificates of inventorship and a grace period for filing an application for patents.

Conclusion: It is concluded that India has enough legislative provisions to meet the exigencies and accord protection to Intellectual Property Rights. However, there is a need for awareness among Research scholars, Teachers, Businessmen, and common people.



References:

1. Anonymous (2008) Manual of Patent Practice and Procedure the Patent Office, India
2. Das R R (2008) Intellectual Property Right Protection in India, Proceeding: National Seminar on Current Status and Importance of Ipr Issues, Jiwaji University, Gwalior, P.21-25
3. Singh R P & Vinayak Singh Tomar (2014) Intellectual Property Rights and Their Importance in Research, Business and Industry. Daya Publishing House, New Delhi.
4. Kalyan C. Kankanala, Arun K. Narasani & Vinita Radhakrishnan, 'Indian Patent Law and Practice', 2010, Oxford University Press.

Disclaimer/Publisher's Note: The statements, opinions, and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of TJSD and/or the editor(s). The Journal of Scientific Discourse (TJSD) and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.



Impact of Self-Control on Credit Card Debt Accumulation and Repayment Patterns: A Literature Review

Shiva¹ & Gajendra Sahu²

1. Department of Economics, Banaras Hindu University, Varanasi, U.P., India
2. Department of Economics, Banaras Hindu University, Varanasi, U.P., India

Corresponding Author: shiva1739@bhu.ac.in

Abstract: *This literature review examines the role of self-control in credit card debt accumulation and repayment patterns, integrating insights from behavioral economics, psychology, and financial literacy research. The study highlights how self-control deficits contribute to impulsive borrowing and suboptimal repayment decisions, exacerbating financial distress. Various research methodologies, including empirical analyses, experimental studies, and neuroeconomic approaches, are explored to understand the interplay between self-control and financial decision-making. Findings emphasize the need for targeted financial education, commitment mechanisms, and policy interventions to mitigate impulsive borrowing and enhance debt management strategies. Additionally, the review identifies gaps in existing literature, advocating for further research on demographic variations, the long-term impact of self-control, and the effectiveness of behavioral interventions in real-world financial settings.*

Keywords: *Self-Control, Credit Card Debt, Financial Decision-Making, Behavioral Economics, Debt Management*

Introduction: Self-control is defined as a person's capacity to manage impulses, postpone gratification, and choose actions that correspond with long-term objectives instead of short-term wants (Baumeister et al., 1994). Self-control is the capacity to manage urges and postpone satisfaction, which is vital in monetary actions, especially concerning credit card debt creation and settlement. People with insufficient self-regulation tend to participate in spontaneous purchasing, resulting in significant credit card debt, increased interest fees, and financial hardship. Additionally, inadequate self-regulation adversely influences repayment behaviors, leading to minimal payments, overdue deadlines, and extended debt periods (Meier and Sprenger, 2010; Gathergood, 2012). Credit card debt poses a major financial obstacle confronted by households worldwide, with numerous individuals finding it difficult to manage their repayments successfully. Conventional economic models frequently presume rational decision-making in financial behavior, yet real-world evidence indicates that self-control problems significantly impact debt accumulation and repayment behavior. Behavioral finance, which investigates the psychological and emotional elements affecting financial choices, underscores how impulsive spending, delayed gratification, and other self-control difficulties lead to excessive borrowing and poor



debt management. This review explores the convergence of behavioral economics and financial decision-making, analyzing how self-control influences credit card borrowing, debt accumulation, and repayment practices, while also contemplating the psychological and economic factors that inform these financial decisions.

Objective: The main aim of this literature review is to evaluate the effect of self-control on the accumulation of credit card debt and repayment behaviors. Specifically, it seeks to:

1. Review the connection between self-control and impulsive borrowing tendencies.
2. Review the relationship between financial literacy and psychological aspects in managing debt, emphasizing the importance of self-control in behaviors related to debt repayment and the efficacy of behavioral strategies in alleviating the negative impacts of inadequate self-control on financial choices. Furthermore, this research will highlight gaps in existing studies and suggest avenues for future exploration in this field.

Review of the Literature:

Table: Literature Review

Reference	Keywords	Focus Area	Findings
Agarwal, S., Chomsisengphet, S., Meier, S., & Zhou, X. (2020).	Household debt, Mood shocks	Impact of emotional state on credit card spending	Greater exposure to sunlight associated with increased spending for individuals with low self-control.
Baumeister, R. F., Heatherton, T. F., & Tice, D. M. (1994).	Self-regulation, Impulsivity	Self-control theory	Describes self-discipline and its effects on financial conduct.
Bertaut, C. C., Haliassos, M., & Reiter, M. (2008).	Present bias, Credit card debt	Present bias and debt accumulation	Short-term impatience results in increased borrowing and difficulties in managing debt.
Besharat, A., Carrillat, F. A., & Ladik, D. M. (2014).	Debt mirage, Goal progress	Debt repayment strategies	The view that progress on minor debts hinders comprehensive debt decrease.
Donelly, G. E., Lamberton, C., Bush, S., Chance, Z., & Norton, M. I. (2023)	Repayment-by-purchase, Behavioral interventions	Innovative repayment strategies	Enhanced repayment rates via repayment strategies connected to purchases.
Fernández-López, S., Castro-González, S., Rey-Ares, L., & Rodeiro-Pazo, D. (2023)	Self-control, Household debt	Connection between self-discipline and debt categories	Decreased self-discipline associated with increased unsecured debt.



Gathergood, J. (2012)	Financial literacy, Self-control	Over-indebtedness and financial literacy	Problems with self-discipline worsen consumer debt, even among those who are financially knowledgeable.
Gathergood, J. (2020)	Impulsivity, Repayment behavior	Debt management in UK households	Financial knowledge decreases reliance on credit cards; impulsiveness hinders repayment.
Gomera, W. C., & Ngollo, M. I. (2023).	Loan repayment, Gender disparities	Women's repayment behaviors in Tanzania	Robust self-discipline does not always lead to timely debt settlement.
Grohmann, A., & Hamdan, J. S. (2021).	Impulsive borrowing, Financial literacy	The significance of financial literacy in borrowing habits	Financial knowledge minimizes hasty borrowing; ego depletion exacerbates it.
Guttman-Kenney, B., Adams, P. D., Hunt, S., Laibson, D., Stewart, N., & Leary, J. (2023).	Financial nudges, Minimum payments	Behavioral interventions for repayment	Balance notifications and repayment reminders enhance repayment practices.
Khare, A. (2013)	Compulsive buying, Cultural influences	Credit card usage in India	Cultural influences stimulate compulsive buying more than the accessibility of credit.
Kuchler, T., & Pagel, M. (2019).	Present bias, Hyperbolic discounting	Behavioral biases in debt accumulation	Present bias results in heightened borrowing and problems with repayment.
McHugh and Ranyard (2015)	Minimum payments, Behavioral nudges	Anchoring effects on repayment	Removing minimum payment thresholds enhances complete repayments.
Milde (2008)	Neuroscience, Decision-making	Brain imaging and financial decisions	Controlled versus automatic decision-making influences the accumulation of debt.
Meier, S., & Sprenger, C. D. (2010).	Present bias, Impulsivity	Behavioral preferences and borrowing	Tendencies favoring the present result in hasty borrowing.
Schwartz, D. (2002)	Statement balance warnings	Credit card repayment behavior	Alerts enhance repayment rates, yet they have a restricted effect on complete repayment.
Schwartz, D. (2020)	Machine learning, Behavioral nudges	Predictive models in repayment strategies	Machine learning algorithms determine the best repayment approaches.



Thompson, P. (2020)	Immigrant credit behavior	Credit card liabilities among immigrants in the UK	Emphasizes distinctive repayment patterns observed in immigrants.
Fernando, R. M. L., Lijarso, R. A. J., Mañago, H. I., & Yanson, R. B. (2024)	Credit card usage, Lifestyle enhancements	Patterns of credit card use	Credit cards improve quality of life but create difficulties in repayment.
Barboza, G., Bongini, P., & Rossolini, M. (2021).	Financial literacy, Credit card repayment	Repayment patterns	Financial knowledge enhances repayment capabilities but does not reduce impulsiveness.

Methodology: The methodology use in this literature review centers on integrating findings from various peer-reviewed studies, reports, and academic articles to thoroughly investigate the influence of self-control on the accumulation of credit card debt and repayment behaviors. This approach is structured to provide a systematic, thorough, and impartial assessment of the existing literature in order to uncover patterns, deficiencies, and essential insights.

The chosen studies utilize a range of research methods, including:

- **Empirical Analysis:** Fernández-López et al. (2023) analyzed data from 8,554 Spanish individuals to explore the connection between self-control and different forms of debt, discovering a significant link between low self-control and unsecured borrowing.
- **Experimental Studies:** Grohmann and Hamdan (2021) performed a laboratory experiment with an ego depletion task to assess how financial literacy and self-control affect impulsive borrowing behavior.
- **Neuroscientific Approaches:** Milde (2008) used brain imaging studies to distinguish between controlled and automatic financial decision-making.
- **Machine Learning and Predictive Models:** Ha and Krishnan (2010) employed a hybrid model that combined Self-Organizing Maps (SOM) and neural networks to forecast debt repayment behaviors among retail delinquents.
- **Survey-Based Studies:** Khare (2013) carried out a quantitative analysis using structured questionnaires to evaluate the impact of demographic factors on credit card use and compulsive purchasing.
- **Quantitative surveys and econometric models:** (Gathergood, 2020; Fernández-López et al., 2023; Hadianto et al., 2023). These various methodologies offer thorough insights into the intricate relationship between self-control and the management of credit card debt.



Self-Control and Credit Card Borrowing Behavior: Self-control issues significantly influence overborrowing and the buildup of credit card debt (Milde, 2008). Individuals who are impulsive and possess low financial literacy are more susceptible to borrowing excessively (Grohmann and Hamdan, 2021). Present bias contributes to inadequate debt accumulation, where people favor immediate satisfaction over future financial security (Kuchler, 2021). In the Indian consumer marketplace, psychological and cultural elements are more influential in compulsive spending than the availability of credit cards (Khare, 2013). Self-control challenges are evident in impulsive borrowing, hyperbolic discounting, and compulsive buying behavior (Milde, 2008; Khare, 2013). Individuals with financial impulsivity often depend on credit cards significantly, typically overstepping their ability to repay (Gathergood, 2020; Fernández-López et al., 2023). Present bias, which prioritizes immediate pleasure over enduring financial wellness, intensifies the accumulation of debt (Kuchler and Pagel, 2019). Research indicates that short-run impatience leads to elevated borrowing levels and challenges in managing existing debts (Bertaut, Haliassos, and Reiter, 2008). Furthermore, mood changes, such as increased sunlight, have been associated with higher credit card expenditures among consumers with lower self-control (Agarwal et al., 2020).

Self-Control and Credit Card Repayment and Patterns: Weak self-control also impacts repayment habits, resulting in ongoing cycles of debt. Research indicates that people with limited self-control find it difficult to follow repayment schedules, with many choosing minimum payments instead of paying off the full balance (McHugh and Ranyard, 2015; Schwartz, 2002). Experimental studies imply that behavioral interventions can enhance repayment behavior. For example, eliminating minimum payment anchors led to an increase in full payments (McHugh and Ranyard, 2015), while higher repayment anchors promoted greater debt reduction (Donnelly et al., 2023). Moreover, personality characteristics like overconfidence and financial anxiety were identified as factors affecting repayment behaviors among college students (Kuchler and Pagel, 2019). Minimum payment anchoring effects cause consumers to pay less than required, perpetuating debt cycles (McHugh and Ranyard, 2015). The perception of progress in debt repayment causes individuals to focus on smaller debts rather than reducing overall expenses (Besharat et al., 2014). Repayment-by-purchase strategies boost repayment rates by enhancing consumer participation and awareness of their debt (Donnelly et al., 2023). Individuals with greater financial knowledge tend to better manage self-control issues and sustain steady repayment behavior (Kuchler, 2021). Women market vendors in Tanzania prioritize business expenditures over loan repayments, suggesting that strong self-control does not necessarily lead to prompt debt repayment (Gomera and Ngollo, 2023).



The Role of Financial Literacy in Mitigating Poor Self-Control: While financial literacy contributes to better credit card debt management, its impact is often limited when issues of self-control are present. Research shows that financially literate individuals make superior credit choices, yet self-control acts as a more significant predictor of debt accumulation and delinquency (Grohmann and Hamdan, 2021; Fernández-López et al., 2023). A study of bank employees in Indonesia discovered that enhanced financial literacy and self-control decreased credit card usage, indicating that a blend of knowledge and behavioral discipline is essential for prudent financial management (Hadiantoet al., 2023). Nevertheless, a study concerning UK households indicated that even financially literate consumers faced challenges with repayment due to impulsive spending behaviors (Gathergood, 2020). Higher financial literacy and self-control correspond with reduced credit card use among bank employees in Indonesia (Hadiantoet al., 2023). Commitment devices, such as automatic savings plans and alternative repayment anchors, can alleviate self-control issues (McHugh and Ranyard, 2015). Default savings options significantly impact debt repayment behaviors, implying that structural changes can improve financial results (Milde, 2008).

Behavioral and Policy Interventions: Numerous behavioral interventions have been suggested to address self-control issues in managing credit card debt: Commitment devices, such as automatic savings plans, help decrease impulsive spending (Milde, 2008). Repayment-by-purchase strategies boost debt repayment by 12.18%, as they foster a heightened sense of financial advancement (Donnelly et al., 2023). Financial nudges, like balance alerts and alternative repayment anchors, enhance repayment rates (Schwartz, 2002; Guttman-Kenney et al., 2023). Targeted financial education programs, concentrating on impulse control and deferred gratification, demonstrate potential in diminishing compulsive spending (Khare, 2013).

Implications for Financial Policy and Consumer Behavior.

- **Financial Education Programs:** Enhancing financial literacy may help alleviate impulsive borrowing and promote responsible management of debt.
- **Behaviorally-Informed Credit Policies:** Policymakers ought to consider the integration of default repayment arrangements and alternative anchors to foster improved repayment behaviors.
- **Personalized Debt Management Tools:** Fintech innovations could employ AI and machine learning to devise customized debt repayment strategies based on individual self-control capabilities.
- **Employer-Based Financial Wellness Programs:** Organizations can adopt financial education and automated savings initiatives to enhance the financial health of their employees.



Conclusion: The review of literature emphasizes the important impact of self-control on the accumulation of credit card debt and repayment behaviors. Research consistently indicates that people with diminished self-control tend to engage in impulsive borrowing and face challenges in managing their debt effectively. Although financial literacy can alleviate some of these challenges, behavioral biases such as present bias, hyperbolic discounting, and compulsive spending continue to pose significant barriers to responsible credit use. A variety of interventions, including commitment devices, behavioral nudges, and financial education initiatives, have been studied to enhance repayment behaviors. Nonetheless, there are still gaps in comprehending the long-term success of these interventions, the impact of demographic factors, and the incorporation of psychological and neuroscientific viewpoints in financial decision-making. Future studies ought to center on interdisciplinary methods, merging insights from behavioral economics, psychology, and technology-based interventions. Furthermore, policymakers and financial institutions must create consumer-oriented policies that promote responsible borrowing and repayment behaviors. By tackling self-control challenges through focused strategies, financial well-being can be greatly enhanced, decreasing the likelihood of prolonged debt buildup and financial hardship.

References:

1. Agarwal, S., Chomsisengphet, S., Meier, S., & Zhou, X. (2020). Household debt and mood shocks. *Journal of Banking and Finance*
2. Baumeister, R. F., Heatherton, T. F., & Tice, D. M. (1994). *Losing control: The reasons and methods through which individuals struggle with self-regulation*. Academic Press.
3. Bertaut, C. C., Haliassos, M., & Reiter, M. (2008). Credit card debt and the accountant-shopper model.
4. Besharat, A., Carrillat, F. A., & Ladik, D. M. (2014). When motivation conflicts with debtors' best interests: The mirage of goal progress in credit card debt repayment.
5. Donnelly, G. E., Lamberton, C., Bush, S., Chance, Z., & Norton, M. I. (2023). Debt reduction and repayment-by-purchase strategies.
6. Fernández-López, S., Castro-González, S., Rey-Ares, L., & Rodeiro-Pazo, D. (2023). Household debt and self-control in Spain.
7. Gathergood, J. (2012). Financial literacy, self-control, and excessive consumer debt. *Journal of Economic Psychology*, 33(3), 590–602.
8. Gathergood, J. (2020). Over-indebtedness, self-control, and financial literacy in UK households.
9. Gomera, W. C., & Ngollo, M. I. (2023). The influence of self-control on loan repayment choices of female market vendors in Mbeya Municipality, Tanzania.
10. Grohmann, A., & Hamdan, J. S. (2021). Impulsive borrowing and the role of financial literacy and self-control.
11. Guttman-Kenney, B., Adams, P. D., Hunt, S., Laibson, D., Stewart, N., & Leary, J. (2023). The appearance of success in nudging consumers to reduce credit card debt.
12. Khare, A. (2013). Credit card usage and compulsive buying behavior.
13. Kuchler, T., & Pagel, M. (2019). Debt repayment behavior and present bias.



14. Kuchle, T. (n.d.). Sticking to your strategy: Hyperbolic discounting and credit card debt reduction.
15. Milde, C. (2008). Credit card borrowing, illiquid assets, and self-control challenges.
16. Meier, S., & Sprenger, C. D. (2010). Preferences that are biased towards the present and borrowing via credit cards. *American Economic Journal: Applied Economics*, 2(1), 193–210.
17. Sahul Hamid, F., & Md Harizan, S. H. (2023). Behavioral biases and credit card repayments among Malaysians.
18. Schwartz, D. (2002). Credit card repayments and the impact of statement balance warnings.
19. Schwartz, D. (2020). *The emergence of a nudge: Field study and machine learning on minimum and full credit card payments*.
20. Thompson, P. (2020). The Relationship between consumer credit card debt and immigrants in the UK: A systematic review. *American Journal of Economics* ISSN 2520-0453 (online) Vol.4, Issue 2, pp 86 - 114, 2020
21. Fernando, R. M. L., Lijarso, R. A. J., Mañago, H. I., & Yanson, R. B. (2024). Credit card usage pattern: A lifestyle enhancer.
22. Barboza, G., Bongini, P., & Rossolini, M. (2021). Financial (il)literacy versus individual behavior: Insights on credit card repayment patterns.

Disclaimer/Publisher's Note: The statements, opinions, and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of TJSD and/or the editor(s). The Journal of Scientific Discourse (TJSD) and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.



Review on Impact of Anchoring and Framing Effect in Online Shopping Decision-Making

Aditya¹ & Gajendra Sahu²

1. Department of Economics, Banaras Hindu University, Varanasi, U.P., India
2. Department of Economics, Banaras Hindu University, Varanasi, U.P., India

* Corresponding Author: adityagarhewal055@gmail.com

Abstract: *The rapid expansion of e-commerce has significantly transformed consumer shopping behavior, making it crucial to understand the psychological factors influencing decision-making. This paper explores the impact of anchoring and framing effects on online shopping decisions. The anchoring effect occurs when consumers rely heavily on the first piece of information they receive, while the framing effect shapes perception based on how information is presented. These biases influence consumer behavior in various ways, affecting pricing perception, urgency, and purchase intent. By analyzing existing literature and identifying gaps, this review provides valuable insights into how online retailers can leverage these psychological mechanisms to drive sales and enhance consumer experience.*

Keywords: *Anchoring effect, Framing effect, Online shopping, Consumer behavior, Pricing strategies, Scarcity, Social proof.*

Introduction: With the rise of digital commerce, consumer shopping behaviors have undergone a dramatic shift from traditional in-store experiences to online purchasing. E-commerce platforms such as Amazon, Flipkart, and Alibaba have revolutionized how consumers make purchasing decisions by providing access to a vast range of products with competitive pricing and convenient delivery options (Smith & Anderson, 2020). However, consumer decisions are not solely based on rational evaluations of price and product features; psychological biases such as the anchoring and framing effects significantly impact how individuals perceive value and make purchase choices (Tversky & Kahneman, 1981). These biases have been widely studied in behavioral economics, yet their application in online shopping contexts remains an evolving area of research.

The anchoring effect refers to a cognitive bias where individuals rely on an initial piece of information as a reference point when making judgments. Online retailers frequently use price anchoring by displaying original prices alongside discounted ones to create a perception of savings (Ariely, 2008). Similarly, the framing effect influences consumers by altering how information is presented, making products appear more desirable based on positive or negative messaging (Thaler, 2015). Understanding these effects is essential for retailers aiming to enhance sales strategies and improve customer satisfaction. This paper reviews existing literature on anchoring and framing in online shopping, highlights research gaps, and



provides insights into how these psychological mechanisms can be leveraged for more effective digital marketing strategies.

Theoretical Background: The anchoring and framing effects are well-documented cognitive biases in behavioral economics and consumer psychology. Anchoring occurs when individuals rely too heavily on an initial piece of information (the anchor) when making decisions. In online shopping, this is often observed when retailers present an initial high price before offering a discount, leading consumers to perceive the discounted price as a better deal than it may objectively be (Kahneman, 2011). Framing, on the other hand, influences decision-making by presenting information in a specific way—either emphasizing potential gains or losses. Online retailers utilize gain-framed messages, such as "Save 30% if you buy today!", or loss-framed messages like "Limited offer! Prices increase soon!" to influence consumer purchase behavior (Levin, Schneider & Gaeth, 1998). These biases work in tandem with social proof and scarcity tactics, which further drive urgency and impulse buying decisions.

Literature Review: A considerable amount of research has investigated the influence of anchoring and framing effects on consumer decision-making. Wu & Cheng (2011) found that when message framing and anchor points are congruent, they significantly enhance purchase intention and consumer attitudes towards a product. Li & Ling (2015) demonstrated that price anchoring impacts perceived value, especially when consumers lack prior pricing knowledge. Saxena (2019) explored different framing techniques and their impact on online shopping in India, emphasizing the role of urgency and scarcity in increasing conversions.

Gurumurthy et al. (2022) analyzed framing effects in e-commerce and concluded that positively framed discounts yield better responses than negatively framed price increases. Bakos (2020) provided insights into how dynamic pricing strategies leverage anchoring by adjusting prices based on consumer behavior. Ariely (2008) found that anchoring influences consumer expectations, making higher initial prices seem more reasonable over time. Tversky & Kahneman (1981) demonstrated that consumers rely heavily on initial price points even when they are arbitrary. Levin et al. (1998) investigated gain and loss framing effects, showing that people are more motivated by avoiding losses than acquiring gains. Thaler (2015) explored behavioral nudges in pricing strategies, reinforcing the importance of framing in shaping consumer behavior. Lastly, Kahneman (2011) extended his research on decision-making biases, further establishing the relevance of anchoring and framing in digital commerce.

Research Gaps: While extensive research has been conducted on psychological biases in consumer behavior, studies focusing specifically on anchoring and framing



in online shopping are limited. There is a need to explore how these biases interact with digital marketing strategies, including personalized pricing, real-time discounting, and artificial intelligence-driven recommendation systems. Additionally, existing research does not fully examine how demographic factors, such as age, education level, and digital literacy, impact susceptibility to these biases.

Research Objectives:

1. To review how anchoring and framing effects influence consumer perception of product pricing in online markets.
2. To explore the role of urgency, social proof, and scarcity in shaping consumer purchase decisions.
3. To understand the differences in the impact of anchoring and framing between online and offline retail settings.

Methodology: This study employs a qualitative approach by reviewing existing literature on anchoring and framing in online shopping. Empirical research from behavioral economics, consumer psychology, and marketing studies is analyzed to identify patterns and insights. Additionally, case studies of major e-commerce platforms are examined to understand how these strategies are applied in real-world scenarios. Data is collected from academic journals, industry reports, and consumer behavior studies to provide a comprehensive overview of the impact of anchoring and framing on digital retail.

Findings:

Effect of Anchoring on Pricing Perception: Anchoring has a strong influence on consumer pricing perception. When consumers are presented with an initial price, they tend to use it as a reference point when evaluating subsequent pricing. Online retailers leverage this by displaying the original price alongside the discounted price, making the discount appear more significant. This tactic creates the illusion of a bargain, even when the actual discount is minimal. Studies have shown that consumers are more likely to make purchases when they believe they are receiving a substantial discount, even if they do not compare prices across platforms.

Role of Framing in Purchase Decisions: Framing plays a critical role in shaping consumer decisions. Gain-framed messages highlight the benefits of making a purchase, such as "Save 20% today!" On the other hand, loss-framed messages emphasize what consumers might miss out on, such as "Hurry! Only a few left in stock!" Research indicates that loss framing tends to be more effective in driving impulse purchases, as consumers are motivated by the fear of losing a deal rather than the potential benefits of a purchase.



Impact of Social Proof and Scarcity: Scarcity and social proof are powerful psychological cues that enhance anchoring and framing effects. Online retailers frequently use messages such as "500 people purchased this today!" or "Only 2 items left!" to create urgency and encourage immediate purchases. These cues work by triggering fear of missing out (FOMO), leading consumers to make quicker decisions. Studies have found that consumers tend to trust popular products with high ratings and reviews, further reinforcing the impact of these strategies.

The Role of AI in Dynamic Pricing Strategies: With the rise of artificial intelligence, online retailers increasingly use AI-driven pricing models to personalize discounts and optimize sales. These algorithms analyze browsing behavior and past purchases to tailor price points for individual consumers, further enhancing the impact of anchoring and framing in digital commerce.

Conclusion: The influence of anchoring and framing effects in online shopping is profound, shaping how consumers perceive discounts, pricing, and urgency cues. Retailers strategically apply these biases to increase conversions and enhance consumer engagement. While anchoring helps create a reference point that makes discounts seem more appealing, framing influences the way consumers evaluate purchasing opportunities. Understanding these psychological effects allows businesses to refine their digital marketing strategies and optimize pricing models. Future research should focus on how emerging technologies, such as AI-driven personalization and machine learning, further enhance or mitigate these biases in online retail.

References:

1. Ariely, D. (2008). *Predictably Irrational*. HarperCollins.
2. Bakos, Y. (2020). Online Pricing Strategies: The Role of Anchoring and Framing. *Journal of Digital Commerce*, 15(3), 289-307.
3. Kahneman, D. (2011). *Thinking, Fast and Slow*. Farrar, Straus and Giroux.
4. Levin, I. P., Schneider, S. L., & Gaeth, G. J. (1998). All Frames Are Not Created Equal. *Organizational Behavior and Human Decision Processes*, 76(2), 149-188.
5. Smith, A., & Anderson, M. (2020). *The Growth of E-Commerce*. Pew Research Center.
6. Tversky, A., & Kahneman, D. (1981). The Framing of Decisions and the Psychology of Choice. *Science*, 211(4481), 453-458

Disclaimer/Publisher's Note: The statements, opinions, and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of TJSD and/or the editor(s). The Journal of Scientific Discourse (TJSD) and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.



An Overview of the Copyright Act, 1957 in India: Legal Framework, Amendments, and Challenges

Veerandra Singh Matsaniya¹ & Priya Senger¹

1. Dept. of Economics, Dr. Harisingh Gour Vishwavidyalaya, Sagar (M.P.)

*Corresponding Author: psenger60@gmail.com

Abstract: *The Copyright Act of 1957 in India is a comprehensive legislation that governs the protection of intellectual property rights related to original works of authorship. It was enacted to provide legal protection for creative works such as literary, dramatic, musical, artistic, and cinematographic works, ensuring that authors, creators, and other rights holders have control over their works and receive compensation for their use. The Act has been amended several times, with significant amendments in 1984, 1994, 1999, and 2012, reflecting the evolving nature of technology and international copyright standards. The primary objectives of the Act are to prevent unauthorized reproduction and distribution of copyrighted works, thereby safeguarding the economic interests of creators, and to promote the dissemination of knowledge and culture. It grants authors exclusive rights to reproduce, distribute, perform, and display their works, as well as the right to adapt or translate them. Importantly, the Act also includes provisions for the fair use of copyrighted works for purposes such as research, criticism, and education. The Copyright Act, 1957 also sets out provisions for the registration of copyrights, though registration is not mandatory for protection. The Act provides a framework for licensing, assignment, and enforcement of rights, and specifies penalties for infringement, including civil and criminal remedies. It also addresses issues like moral rights of authors and the duration of protection, which generally extends for the lifetime of the author plus 60 years. In addition, the Act aligns with international copyright treaties like the Berne Convention and the Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement. Despite challenges such as the rise of digital piracy and the need for further modernization, the Copyright Act remains a cornerstone of intellectual property law in India, balancing the interests of creators, users, and the public at large.*

Keywords: *The Copyright Act, Trade-Related Aspects of Intellectual Property Rights.*

Introduction: The Copyright Act of 1957, serves as a fundamental law protecting intellectual property in India. It grants creators exclusive rights over their works, ensuring fair compensation and preventing unauthorized reproduction. The Act aligns with international agreements such as the Berne Convention and the TRIPS Agreement, reflecting India's commitment to global copyright standards. This paper aims to analyse the legal framework, significant amendments, and challenges associated with the Act. The Copyright Act, 1957 establishes a legal framework for



the protection of various forms of intellectual property, including creative and digital works. Key aspects of the Act include:

- **Exclusive Rights:** Creators hold the authority to reproduce, distribute, perform, and adapt their works.
- **Fair Use Provision:** Specific uses, such as for education, research, and critique, are allowed without constituting infringement.
- **Protection Duration:** Copyright remains valid for the author's lifetime plus an additional 60 years.
- **Legal Enforcement:** The Act prescribes both civil and criminal measures, including penalties for violations.

Key Amendments in the Copyright Act: The Copyright Act has undergone multiple amendments to address evolving challenges in intellectual property rights. The 1984 amendment reinforced enforcement measures and introduced stricter penalties for copyright violations. In 1994, the Act was revised to incorporate provisions related to digital content and software protection. The 1999 amendment brought Indian copyright laws in line with the World Trade Organization's (WTO) regulations. The most recent significant revision, in 2012, enhanced the rights of creators in the digital landscape and introduced licensing provisions to facilitate access for individuals with disabilities. The Act grants creator's exclusive rights over their works, allowing them to reproduce, distribute, perform, and translate their creations. However, the fair use doctrine permits limited use of copyrighted material without infringement, particularly for educational, research, and critical analysis purposes. The duration of copyright protection typically extends throughout the author's lifetime and continues for 60 years after their death. Additionally, the Act establishes enforcement measures, including both civil and criminal penalties, to safeguard against copyright infringement.

Methodology: The research methodology for this paper follows a qualitative approach, primarily relying on secondary data sources. The study involves an extensive review of statutory provisions, judicial decisions, international treaties, and amendments related to the Copyright Act of 1957 in India. A comparative analysis method is employed to examine the impact of key amendments on copyright protection. The research also incorporates a legal analysis of enforcement mechanisms and challenges in the digital era. By systematically evaluating existing literature, legislative documents, and case laws, the study aims to provide a comprehensive understanding of the evolving copyright framework in India.

Analysis: A comparative analysis of amendments and their impact on copyright protection is illustrated below:



Amendment Year	Key Features	Impact
1984	Stronger penalties for infringement	Enhanced legal enforcement
1994	Recognition of digital works	Expanded scope of copyright
1999	Compliance with TRIPS Agreement	Harmonization with global IP laws
2012	Protection of digital and online content	Addressed modern challenges

The table outlines key amendments to copyright law, summarizing their year of enactment, major features, and the corresponding impacts. In 1984, the copyright law was amended to introduce stronger penalties for infringement, enhancing legal enforcement and providing greater deterrence against violations. In 1994, the amendment focused on recognizing digital works, significantly expanding the scope of copyright to include new forms of media and creative expressions in the digital realm. The 1999 amendment brought compliance with the TRIPS (Trade-Related Aspects of Intellectual Property Rights) Agreement, aligning the country's laws with global intellectual property standards, thus promoting international trade and legal consistency. Finally, the 2012 amendment sought to address modern challenges, particularly in relation to digital and online content, offering improved protection for works in the evolving technological landscape. These amendments reflect the ongoing evolution of copyright law, adapting to technological advancements and global standards.

Here’s a table explaining the challenges in copyright enforcement:

Challenge	Explanation
Digital Piracy	The unauthorized reproduction, distribution, and sharing of digital content (such as music, movies, software, and books) without the permission of the copyright owner. This remains a major issue due to file-sharing platforms, torrents, and streaming services that allow easy access to pirated content.
Lack of Awareness	Many content creators, especially small businesses and independent artists, are unaware of their intellectual property rights and the legal measures available to protect their work. This lack of knowledge makes it easier for others to exploit their content without repercussions.
Judicial Delays	Legal enforcement of copyright laws often faces delays due to an overburdened judicial system, procedural complexities, and lengthy litigation. These delays discourage copyright holders from taking legal action and allow infringement to continue unchecked.
Technological Evolution	The rapid development of new technologies, such as AI, blockchain, and digital media platforms, creates new challenges for copyright enforcement. Laws need to be updated regularly to address emerging issues like AI-generated content, digital manipulation, and evolving piracy techniques.



This table highlights the key challenges and why they persist despite legal advancements.

Conclusion: The analysis of the Copyright Act, 1957, and its amendments highlights the evolving nature of intellectual property rights in India. The Act has undergone significant changes to address emerging challenges, particularly in the digital landscape. The amendments in 1984, 1994, 1999, and 2012 have progressively enhanced copyright protection, aligning Indian law with international standards such as the TRIPS Agreement. Key findings indicate that while the Act provides strong legal enforcement mechanisms, issues such as digital piracy, lack of awareness among creators, judicial delays, and rapid technological advancements continue to pose challenges. In conclusion, the Copyright Act, 1957, remains a crucial legal framework for safeguarding intellectual property in India. Although amendments have strengthened copyright protection, ongoing modernization is necessary to address digital threats and enforcement gaps. Raising awareness, streamlining judicial processes, and updating legal provisions in response to technological advancements will be essential in ensuring a robust and effective copyright regime that balances creators' rights with public access to knowledge. The Copyright Act, of 1957, has played a pivotal role in safeguarding intellectual property in India. While amendments have strengthened its framework, challenges such as digital piracy and enforcement delays persist. There is a need for continuous modernization and awareness campaigns to enhance the effectiveness of copyright laws in India. Strengthening enforcement mechanisms and ensuring alignment with global standards will further protect creators' rights while promoting cultural and knowledge dissemination.

References:

1. Li, P., & Cao, J. (2023). Efficient online migration mechanism for memory write-intensive virtual machines. *Journal of Cloud Computing*, 12(1). <https://doi.org/10.1186/s13677-023-00433-7>
2. Fu, J., Lu, Y., Shu, J., Liu, G., & Zhao, M. (2020). COWCache: effective flash caching for Copy-on-Write virtual disks. *Cluster Computing*, 23(2), 623–639. <https://doi.org/10.1007/s10586-019-02948-8>
3. Tozawa, A., Tsubori, M., Onodera, T., & Minamide, Y. (2009). Copy-on-write in the PHP language. *ACM SIGPLAN Notices*, 44(1), 200–212. <https://doi.org/10.1145/1594834.14809083>. (n.d.).
4. Ha, M., & Kim, S. H. (2022). CCoW: Optimizing Copy-on-Write Considering the Spatial Locality in Workloads. *Electronics (Switzerland)*, 11(3). <https://doi.org/10.3390/electronics11030461>
5. Rao, M. S. (n.d.). Copy Right Act: Developments & Issues in Indian Perspective. www.irj.iars.info

Disclaimer/Publisher's Note: The statements, opinions, and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of TJSD and/or the editor(s). The Journal of Scientific Discourse (TJSD) and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.



Role of Digital Platforms in Enhancing Investment Awareness & Investment Knowledge of Young Investors

Lokendra Singh Patel^{1*}, Pooja Sahu¹ & Shalini Choithrani²

1. Dept. of Commerce, Dr. Harisingh Gour Vishwavidyalaya, Sagar-470003, M.P., India.

*Corresponding Author: lokendrapatel907@gmail.com

Abstract: *This study explores the role of digital platforms—specifically mobile apps, social media, and financial websites—as catalysts for investment education and awareness. By analysing the relationship between these platforms and investment awareness, the research aims to understand their influence on financial education. The study employs correlation and multiple regression analyses to examine the impact of these digital platforms. The correlation analysis reveals strong positive relationships between each platform and investment awareness, with Pearson correlation coefficients of 0.857 for mobile apps, 0.871 for social media, and 0.799 for financial websites. These findings indicate that higher engagement with these platforms is associated with increased investment awareness. The multiple regression analysis further demonstrates that social media has the most significant positive influence on investment awareness, followed by financial websites and mobile apps, with Beta coefficients of 0.434, 0.258, and 0.221, respectively. The model explains 82.2% of the variance in investment awareness, confirming the relevance of these digital platforms. Normality tests suggest that the data do not follow a normal distribution, leading to the use of non-parametric tests. Reliability tests indicate excellent internal and external consistency, with Cronbach's Alpha values of 0.973 and 0.947, respectively. The results highlight the crucial role of digital platforms in enhancing investment education, with social media emerging as the most influential tool. These findings suggest that leveraging digital platforms can significantly contribute to increasing financial literacy and investment awareness among users.*

Keywords: *Behaviour Finance, Digital Platforms, Financial Literacy, Investment Education,*

Introduction: The rapid advancement of digital technology has significantly transformed the landscape of financial literacy and investment education. Traditional means of investor education, such as classroom-based training or printed financial literature, are increasingly being supplemented—and often surpassed—by digital platforms. Mobile apps, social media, and financial websites have emerged as critical tools in democratizing access to investment knowledge, offering real-time data, personalized advice, and interactive learning experiences. This shift towards digital sources reflects a broader trend of digitalization in the financial services industry, driven by the growing demand for accessible and engaging educational content



among investors. Mobile apps, in particular, have gained prominence due to their convenience and user-friendly interfaces, enabling users to access financial information and tools on the go. These apps often incorporate features such as portfolio tracking, stock analysis, and educational modules, which contribute to a more informed and proactive investor base. A study by Oehler and Wendt (2023) underscores the role of mobile apps in enhancing financial literacy by providing users with timely, relevant, and actionable investment information.

Social media platforms have also become vital in promoting investor education. With their ability to disseminate information quickly and reach a vast audience, platforms like Twitter, Facebook, and LinkedIn serve as forums where investors can share knowledge, discuss market trends, and gain insights from industry experts. According to research by Chen et al. (2022), social media engagement positively correlates with improved financial literacy and increased investment activity, particularly among younger demographics. Similarly, financial websites play an essential role in offering in-depth analysis, educational resources, and expert opinions to help investors make informed decisions. Websites such as Investopedia and Bloomberg have become go-to sources for both novice and experienced investors, providing comprehensive coverage of financial markets and investment strategies. A report by the Financial Industry Regulatory Authority (FINRA) (2023) indicates that regular use of financial websites is associated with higher levels of investment knowledge and confidence among users.

Mobile applications designed for investment education have gained significant attention in recent years. These apps offer a variety of features, such as real-time market data, educational content, and simulated trading environments. Studies have shown that mobile apps can effectively enhance financial literacy by providing users with hands-on experience in managing virtual portfolios. For instance, a study by Huston (2010) found that interactive learning through mobile apps significantly improves users' understanding of complex financial concepts. Furthermore, mobile apps often incorporate gamification elements, such as rewards and challenges, which can increase engagement and motivation to learn (Hamari et al., 2014). However, there is also a concern that the gamification of investment apps might oversimplify complex financial decisions, potentially leading to risky investment behaviours (Lopez et al., 2019). Social media platforms have become a popular medium for sharing investment knowledge and insights. Platforms like Twitter, Reddit, and YouTube allow users to follow financial experts, join communities, and access a wealth of user-generated content. According to Lu et al. (2020), social media can democratize financial information, making it accessible to a broader audience. However, the quality of information on social media can vary significantly, and there is a risk of misinformation. In their study, Chawla and Joshi



(2022) highlight that while social media can be an effective tool for financial education, it is crucial for users to critically evaluate the sources of information and cross-reference with reliable financial data.

Moreover, financial websites often serve as a bridge to other digital learning tools, integrating news updates, expert analysis, and interactive calculators. However, there is a need for these platforms to continuously update their content to reflect the rapidly changing dynamics of financial markets (Chen & Volpe, 1998). While digital platforms offer numerous benefits for investment education, they also present certain challenges. One significant issue is the potential for information overload, where users may find it difficult to filter relevant information from the vast amount of content available online (Bawden & Robinson, 2009). Additionally, the anonymity of online platforms can sometimes lead to the spread of inaccurate or misleading information, as noted by Tan and Tan (2019).

Another challenge is the digital divide, where access to digital platforms is limited by socio-economic factors. As reported by Hargittai (2002), disparities in digital access can exacerbate inequalities in financial literacy, particularly among marginalized groups.

Objectives

1. To find the relationship among digital platforms and investment awareness & Education.
2. To find the influence of digital platforms like Mobile apps, social media and financial websites on investment awareness & education.

Research Design: This study employs a quantitative research design to explore the impact of digital platforms specifically mobile apps, social media, and financial websites-on investment education and awareness among young student investors. The research design is descriptive and analytical, focusing on understanding the relationships between the use of these digital platforms and the level of investment awareness among the target population.

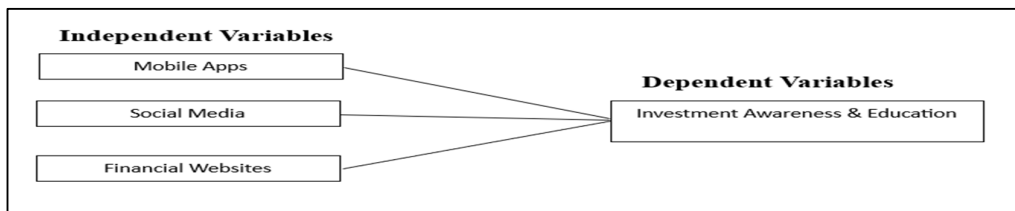
Population and Sample: The target population for this study comprises young university students of Dr. Harisingh Gour University, located in Sagar, Madhya Pradesh (MP), India. These students represent a demographic that is increasingly engaging with digital platforms for financial education. The study focuses on this specific group to understand the influence of digital tools on their investment behaviour and awareness. A sample size of 50 respondents was chosen for this study. This sample size is deemed adequate for conducting statistical analyses, including correlation and multiple regression, to explore the relationships between the variables. The sample consists of students who have shown an interest in investment or have



some level of involvement in investment activities, making them relevant to the study's objectives.

Sampling Technique: The sampling technique used in this study is Convenience sampling. This non-probability sampling method was chosen because the study requires respondents who meet specific criteria-namely, young students with an interest in investment and some experience or awareness of using digital platforms for financial education. Convenient sampling ensures that the selected sample is representative of the population that the research aims to study, thereby providing meaningful insights into the impact of digital platforms on investment awareness.

Data Collection: Data were collected using a structured questionnaire designed to assess the respondents' use of mobile apps, social media, and financial websites, as well as their level of investment awareness. The questionnaire included both closed-ended and Likert-scale questions to capture the frequency of platform usage, the perceived impact on investment knowledge, and other relevant demographic information.



Hypothesis

- H₁ – There is significant relationship between mobile apps and investment awareness
- H₂ – There is significant relationship between social media and investment awareness
- H₃ – There is significant relationship between financial websites and investment awareness
- H₄ – There is significant influence of digital platforms on investment

Table 1: Test of Normality

Tests of Normality						
	Kolmogorov- Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Mobile apps score	0.154	50	0.004	0.878	50	0.000
Media Score	0.122	50	0.062	0.920	50	0.002
Websites Score	0.135	50	0.023	0.924	50	0.003
Awareness Score	0.196	50	0.000	0.888	50	0.000
a. Lilliefors Significance Correction						



Table 1. shows both Kolmogorov-Smirnov and Shapiro-Wilk tests have significance (Sig.) values below 0.05 for all variables except Media Score in the Kolmogorov-Smirnov test, which is 0.062. A significance value (Sig.) below 0.05 indicates that the data does not follow a normal distribution. Since the data is not normally distributed, we should consider using non-parametric inferential statistics for analysis.

Table 2: Reliability Test

Variables	No. of Item	Cronbach's Alpha	Results
Mobile Apps	5	0.913	Excellent reliability
Social media	5	0.923	Excellent reliability
Financial Websites	5	0.942	Excellent reliability
Investment Awareness	5	0.948	Excellent reliability

Table 2. shows the reliability test, conducted in order to check internal consistency of the items used in different constructs. For this purpose, Cronbach's Alpha values have been calculated for the underlying variables. According to the rule of thumb, this value requires to be within the limit of 0.07. In line with this limit, the values for all the constructs ranges from 0.913 to 0.948, which is much above the threshold, indicating excellent internal consistency of the scales adopted (Konting et al., 2009).

Table 3: Age Information

Age of Respondents			
		Frequency	Percent
Age	18-25	37	74.0
	26-35	13	26.0
	Total	50	100.0

Table 3. Shows that age group 18-25: Frequency: 37 respondents, Percent: 74.0% of the total respondents, Age Group 26-35: Frequency: 13 respondents, Percent: 26.0% of the total respondents.

Table 4: Gender Information

Gender of Respondents			
		Frequency	Percent
Gender	1 (Male)	29	58.0
	2 (Female)	21	42.0
	Total	50	100.0

Table 4. shows that Category 1 (Male): Frequency: 29 respondents, Percent: 58.0% of the total respondents. Category 2 (Female): Frequency: 21 respondents, Percent: 42.0% of the total respondents.



Table 5. shows that Undergraduate: Frequency: 17 respondents, Percent: 34.0% of the total respondents, Postgraduate: Frequency: 21 respondents, Percent: 42.0% of the total respondents, Doctorate:

Frequency: 8 respondents, Percent: 16.0% of the total respondents, Professional: Frequency: 2 respondents, Percent: 4.0% of the total respondents, Others: Frequency: 2 respondents Percent: 4.0% of the total respondents.

Table 5: Education Qualification			
Education Qualification of Respondents			
	Frequency	Percent	
Qualification	Doctorate	8	16.0
	Others	2	4.0
	Postgraduate	21	42.0
	Professional	2	4.0
	Undergraduate	17	34.0
	Total	50	100.0

Table 6: Descriptive Statistics

	N	Minimum	Max.	Mean	Std. Deviation	Skewness	Kurtosis		
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Mobile apps score	50	1	5	3.65	1.164	-1.035	0.337	0.298	0.662
Media Score	50	1	5	3.55	1.156	-0.729	0.337	-0.257	0.662
Websites Score	50	1	5	3.48	1.212	-0.500	0.337	-0.706	0.662
Awareness Score	50	1	5	3.73	1.103	-1.013	0.337	0.290	0.662
Valid N (listwise)	50								

Descriptive Results: Table 6. shows that Minimum and Maximum Statistics: Each variable has a minimum score of 1 and a maximum score of 5, indicating that the data points range from the lowest possible score (1) to the highest possible score (5). Mean: Mobile apps score: The average score is (3.65), Media Score: The average score is (3.55), Websites Score: The average score is (3.48), Awareness Score: The average score is (3.73). All the mean values are above 3, suggesting that on average, respondents rated these factors moderately high. Standard Deviation: Mobile apps score: (1.164), Media Score: (1.156), Websites Score: (1.212), Awareness Score: (1.103) The standard deviations are relatively similar across variables, indicating a comparable level of variability around the mean scores.

Mobile apps score: (-1.035) (negatively skewed), Media Score: (-0.729) (negatively skewed), Websites Score: (-0.500) (negatively skewed), Awareness Score: (-1.013) (negatively skewed) Negative skewness values indicate that the distribution of scores is slightly skewed to the left, meaning that there are more scores above the mean. Kurtosis: Mobile apps score: (0.298), Media Score: (-0.257), Websites Score:



(-0.706), Awareness Score: (0.290). The kurtosis values are close to zero, indicating that the distribution of scores is neither too peaked nor too flat compared to a normal distribution.

Interpretation: Objectives - To find the relationship among digital platforms and investment awareness

Correlation Analysis: To find the relationship between the two or more variables

Hypothesis:

H₀ – There is no significant relationship between mobile apps and investment awareness

H₁ – There is significant relationship between mobile apps and investment awareness

H₀ – There is no significant relationship between social media and investment awareness

H₂ – There is significant relationship between social media and investment awareness

H₀ – There is no significant relationship between financial websites and investment awareness

H₃ – There is significant relationship between financial websites and investment awareness

Table 7: Correlation Coefficient

Pearson’s Correlation				
	Mobile apps score	Media Score	Websites Score	Awareness Score
Mobile apps score	1	.890**	.773**	.857**
Media Score	.890**	1	.739**	.871**
Websites Score	.773**	.739**	1	.799**
Awareness Score	.857**	.871**	.799**	1
**Correlation is significant at the 0.01 level (2-tailed).				

H₀ – There is no significant relationship between mobile apps and investment awareness

H₁ – There is significant relationship between mobile apps and investment awareness

Table 7. shows the Pearson correlation coefficient between the Mobile apps and Investment Awareness Score is (0.857). This value indicates a strong positive correlation between the two variables, meaning as the score of one increase, the score of the other tends to increase as well. The strong positive and statistically significant correlation suggests that higher mobile apps are strongly associated with higher investment awareness scores. This implies that as users engage more with mobile apps, their investment awareness tends to increase, or vice versa. Hence (r=0.857, p<0.01) Rejected H₀ and H₁ Accepted.



H₀ – There is no significant relationship between social media and investment awareness

H₂ – There is significant relationship between social media and investment awareness

Table 7. shows the Pearson correlation coefficient between the social media and investment Awareness Score is (0.8710). This value indicates a strong positive correlation between the two variables, meaning as the score of one increase, the score of the other tends to increase as well. The strong positive and statistically significant correlation suggests that higher social media are strongly associated with higher investment awareness scores. This implies that as users engage more with social media, their investment awareness tends to increase, or vice versa. Hence ($r=0.871$, $p<0.01$) Rejected H_0 and H_2 Accepted.

H₀ – There is no significant relationship between financial websites and investment awareness

H₃ – There is significant relationship between financial websites and investment awareness

Table 7. shows the Pearson correlation coefficient between the financial websites and investment Awareness Score is (0.799). This value indicates a strong positive correlation between the two variables, meaning as the score of one increase, the score of the other tends to increase as well. The strong positive and statistically significant correlation suggests that higher financial websites are strongly associated with higher investment awareness scores. This implies that as users engage more with financial websites, their investment awareness tends to increase, or vice versa. Hence ($r=0.799$, $p<0.01$) Rejected H_0 and H_3 Accepted.

1. **Objective** - To find the influence of digital platforms likes Mobile apps, social media and financial websites on investment awareness & education

H₀ – There is no significant influence of digital platforms on investment

H₁ – There is significant influence of digital platforms on investment

Table 8: Estimation of Multiple Linear Regression

Model 1	Dependent	Independent	Beta Coefficient	t statistics	R ²	F statistics	Sig.
1	Investment awareness	Mobile apps	0.221	1.583	0.822	70.795	.000 ^b
		Social media	0.434	3.28			
		Financial websites	0.258	2.842			
		Constant	0.488	2.091			

a. Dependent Variable: Awareness Score

b. Predictors: (Constant), Websites Score, Media Score, Mobile_apps_score

Note: Represent 5% Significance level



Table 8. shows that output of multiple linear regression. the study has considered investment awareness as dependent variable and independent variable are mobile apps, social media and financial websites. The coefficient of determination (R^2) shows 0.882 is 88% which explained the overall model. it indicates change in the Investment awareness is explained by changes in mobile apps, social media and financial websites by 88%. remaining 12% explained by some other variables which has not been considered in the model.

Further, the beta coefficient explains the impact level of each independent variables on dependent variable. It is observed that mobile apps do have moderate significant and positive influence on investment awareness ($\beta=0.221$, $p<0.05$) which indicates one percent in the mobile apps, investment awareness would increase by 0.22 percent, social media does have most significant and positive influence on investment awareness ($\beta=0.434$, $p<0.05$) which indicates one percent in the social media, investment awareness would increase by 0.434 percent. Financial websites do have significant and positive influence on investment awareness ($\beta=0.258$, $p<0.05$) which indicates one percent in the financial websites, investment awareness would increase by 0.258 percent. The probability value of F statistics shows ($F= 70.795$, $p<0.05$) which indicates the selected variables are jointly significant at 1 percent level. Hence, H_1 rejected and H_2 is accepted.

Results: The study aimed to examine the influence of digital platforms-specifically mobile apps, social media, and financial websites-on investment awareness. The findings reveal that these digital platforms significantly contribute to enhancing investment awareness among users.

1. **Significant Influence of Digital Platforms:** The analysis confirms that digital platforms as a whole have a significant positive impact on investment awareness. The strong positive correlations between each platform (mobile apps, social media, and financial websites) and investment awareness underscore their collective importance. This indicates that digital platforms are effective tools for disseminating information and educating users about investments.
2. **Social media as the Most Influential Platform:** Among the three digital platforms, social media emerged as the most influential, with the highest Beta coefficient of 0.434 in the multiple linear regression analysis. This suggests that social media is particularly effective in raising investment awareness, possibly due to its widespread reach, user engagement, and ability to deliver real-time information. The interactive nature of social media allows users to share experiences, discuss investment strategies, and access expert advice, making it a powerful tool for financial education.
3. **Contribution of Financial Websites:** Financial websites also play a critical role in enhancing investment awareness, evidenced by a significant Beta coefficient of

- 0.258. Although their impact is less pronounced than that of social media, financial websites provide in-depth analysis, expert opinions, and up-to-date market information, which are essential for informed investment decisions. The substantial role of financial websites highlights the importance of credible online financial resources in the digital age.
4. **Mobile Apps' Moderate Impact:** The study found that mobile apps have a moderate influence on investment awareness, with a Beta coefficient of 0.221. While mobile apps are convenient and accessible, their impact is less significant compared to social media and financial websites. This could be due to the functional nature of apps, which may focus more on transactions and portfolio management rather than educational content. However, the moderate impact still suggests that mobile apps are valuable tools for investment education, particularly for users who prefer on-the-go learning.
 5. **Reliability and Validity of the Study:** The study's reliability and validity are confirmed by high Cronbach's Alpha values of 0.973 and 0.947, indicating strong internal and external consistency. These values demonstrate that the data collected is reliable and that the findings are robust. The reliability of the study reinforces the credibility of the results and their applicability in real-world scenarios.

Model Fit: The high R^2 value of 0.822 indicates that 82.2% of the variance in investment awareness can be explained by the three independent variables (mobile apps, social media, and financial websites). The F-statistic of 70.795 further confirms the overall statistical significance of the regression model, suggesting that the model is a good fit for the data. This strong model fit validates the study's conclusions and highlights the effectiveness of digital platforms in promoting investment awareness.

Conclusion The study concludes that there is a significant and positive relationship between the use of mobile apps, social media, and financial websites with investment awareness. The results from both the correlation and multiple regression analyses support the rejection of the null hypotheses and the acceptance of the alternative hypotheses, indicating that increased engagement with these platforms is associated with higher levels of investment awareness. Social media, in particular, is identified as the most influential factor among the three.

References:

1. Bawden, D., & Robinson, L. (2009). The dark side of information: Overload, anxiety, and other paradoxes and pathologies. *Journal of Information Science*, 35(2), 180-191.
2. Bloomfield, J., & Fisher, M. J. (2019). Quantitative research design. *Journal of the Australasian Rehabilitation Nurses Association*, 22(2), 27-30.
<https://search.informit.org/doi/10.3316/informit.738299924514584>



3. Chawla, S., & Joshi, H. (2022). The impact of social media on financial literacy: A study of Indian investors. *Journal of Business Research*, 144, 120-130.
4. Chen, H., & Volpe, R. P. (1998). An analysis of personal financial literacy among college students. *Financial Services Review*, 7(2), 107-128.
5. Chen, H., Liu, Y., & Su, X. (2022). Social Media and Financial Literacy: An Empirical Study of Twitter Use among Investors. *Journal of Financial Services Research*, 61(2), 145-167.
6. Archdeacon & Thomas J. (1994). *Correlation and Regression Analysis*. ISBN 0-299-13650-7
https://books.google.co.in/books?hl=en&lr=&id=QmFFpQW8V8EC&oi=fnd&pg=PR15&q=use+correlation+and+regression&ots=56PTrW7s1r&sig=27uCLGOu9ACQYekB6okR6T4Naog&redir_esc=y#v=onepage&q=use%20correlation%20and%20regression&f=false
7. Financial Industry Regulatory Authority (FINRA). (2023). Digital Tools and Investor Education: An Analysis of Online Financial Resources. Retrieved from FINRA.
8. Hamari, J., Koivisto, J., & Sarsa, H. (2014). Does gamification work? A literature review of empirical studies on gamification. In *Proceedings of the 47th Hawaii International Conference on System Sciences* (pp. 3025-3034). IEEE.
9. Hargittai, E. (2002). Second-level digital divide: Differences in people's online skills. *First Monday*, 7(2), 1-11.
10. Huston, S. J. (2010). Measuring financial literacy. *Journal of Consumer Affairs*, 44(2), 296-316.
11. Lopez, M. A., Jang, Y., & Rogers, L. (2019). Gamification as a tool for enhancing financial literacy: A systematic review. *Journal of Financial Education*, 45(1), 25-44.
12. Lu, J., Pan, J., & Lu, Z. (2020). Social media and financial markets: The impact of information dissemination on stock price movement. *Journal of Empirical Finance*, 56, 143-156.
13. Lusardi, A., & Mitchell, O. S. (2014). The economic importance of financial literacy: Theory and evidence. *Journal of Economic Literature*, 52(1), 5-44.
14. Mishra, P., Pandey, C. M., Singh, U., Sahu, C., Keshri, A., & Gupta, A. (2019). Descriptive Statistics and Normality Tests for Statistical Data. *Annals of Cardiac Anaesthesia*, 22(1), 67-72. https://doi.org/10.4103/aca.ACA_157_18
15. Oehler, A., & Wendt, S. (2023). The Influence of Mobile Investment Apps on Financial Literacy and Investor Behavior. *Journal of Financial Education*, 50(1), 1-22.
16. Roberts, P., & Priest, H. (2006). Reliability and validity in research. *Nursing Standard*, 20(44). <https://link.gale.com/apps/doc/A149022548/HRC?u=anon~35795dfb&sid=google Scholar&xid=9c2626f5>
17. Tan, S., & Tan, L. (2019). Online misinformation: A global perspective. *Journal of Global Information Technology Management*, 22(2), 79-90.

Disclaimer/Publisher's Note: The statements, opinions, and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of TJSD and/or the editor(s). The Journal of Scientific Discourse (TJSD) and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.



Analysis of Intellectual Property Rights from International and National Perspectives

Sanjana Singh^{1*}, Roshan Singh¹ & Mohit Bharti¹

1. Dept. of Commerce, Dr Hari Singh Gour Vishwavidyalaya, Sagar-470003, MP, India.

*Corresponding Author: cssanjana99@gmail.com

Abstract: *The paper seeks to explore the study of Intellectual Property Rights (IPR) from international and national perspectives. The journey of IPR started in the Uruguay Round of negotiation from 1986 to 1994 by the same member countries who became the member of World Trade Organisation (WTO) also became the member of Trade related Intellectual Property Rights (TRIPS) in the year 1995. Intellectual Property contributes significantly to both international and national facts and figures. There were two most important conventions, the Paris convention in which the first Intellectual Property treaty signed on March 20, 1886 and Berne convention was held in 1886 for literary and artistic works, which paved the way for World Intellectual Property Organisation (WIPO) in 1967. India became a member of WIPO in 1998. Intellectual Property activities around the world like Patent filing applicants worldwide grew by 2.7% which reached to 3.6 million, Industrial Design also grew by 2.8% which reached to 1.5 million and Trademark filing applicants reached to 15.2% in 2023. India based filing applicants of Patents grew by 15.7%, i.e-64,480, of Industrial Design applicants grew by 36.4%, i.e-26,966 and of Trademark applicants grew by 6.1%, i.e-49,623 in 2023. India continues to solidify its places as a global leader in the intellectual property system.*

Keywords: *Intellectual Property Rights (IPR), Trade Related Intellectual Properties Rights (TRIPS), World Intellectual Property Organisation (WIPO), Patents, Trademark, Industrial Design*

Introduction:

World Intellectual property Day will be celebrated on 26th April every year: IPR incentivize innovation and creativity by providing creators and inventors with exclusive rights over their creations. This exclusivity enables them to reap the rewards of their labor, encouraging investment in research and development across diverse fields such as technology, pharmaceuticals, entertainment, and design (Landes & Posner, 2003). Patents, copyrights, and trademarks offer legal protection, giving innovators the confidence to invest time, resources, and expertise into developing new products, processes, and services. This innovation-driven economy fuels progress, drives competitiveness, and enhances overall societal welfare. (Maskus, 2000)

Strong IPR protection attracts investment, fosters entrepreneurship, and stimulates economic growth by creating a conducive environment for businesses to



thrive (Park & Lippoldt, 2008). Beyond the economic realm, IPR safeguard cultural heritage, preserve traditional knowledge, and promote artistic expression. Copyrights protect literary and artistic works, ensuring that creators receive recognition and compensation for their contributions to culture and society (Lessig, 2004). Moreover, the unequal distribution of IPR benefits exacerbates existing global inequalities. Developed countries and multinational corporations often hold the majority of patents and copyrights, giving them disproportionate control over knowledge and technology. This dominance can restrict the ability of developing countries to access and utilize intellectual assets, perpetuating a cycle of dependency and hindering local innovation and economic development (Maskus, 2000).

The dominance of OECD countries and the rise in technological capabilities of emerging economies such as China, Japan, followed by the US, Germany, the Republic of Korea, the UK, and France, account for almost 80% of patent filings in clean energy generation technologies (UNEP et al., Citation2010). These countries examines the potential use of intellectual property rights (IPR) in helping to achieve the sustainable development goals (SDGs) that were set by the United Nations.

Similarly, in agriculture, the dominance of developed countries in agricultural, biotechnology and seed patents has raised concerns about food security and agricultural sustainability in developing nations. Multinational corporations control the majority of patents on genetically modified seeds and agricultural technologies, limiting the ability of smallholder farmers to access and utilize these innovations. High licensing fees, restrictive intellectual property agreements, and legal barriers prevent farmers in developing countries from saving seeds, adapting crops to local conditions, and to access diverse genetic resources (CIPR, 2002). This monopoly exacerbates food insecurity, undermines agricultural biodiversity, and perpetuates dependency on external inputs, jeopardizing the long-term resilience of food systems in these regions.

The monopoly of developed countries on Intellectual Property Rights presents significant challenges for health, agriculture, and education in developing and underdeveloped countries across Asia, Africa, and Latin America. Addressing these challenges requires a concerted effort to reform the current IPR regime, promote greater access to essential knowledge and technologies, and strengthen the capacity of developing countries to participate in the global knowledge economy. By embracing a more inclusive and equitable approach to intellectual property, we can harness the power of innovation and creativity to improve health outcomes, enhance food security, and promote access to quality education for all.

However, multinational pharmaceutical companies have exploited this traditional knowledge by patenting medicinal formulations derived from indigenous



plants without proper consent or compensation (WHO, 2002). One notable example is the case of turmeric, a widely used spice and traditional remedy in India. Despite its long history of use in Ayurvedic medicine, a US-based company was granted a patent for the wound-healing properties of turmeric, sparking outrage and legal battles that eventually led to the patent being revoked (Shiva, 2007). Similarly, the patenting of neem-based pesticides by multinational corporations infringed upon the traditional knowledge of Indian farmers and herbalists, who had been using neem for pest control for centuries. Despite international agreements such as the Nagoya Protocol aimed at ensuring equitable benefit-sharing from the commercial use of genetic resources, indigenous communities continue to face challenges in asserting their rights and interests in the face of powerful multinational corporations and legal complexities (Timmermann and Hamilton, 2014).

Literature Review:

S. No	Name Of Author	Year	Title of paper	Objectives	Research Methodology	Findings
1	Shahid et.al	2025	Intellectual Property and Innovation: A Critical Assessment of Patent Law and Economic Growth	-To effectively address the challenges and ensure that patent law fosters innovation while promoting equitable economic development. -To study critically examines the role of patent law in economic growth, exploring whether patents stimulate or hinder innovation.	The study adopts a doctrinal legal research approach, analyzing existing laws, treaties, and judicial decisions on patents. By exploring these theoretical perspectives	Patent law to balance innovation incentives with economic development requires a multifaceted approach. By focusing on stronger anti-overgreening regulations, simplified patent procedures, flexible licensing models, and international cooperation, patent systems can be better structured to promote equitable economic development and global access to innovation.
2	Kumar et.al	2024	Intellectual Property Rights and Economic Development: A Brief Overview	-To study the effect of economic development with context to Intellectual Property Rights. - To study Private Intellectual Property Rights as an incentive to generate and disclose new knowledge. -To study problems with current Intellectual Property Rights and its solution.	The study was exploratory in nature and based on secondary data.	This paper finds that most developing nations do minimal R&D and most of the new information they produce was not patentable, the "domestic" advantages of a stronger IPRs system that was, an increase in knowledge production by the citizens are probably minor related to life science.
3	Kumar and Jawed	2024	Emerging Issues of IPR in Developing and Under Developed Countries	-To study the idea of Inclusive Development, Free Flow of Knowledge and Knowhow Across the Global Village and IPR. - To study monopoly on IPR and Issues of Health, Agriculture, and Education in Developing and Underdeveloped Countries.	The study area was Africa, Asia and Latin America and study was based on secondary data.	The study IPR serve as a catalyst for innovation, creativity, and economic growth, they also present challenges that can hinder progress towards a more inclusive, disease free and peaceful world.
4	Zakir et. al	2023	The Role of Intellectual Property Rights in Achieving Sustainable Development Goals: A Comparative Analysis of Policy Frameworks and Their Impact	- Examine the consistency between programs of IPR and aims for sustainable development in different legal and economic contexts. - Exhibit successful programmatic norms that prove IPR can contribute to sustainable development. - Find the obstacles and inhibitions that current IPR conventions pose for SDGs. - Suggest practical policy recommendations to reconcile IPR and sustainable development objectives.	-The study was based on comparative analysis which employed a mixed-method approach by combining qualitative policy analysis with quantitative data about SDG. -Here case study of different countries had also being considered.	-The study reveal that IPR plays a dual role in innovation: It fosters it by granting exclusive rights protection; yet at the same time IPR may block access to necessary technologies and knowledge required for sustainable development. -The article recommends a balanced approach that was in line with internationally agreed goals for sustainable development.
5	Keshava and Gupta	2023	Intellectual Property Rights-Issues & Challenges	- To understand the magnitude of expenditure towards development of intellectual assets. - To analyze the influence of intellectual property rights towards higher education - To evaluate employment generation due to enhancement of intellectual property rights.	The study was based on secondary data from 2001 to 2015.	The magnitude of growth of IPR was positive during the years but still the proportion of GDP for Research & Development was not improved.



6	Md. Mahatab Uddin	2022	Impact of Intellectual Property Rights over Food Security in Developing and Least Developed Countries	<ul style="list-style-type: none"> -To study relation between the inclusion of IPRs in agro-biotechnology and food security in southern world consists of developing and least developed countries. - To study the impacts of the introduction of IPRs in agro-biotechnology innovation and their consequences on food security in the low or medium income developing and least developed countries. 	The study was theoretical based on secondary data analysis.	In Developing Countries and Least Developing Countries the institute of IP in agriculture has not advanced the local seed sector via technology transfer or direct overseas investments.
7	Castaldi and Carolina	2021	Sustainable innovation and intellectual property rights: Friends, foes or perfect strangers?	<ul style="list-style-type: none"> -To study intellectual property rights (IPR), the formal tools available to companies to protect their intangible assets. -To link the three main types of IPRs to common archetypes of sustainable innovation. - To discuss the motives why companies might file patents, trademarks or design rights or instead choose not to do. 	The study was exploratory based on secondary data.	<ul style="list-style-type: none"> -The study reveal how IPRs act as incentives, barriers or be simply neglected by sustainable innovators. -The study lacks systematic evidence on the actual practices of IPR use by sustainable innovators and their desirability from a societal point of view.
8	Ahmed et.al	2021	Intellectual Property Rights and Economic Development: A Case Study of Pakistan	<ul style="list-style-type: none"> -To study the benefits the developing countries may achieve by introducing effective mechanisms of intellectual property rights. -To study that strong Intellectual property law has some impact on the Economy. 	The study was theoretical based on secondary data.	The study reveal that for the development of the country in this modern age it was very important to enforce the laws relating to intellectual property rights.
9	Sreeragi R.G	2021	Intellectual Property Rights (IPR): An Overview	The present study enquires the different categories of intellectual properties and the duration up to which the inventions will be legally secured once registered	This study was theoretical, based on secondary data.	<ul style="list-style-type: none"> - Intellectual Property Rights has a key role in fostering research and innovations of every nation. -There are more chances of stealing trade secrets or illegal use of registered properties, as the entire world is connected with networks. - Loss of Intellectual Properties may be detrimental for the overall development of the whole nation itself.
10	Bala and Verma	2020	National Intellectual Property Rights Policy of India - A Review	To review the paper and discuss National IPR Policy of India.	This study was theoretical, based on secondary data.	<ul style="list-style-type: none"> -The Policy visualizes an India where knowledge is the main driver of development. -It proposes various measures to realize these goals - generation of more IPs in India, strengthening of IPR enforcement and adjudication mechanisms, improving the administration of IPR laws and encouraging commercialization of IPs.

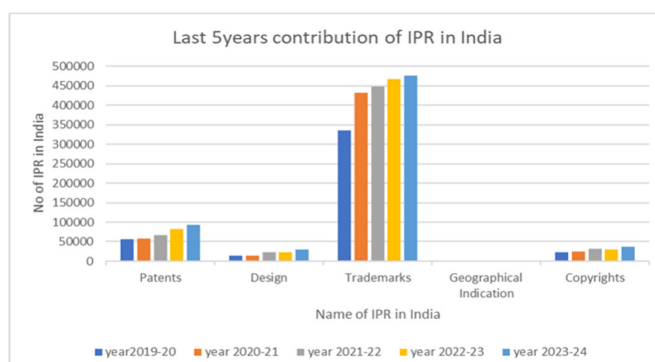
Methodology: The study is analytical in its nature and is based on secondary data. At both national and international level Intellectual Property plays a pivotal role, in Indian economy and technological growth and global competitiveness depend on it. The IP ecosystem fosters innovation, attract investments and empowers businesses, startups and research institutions. At national level Office of Controller General of Patents, Design and Trade Marks (CGPDTM) remains committed to strengthen this ecosystem by ensuring the timely protection of Intellectual assets and improving access to Intellectual Services. India is advancing towards Viksit Bharat 2047 (a developed India after 100 years of Independence). IP framework will serve as a catalyst for excellence and self-reliance in key sectors such as pharmaceuticals, artificial intelligence, space and clean energy.



Trend of IPR in India

Application	2019-20	2020-21	2021-22	2022-23	2023-24
Patents	56267	58503	66440	82811	92168
Design	14290	14241	22699	22698	30389
Trademark	334805	431212	447805	466580	476089
Geographical indications	42	58	116	211	134
Copyrights	21905	24451	30988	29466	36726
Semiconductor Integrated Layout Designs	Nil	05	01	23	02
Total	427309	528471	568049	601789	635508

Source-Annual Reports of IPR



As per the above table and graph there was an increasing trend in the application filing of patents in India either by residents or non-residents of India, which has increased from 56,267 to 92,169 in the last five years which shows an increase of

63.80% in patents. In design the application has first slightly decreased from 14,290 to 14241 in 2021 and then has an increasing trend from 22699 to 30389 till 2023 so overall it has an increasing trend in India of 112.65%. Trademarks are showing an increasing trend in the last five years from 334805 in 2019-20 to 476089 in 2022-23 of 42.19%. Geographical Indication is also showing an increasing trend in India from 42 to 134 which has increased by 228.57 %. The copyright in India has increased from 21905 in 2019-20 to 36726 in 2022-23 by 67.66%. So overall India has an increasing trend of Intellectual Property Rights by 42.72% in the last five years.

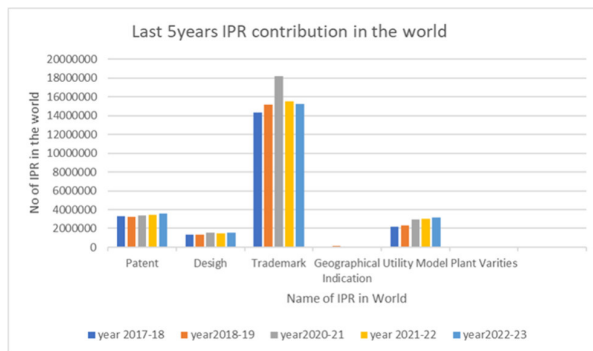
Trend of IPR in World

Application	2017-18	2018-19	2020-21	2021-22	2022-23
Patents	3325400	3224200	3400500	3457800	3552100
Design	1343800	1360900	1513800	1482600	1524000
Trademark	14314000	15153700	18182300	15551900	15234900
Geographical Indications	65900	131414	25600	25400	52600
Utility Model	2146600	2341180	2924420	3010620	3127960
Plant Varieties	19880	21430	25200	27260	29070
Total	21215580	22232824	26071820	23555580	23520630

Source- WIPO

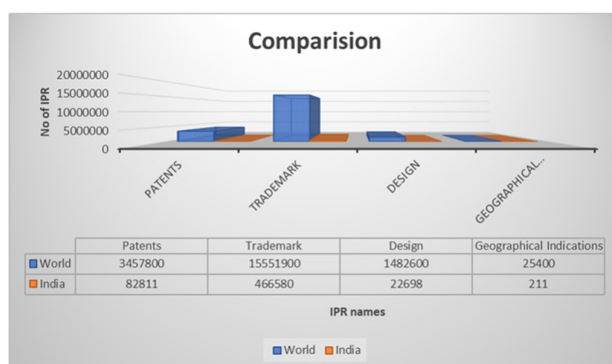


The above table and graph represent the data of Intellectual Property which are recognized in the world. There was no available data of the year 2019-20 so this year has been skipped while data representation and of year 2023-24 the data has not been printed. The patent in the world has increased from 3325400 in 2017-18 to 3552100 in 2022-23 which has shown an increase by 6.81%.



The design has increased from 1343800 in 2017-18 to 1524000 in 2022-23 by 13.40% in the world. There has been increase of 6.43% from 14314000 in 2017-18 to 15234900 in 2022-23 and in world the utility model has constantly increasing trend of 45.71%, so it has increased from

2146600 in 2017-18 to 3127960 in 2022-23 and plant varieties has also shown an increasing trend from 19880 in 2017-18 to 29070 by 46.22%. But geographical indication has first increased in 2018-19 and then decreased so overall in 2017-18 it was 65900 and in 2022-23 it was 52600 so overall it was decreased by 20.18%. The trademark has also shown increasing trend till 2020-21 and then shown a decreasing trend in the last three years, it was 14314000 in 2017-18 and 18182300 in 2020-21 maximum and then decreased to 15234900 in 2022-23 overall it has shown an increasing trend of 64.33%. So overall Intellectual Property in the world has increased by 10.86%.



This graph shows the contribution of India in the world Intellectual Property which contributes to the economy of their country. Here data of year 2022-23 was taken to do comparative analysis of India and world and comparison was done on the basis of patents,

trademark, design and geographical indication. In the patent filing India only contributes 2.39% of the world, in trademark filing India contributes 3% of the world. In design India contributes 1.53% of the world and in geographical indications India contributes 0.83% of the world. So overall India contributes in these four Intellectual Property (IP) 2.78% in the year 2022-23.

Conclusion: The current IPR regime can reinforce the divide between knowledge-rich and knowledge-poor nations, further marginalizing vulnerable populations.



(Kumar & Jawed, 2024) Intellectual Property Rights play a crucial role in incentivizing innovation and creativity, they also present significant challenges to achieving inclusive development and the free flow of knowledge across the globe. The privatization of knowledge through IPR can hinder collective problem-solving and collaboration on global challenges. In fields such as climate change, public health, and food security, open access to scientific research and data is essential for developing effective solutions and fostering innovation.

The monopoly of developed countries on Intellectual Property Rights (IPR) has significant implications for health, agriculture, and education in developing and underdeveloped countries across Asia, Africa, and Latin America. The monopoly of developed countries on pharmaceutical patents and copyrights has created barriers to accessing life-saving medications in developing countries. Patent protection allows pharmaceutical companies to maintain exclusive rights over their drugs, resulting in high prices that are often unaffordable for patients in low-income countries. This monopoly not only limits access to essential medicines but also hinders the development of generic alternatives, prolonging the dependence of developing countries on expensive imported drugs (WHO, 2006). Furthermore, strengthening the capacity of developing countries to participate in the global knowledge economy through technology transfer, capacity building, and technical assistance can help bridge the digital divide and promote more equitable development outcomes (Arora, Fosfuri, & Gambardella, 2001).

References:

- Shahid, M. H., Suddle, F. R., & Qureshi, G. M. (2025). Intellectual Property and Innovation: A Critical Assessment of Patent Law and Economic Growth. *The Critical Review of Social Sciences Studies*, 3(1), 1451-1461
- Kumar, N., Gour, R., & Sharma, N. (2024). Intellectual Property Rights and Economical Development: A Brief Overview. *Journal of Scientific Research and Reports*, 30(5), 145–162. <https://doi.org/10.9734/jsrr/2024/v30i51930>
- Kumar, K., & Jawed, S. (2024). Emerging Issues of IPR in Developing and Under Developed Countries. *International Journal of Social Science Research and Review*, 7(10), 202–210. <https://doi.org/10.47814/ijssr.v7i10.2379>
- Hamza Zakir Abdul Wali Khan, M., Bashir, S., Zahoor, S., Naz Ali, R., Hamza Zakir, M., Shahzad, F., & Hammad Khan, S. (2023). The Role Of Intellectual Property Rights in Achieving Sustainable Development Goals: A Comparative Analysis Of Policy Frameworks and Their Impact. *Migration Letters*, 20, 489–501. www.migrationletters.com
- Keshava, S.R. and Gupta, R. (2023). A Study on Intellectual Property Rights and Economic Development in India. *SSRN Electronic Journal*. doi:<https://doi.org/10.2139/ssrn.4340110>
- Uddin, M. M. (2022). Impact of Intellectual Property Rights over Food Security in Developing and Least Developed Countries. In *Journal of Judicial Administration Training Institute* (Vol. 20). <https://www.oecd.org/derec/50313960.pdf>



- Castaldi, C. (2021). LEM LEM WORKING PAPER SERIES Sustainable innovation and intellectual property rights: friends, foes or perfect strangers?
- Ahmed, N., Munir, B., & Khan, A. N. (2021). Intellectual Property Rights and Economic Development: A Case Study of Pakistan. In Journal of Historical Studies: Vol. VII. No. I.
- R. G., Sreeragi (2021). Intellectual Property Rights (IPR): An Overview. [online] Ssrn.com. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3859231
- Bala Madhu, & Verma Deepak. (2020). Sensitizing And Imparting Awareness About Intellectual Property Rights Among Students (Moudgil Anita, Ed.; Dr Meenu Jain). <https://ssrn.com/abstract=3557305>

Disclaimer/Publisher's Note: The statements, opinions, and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of TJSD and/or the editor(s). The Journal of Scientific Discourse (TJSD) and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.



Economic Sustainability Through Intellectual Property Rights: A Comparative Analysis with Conventional Property

Vaibhav Singh Yadav^{1*}, Vikash Agrawal¹ & Jyoti Soni¹

1. Dept. of Law Dr. Harisingh Gour Vishwavidyalaya, Sagar-470003, M.P., India

*Corresponding Author: yadavvaibhav.yadav@gmail.com

Abstract: *In the year 1997, Bill Gates became the “Wealthiest Man on Earth” and he called himself a “knowledge worker.” Being a “knowledge worker,” he created wealth, and used his intellectual capacity to achieve that position. Even today, the top list of richest men includes those who use their intellect and convert them into Intellectual Property (“IP”). The rights arising out of IP are known as Intellectual Property Rights (“IPR”). There is no doubt that IPRs can create wealth and even generate more returns than conventional property like land. There is some difference between the conventional and intellectual property, but both in recent times are treated as property. Anything is called property only when it has an economic value in the eyes of law, then it must be recognised as the property by the society as well. The authors through this article demystify the concept of IPR and compare it with the conventional property in economic, social, and legal terms. The article attempts to evaluate the economic viability of IPRs and their replaceability with conventional property.*

Keywords: *IPR, Conventional Property, Property, Intellect, Economic Sustainability, etc.*

Introduction: Conventional property includes land and all the properties associated with that land, like buildings. Basically, the real estate is considered a conventional property. Sometimes gold, precious stones, or movable properties are also treated as in this category. These are tangible properties, i.e., having a physical state. But can we acquire a property without having intellectual application? The answer is “no.” Because without intellect, we will not be able to secure and acquire a property. The contract to sell, own, or even mortgage all requires that both parties be of sound mind, i.e., they are able to understand the things. Then how are the conventional properties separated from the intellectual capacity? The Intellectual Property Rights (*hereinafter* “IPRs”) are intangible in nature and it developed through intellectual labour. It can be various kinds but are incremental in nature. Once it is developed, it produces economic results regularly. It is true that most of the IPRs have a limited time duration, but we need to understand that it provides immense profits once it developed. The concept of protection of IPRs evolved because it provides high returns and utilised for commercial exploitation.

Statement of Problem: Currently, IPRs are gaining more importance than conventional property. Every human being has his own intellect, and nowadays, this



intellect is the main source of income. The application of intellect is the reason behind owning a conventional property. Today, all the developed countries realise that the IPR is the key to unlocking the treasure of ultimate power. Conventional property has limitations, but IPRs have very few. The people are still indifferent to IPRs and acquiring tangible property as an income-generating source. This leads to biopiracy, or the unscrupulous use of indigenous knowledge, unique heritage, and wastage of human resources.

Research Objectives:

- To assess the economic stability of IPRs.
- To study the concept of property. Also find out the difference between conventional properties and IPRs.
- To determine the earning capacity of IPRs and conventional property. To assess the importance of intangible property.
- To determine the possibility of replaceability of conventional property with IPRs.

Research Questions:

- What is the basic difference between IPRs and conventional properties?
- What is intangible property? Is IPRs and intangible property are same?
- What are the different forms of IPRs?
- Whether IPRs can produce more economic avenues than conventional property?

Scope And Limitations: The scope of the study is to find out the weightage of conventional property and IPR on the scale of economic or financial capacities. The limitation of the study is IPRs only, it will not cover other forms of intangible properties.

IPRs are the exclusive rights provided for the inventors or authors for their invention or expression from which they get commercial benefits. This is very important for the building a successful business was studied by (Unnisa, 2022)¹. Jaipura, Singh and Nayak (2017)² assessed the relevance of IPRs in Indian scenario. The study has discussed about the position of IPRs in India and the world with the help of indexes that was published at the international level.

IPRs are those properties which are meant to be commercialised and it helps in the fair competition also. The businesses are now concerned about the IPRs more than making business strategies (Prajapati & Khan, 2022)³. IPRs have certain limitations. They are not taken away as in case of physical properties, but can be infringed easily. The study has discussed about the threats of biopiracy in IPRs (Delgando, 2002)⁴. Roy and Sharma (2022) analysed the importance of social media platforms and influencers. It has described the use of IPRs in this field. In this study, the authors

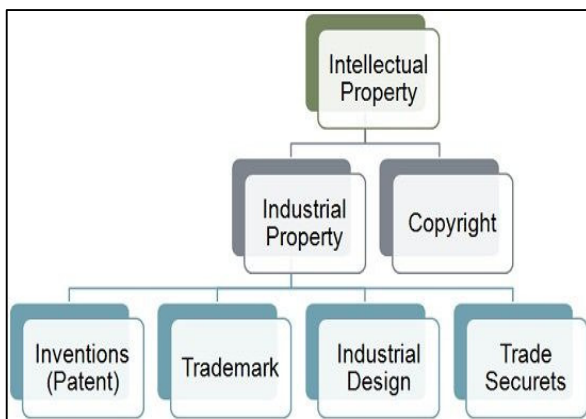
discussed about the connection between the creators’ rights on digital media and IPRs in a very beautiful manner⁵.

Methodology: The authors have used the doctrinal method of research. In this method, the sources of data are bare acts, legislative debates, research articles, reports, newspapers, online materials, etc. Basically, the data that is already available with the researcher, they tend to use those materials. In this method, the data is analysed and expressed by the authors according to their understanding.

Hypothesis: IPRs have more economic stability as compared to the conventional property. IPRs are more stable source of income than tangible property.

Property – The Concept: “Property is a bundle of rights”⁶. It consists of various rights such as ownership, possession, etc. More than half of the properties derived their rights from possession. If we think of property, then the first ever property that a human had own was might be a “stone” because he was living in his natural instincts where only survival was the main objective. Stone was used for security and hunting. Later on, he developed other types of properties. The concept of “Social contract theory” was evolved because of the property. Property if defined as such then we find that – “something which can be owned”. A property covers all the aspects economic, social and legal. Apart from this, a property can be considered as a property if it has some economic value of its own and that to in the legal sense. Property can be characterised into two categories: tangible and intangible. Tangible property is that which a has physical existence and can be further divided into two categories: movable and immovable property. Intangible property is that which does not have physical appearance.

Procreation Of Intellectual Property Rights: The IPRs have evolved in its present sense back in between 5th and 6th century BCE⁷. They were not in the forms as we see today. They developed overtime because IPRs are still a grey area where the world is still discovering new avenues. There are various rights which are not yet covered under the domain of IPRs. IPRs are intangible property, but intangible property covers



not only IPRs rather other properties also, such as reputation, goodwill, etc. IPRs can be classified into two broad categories: Industrial Property and Copyrights. The difference between Industrial Property and copyright is the industrial property will be considered as IPR when it is commercially utilised whereas



this such requirement is not compulsory in case of copyrights. Industrial Property can be further classified into other property rights – Patents, Geographical Indications, Trademarks, Designs, Trade Secrets, etc.

Basic differences – IPRs and conventional properties

Sr. No.	IPR	Conventional Property
1.	These are intangible in nature.	Tangible in nature. It acquires space.
2.	It is not destroyed by the natural calamities.	It can be destroyed by the natural calamities. For example: - wildfire in California (USA, 2025) finished the immovable properties.
3.	Protected through legal measures.	Needs protection through physical measures as well as legal.
4.	It is omnipresent. It has no place, no physical existence. For example: An Apple Trademark has no place of its own, but its head office (which is tangible property) has a physical existence.	It is difficult to move. Only movable properties are moved from one place to another. Lands are fixed.
5.	Examples: Patents, Designs, Copyrights, Trademarks, Geographical Indications, Trade Secrets, etc.	Examples: Land, Building, Gold, Furniture, etc.

Economic Sustainability And IPR: The IPRs are those properties that generate an incremental wealth. IPRs bring economic sustainability very easily because they are liquid assets and generate quick money. Economic sustainability does not mean that it generates wealth only; rather, it caters to all the aspects relating to economics, such as social, legal, and environmental sustainability. IPRs can do wonders in someone’s life; only a correct vision and a good intellect are necessary.

Case Studies:

- Let us assess the scenario with the help of live examples in the form of case studies. J.K. Rowlings wrote “Harry Potter series”. She earns more than 150 euros in one hour. This is the result of Copyright. The main source of income is royalty that her books generates and the exclusive rights that she gives to the producers of films.
- TATA, META are the brands under which they ran their enterprise. The names are the IPR and covered under the Trademark. No one can use those names without the permission of the company itself. Trademark builds a goodwill in the market and develop a brand image in the minds of consumers. You buy a TATA car before thinking twice because the image of TATA is correlated with its irreplaceable build quality.
- Coca Cola has its secret recipe that is stored in the safe space and only few people know that. This is the Trade Secrets and with this they are earning in crores. The



secret recipes, managerial decisions, business strategies, competition strategies, new products, etc are all covered under trade secrets.

Relevant Results of Research Questions:

- There are certain differences between IPRs and conventional property, but we need to consider that any property cannot be owned without intellectual application.
- No, intangible property and IPRs are not the same; rather, IPRs are of the kind of intangible property.
- There are various types of IPRs that the authors have discussed above.
- Yes, IPRs can produce more economic value than conventional properties. A conventional property has no power to own an IPR, but an IPR has the capacity to acquire tangible properties.

Hypothesis Tested: It is tested from the above assessment that the IPRs have economic value and sustainability, same as the conventional property. In the world of information, intellectual capabilities produce higher returns than tangible property.

Conclusion: In the era where there is a population blast, it is very difficult to become economically viable. But we need to recollect the instances from the past where the people become economically viable and secured a place on the list of richest men. They get that position through the IPRs they have. Right from Bill Gates to J.K. Rowling, the one aspect that is common is that they convert their intellectual capability into IPRs. It is evident that IPRs bring economic sustainability and even in a better manner than conventional property.

References:

1. Unnisa, K. (2022). Intellectual Property Rights and its significance for Business. *IJCRT*, 562-566.
2. Jajpura, L., Singh, B. & Nayak, R. (2017). An Introduction to Intellectual Property Rights and their Importance in Indian Context. *JIPR*, 22, 32-41.
3. Prajapati, A. & Khan, A. (2022). Commercializing Intellectual Property Rights & Significance of Competition Laws. *NLUA JIPR*, 1, 166-185.
4. Delgado, G.C. (2002). Biopiracy and Intellectual Property as the basis for Biotechnological Development in the case of Mexico. *IJPCS*, 16(2), 297-318.
5. Roy, B. & Sarma, N. (2022). Understanding the importance of Intellectual Property for Content Creators and Social Media Influencers. *NLUA JIPR*, 2, online.
6. Johnson, D. R. (2007). Reflection on the Bundel of Rights. *Vermont Law Review*, 32, 247-272.
7. Vaishishtha, E. (2022). The Moral and Economic value of Intellectual Property Rights in the virtual worlds. *NLUA Journal of Intellectual Property Rights*, 1(1), 1-17.

Disclaimer/Publisher's Note: The statements, opinions, and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of TJSD and/or the editor(s). The Journal of Scientific Discourse (TJSD) and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.



Examination of Environmental Parameters Affecting Community: Analysing Air, Water, Noise Pollution from BPCL Bina Refinery

Nainsy Samaiya^{1*} & Gautam Prasad¹

1. Dept. of Commerce, Dr. Harisingh Gour Vishwavidyalaya, Sagar-470003, MP, India.

*Corresponding Author: nainsysamaiya@gmail.com

Abstract: The Study analyze the environmental parameters which effect the society as several component like air quality , surface water quality ,ground water quality and noise level .As several polluted gases like air pollution examine in terms of SO₂, NO₂, and CO emitted from Bina Refinery influencing dispersion and ground water quality is observed in terms of PH levels , total dissolved solids ,total hardness, and fluoride, Chloride and surface water quality is monitored in terms of chemical oxygen demand ,Biological oxygen demand ,total hardness ,total dissolved solids and noise level is also observed through decibel . The secondary data has been used from the environment impact assessment the data has been analyzed through tabular presentation. Further this study concluded that there should be proper steps must be taken for regulating and controlling the PM₁₀ and PM_{2.5}. While groundwater needs treatment for TDS and hardness, maintain regular monitoring and treatment of surface water. Implement measures to reduce noise at Bina Dispatch Terminal.

Keywords: Environmental parameters, Air quality, Surface water quality, Ground water quality, Noise level, Air Pollution.

Introduction: Corporate Social Responsibility of environment refers that company taking efforts to minimize the harm to nature. As the organization for conducting their business use the resources of the society so in return it's the responsibility of the industries to take a challenge and adopt sustainable practice like saving the water, developing effort for managing the waste. Environmental CSR is not only a challenge but it also creates opportunity for the business as it creates a positive image and also increase the brand reputation.

The Bharat Petroleum environmental efforts of CSR: To solve the problems related to water shortage the Bharat Petroleum organize an initiative named Project Boond. The project focused on enhancing water quality and ensuring availability of water. This project benefitted majorly six states, namely, Maharashtra, Tamil Nadu Karnataka, Uttar Pradesh, Rajasthan, Andhra Pradesh comprising over 230 villages.

Efforts for sustaining nature: Their efforts are to retain the water properly in hand pumps, water in well, and the soil around buds at a maximum period. The water bodies have been grown and butterflies can be seen making the ecosystem healthier. They are also working to help farmers for developing watersheds, setting self-help groups



and they motivate them for green farming. They made it easier for farmers to irrigate their wheat and mustard crop as the farmers are not relying on bore wells.

Frynas, J. G. 2009, Studied on Corporate Social Responsibility in the Oil and Gas Sector. Researcher investigated that the potential of CSR for addressing three important challenges in the business-society relationship: the environment, development and governance. The researcher further concluded that the limitations of CSR do not imply that oil companies should do nothing about societal issues. Firms are pressured to engage with the social and environmental aspects of their operations and they may benefit from the opportunities that CSR offers. Studied on Environmental CSR initiatives of manufacturing units in India – An empirical study. Researcher found that majority of units undertake environment CSR activities except rain water harvesting (Shanmugam, K.2013). The Paper further concluded that companies can improve the environmental CSR by increasing tree plantation.

This Paper had analyze about the Further the researcher concluded that Companies need to be more responsible and understand that they must take effort for social practice.

Methodology: Secondary data has been used from the environmental impact assessment report of Bina refinery.

Objectives:

- 1 Assess the air quality management Strategies form by Bina refinery for controlling the pollution and its impact around its area.
- 2 Analyze the noise pollution and its extent which are been created through the activities of Bina refinery.

Investigate the CSR initiatives taken by Bina refinery in preserving the water quality and its impact around its area.

Air Quality monitoring:

	AREA	NO _x	PM ₁₀	CO	O ₃	SO ₂	NH ₃	PM _{2.5}
1.	Sarvodaya Square Bina	24.5	74.4	0.34	21.5	20.5	33.3	38.2
2.	Sargoli	25.4	73.9	0.37	21.5	19.6	30.3	35.2
3.	Basoda	23.5	73.9	0.31	21.5	19.6	31.3	28.4
4.	Dehri	24.5	74.3	0.34	21.5	20.5	32.3	38.2
5.	Bhakrai	23.5	73.5	0.33	22.5	18.6	31.3	24.5
6	Taran Swami Meditation Center	24.5	75	0.35	20.5	19.6	31.3	34.3
7	Agasod	24.5	70.7	0.37	23.5	18.6	32.3	37.2
8	Bina refinery Township	25.4	74.6	0.34	23.5	22.5	34.3	39.2



Groundwater Quality Parameters:

Parameters	Range Observation	Permissible limit	Remarks
PH	6.8-7.3	6.5-8.5	Within permissible limits
Total Dissolved Solids	338mg/L-620mg/L	< 500mg/l	Generally suitable for drinking purposes
Total Hardness (as CaCO ₃)	257mg/L - 395mg/L	<300mg/l	Slightly hard in some areas
Fluoride	0.77mg/ L	< 1.0mg/L	Within permissible limits
Chloride	59mg/L-188mg/L	<250mg/L	Suitable for purpose

Surface water Quality Parameters:

Parameter	Range Observed	CPCB Criteria (Category B/C)	Remarks
PH	7.2-7.7	6.5 -8.5	Within permissible limits
Total Dissolved Solids	152mg/L-232mg/L	< 500mg/L	Suitable for Drinking after treatment
Total Hardness	130mg/L-187mg/L	< 300mg/L	Suitable for outdoor bathing
Dissolved Oxygen	6.1mg/L-6.5mg/L	> 4.0mg/L	Healthy for aquatic life
Chemical Oxygen Demand	7mg/L -15mg/L	< 20mg/L	Within limits for surface water use
Biological Oxygen Demand	2.1mg/L-2.2mg/L	< 3mg/L	Good water Quality

Noise Environment Monitoring

Location	Day time noise level (LeqdB)	Night time Noise Level (LeqdB)	Max Noise (LeqdB)	Min Noise (LeqdB)	Observation
Bhakrai Village	52.3	41.7	49.4	40.5	Within CPCB tolerance limits
Agasod Village	N/A	41.7	44.8	40.5	Max night time noise recorded here and Kathai village
Kaithai Village	N/A	40.5	30.2	30.2	Night time noise is consistent with other villages
Bina Dispatch terminal gate	56	41.7	64.9	40.5	Highest noise recorded during daytime
Bina Refinery Township	N/A	40.5	30.2	30.2	Night time lowest Noise



Analysis and Observation of air, Noise and Surface water and Ground water:

The air quality monitoring data across various locations indicates the following trends:

- **NO_x (Nitrogen Oxides):** Levels are relatively consistent, ranging from 23.5 to 25.4 $\mu\text{g}/\text{m}^3$, with slight variations in Sargoli, Bina Refinery Township, and Agasod.
- **PM₁₀ (Particulate Matter $\leq 10 \mu\text{m}$):** Concentrations vary from 70.7 to 75 $\mu\text{g}/\text{m}^3$, with the highest at Taran Swami Meditation Center (75 $\mu\text{g}/\text{m}^3$) and the lowest in Agasod (70.7 $\mu\text{g}/\text{m}^3$).
- **CO (Carbon Monoxide):** Levels range from 0.31 to 0.37, all within permissible limits. The highest concentration is in Agasod (0.37), and the lowest in Basoda (0.31).
- **O₃ (Ozone):** Concentrations are stable, ranging from 20.5 to 23.5 $\mu\text{g}/\text{m}^3$ across all areas.
- **SO₂ (Sulfur Dioxide):** Levels range from 18.6 to 22.5 $\mu\text{g}/\text{m}^3$, within expected limits.
- **NH₃ (Ammonia):** Concentrations are steady, with Agasod and Bina Refinery Township showing the highest levels at 32.3 and 34.3 $\mu\text{g}/\text{m}^3$, respectively.
- **PM_{2.5} (Particulate Matter $\leq 2.5 \mu\text{m}$):** Levels are highest at Bina Refinery Township (39.2 $\mu\text{g}/\text{m}^3$) and lowest in Bhakrai (24.5 $\mu\text{g}/\text{m}^3$).

Ground water and surface water: The groundwater quality is within safe limits for pH, fluoride, and chloride, but TDS and hardness levels are higher than recommended, requiring treatment for drinking. Surface water meets the necessary standards and can be safely used after treatment.

Noise Level

- **Within the Limit of CPCB:** Noise Levels are within the permissible limits of CPCB that indicate there is minimum disturbance of noise level.
- **Comparative of Highest and Lowest Noise Level:** Highest noise level showed in the day time at the Bina Dispatch Terminal Gate. Lowest noise level Showed at the night time in Bina Refinery Township.

Measurement taken by Bharat Petroleum Corporation Bina refinery:

1. Air Emission: Operate equipment within limits, Review logs, Reduce vehicle trips, Check dust control, Continuous monitoring.
2. Noise: Limit night work, Track hours, Control vehicle noise, Monitor logs, Routine checks.
3. Soil Erosion: Protect topsoil, Regular inspections.
4. Health: checkups, health Monitor health, Conduct Ongoing checkups.



5. Construction Camps: Position camps away from settlements, Avoid public service. Maintain hygiene, Regular checks.
6. Waste Management: Follow waste protocol, Ensure regulatory compliance, Periodic checks.
7. Fuel and Oil Leaks: Store properly, prevent spills, Inspect soil/water, Ongoing monitoring.
8. Water Management: Ensure proper wastewater disposal, Monitor discharge compliance, Regular monitoring.

Conclusion: The air quality across the monitored areas is generally stable, with NO_x, O₃, and SO₂ levels staying within safe limits. However, higher concentrations of PM₁₀ and PM_{2.5} were detected in specific locations such as Taran Swami Meditation Centre and Bina Refinery Township, while CO and NH₃ levels remain within permissible thresholds. Groundwater quality is mostly within acceptable standards but requires treatment for elevated TDS and hardness. Surface water, however, is suitable for use after treatment, as it meets the required parameters. Noise levels are within CPCB limits, with the highest daytime noise levels observed at Bina Dispatch Terminal and the lowest at night in Bina Refinery Township. To address these concerns, it is recommended to reduce PM₁₀ and PM_{2.5} levels in the affected areas, treat groundwater to reduce TDS and hardness, maintain regular monitoring and treatment of surface water, and implement measures to reduce noise at Bina Dispatch Terminal.

Reference:

- Frynas, Jędrzej George (2009). 'Corporate Social Responsibility in the Oil and Gas Sector', *Journal of World Energy Law & Business* 2(3), pp.178-195.
- Shanmugam, K. (2013) Environmental CSR initiatives of manufacturing units in India – An empirical study, *African Journal of Business Management* ,7(16), 1560-1570
- Markovskaya et al., (2021) Impact of Oil Companies Sustainability on Environmental Safety. *IOP Conference Series: Earth and Environmental Science* ,1-11
- M/s Idma Laboratories Limited. (2022). *Environmental impact assessment study for proposed expansion of refinery cum proposed petrochemical complex at Bina Refinery of M/s BPCL* (Report No. B502-1742-EI-2201 R0).
- Bharat Petroleum Corporation Limited. (n.d.). Environment sustainability. Retrieved January 31, 2025, from <https://www.bharatpetroleum.in/CSR/CSR-Thrust-Areas/Environment-Sustainability.aspx>

Disclaimer/Publisher's Note: The statements, opinions, and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of TJSD and/or the editor(s). The Journal of Scientific Discourse (TJSD) and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.



Effect of Covid-19 Pandemic on Online Food Delivery Business in India

Akhilesh Meena^{1*}, Ahsan Ilahi¹ & Rashmi Tanwar¹

1. Dept. of Economics, Central University of Haryana, Mahendragarh- 123031
Haryana, India.

*Corresponding Author: akhileshmeena1230@gmail.com

Abstract: *The Covid-19 epidemic reshaped global economic systems which led to major transformations within the online food delivery industry. Lockdown and social distancing rules, along with restaurant closures, changed consumer behaviour helped Uber Eats, DoorDash, Zomato, and Swiggy to explore fresh business opportunities. Consumers looking for a safe home delivery option quickly promoted online food delivery (OFD) services. However, the industry's expansion has been hampered by supply chain issues, safety regulations, and health concerns for delivery workers. To overcome these obstacles, companies have used digital payment systems, contactless delivery, and strict hygiene protocols. Future developments will be driven by consumers' growing desires for convenience and security. The study looks at the long-term impacts of these developments. This study clarifies how adaptable the OFD industry is and how it may develop in the future. Trends in revenue, market size and order volume have been shown in the study. The study also uncovers the sustained demand for seamless and secure delivery options, driven by evolving consumer expectations. It further explores how personalized offerings are shaping the future trajectory of the online food delivery industry.*

Introduction: The growing consumerism and internet penetration have pushed market players to deliver their services to consumers in a fast & cost-effective manner using online platforms. The proposed system is designed to replace traditional phone-based orders, minimizing errors and improving communication between restaurants and customers (Mponela et al., 2024). The hospitality industry has also witnessed the boom due to globalization and has seen different opportunities. Now, consumers can place orders for food delivery to their homes from restaurants using online OFD services. These companies make a variety of meal options easily accessible through their mobile applications and websites, which also make transactions easier. Due to shifting customer tastes, urbanization, and rising internet penetration, OFDs grew quickly prior to COVID-19. In discussing the factors influencing the growth of online food delivery (OFD) services in India, Convenience, ease of use, and customer experience significantly drive the intention to use food delivery apps, which may have been amplified during the COVID-19 pandemic due to increased reliance on digital platforms (Ray et al. 2019).



Online food delivery services, or OFDS, have revolutionized the food industry by enabling seamless online communication between customers and restaurants. Urbanization, smartphone penetration, and shift in consumer preferences were some drivers driving worldwide growth of online food delivery business prior to COVID-19. According to Business Wire (May 11, 2020), the global OFD market had grown from its 2019 forecast of around \$107.4 billion to \$154.3 billion in 2023.

The Indian online food delivery sector whose valuation was at ₹7,500 crores in 2019, predicted to be expanded by 20–25% in a year, according to Restaurant India (20 November 2024). Online meal delivery businesses were among the many industries that experienced previously unheard-of difficulties due to the pandemic. The following months would see a surge of demand as customers turned to ordering food online for fear of being exposed to the virus. The Indian OFD industry quintupled to ₹ 9,800 crores in 2021 (Economic Times) because of the skyrocketing demand. After the lockdown was lifted, delivery apps like Zomato and Swiggy have seen a huge increase in order volume. However, the COVID-19 pandemic has created unprecedented disruptions in some industries, such as the OFDs. The COVID-19 pandemic significantly boosted e-commerce, including online food delivery services, as consumers shifted to digital platforms due to lockdown restrictions. The pandemic accelerated e-commerce growth globally, with a surge in online transactions driven by safety concerns and restricted physical store access, a trend particularly evident in India's food delivery sector (Bhatti et al. 2020). Food delivery companies suffered a huge setback after the initial lockdown in 2020, but the following months saw a huge increase in demand as consumers turned to ordering food online for safety reasons. Perceived task-technology fit significantly influences customers continued use of food delivery apps during the COVID-19 pandemic (Zhao and Bacao 2020). In India, the early phase of the pandemic saw a significant increase in the market share of orders from delivery platforms (OFDs) after the lockdown, with delivery platforms like Zomato and Swiggy recording significant growth in order volume.

Global Market Companies: There are a few strong firms that control much of the global OFD market. Important rivals with substantial shares in North America, Europe, and other regions are Uber Eats, DoorDash, Grubhub, and Deliveroo (restaurantindia.in). The extensive appeal of these systems may be attributed to their user-friendly interfaces, quick delivery, and diverse menu options. Their ongoing innovation and expansion strategies have helped them carve out a solid position for themselves in the worldwide OFD industry.

1. **Uber Eats:** During COVID-19, Uber Eats, a significant participant in the US, Europe, and many Asian markets, had a variety of affects, with orders declining in some regions and increasing in others.



- 2. DoorDash:** Due to its rapid growth and rising demand, DoorDash, the largest food delivery business in the US, benefitted from the epidemic.
- 3. Deliveroo:** This UK-based company, which grew rapidly during COVID-19, went public in 2021.
- 4. Just Eat Takeaway:** The firm, based in Canada and Europe, claimed a rise in orders during the pandemic.
- 5. Others:** Grubhub (USA), Deliveroo (London), Careem Now (Middle East, Pakistan), and Eat Mubarak (Pakistan).

Indian Market Companies: Large corporations like Zomato and Swiggy, which control the industry, are national market participants in India's online meal delivery sector. These platforms link customers with a variety of eateries using cutting-edge technology, AI-powered suggestions, and effective logistical networks. Domino's India and Pizza Hut also operate their own delivery services alongside these aggregators.

- 1. Zomato:** After COVID, this popular meal delivery service saw a huge comeback and an IPO.
- 2. Swiggy:** The primary competitor of Zomato saw a sharp gain in market share following the outbreak.
- 3. Domino's India (Jubilant Food Works):** Which offers direct-order services.
- 4. Rebel Foods (Faasos, Behrouz Biryani, Oven Story):** Experienced a surge in demand during the pandemic.
- 5. Others:** Eat Sure, Box8, Food Panda, etc.

Covid-19 and Online Food Delivery Services (OFDS): Supply chains were hindered, restaurants were shut down due to lockdowns, and the people suffered. The need to adhere to social distancing resulted in increased orders. OFDs grew tremendously during the pandemic. With lockdowns and social distancing regulations, there was a dire need for contact-free delivery. During the COVID-19 pandemic, factors like price, and quality information significantly influenced customer satisfaction in online food delivery services (Prasetyo et. al.). To keep their restaurants afloat, many companies joined partnership with OFDS and it greatly sped up the digital evolution of the food industry.

Advantages And Disadvantages of OFDS: The advantages of OFD include convenience, time savings, and food variety. The potential unreliability of traditional food delivery services and bad eating habits, extra costs, poor food quality are major drawbacks.

- 1. Advantages:** Customers use service applications to place food orders from restaurants that serve a range of ethnic and regional cuisines. Helper is no longer

needed, and families save time. To save costs even further, a lot of apps provide discounts, enabling users to satisfy their tastes without requiring assistance.

- i. **Convenience:** Customers save time by ordering meals from restaurants and having them delivered to their homes.
 - ii. **Varied Options:** The variety of regional restaurants and cuisines provides a greater diversity than traditional restaurants can offer.
 - iii. **Saves Time:** People save time since they don't have to spend time cooking or physically travelling.
 - iv. **Non-Physical Delivery:** OFDs added the possibility of letting people took food without any physical interaction due to hygiene issues.
2. **Disadvantages:** While there are many pros to OFD, there are also disadvantages, such as extra delivery and service charge, the probability of higher meal expenses when compared to eating out, and possible problems with food quality.
- i. **Expense Increase:** The cost of the meal might be increased by delivery and service charges, making it more costly than dining out. Higher overall food expenditures may also result from reliance on OFD services.
 - ii. **Quality Concerns:** Delivery delays, temperature fluctuations, or inadequate packaging may cause the food's quality to fall short of what would be served at the restaurant. A less enjoyable eating experience could result from certain food products not traveling properly.
 - iii. **Environmental Impact:** Environmental degradation is a consequence of the growing usage of plastic packaging for hygienic and safety reasons. Using more delivery vehicles raises carbon emissions, especially if they are not electric.
 - iv. **Limited Delivery Areas:** Some customers could not get to access some OFDs since they do not function in rural or small towns. Because of logistical issues, delivery times may be longer in less populated areas.

Pre-Covid-19 Trends: Before the pandemic, the sector of internet meal delivery was experiencing steady growth, driven by factors such as:

- **Increased digital penetration:** -Online ordering was spurred by the increase in smartphone users and the availability of inexpensive mobile data.
- **Changing consumer behaviour:** -Due to ease, home delivery is replacing conventional dine-in experiences.
- **Expansion of cloud kitchens:** -Adoption of cloud kitchen models by many restaurants, which decreased operating expenses.



Pre-COVID-19, the Online Food Delivery Services industry in India was growing at a Compound Annual Growth Rate of around 15-20% (Statista), driven by urbanization, rising disposable income and increasing smartphone penetration.

During Covid-19: The early 2020 pandemic caused significant disruptions to the internet meal delivery industry. Due to government-imposed lockdowns, operations were suspended, and many customers avoided placing online food orders due to worries about food safety. Online food delivery was affected by the COVID-19 epidemic, since lockdowns initially stopped operations. A spike in demand was driven by remote work and hygiene concerns as limitations loosened.

The pandemic boosted online food sales due to customer awareness and quicker decision-making, which aided in the transition to contactless delivery (Gu et al. 2021). To satisfy safety requirements, platforms such as Zomato and Swiggy implemented secure packaging and zero-contact delivery. However, when limitations loosened, the following reasons led to a spike in demand for online meal delivery:

- **Hygiene concerns** -Because of safety precautions, customers favored food delivery over eating out.
- **Work-from-home culture** - Many workers are becoming more and more dependent on meal delivery services.
- **Expansion into grocery delivery** - Grocery delivery services were established by businesses such as Swiggy and Zomato.
- **Contactless deliveries** - Customers were reassured by new safety features including zero-contact deliveries and secured packing.

Post-COVID-19 Trends: India's online food delivery behaviour in the post-pandemic era has been shaped by ease of use, attitude, and behavioural control more than perceived usefulness or social norms (Shukla & Pandey, 2023). After the pandemic, Online meal delivery businesses saw long-term transformations:

- **Sustained high demand** - Many of the customers who began using OFDs during the pandemic kept using them.
- **Health-conscious eating** - There was a rise in demand for diet-specific, organic, and healthier food options.
- **Subscription-based models** - Services like Zomato Gold and Swiggy One become more well-known.

By 2023, The OFD sector in India had surged to ₹13,500 crores, showing the COVID's long-term impact on consumer behaviour and market growth. Pleasure and dominance significantly influenced consumer's continued usage intentions of food delivery apps during the COVID-19 pandemic (Kumar and Shah, 2021).



This graph shows the revenue trend of India’s online food delivery market from 2019 to 2023, highlighting a sharp dip in 2020 due to the COVID-19 pandemic, followed by a strong V-shaped recovery. Revenue fell from \$4 billion in 2019 to \$3 billion in 2020 amid lockdowns and safety concerns but rebounded to \$5 billion in 2021 as restrictions eased and consumer confidence returned. Continued growth in 2022 and 2023, reaching \$6.5 billion and \$8 billion respectively, reflects the sector’s resilience and growing consumer reliance on food delivery services post-pandemic.

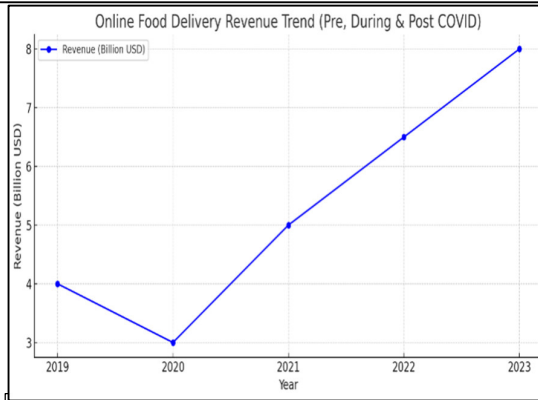


Figure 1: OFDS Revenue Trend (Source: STATISTA)



Figure 2: OFDS Order Trend (Source: STATISTA)

In the figure 2, rise of online OFD from 2018 to 2024 is seen, with the pandemic in 2021 causing a notable spike. Despite slower growth, orders fell in 2022, 2023, and 2024, demonstrating market equilibrium and customer interest.

Consumer food preferences shown in this graph in three different time periods: Pre-Covid, During-Covid, and Post-Covid (figure: 3). After the pandemic, consumer habits changed, and now dine-in and online orders are equal, meaning people prefer both methods equally. Before the epidemic, most people preferred to dine at restaurants, but internet orders have skyrocketed. People gradually began returning to restaurants once the epidemic's impacts diminished, although internet ordering continued to be popular.

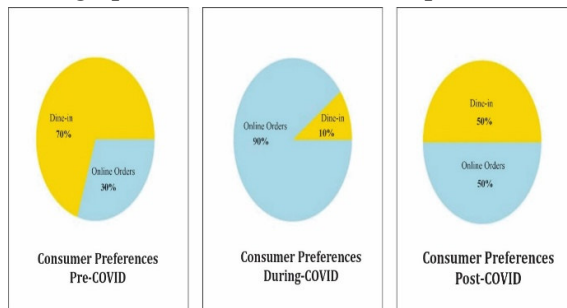


Figure 3: Pre, During & Post Consumer Preferences for Dine in & online orders. (Source: STATISTA)

Status Of OFDS in India:

Growth of the market for online food delivery in India: The market for OFD was about ₹7,500 crores in 2019 and ₹9,800 crores in 2021 (Economic Times, 2024). As consumers pick more convenient and diverse foods, the trend shows shifting consumer preferences.

The pandemic considerably exacerbated this trend as lockdowns and safety concerns led to a sharp increase in demand for contactless food delivery. The figure

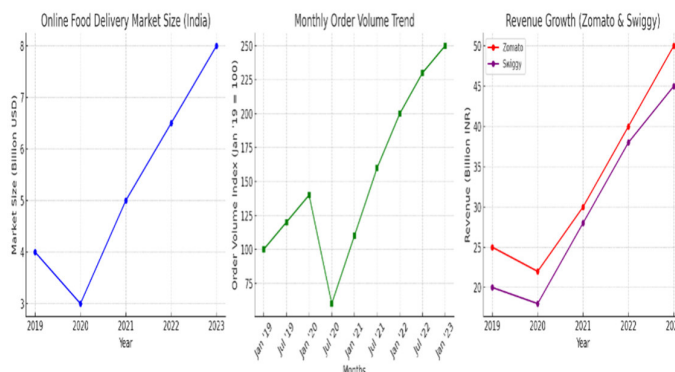


Figure 4: Market size, Order Volume and Revenue Growth of OFDs.

4 displays the Indian online meal delivery market, order volume patterns, and the revenue growth of industry Swiggy and Zomato.

- Online Food Delivery Market Size (India):** In 2019, valuation of market was over \$4 billion USD. During COVID-19 the market to dropped to USD 3 billion in 2020 and thereafter, the market increased quickly, reached \$8 billion USD by 2023. This shows that the demand for OFD increased significantly after the pandemic. (Source: Statista)
- Monthly Order Volume Trend:** In January 2019, order volume was given an index of 100, which increased in early 2020 but saw a significant decline in 2021 due to COVID-19 and just after 2020, the order volume increased steadily and by 2023 the index reached 250. This interpret that people started ordering more food online after the pandemic.
- Swiggy and Zomato Revenue Growth:** The graph shows that the OFD market made a rapid recovery after the epidemic and seen an increase in consumer interest too. Zomato's revenue in 2019 was INR 25 billion while Swiggy's revenue was INR 20 billion. In 2020, both companies experienced a decline in revenue due to COVID-19. The growth accelerated after 2021, and in 2023 Zomato's revenue reached INR 50 billion while Swiggy's revenue reached INR 45 billion.

Market Composition and Food Sector Share

- Quick Service Restaurants (QSRs):** The market for OFD is dominated by QSRs. Fast service and an emphasis on convenience define QSRs, and their menu selections are ideal for the delivery and on-the-go mentality. Local favourites like Haldiram's and Gujarat's Gopal, together with international



chains like McDonald's, Domino's, KFC, and Burger King, have established a sizable market presence in the OFD sector.

2. **Casual Dining:** The OFD market's second-largest sector is casual dining. Casual dining is a distinct market niche that offers more variety and a greater degree of food customization than QSRs, although having a lesser market share.
3. **Market Evolution and Technology:** With the growth of online payment systems like UPI (Unified Payments Interface), consumers found it simpler to make payments, which led to an increase in transaction volume.

Impact Of Covid-19: Before and After: The COVID-19 pandemic significantly heightened the demand for contactless delivery as people began avoiding public spaces like restaurants, driven by a strong desire to minimize potential contagion risks. This shift propelled online food delivery (OFD) services to the forefront, offering a safer alternative by enabling meals to be delivered without direct human contact, thereby reducing the danger of virus transmission. The increased reliance on online food delivery apps during the COVID-19 pandemic likely exacerbated stock-out and wastage issues for restaurants, as Das and Ghose (2019) found that heightened order volumes through these apps led to significant inventory management challenges in Guwahati, India.

The emphasis on contactless options became a critical factor in sustaining consumer trust and meeting the urgent need for safety during lockdowns and social distancing measures, establishing OFD platforms as essential services in the new normal. Parallel to this, a notable transformation occurred in consumer behavior, with online food delivery services emerging as a popular solution for obtaining meals without leaving home. To address these evolving expectations, OFD companies implemented enhanced safety protocols and hygiene standards, including sterilized packaging, mask-wearing delivery staff, and temperature-controlled deliveries. These measures not only reassured customers but also fostered greater confidence in using delivery services, even amidst the uncertainties of the pandemic, solidifying their role in everyday life.

Factor	Before COVID-19	After COVID-19
Market Growth	Steady 15-20%	Surge of over 40% in some quarters
Consumer Behaviour	Mixed dine-in & delivery	High preference for online ordering
Hygiene Concerns	Moderate	High driving demand for contactless delivery
Revenue Streams	Primarily restaurant-driven	Cloud kitchens & subscription-based models gained popularity

Revenue and Order Volume:

- Lockdown limitations and restaurant closures caused OFD income to decline in the first part of 2020.



- Particularly for quick-service meals and fast food, order numbers increased by the middle of 2020.
- Swiggy and Zomato both announced revenue growth that broke records in 2021, with Zomato's Gross Order Value (GOV) rising by 125% annually.
- In 2023, the OFD industry in India generated ₹13,500 crores in sales. (The Economics Times)

Shift in Market Strategies

- OFD platforms reassured customers by implementing strict safety and sanitary procedures.
- Emphasis on cloud kitchens, which enable eateries to function without amenities for dine-in customers.
- AI integration for improved order optimization and demand forecasting.
- Delivery services for groceries and necessities were introduced to make up for restaurant closures.
- Adoption of creative marketing initiatives and price reductions to keep clients.

Employment and a Gig Economy

- While the pandemic caused widespread restaurant layoffs, OFDs gave delivery workers new employment prospects.
- Jobs in the gig economy are growing as more contract and freelance delivery workers are being hired.
- But issues like fair pay and job security for delivery workers emerged as a major problem.

Future Opportunities of OFDS in India

1. Expansion in Tier 2 and Tier 3 Cities

- Increased Internet Penetration:** The continuous growth of internet access is creating new markets for food delivery services, especially in rural and smaller cities. Since the internet is now more widely available in Tier 2 and Tier 3 cities, these areas are anticipated to be the next frontier for OFD growth.
- Affordability and Access:** Delivery services for food are growing more and more popular in smaller towns as smartphone usage increases and internet connectivity becomes more accessible. Platforms are localizing their products to accommodate regional food habits and tastes, which supports this expansion.

2. Cloud Kitchen Boom

- Low-Cost, High-Efficiency Kitchens:** Cloud kitchens have become a viable business model for restaurants, especially in places with high real estate costs.



These kitchens are only used for delivery, freeing up food enterprises to concentrate on production rather than running a physical dine-in area.

3.Subscription-Based Models

- i. **Loyalty Programs:** The OFD market's growing trend toward subscription-based business models is shown by Zomato Gold and Swiggy One. By providing users with perks like free deliveries, special offers, and discounts, these programs build consumer loyalty and improve client retention.

Conclusion: Due to COVID-19 pandemic, the online food delivery (OFD) business has undergone significant transformation. Even though the pandemic's early stages were difficult and included supply chain disruptions and lockdowns, the long-term consequences have mostly been favorable. The demand for meal delivery services grew as consumers resorted to online ordering due to its convenience and security, which led to an unprecedented expansion of the sector. The Indian OFD market has grown remarkably, with Zomato, Swiggy, and other platforms leading the way. By adjusting to new consumer needs, such as contactless deliveries, improved hygiene standards, and growth into cloud kitchens and supermarket delivery, these platforms not only survived the early failures but also prospered in the post-pandemic climate. The business growth has been significantly influenced by cloud kitchens, which give eateries a low-cost way to fulfil online orders without the need for actual dine-in areas. As customer preferences continue to shift, particularly toward healthier and more eco-friendly options, OFDs must remain adaptable and innovative. In order to ensure repeat business and cultivate customer loyalty, personalized offerings and subscription models will become increasingly important. In order to maintain its current growth trajectory, the sector must also consider new revenue streams, such as reward systems and collaborations with local food companies. In conclusion, it seems that the OFD business has a promising future, even if the pandemic caused upheaval. In the post-pandemic period, the sector is well-positioned to continue its upward trajectory and alter our picture of food delivery by embracing the technology, expansion into new markets, and satisfying consumer expectations.

References:

- Das, S., & Ghose, D. (2019). Influence of online food delivery apps on the operations of the restaurant business. *International Journal of Scientific & Technology Research*, 8(12), 1372–1377.
- Ray, A., Dhir, A., Bala, P. K., & Kaur, P. (2019). Why do people use food delivery apps (FDA)? A uses and gratification theory perspective. *Journal of Retailing and Consumer Services*, 51, 221–230. <https://doi.org/10.1016/j.jretconser.2019.05.025>
- Bhatti, A., Akram, H., Basit, H. M., Khan, A. U., Naqvi, S. M. R., & Bilal, M. (2020). E-commerce trends during COVID-19 pandemic. *International Journal of Future Generation Communication and Networking*



- Zhao, Y., & Bacao, F. (2020). What factors determining customer continuingly using food delivery apps during 2019 novel coronavirus pandemic period? *International Journal of Hospitality Management*, 91, 102683. <https://doi.org/10.1016/j.ijhm.2020.102683>
- Gu, S., Ślusarczyk, B., Hajizada, S., Kovalyova, I., & Sakhbieva, A. (2021). Impact of the COVID-19 pandemic on online consumer purchasing behavior. *Journal of Theoretical and Applied Electronic Commerce Research*, 16(6), 2263–2281. <https://doi.org/10.3390/jtaer16060125>
- Hong, C., Choi, H. H., Choi, E. K., & Joung, H. W. (2021). Factors affecting customer intention to use online food delivery services before and during the COVID-19 pandemic. *Journal of Hospitality and Tourism Management*, 48, 509–518.
- Kumar, S., & Shah, A. (2021). Revisiting food delivery apps during COVID-19 pandemic? Investigating the role of emotions. *Journal of Retailing and Consumer Services*, 60, 102595. <https://doi.org/10.1016/j.jretconser.2021.102595>
- Prasetyo, Y. T., Tanto, H., Mariyanto, M., Hanjaya, C., Young, M. N., Persada, S. F., ... & Redi, A. A. N. P. (2021). Factors affecting customer satisfaction and loyalty in online food delivery service during the COVID-19 pandemic: Its relation with open innovation. *Journal of Open Innovation: Technology, Market, and Complexity*, 7(1), 76. <https://doi.org/10.3390/joitmc7010076>
- Pandey, S., & Shukla, P. (2023). Online food delivery in the post-pandemic era: Moderating role of vaccine confidence. *IIMBG Journal of Sustainable Business and Innovation*, 1(2), 114–131. <https://doi.org/10.1108/IJSBI-06-2023-0035>
- Mponela, U., Shereef, D., & Tawarish, D. (2024). Online food ordering system. *International Journal of Information Technology and Computer Engineering*, 4(2), 43–52. <https://doi.org/10.55529/ijitc.42.43.52>

Disclaimer/Publisher's Note: The statements, opinions, and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of TJSD and/or the editor(s). The Journal of Scientific Discourse (TJSD) and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.



The Impact of the TRIPS Agreement on Indian Agriculture: Challenges and Opportunities for IPR, Innovation and Farmer's Rights

Satyajit Mallick^{1*}, Rashmi Tanwar¹ & Meenu Kumari¹

1. Dept. of Economics, Central University of Haryana, Mahendergarh-123031
Haryana, India

*Corresponding Author: satyajitmallick777@gmail.com

Abstract: TRIPs agreement would need significant adjustments in our nation's patent system. A minimal level of IPR protection is main objective of TRIPs agreement. There are several prerequisites for the execution of the TRIPs agreement. The most crucial ones are first-rate scientific and technological capabilities, proper research investments, and institutional, administrative, and legal changes. The TRIPs agreement would need significant adjustments to our nation's patent system. A minimal level of IPR protection is the aim of TRIPs agreement. There are various prerequisites for the TRIPs agreement to be implemented successfully. The most crucial ones are first-rate scientific and technological capabilities, proper research investments, and institutional, administrative, and legal changes. The importance of intellectual property in the agriculture industry is growing. Future agricultural success in India could depend more on our capacity for successful product innovation and marketing than on our capacity to keep raising yields. If so, the international regulations pertaining intellectual property exchange play an importance role in determining how India's agriculture industry will continue to expand. This paper will discuss the potential effects on Indian agriculture of modifications to the TRIPs agreement. It points out certain places where Indian agriculture may benefit and somewhere it could suffer. After that, it makes recommendations for potential positive outcomes from the next TRIPs review as well as the industries that are nearly about to impact

Keyword: TRIPs, Agriculture, Introduction

Introduction: The World Trade Organization (WTO) created the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) in 1995, and it has a significant effect on many areas of the Indian economy, especially agriculture (Khan & Hussain, 2019). Indian agriculture saw a significant transformation when TRIPS brought strict intellectual property rights (IPR) restrictions, including patent safeguard for plant species and agricultural advances. Supporters contend that these rules encourage innovation and draw in foreign capital, while detractors raise issues with food security, biodiversity preservation, and farmers' access to reasonably priced seeds. Examining the advantages and difficulties that TRIPS has presented for farmers, agribusinesses, and policymakers, this article explores the complex effects



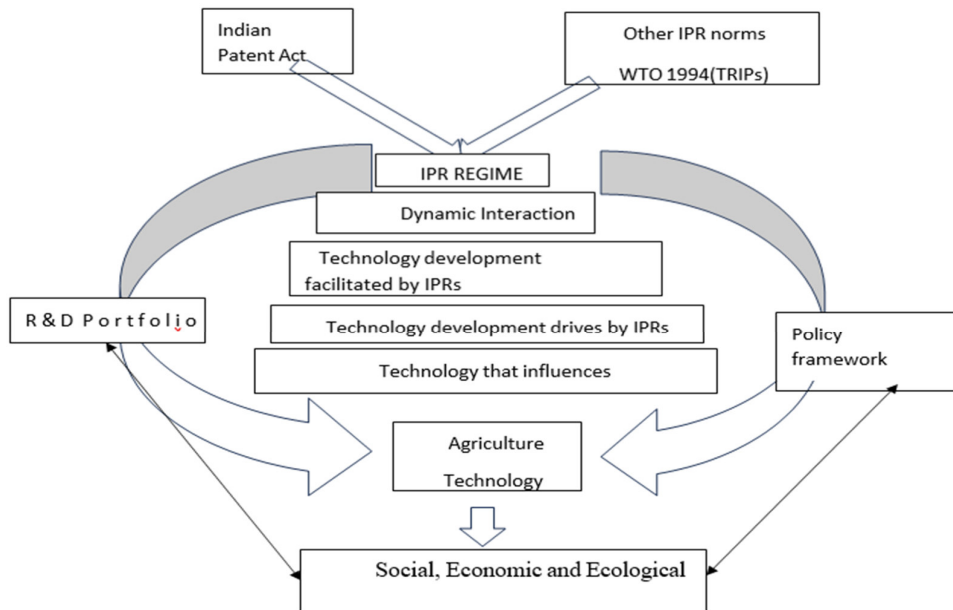
of TRIPS on Indian agriculture. The TRIPS Agreement marked a shift in WTO negotiations by introducing a major non-trade issue into global trade rules. Unlike other WTO agreements focused on reducing trade barriers, TRIPS requires countries to enforce intellectual property rights domestically (Cardwell & Ghazalian, 2012). Developing nations accepted TRIPS under pressure, in exchange for better access to developed markets for their goods (Beck & Katz, 1995).

Global agriculture has been significantly impacted by the 1995 World Trade Organization (WTO) implementation of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), especially about the development of intellectual property (IP) rights about plant genetic resources, biotechnology, and seed markets. The implementation of the TRIPS Agreement has sparked debate over whether extending IPR protection to agriculture benefits producers and consumers, and how it might affect food security (Payumo, Grimes & Wandschneider, 2012). TRIPS has changed the dynamics of agricultural production, research, and food security globally by requiring member nations to give plant varieties legal protection, either through patents, plant breeders' rights, or a mix of both. Since patents and plant variety protection (PVP), regulations sometimes give companies exclusive rights, restricting farmers' customary methods of storing, trading, and recycling seeds, one of its most notable effects is the growing influence of multinational agribusinesses over seed markets. This change has been likely controversial in underdeveloped nations, where Open-access seeds are essential to the livelihoods and food production of smallholder farmers. Because the marketing of proprietary hybrid and genetically modified (GM) seeds frequently results in monoculture farming and the displacement of locally adapted crop types, the commercialization of genetic resources, made possible by TRIPS, has sparked concern about biodiversity loss. Strong IP rights, according to TRIPS proponents, spur agricultural innovation and outcomes in the creation of high-yield and climate-resilient crops. However, opponents highlight that these protections can also raise seed costs, exacerbate rural poverty, and limit farmers' autonomy. Furthermore, businesses and academic institutions are patenting genetic resources and tradition. Important concerns regarding sustainability, equality, and the future of global food systems are still brought up by TRIPS implementation.

History of TRIPS: The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) has the following historical background: As part of the Uruguay Round of the General Agreement on Tariffs and Trade (GATT), the TRIPS Agreement was negotiated between 1989 and 1990. On April 15, 1994, the TRIPS Agreement was signed in Marrakech, Morocco. January 1, 1995, marked the effective date of the TRIPS Agreement. The most extensive multinational agreement on intellectual property rights is the TRIPS Agreement. It was the first contract to cover every aspect of intellectual property, proposals for an international intellectual property treaty date

back to 1851, when the Great Exhibition took place (Gana, 1996; Downes, 2004; Angural, 2019). It covers areas such as: Copyright, Trademarks, Geographical indications, Industrial designs, Patents, Layout-designs of integrated circuits, Undisclosed information.

Diagrammatical representation of TRIPS



Source: Ravishankar and Archak (2000); Kumar and Sinha (2015)

Downes (2004), attempts to study the overview of World Trade Organization, the paper provides a brief introduction to the Trade-Related Aspects of Intellectual Property Rights Agreement and discusses how much it affects food security in poor nations. examines the driving forces behind the TRIPs Agreement, the "gene revolution's impact on agriculture, and the ensuing rush to patents. Next, the Agreement's possible effects on the developing world— specifically, Article 27.3(b)—are evaluated. claims that certain companies now enjoy monopolistic benefits as an outcome of the seed industry's concentration, which runs counter to the WTO's goal of increasing trade liberalization. However, the UPOV Convention's implementation may pose the biggest threat to food security in poor nations, as well as employed by wealthy nations to make sure poorer nations abide by the terms of the TRIPs Agreement.

Sreenath and Sreenath (2006), examine the paper in which it argues the concern related to farmers for safeguard their rights by adopting a genuine sui generis system right not only by being a part of the international union for the protection of newly existing species of plant (UPOV) standards, thus paper also considered the that



there is a requirement of giant investment on the agriculture research and overall development protect the indigenous way of doing agriculture and which help to resist the monopolization of crops seeds. Moreover, the study first the requirement of proper legal rules and restrictions to ensure international compliance which also supports the farmer's welfare.

Winter. et.al, (2010), examine the strategies for cultivating farmer rights through intellectual property rights in plant breeders in which they raise awareness related to the agricultural biodiversity in the farmer cultivation lifestyle. Further, it also confirmed the traditional former role-play in conserving, creating and encouraging traditional agriculture.

Hirismulthugodoge's (2011), attempt to study the objectives of WTO to encourage world trade and production is considered as the fundamental analysis it emphasizes the farmer's traditional way of doing agriculture expertise needs to be patent a prosperous sui generis system paper also highlights the role of IPR in Srilanka 2003. however, it does not safeguard the plant species or farmers' centuries-old wisdom. In which Sri Lanka is Struggling to develop on productive IPR guidelines that are fulfilled with the convention, especially for agriculture. This paper several techniques and approaches that are potentially used by employees. IPR in agriculture in Sri Lanka is used to speed up the trade and agriculture sector and it also highlights the administrative role of IPR in South Asian nations.

Nair (2011), Attempts to study GATT, TRIPS, WTO and CBD relevance in agriculture on the significant role of agreements IPR to protect the succeeding of Indian agriculture, which ensure food security for the world population. Especially in lower income nations, there are many policies for protection that are highly responsible for implementation. However, the paper is mainly concerned as the future of agriculture under GATT, TRIPS, WTO and CBD in developing and developed countries. Aggarwal and Satpute (2013), conducted a study on the "role of TRIPS in the Indian agriculture sector: balancing traditional knowledge, biotechnology "in which the main concern is about the Indigenous seed. Holding rights of the land holder the paper mainly contributed to the trade- related aspects of intellectual property rights (TRIPS)and its repercussions on the inventions in agriculture that lead to Indigenous ways of doing in agriculture and biotechnology the source of the data RBI, FAQ, by that they suggest the causes by which responsible for the decline of the agriculture-related export .however, the study talks about the innovative way to raise the research and development, biotechnology in agriculture and the GM biotechnology. Khan and Hussain (2019), conducted a research study on TRIPS in their paper "TRIPS in Agriculture of India: An Overview" in which they talked about the significant role of GATT, the research paper spoke about the protections in the plant Breeder rights in the plant.it talks about the important issues which protect the



smallholder farmer by providing them patent. Also, it highlights the roles of farmer development with the need of plant germplasm and, the IPR model of plant breeding which play a pivotal role in agriculture development.

Sachin (2019), conduct research on “TRIPS agreement: the Indian experience of the pharmaceutical industry and agriculture” The study is based on the pharmaceutical and agricultural sector of India and how it was impacted the by the WTO in its TRIPS agreement it talked about how its development the output at cheap rate with help of research and development the researcher paper is based upon the descriptive in nature.

Gana (2021), Conducted a study on TRIPS agreements in developing countries regarding patent copyright. It also highlights the significant role of TRIPS agreement in promoting developing nations. It also claimed that developing development is not able to be achieved without legal administration. Moreover, it focuses the positive role of trips to achieving the technology and boosting the manufacturing hubs of developing countries.

Implications of TRIPS on Indian agriculture sector

The World Trade Organization (WTO) created the TRIPS Agreement in 1995, which establishes minimal requirements for IP protection among its member nations. It has broad ramifications, especially for poor countries, in fields including technology, traditional knowledge, medicines, and agriculture.

1. Food Security and Agriculture: The food security after the provision of TRIPS A controversial topic in WTO discussions has been India's food security policy, such as state stockholding for the state Distribution System (PDS) (Nair, 2011). In order to provide food security for its people, which is safeguarded by the WTO's Peace Clause, India has urged for flexibility in food stockholding. Although unrelated to TRIPS, this illustrates the larger trade-related difficulties India encounters in striking a balance between international trade regulations and food security (Downes, 2004). Another issue in Indian agriculture related to the patents the role of farmers which is describe in below,

- a. **Biotechnology Patents:** TRIPS limits conventional seed trade by permitting the patenting of plant types and genetically modified organisms (GMOs). (Khan & Hussain, 2019)
- b. **Danger to Farmers' Rights:** Smallholder farmers in lower income nations are affected by the unavailable of seed-saving techniques.

2. Accessing Medicines: The farmer may face issues in buying the expensive medicines after becoming the members of TRIPS Because patents prohibit the development of inexpensive generic medications, impoverished cannot afford necessary medications.



3. Bio-Piracy and Traditional Knowledge: Especially for nations like India that are rich in traditional knowledge and biodiversity, in the context of food security, biodiversity, and intellectual property rights (IPR). The term "bio- piracy" describes the unapproved commercial use of biological resources and related traditional knowledge, frequently by organizations in industrialized nations, without providing the original resource custodians with just compensation or benefit-sharing. Moreover, it impacted Indian agriculture in many which as followed,

- a. Compulsory Licensing: TRIPS permits nations to provide licenses for the manufacture of generic medications in times of medical emergency (e.g., HIV/AIDS treatment in Africa).
- b. Exploitation of Indigenous Knowledge: Without paying traditional communities, multinational corporations (MNCs) are capable to patent natural products like turmeric and neem.
- c. Need for Protection: To counter biopiracy, nations like India have established the Traditional Knowledge Digital Library (TKDL). There are so many examples Bio-Piracy which are as followed:

Neem (*Azadirachta indica*): Although neem has been used for generations as a medicinal and insecticide in India, patents for neem-based goods have been filed in the US and Europe. Turmeric (*Curcuma longa*): it has been used for thousands of years in Indian traditional medicine (Ayurveda), a U.S. patent was issued for its use in wound healing.

Basmati Rice: India's export market was in danger when attempts were made to patent basmati rice varieties in the United States. In order to preserve its indigenous variety, India battled against these patents.

4. Foreign Direct Investment (FDI): Technology Transfer and Innovation Encourages The investment climate in member nations which is impacted by TRIPS's minimum criteria for intellectual property (IP) protection and enforcement Global firms are drawn to invest in technology and research by stronger IPR laws. While TRIPS fosters a better investment climate, smaller local firms may struggle with high patent costs and competition from foreign corporations (Aggarwal & Satpute, 2013). Although it promotes technology transfer, the benefits are unevenly distributed across farmer groups (Sreenath & Sreenath, 2006). An examination of the effects of TRIPS on FDI in India is provided below:

Limited Local Innovation: High patent costs prevent small businesses and startups from developing new technologies.

5. Implementations of IPR: Many emerging economy countries find it difficult to enforce TRIPS while ensuring public welfare. which raises problems in the



implementation of the IPR in developing countries like India, such as, TRIPS Flexibilities: Provisions like compulsory licensing and parallel imports help countries counteract the negative effects of strict IPR rules.

Role of TRIPS before and after joining WTO on Indian agriculture

Indian agriculture industry was greatly impacted by the TRIPS Agreement (1995), especially in the areas of seed protection, biotechnology, and farmers' rights. A comparison of its effects before and following implementation is shown below.

Before joining TRIPS (before 1995)

1. **Rights of farmers on seed preservation:** Farmers were free to preserve, trade, and reuse seeds without any legal constraints. The development of high-yield seeds was greatly aided by public organizations such as state colleges and the Indian Council of Agricultural Research (ICAR). Seeds are freely available since private enterprises are not required to patent them.
2. **Agriculture and intellectual property (IP):** India did not permit patents on biotechnology, plant types, or seeds. Traditional farming methods and indigenous expertise were openly exchanged.
3. **Food security and Argo-biodiversity:** To ensure biodiversity, farmers were in charge of varieties of native seeds and crops. Less reliance on global seed companies such as Bayer, Syngenta, or Monsanto.

After TRIPS (post -1995)

1. Seed protections and farmer right: Plant Variety Protection (PVP) legislation was introduced by the Protection of Plant Varieties and Farmers' Rights (PPVFR) Act, 2001, after TRIPS (Post-1995). Although they are unable to sell branded or patented seeds, farmers can still preserve and reuse seeds. The rise of private seed firms resulted in higher seed prices.
2. Growth of genetically modified (GM) and hybrid crops: India's first genetically modified crop, BT cotton, was introduced in 2002 and was under Monsanto's (now Bayer's) management. Acceptance of hybrid seeds has increased, while conventional and open-pollinated very slightly used.

Impact On Farmers

- A. Higher input costs: Farmers are forced to purchase new patented seeds every season rather than reusing traditional seeds.
- B. Debt and dependency: Farmers' suicides have been linked to increased debt, particularly in states that grow cotton.



C. Biodiversity concerns: the loss of traditional seed varieties as farmers switch to commercial hybrids and genetically generated crops, a greater emphasis on cash crops (like cotton) rather than a various types of food grains.

Positive Impact: Favourable results included the upgradation of private investment in hybrid seed development and agricultural research. Higher yields of some crops (for example, TRIPS help initially increased the productivity of cotton).

Negative Impact: Include a rise in farmer dependence and more corporate control over seeds. Farmers are distressed by rising input and seed costs, decreased seed sovereignty and the extinction of historic agricultural types. India still uses the PPVFR Act and patent exclusions to preserve agricultural sovereignty while striking a balance between its TRIPS commitments and farmer rights.

Impact of TRIPS protection on the Indian agricultural sector

TRIPS is a legitimate compulsory international agreement that all 140 WTO members must abide by. A "one-size-fits-all" system of intellectual property rights, where the same rules are applied to nations with varying degrees of development, has been essentially globalized by TRIPS. The international legal system is still incredibly undeveloped in areas like farmer's rights and the protection of traditional knowledge, which are frequently more significant to developing nations (Downes, 2004; Gana, 1996). Because of this, middle-income nations are faced with the dual challenges of adjusting to their current international commitments and enacting laws in areas that are important to them, even in the absence of international law.

Instead of implementing a system like that found in industrialized countries, India had to consider many more circumstances that made a national regime for plant protection necessary. First, development and agriculture are closely related in emerging countries. India, a huge portion of the population—nearly 70%—lives in agriculture. Subsistence farming, labor-intensive agricultural methods, smaller land holdings, and a lesser level of involvement in international commerce are some of the ways that India differs from affluent nations (Nair, 2011). When implementing PBRs, national goals must prioritise a unique characteristic of agriculture and its economic significance. Accordingly, the primary worry of the majority of developing countries is the scepticism surrounding the privatization process, which suo moto brings with it a variety of environmental and socioeconomic issues (Aggarwal & Satpute, 2013). Among the specific issues are:

Limitations on conventional methods and the negative consequences of terminator technology: The majority of PVP procedures limit farmers' custom of storing harvested crops for later planting. The harvested crop is rendered sterile for further production by technologies like Genetic Use Restriction Technology (GURT).



This is terrible for growing nations since the habit of preserving the produced food is necessary to the farmer's livelihood and the reduction of poverty. If PVP were utilized and the crop failed, the huge input costs associated with farming may have disastrous consequences.

Food protection not consistently promoted by PVP alone: Even though trade liberalization in agriculture is supposed to improve farm economic conditions and food consumption patterns, the situation instead indicates a downward trend. The states' aspirations for food security have been weakened by the process of agricultural globalization, and no conclusive evidence that the implementation of PVP has improved food security. Furthermore, many nations' debt loads may significantly rise if they were forced to pay large royalties to companies and industrialized nations. This might exacerbate the social and environmental upheaval that occurs when debt repayment strategies, including exporting natural goods, are implemented.

Impact on biodiversity: Since biological resources are a major input to agricultural production systems and most agricultural products today have evolved through plant and animal selection and collection, agriculture and biodiversity management are inextricably linked. Because protected varieties many times produce more than their native counterparts, intellectual property rights in agriculture have an innate propensity to replace landraces. This tends to encourage homogeneity, which diminishes crop resilience to pests and diseases and results in a loss of variety. However, in terms of the environment, the breeding homogeneity leads to ecologically unstable monocultures after a stage (Sreenath & Sreenath, 2006; Winter, 2010; Hirimuthugodage, 2011).

Over patentability: Rather than encouraging revolution in public and commercial sectors, the genetic engineering business has the capacity to inhibit it. It is frequently believed that wide claims are required to give the sector enough incentives to develop, but that claims pertaining to intellectual property rights not include the main source material for research because doing so inhibits scientific and technical advancement. New plant kinds have also been said to have a propensity to increase possible epidemic zones due to susceptibility to diseases. This is because, despite being created under perfect laboratory settings, they are susceptible to externalities. Furthermore, new plant varieties—which themselves constitute vital raw materials—do not conserve wild strains or weeds.

Detrimental effects of TRIPS on smallholder farmers.

1. **Reduced access to seeds:** Small farmers may be unable to freely preserve and replant seeds from their harvests due to TRIPS protection for plant types, which may force them to spend money on new, patented seeds each season.



2. **Dependency on multinational companies:** big seed companies, who frequently have extensive patent portfolios, can have tremendous market power over the agriculture sector and may even be able to dictate crop selections and prices for small farmers. Traditional crop varieties having important characteristics, such as disease resistance or local situation adaptation, may be overlooked or lose drive towards proprietary seeds.
3. **Higher input costs:** Small farmers' already merged profit margins may be further strained by the requirement to buy new proprietary seeds each year, which can raise input prices dramatically.
4. **Limited access to technology:** Small farmers may lack the funds necessary to get cutting-edge, patent-protected technologies, which further remove them from bigger commercial farms.

Positive Impact of TRIPS on Indian agriculture

1. **Innovation incentives:** TRIPS can encourage agricultural research and development, which might result in the creation of new crops with higher yields and resilience to disease.
2. **Intellectual property protection:** TRIPS can offer farmers who create novel crop types a way to safeguard their rights to intellectual property.

Futures opportunities of TRIPS in Indian agriculture: TRIPS (Trade-Related Intellectual Property Rights) have the capacity to achieve Indian agriculture's international competitiveness by fostering innovation, drawing in foreign investment, encouraging research and development field, facilitating access to cutting-edge genetic resources, and possibly opening up a market for high-value, patented agricultural products. Nevertheless, issues with food security and fair access to technology must be carefully considered (Gana, 1996; Khan & Hussain, 2019).

1. **Innovation and Technology Transfer:** TRIPS can encourage businesses to spend money creating novel crop types, pest-resistant strains, and enhanced farming methods that Indian farmers can easily use, resulting in higher yield and productivity.
2. **Access to International Markets:** Indian businesses may export premium agricultural goods with confidence and even get access to higher-value premium markets by safeguarding their intellectual property rights.
3. **Research and Development Boost:** Public and private sector research organizations may be more inclined to fund agricultural research if intellectual property rights are better protected. This might result in innovations in fields like precision farming and biotechnology.



4. **Genetic Resource Management:** TRIPS can help create a system that efficiently manages access to genetic resources, guaranteeing a fair distribution of advantages while preserving indigenous knowledge.

Complications in implementing TRIPS

1. **Potential Difficulties:** There is the Effect of Food Security on Small-scale farmers in particular affected by the possibility that big businesses may control the seed market, restricting their options for the small farmers.
2. **Technologies access:** To optimize the advantages of TRIPS, it is prerequisite to guarantee that Indian farmers need to innovative technologies especially that are reasonably priced. Implementing and enforcing IPR laws effectively is essential to safeguarding inventors' rights and avoiding abuse.

Conclusion: It has been observed that the TRIPS Agreement is the most comprehensive legal regime and the most successful agreement ever included at the mutual level in the field of intellectual property rights, despite all the arguments and flaws brought up by the opponents generally as well as issues pertaining to developing and low-developing countries. The TRIPS agreement's implementation has sparked debate on whether extending intellectual property rights protection to agriculture will benefit producers and consumers alike, as well as how it would probably affect food security. moreover, countries are not committed to grant patents for plants and animals, according to the applicable regulations pertaining to agriculture. Plant variety protection should be made available via patents, a successful sui generis system, or both Members are required to give patents "for all inventions, whether products or processes, in all fields of technology," according to Article 27.1 of the TRIPs Agreement. Microorganisms are not allowed to be patented, although plants and animals can, according to Article 27.3(b). Additionally, it requires that member countries permit the preservation of novel plant through patents, an efficient sui generis system in which the combination of the pair. Many important have been brought up by using the IPRs in plant breeding in developing countries, such as small farmers' access to technology, the public sector's role in agricultural research, the growth of the local private seed industry, the status of farmer-developed varieties, and the growing North-South technology distribution that limits access to plant germplasm and research.

Plant breeding and seed supply research are crucial for promoting food security both domestically and globally. Approach for sustainable agriculture is provided by the modified varieties' capacity to withstand environmental shocks. For wider economic growth, it is essential to have marketable farming choices that are productive. Plant breeding using the IPR paradigm may contribute to agricultural



progress, but striking the correct balance between access to productive resources and incentives for innovation is a difficult task.

Reference:

1. Angural, S. (2019). TRIPS agreement: The Indian experience of pharmaceuticals industry and agriculture. *Indian Journal of Economics and Development*, 7(6), 1-7.
2. Downes, D. (2004). *Using Intellectual Property as a Tool to Protect Traditional Knowledge: Recommendations for Next Steps*. Washington, D.C.: Center for International Environmental Law (CIEL).
3. Hirimuthugodage, D. (2011). The Trade Related Intellectual Property Rights (TRIPs) Agreement and Agriculture in South Asia: A Sri Lankan Perspective. *South Asia Economic Journal*, 12(2), 287-305.
4. Gana, R. L. (1996). Prospects for developing countries under the TRIPS Agreement. *Vand. J. Transnat'l L.*, 29, 735.
5. Nair, M. D. (2011). GATT, TRIPS, WTO and CBD—Relevance to Agriculture.
6. Khan, A. A., & Hussain, Z. (2019). TRIPs in agriculture of India: An overview. *International Journal of Reviews and Research in Social Sciences*, 7(2), 329-336.
7. Sreenath, L., & Sreenath, M. R. (2006). Impact of post-trips IP Regime on Indian agriculture
8. Sachin. (2019). TRIPS Agreement: The Indian Experience of the Pharmaceutical Industry and Agriculture. *Journal of Development Studies*, 14(3), 45–60.
9. Winter, L. (2010). Cultivating farmers' rights: Reconciling food security, indigenous agriculture, and TRIPS. *Vand. J. Transnat'l L.*, 43, 223. India, Technology, Farmer, WTO.

Disclaimer/Publisher's Note: The statements, opinions, and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of TJSD and/or the editor(s). The Journal of Scientific Discourse (TJSD) and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.



The Genesis of Geographical Indications: India and Its Legal Framework

Poorva Jain^{1*} & Anupama Pandit Saxena¹

1. Department of Law, Dr. Harisingh Gour Vishwavidyalaya, Sagar-470003, MP, India.

*Corresponding Author: poorvaj1993@gmail.com

Abstract: *Geographical Indications (“GI”) are those Intellectual Property (“IP”) Rights which are acquiring attention at the national level due to its economic scalability and high returns. Recently in 2024, the government has invited proposed amendments from various stakeholders (experts preferably) to the recent law on GI and also conducted a one-to-one conversation on GI named “GI Samagam 2025”, where Piyush Goyal, our Commerce and Industry Minister aimed to have 10,000 GI protected products by the end of 2030 at Bharat Mandapam, Delhi. This shows that the government is serious about protecting the Indian products as GI because the “basmati dispute” at the international level realised that biopiracy or infringement of our heritage could spoil the image and bear huge financial costs. Apart from this, EU practised rigid protection of products through GI and this resulted their sales value of Agri-products to 75 billion euros. The Indian Government in the last decade has shown gratitude towards traditional heritage and relied on recognizing them as GI, rather than leaving them to survive in anonymity. So, it becomes important to understand the GI regime of India for all the common people because it has impacted every people in some aspect. The author attempts to evaluate the GI Act of India and future prospects also. The sole aspiration of this article is to create awareness about the GI legal framework so that every people should understand its nuances.*

Keywords: *GI, IPR, Product, GI Tag, Infringement, etc.*

Keywords: GI, IPR, Product, GI Tag, Infringement, etc.

Introduction: Whenever a person talks about a region like a city, town, district, or country, we always discuss its tourist destinations and places to visit, but we also want to know about the local products and local foods available in that region. The people always talk about those products that are exclusively available in that region or have a reputation. Sometimes, name of the region is prefixed or suffixed with the name of the product such as “Darjeeling Tea”, “Chanderi Saree”, “Bell Metal Ware of Datia and Tikamgarh”, “Gond Paintings of Dindori”¹, etc. All these products are having their goodwill of its own. But how if these products are available in other parts of India, they will lose their identity and exclusivity. That is why the concept of Geographical Indications (hereinafter “GIs”) has evolved. GIs provides “collective rights” to the producers of that region to manufacture, exploit, produce the goods in



that region only. For example, Banarasi Saree would manufacture in Banaras only and not anywhere else, but it is manufacturing in other regions also. In that case, the producers can file an infringement case on those fake manufacturers.

GI – meaning and concept: A GI is a legal recognition given for a product that has some traditional or historical lineage with the region and developed some reputation among consumers. The legal protection which is given is known as GI and it is a part of Intellectual Property Rights (hereinafter “IPR”). The product which is protected under GI are: agricultural, natural, handicraft, foodstuff, manufacture goods. It is also important to note that GI protect only goods not services. GIs are not given to any product which is in museums now, the product should be an alive product i.e., the product is still manufactured, grown, exploit, crafted by the producers. So, it is very important to preserve our heritage through GIs, as it not only promotes the producers but also protect the product from extinction.

Genesis of GIs: GI is a new concept that has developed through the Paris Convention², but its proper legal foundation was established in the TRIPS Agreement. Though the name “geographical indications” has not been used anywhere before 20th century, it was legally or morally protected in certain country by their legal structure. It was the TRIPS, through which the formal recognition to GI has evolved. Paris Convention protects “indication of source” (hereinafter referred as “IOS”) and “appellation of origin” (hereinafter referred as “AO”)³. It does not protect the GIs as such we see in today’s world but protect the products under these two heads. After this convention, Madrid Agreement⁴ came in the light which lays down the foundation of “wine-specific” rules. It was the Lisbon Agreement through which the concept of “Collective Marks, Certificate Marks or Guarantees Marks”⁵ was enlightened.

All the above agreements were not able to protect the products by the referring their place of origin. The World Intellectual Property Organisation ⁶(hereinafter referred as “WIPO”) established in 1967, came up with an exhaustive treaty on IPR which provided homogeneous provisions at international platform. This document known as TRIPS.⁷ This Agreement provides the member countries with certain basic rules for GI protection. This aptly states that GIs are the matter of national protection and not put any provisions for “reciprocal protection” to other countries⁸. The term “GI” was used for the first time in the 20th century. Under TRIPS, the term GI was defined as: “Geographical Indications are, for the purpose of this Agreement, indications which identify a good as originating in the territory of a member, or a region or locality in that territory, where a given quality, reputation or other characteristics of the good is essentially attributable to its geographical origin.”⁹

Methodology: The researcher has adopted doctrinal method for this research paper. In doctrinal method of research, the sources used is secondary in nature such as bare

acts, legislation, governmental reports, international legal documents, policies, rules, etc. The researcher used various literature from books, opinions of experts, research papers, newspapers, governmental initiative, online materials as a source for collecting data. The analysis of data is qualitative in nature. The results are compiled in the form of suggestions and conclusion.

Objective: The primary objective of authors is to create awareness about the GI law by producing insights of the same in simple manner, so that layman could be able to understand the concept of GIs. The incidental objective is to highlight the importance and challenges faced by the GI law in India.

Limitation: The authors discussed the Indian profile on the GI regime only and did not focus on other countries. This has come up as a limitation of this study.

India and GI Provenance: India was the signatory of TRIPS Agreement and to comply with this obligation, India has enacted GI Act in the year 1999. The Act was enforced in the year 2003 and the first product that got GI recognition was “Darjeeling Tea”, which is considered as the most successful GI product of India. Some of the examples of Indian GIs are given under:

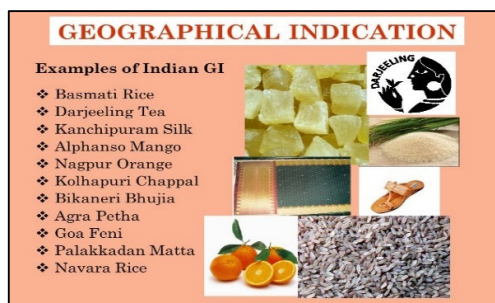


Figure: 1



Figure: 2

Source: Google Images.

Fig. 1 provides some examples of GI products of India. India has very rich culture and that culture is so diversified that each district can have at least one GI product. But due to the registration process, lethargic behaviour of government, and less awareness, we have very few GIs. Dr Hingmere¹⁰ (a GI expert) has state that, “India has a potential of 10,000 (ten thousand) GIs”. In fig. 2, GI logo and slogan has been demonstrated. The logo and slogan were launched in the year 2018. This is the official logo and slogan for Indian GIs.

The GI law of India: The GI Act, 1999¹¹ has various provisions relating to GI protection and it is a “sui generis” legislation. The GI Act¹² has certain objectives which it caters to achieve and if we break down those objectives then we can find as – protection of producers’ interests, consumer protection, economic prosperity,

exports, registration. As the Act is comprehensive, we can make a list of salient features, so as to understand the Act in much easier manner:

- The Act has defined various terms such as ‘goods’, ‘geographical indications’, ‘authorised users’, ‘registered proprietor’, ‘producer’¹³. The definition provided for “geographical indication” by the Act is as follows: “geographical indications, in relation to goods, means an indication which identifies such goods as agricultural goods, natural goods or manufactured goods or originating, or manufactured in the territory of a country, or a region or locality in that territory, where a given quality, reputation or other characteristic of such goods is essentially attributable to its geographical origin and in case where such goods are manufactured one of the activities of either the production or of processing or preparation of the goods concerned takes place in such territory, region or locality, as the case may be.”¹⁴
- It has described a comprehensive registration process for GI registration which is demonstrated in fig. 3.
- It provides various provisions for offences, infringement procedures and their penalties.
- Provides provisions relating to registration of GIs as Trademarks.
- Describes the effect of registration. The GIs are prohibited from transmission, license and assignment.
- The Act provides duration of GI as 10 years and renewable for next 10 years again on payment of requisite fee.
- The Act has supplemented by two rules – 2002 and 2013.
- The Act was amended in the year 2021 and the rule of 2002 was also amended.

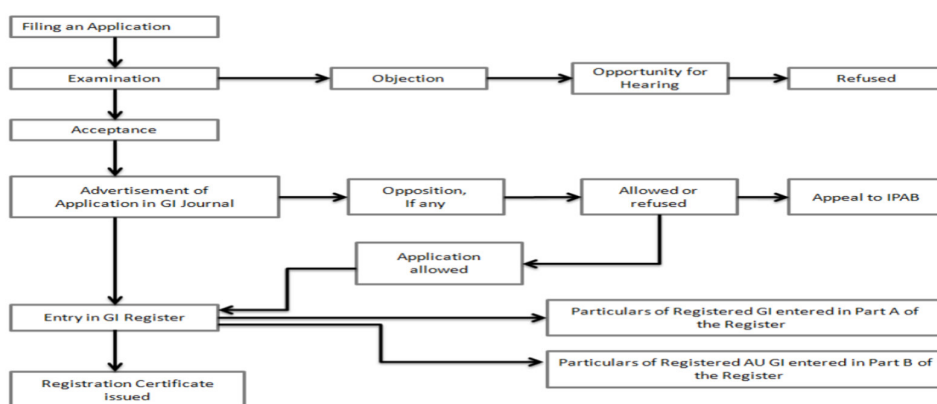


Figure 3: Registration Process of GI products¹⁵.

Present Position: Presently, the government¹⁶ is prepared to amend the current legislation and invited proposed amendments for the same from the stakeholders

(“especially experts”). The government through DPIIT organising seminars, conferences, workshops, courses, and discussions for creating awareness about the concept of GIs. Recently, the DPIIT at Bharat Mandapam, Delhi organised a “one-to-one conversation” with experts of GIs and this programme was named as “GI Samagam” with the help of India Today Group¹⁷.



Source: World Intellectual Property Indicators 2024

Figure 4: Total number of GI products in different countries¹⁸.

In the above fig. 4, which shows the data up to 2023, describes the status of GI protection in different countries. China tops the list, whereas India has protected only 530 products till 2023, but India till now (January, 2025) has protected 658 products. India is still battling to secure a better position. This article focuses on the Indian GI regime and its legal framework because in the coming years at least one product from each district will get the GI.

Challenges: There are number of challenges faced by the GI legislation in India. India despite of having rich heritage and diversity fails to protect it appropriately. The same we can see in the case of “Tirupati Ladoo” and “Davanagere Benne Dosa”. The authors have highlighted some challenges that Indian GIs are facing, which are as follows:

- Lengthy registration process for the application of GI registration.
- Lack of post-registration checking, which leads to difficulties like cheap imitations, loss of economic benefits to producers, image destruction, etc.
- No quality assessment facility for the GI recognized products.
- Less marketing leads to the extinction of the product, and as a result, the GI recognition becomes of no utility. It sets a negative example among the producers that ultimately results in less application and genericide of product.
- Generic products are exempted from getting registered as a GI tagged product. In India, like ‘Indore Poha’, ‘Davanagere Benne Dosa’, are those examples which have even not filed an application for GI because of the reason it will be regarded as generic the products.



- Cheap imitations are the true challenge for the GI products in India. You can easily find a power-loom-woven Chanderi Saree as an “original handloom Chanderi Saree”.
- No uniform logo amongst GI products. In the EU, there is a uniform logo for GI products that helps the consumer to understand their authenticity, but in India all the GI products have different logos.
- Lack of awareness amongst producers and consumers.

Conclusion: GIs are that property which are invisible, untransferable, anti-theft, and can be encashed at any point of time. It is the only IPR which provides exclusive rights without developing anything, it is provided for those products that are already existed in the region. It provides business that needs no investment or R&D. So, it is very important to encash the hidden treasure of our country which gives unlimited inflow of economic sustainability. India needs to rethink about its legal regime so that we can exploit this resource. GIs can be of great value if we protect our registered products alive through better quality checks and register more products through feasible registration methods.

Despite the initiatives of the government, the legal framework for GIs is not able to protect the products and their producers. The authors have suggested some suggestions for the existing GI legal structure:

- Awareness: To create awareness among producers, government should organize awareness program. The programme should demonstrate the utility of GI through experts. The best example to this is “Varanasi Model” which was developed by Padma Shri Dr. Rajnikant.
- ODOPs: We must convert our ODOPs (“One District One Product”) with GIs. Either we must register GIs and treated them as an ODOP.
- Regular Checking: The government must develop rules governing regular checking of quality as mentioned in the registration manual of the product. This will ensure the authenticity, image building of the product and nation too. This question has raised prominently by many experts because of the limelight of “Tirupati Ladoo” case, which is a GI recognised product.
- Ground level machinery: The government with the help of NGOs at local levels, establish a local level machinery which identifies goods for GI registration and provide awareness to producers, consumers about GI system.
- Image Creation: It is very important to create a unique image of GI product so that the producers get price premium and product sustainability.
- Stricter Punishment: GI law must include stricter punishments for infringement of GI rights and adopt zero tolerance policy on corporate infringements.



- Tapping foreign markets: Only two Indian GI products are registered as GIs in the EU, whereas around 20 foreign products are registered as GIs in India. The government should endeavour to register Indian GIs in foreign markets because if we want to pursue business with other countries, it is necessary to preserve our heritage to mitigate future implications.
- Uniform logo: EU has uniform logo for the GI products. This helps the consumers to identify the authenticity of the product. But in India, all the GI products have different logos and there is no uniformity. This brings confusion and consumers are not aware of GI logos. India must uniform its GI logo mechanism.
- GI corridor: There should be a GI corridor through which tourists from India and foreign countries get knowledge about traditional heritage and Indian products. It will boost the tourism industry, foreign direct investments, and generate employment avenues.

References

1. All are registered GI products of India.
2. The Paris Convention for the Protection of Industrial Property, March 20, 1883 (hereinafter referred as “Paris Convention”).
3. The Paris Convention for the Protection of Industrial Property, art. 1(2), March 20, 1883.
4. Madrid Agreement for the Repression of False or Deceptive Indication of Source on Goods, April 14, 1891 (hereinafter referred as “Madrid Agreement”).
5. Lisbon Agreement for the Protection of Appellations of Origin and their International Registration, Oct. 31, 1958 (hereinafter referred as “Lisbon Agreement”).
6. WIPO – A specialised agency of United Nations Organisation (UNO).
7. Agreement on Trade-Related Aspects of Intellectual Property Rights, Jan. 1, 1995, U.N.T.S. 299 (hereinafter referred as “TRIPS Agreement”).
8. Agreement on Trade-Related Aspects of Intellectual Property Rights, art. 24.9, Jan. 1, 1995, U.N.T.S. 299.
9. Id. At art. 22.1.
10. Prof. Adv. Ganesh Hingmire – founder and chairman of Great Mission Group Society (GMGS), a Non-governmental organisation. He was awarded with National IP Awards in 2015 & 2016.
11. The Geographical Indications of Goods (Registration and Protection) Act, 1999, § 1(1), No. 48, Act of Parliament, 1999 (India).
12. Id. at § 1(3).
13. Id. at § 2.
14. Id. at § 2(e).
15. GI Official Website. GI Registration Process. Retrieved January 28, 2025, from <https://ipindia.gov.in/the-registration-process-gi.htm>.
16. DPIIT, For inviting comments and suggestions on “The Geographical Indications (Registration and Protection) Act, 1999 (Act 48 of 1999)”, (Issued on September 27, 2024).



17. Khetrapal, K. (2025, January 31). GI Samagam, Branding India's Heritage. India Today. Retrieved from <https://www.indiatoday.in/magazine/conclave-2025/story/20250210-gi-samagam-branding-indias-heritage-2672840-2025-01-31>.
18. WIPO. (2024). IP Facts and Figures 2024 – Geographical Indications. Retrieved January 29, 2025 from <https://www.wipo.int/web-publications/ip-facts-and-figures-2024/en/geographical-indications.html>.
19. Rathod, S. (2023). Challenges Posing to Geographical Indication in India, IPR Journal of Maharashtra National Law University, Nagpur, 1(1) June, 16-25.

Disclaimer/Publisher's Note: The statements, opinions, and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of TJSD and/or the editor(s). The Journal of Scientific Discourse (TJSD) and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.



Incentives for Infringement: Economic Insights into Trademark Violations

Padmza Mohan Bain

Symbiosis Law School, Nagpur-440008, Maharashtra, India

Email: Padmzabain.student@slnagpur.edu.in

Abstract: *The economic examination of trademarks is the subject of this paper. The issue of information asymmetries and the requirement to supply information to help exchanges prevent market failure caused by adverse selection are the initial reasons for its existence in markets. But along with this information-conveying function comes a differentiating impact from the persuasive power that signs can have on people. Globalization and shifting business patterns have influenced the extension of trademark protection beyond its conventional bounds. The current trend of extending IP protection beyond any reasonable bounds must be avoided with extreme caution. However, this article aims to fill the gap in the literature by providing an analysis that formalizes the economics of trademarks, links trademarks to other types of property, takes into account the emerging economics of language and communication, and examines and connects the central trademark doctrines. Two fundamental market forces operating through supply and demand are monopoly and competition. The concern, though, is whether the IPR market lacks competition, as is the case in most fundamental markets. Additionally, we frequently witness a variety of offenses in the IPR market. Also, the paper delves into the Legal remedies for trademark infringement, such as injunctions and damages, which are crucial in enforcing IP laws and deterring violations. Protecting intellectual property ensures innovation by rewarding creators, promoting investment, and fostering economic growth. A strong IP framework stabilizes a country's economy, ensuring fair competition and long-term technological advancement.*

Keywords: Economy, Intellectual Property, Marketplace, Trademark infringement.

Introduction: Man uses symbols to live, think, and die. Human existence is characterized by the acquisition, application, and creation of symbols, from the delivery hospital cross to the grave cross. Symbols are tangible, comparatively basic representations of concepts and things. Because it is straightforward and easily understood, a symbol is utilized as an alternative to the intricate mental images it evokes. Symbols facilitate faster communication and thought processes. Communication would be nearly impossible without the symbols of our language's words.

The intellectual property rights system, which offers the recognized framework governing these marketplaces, is undoubtedly the cornerstone of modern information economics. The term "IPR" refers to a group of legal doctrines that differ



in their makeup and scope of application, such as trade secrets, patents, copyrights, and trademarks. One widespread characteristic is the ability to give the owner rights over the economic exploitation of an idea or its "reification," or representation in any tangible form, as in the case of copyright-author's rights. These rights are typically exclusive, which grants the owner a monopoly over the protected material under the law, albeit with restrictions on its use and duration. This also concerns the range of trademark uniqueness that Justice Hand proposed in the *Abercrombie v. Hunting* case. To be eligible for protection, the trademark must be creative, descriptive, or, in some instances, suggestive. Therefore, the article makes the case that a trademark is only relevant in a commercial sense and safeguards the interests of sellers, preventing any dilution for consumers. Domain name disputes are one of the new challenges brought about by the growth of digital technology. Businesses must take preventative steps to stop trademark infringement globally because internet platforms have a global reach, like monitoring domain registrations and using processes for domain name disputes. Companies should set rules for user-generated material and a takedown process for information that violates their trademarks while permitting user interaction.

"The neoclassical argument holds that IPRs are a remedy placed into "the market" to promote efficiency. "IPRs also have another feature that is pertinent to economic theory but hasn't been fully covered by the literature, with a few exceptions: just by being property rights, IPRs help to shape the market structure, control the competitive environment, and determine the rational behavior of economic agents. Put another way, these rights are far more than a solution to a market failure." According to the results of the neo-institutional theory, new strategies are created that gradually change the market structure by feeding back into the institutional framework by altering the game's rules. The typical result of the scenario above is the formation of industrial sectors that are relatively concentrated, exhibiting significant market power and comparatively low levels of competition, ultimately leading to a monopoly situation. As a result, no visible efficiency balance and welfare achievement is somewhat claimed rather than demonstrated.

Behavioral Economics: The rational choice theory has been tested, nevertheless. A new research topic called "Behavioural Economics" was born with the research work "Prospect Theory: An Analysis of Decision under Risk" by "Daniel Kahneman and Amos Tversky". In particular, behavioral economics rejects the notion that people always act rationally. Instead, it acknowledges that people exhibit limited self-interest, motivation, and logic. As a result, behavioral economics focuses on identifying the real world's person rather than creating "homo economicus." Behavioral economics about the law analysis suggests the predictability of behavioral departures from rationality. Therefore, it suggests looking into how useful this model might be in accomplishing legal and economic objectives. Concerns have been



expressed about the possible harm that trademarks may do customers by causing them to form associations with trademarked products, particularly in the context of trademark law, as previously alluded to in this thesis. Perception advertising is the term used to describe the commercial that sought to foster these associations. People's need to feel different from others is linked to producing such images. As a result, people buy things that are seen as unusual to satisfy this need. Customers may not always make the most logical decisions because of their desire to stand out from the crowd, which is influenced by perception advertising. In other words, people don't opt to purchase the best goods at the lowest cost. This outcome could result from numerous irrationalities that consumers are susceptible to.

The Function of The Trademark in The Market and Non-Market Economics: In a culture focused on growth, the significance of legally enforceable trademarks increases. At this point, customers are mature and capable enough to choose the goods and services they utilize daily. Conversely, there is a relatively lower interest in trademark protection in a less growth-oriented culture, leaning towards steady or no growth. Such a society confines its citizens' comfort and prosperity by favoring a constant increase or no growth strategy, mainly when it is more focused on the spiritual perspective of its members. There is not much competition in this market. As a result, trademarks are only helpful in identifying sources; they have nothing to do with a brand's ability to compete. This illustrates how social variables and a trademark's economic worth are intimately correlated. Trademarks have less monetary value in societies with tighter restrictions.

Public Goods Theory: This essay makes the case for classifying a trademark as a public benefit, more precisely, as a mixed public good. Furthermore, trademark-related proprietary uses can be congestible in some instances and solely rivalrous in others. There is no distinction between citing market failure to support trademark regulation, such as patents and copyrights, and public goods theory. In addition, considering the first argument, that is, classifying a trademark as non-rivalrous and, therefore, pure public goods, it is argued that when the customer uses the trademarks in a referential manner, the mark is eligible under Professor Samuelson's theory. This can be further explained by the fact that all consumers can use the trademark for reference reasons once a seller chooses to utilize it regularly.

Market-Failure Theory: Because trademarks are non-rivalrous, it is essential to classify them as public commodities. This prefix suggests that once a specific product is manufactured and associated with a trademark, concurrent use by several consumers does not result in additional costs for other consumers. This can be expanded to indicate that no further expense is required to make a product enjoyable for various customers once it has been made. Theoretically, no marginal cost is associated with getting the product to another individual. Due to issues with static



efficiency, the conventional method of relating the marginal cost to the product's price is faulty and unclear, and it is a short-term solution. The idea that resources are finite is well-established in trade and commerce. Therefore, if it is proven that the product's advantages will outweigh the costs, then their allocation of an extra unit of that specific product may prove efficient. Additional resources will be used to get the product to the intended customer, who has a positive value when the marginal cost drops to zero. This is where the contradiction between dynamic and static efficiency, or market failure, about public goods occurs. The static efficiency conditions are not met, even if we assume that the vendor can charge a favorable price, exclude a specific class of customers and that the money made from these sales is enough to pay for the initial expenses. Only public commodities are at issue in this market collapse scenario. This is because private products' marginal costs can never equal zero. As a result, in these situations, sellers could promptly recoup their initial expenses.

Trademark infringement and its impact on the Economy: In the global economy, trademarks According to economists, creativity and knowledge are essential to a nation's economic development. It is widely acknowledged that the main drivers of some nations' rapid economic growth are knowledge, innovation, technology transfer, and IP rights protection. When determining the origin of goods, services, and innovations, trademarks serve a useful macroeconomic purpose. Trademarks protect the responsibility of customers. Trademarks are strategically crucial to businesses to increase sales of goods and services. Trademarks increase customers' loyalty to goods and services. Customer loyalty improves customer retention, which draws in new clients and increases business income. Companies can use trademarks to increase profitability, prevent unfair competition, grow and maintain market share, differentiate their products and services, introduce new product and service lines, collect royalties from licensing and franchising, support partnerships and strategic alliances, and rationalize costs. Most multinational corporations, like General Motors, KFC, McDonald's, and Coca-Cola, strategically employ franchising business models to exploit their trademarks across the globe. A prominent business approach for strategically using a trademark is a franchise application for Trademarks by Goods and Services. An agreement reached at the Nice Diplomatic Conference (15 June 1957, revised at Stockholm in 1967 and Geneva in 1977) established the international 45 Nice Classification System of Goods and Services to register product and service marks (World Intellectual Property Organisation, 2015). The commodities class is assigned the first 34 classes in this classification scheme, while the service classes are assigned the last 11. As per the World Intellectual Property Organisation (2015), in 2014, trademark applications worldwide comprised 35 percent of applications from the service classes, while roughly 65 percent were covered by the goods classes. Facts indicate the leading nature of goods classes in the application and registration of trademarks worldwide.



Reputation and Image of Brands in the International Market Compared to high-income nations, emerging-economy companies have enhanced their branding investments and developed brand value more quickly. The total value of the top 500 emerging-economy brands increased by 3% between 2009 and 2013. This illustrates how emerging economies are increasingly investing in branding and trademark protection. Over USD 466 billion was spent on branding by companies globally in 2011. The results of the WIPO study showed how closely a nation's investment in product and service branding is correlated with its degree of economic growth. Monetary expansion is followed by increased investment in trademark registrations and branding. Compared to high-income nations, emerging economies like China and India are investing more money in trademarks and brand development. With the company's brand value in the marketplace, a trademark, an intangible asset, speeds up brand equity development. A business may own a trademark and a patent for the same product. Conversely, a trademark with brand value might last for a long time, while a patent may only last for a short time. Some businesses continue making money in the global marketplace because of a strong brand image safeguarded by trademarks even after their product's expired patent. Consequently, "trademark protection enables businesses to prevent others from profiting from their investment in their brand, image, and trade."

Do Trademarks Create "Monopolies"?

Perception advertising can help consumers visualize a trademarked product's quality and range of characteristics, opening up new avenues for competition. Three things could happen:

1. By assessing whether mental images are appreciated, perception advertising may impact purchasing decisions.
2. Businesses may have more brands than is ideal if they can differentiate their products based on perceived attributes, which would negate economies of scale.
3. Monopoly power and earnings may be initially created by pre-committed advertising, which could result in the entry of more businesses than is ideal and the underproduction of each brand.
4. However, the benefits of a trademark's capacity to differentiate amongst products with intangible differences in quality and varied features outweigh these possible distortions.

Reasons For Protection of Trademarks: When there are unnoticeable variations in quality and variety among experienced items, trademarks allow customers to select the product of their choice. A confluence of characteristics motivates businesses to compete across a broad spectrum of quality and diversity and to uphold constant standards for both.



- (1) They encourage companies to produce things with desirable qualities, even if they are not apparent before purchase, and
- (2) They enhance and facilitate consumer options. The fact that trademarks allow customers to differentiate between products that appear identical in every aspect that can be seen before purchasing results in both of these consequences

Additionally, trademarks enable businesses to effectively communicate to customers the distinctions between their products based on their intangible qualities. In an environment where companies want to maximize profits, producing different items is normal. This tendency to show up about the products' invisible qualities is made possible by trademarks. As a result, the consumer has access to a broader range of quality and diversity.

Due to their permanent protection, trademarks have also been accused of fostering monopolies. No other company can offer an identical product with a comparable logo or emblem because of trademark protection. Whether or not customers purchase a product due to its design, emblem, brand, or actual product is very subjective. In contrast, no producer company will monopolize the product market if the two items are from distinct companies. Second, both goods will be ideal alternatives, deterring manufacturers from raising prices. The products must be sold without making a profit and will have elastic prices. Therefore, trademarks, branding, and product distinction help to avoid this issue.

The legal Remedies for Trademark infringement in India: One of the most notable distinctions between trademarks and copyrights and patents is that trademarks do not have a set term. But economically, the disparity makes sense. Assume that a given name has no value in terms of scarcity. Then, even with very low (or zero or, for that matter, negative) discount rates, it produces zero rents, everlasting as opposed to finite duration, which cannot lead to rent-seeking issues. Perpetual patents would face significant challenges in identifying cation costs. The physical property of the product it names is linked to the trademark, and identifying the manufacturer of a good and, hence, the trademark owner usually comes at a minimal cost.

Furthermore, forcing a product's manufacturer to give up the name before he stops selling it would cost consumers money to look for it, and if and when he stops selling it, the trademark lapses, which is an example of the doctrine of trademark abandonment.

Types of Legal Remedies available: - Civil Remedies, Criminal Remedies, Administrative Remedies.

Civil remedies: According to the "Trade Marks Act of 1999", individuals whose trademarks have been violated are entitled to several civil remedies. They are: One



common legal remedy that a judge may offer is an injunction or authoritative directive. Perpetual and temporary injunctions are the two types of injunctions that can be issued.

The perpetual injunction is permanent since it is granted based on the suit in question and the anticipated date of its ruling. A time limit is considered for a temporary injunction until the court issues its final rulings. The Code of Civil Procedure's Order 39 Rule permits the same request. This negates the reason for the lawsuit, enabling the defendant to keep using the plaintiff's mark. The aggrieved party may seek damages because their business has suffered losses due to terminating the exclusive right to use its trademark.

Common civil remedies include controlling the profit accounts and directing the removal or delivery of the infringed goods. Section 135 of the Trade Marks Act, 1999, which forbids the defendant from taking assets beyond the court's jurisdiction, provides statutory identification for the Anton Piller Order. The concerned court often appoints a local commissioner to seal the infringing products or materials as part of a judicial remedy. Therefore, the court either orders the defendant to ground his products or services that are causing customers to become confused or orders him to reimburse the plaintiff for the losses he caused. The court may use civil remedies when they cannot compensate the plaintiff for their loss.

Criminal Remedies: Criminal remedies It is possible to regard several measures under the Trade Marks Act of 1999 as criminal remedies for trademark infringement. The following is outlined below:

1. Section 103 of the Act establishes a criminal penalty for violating a person's or organization's trademark. The penalty is six months in jail, with the possibility of it being extended to three years. Penalties that must be applied as a sanction against an infringement are discussed in Section 104 of the Act. If someone is determined to have violated the trademark, the clause stipulates a fine of 25,000, which can be raised to 2 lakhs.
2. The fines that must be applied as a sanction against an infringement are covered in Section 104 of the Act. If someone is determined to have violated trademark rights, the clause stipulates a fine of 50,000, which might be raised to two lakhs.
3. Section 105 of the same Act establishes an exaggerated form of punishment.
4. The individual who violates the provisions above may have their abilities taken away as a criminal remedy for an adequate adaptation. This policy procedure is only subject to reasonable grounds for demonstrating the violation.

Administrative Remedies: Administrative Solutions Criminal remedies are far more pertinent than civil remedies, as has long been noted. Administrative remedies and civil and criminal sanctions are available for trademark infringement. The following



lists the remedies that fall under the administration palate: objecting to a mark that is identical to the original mark, which is possible by the Trade Marks Act 1999

- 1) If a mark similar to the original mark is opposed, Sections 9 and 11 may be used. The examiner conducts interrogations upon trademark registration if such a circumstance occurs. After registration, a third party will always file a trademark opposition, disputing the current trademark in the journal.
- 2) Another option to implement administrative remedies is to correct a trademark that has already been registered. In a sense, this clears up any misunderstandings regarding trademarks.
- 3) It is implemented by examining the commercial activity of the products with a trademark that has been violated. Therefore, the import and export of items bearing inherently fraudulent trademarks are forbidden to prevent hesitation. Preventing trademark infringement is frequently aided by these three methods of implementing administrative remedies.

Some instances of trademark infringement: One of the most common and extreme cases is *Google Inc. v. Louis Vuitton Malletier (LVM)*, in which LVM claimed that Google had violated its trademark by allowing certain LV imitation websites to be searched for keywords like “Louis Vuitton Malletier/LVM”. The case proceeded through multiple tiers of court rulings before concluding that LVM had the right to forbid unauthorized advertisers from using the same or similar trademarks to place advertisements on Google but that Google does not infringe by itself. In the meantime, this case demonstrates that the advertiser should be held accountable for trademark infringement. According to the trial procedure, the key is whether the trademark’s fundamental purpose of identifying the source of goods is impacted by how it is used. Notably, the trademark and the company’s trademark management plan will unavoidably suffer from the usage in the scenario above. In *ZARA Fashion v. ZARA Food*, the two businesses’ industries are so dissimilar that customers are unlikely to be confused. Yet, Zara Foods’ usage of the phrase “Zara” in its marketing can easily cause customers to believe that the two are part of the same brand. **“Apple iPhone” vs. Apple:** In 2009, a Chinese company called its smartphone the “Apple iPhone,” infringing on Apple’s trademarks. This example demonstrates how challenging it could be to implement trademark protection globally on social media, where regional restrictions could make things more difficult.

Phonepe Private Limited vs. BundlePe Innovations Pvt. Ltd, recently, PhonePe filed a lawsuit to declare its mark a well-known trademark and to issue a permanent injunction against “BundlePe” and “LatePe,” but the Madras High Court dismissed it. According to Justice P. Velmurugan, the term “Pe” is widely used in the payment services sector and is neither unique nor different, as PhonePe asserted. The court observed that other well-known businesses like Google Pay, Paytm, and ApplePay



frequently used the phrase, a translation of the Hindi word “Pay.” The court observed that PhonePe could not be solely linked to “Pe” because of its extensive usage in the payment industry.

Conclusion: A trademark is a standard marketing technique and method for promoting brands of goods and services, according to the discussion above, secondary sources of statistics, and current literature. A registered trademark emerged as a crucial strategy for establishing brands and ensuring quality. Trademarks may facilitate the development of a nation’s economy. Economic potential is provided by trademarks, which the market economy may exploit to increase revenue, value, and surplus. Systems for protecting trademarks can be critical to a nation’s seamless economic growth. In the manufacturing and service sectors, innovation and originality are supported and encouraged via the legal safeguarding of brands and trademarks. Trademark protection mechanisms affect economic development at the business, regional, international, and national levels. Trademarks are important intellectual property that builds value and brand recognition globally. The procedure of trademark protection is utilized to enhance the reputation and image of goods and services. Trade in goods and services is made possible by trademark protection systems, which are the engines of economic expansion. It can yield competitive advantages and significant intangible assets for future sales, profitability, brand value, and financial stability. The global consumer society also benefits from trademark protection and brand repute. Lastly, it is advised that more research be done using primary data and empirical research studies to examine how trademark protection systems affect the GDP and economic growth of the nations.

References:

- Aaker, D.A. (1996), Measuring Brand Equity Across Products and Markets. *California Management Review*, 38, 102-120.
- Barnes, D. W. (2006). A New Economics of Trademarks. *Northwestern Journal of Technology and Intellectual Property*, 5 (1), 22-67.
- Beebe, B. (2009). Intellectual Property Law and the Sumptuary Code. *Harv. L. Rev.*, pp. 809-889.
- Economides N. (1998), ‘Trademarks,’ in P. Newman (ed), *The New Palgrave Dictionary of Economics and the Law*. London: Macmillan.
- Jolls, C., Sunstein, C. R., & Thaler, R. (1997). A Behavioral Approach to Law and Economics. *Stan. L. reV.*, pp. 1471-1550. ...56p 35
- Maffioletti, A., Ramello, G.B. (2004), ‘Should We Put Them in Jail? Copyright Infringement, Penalties, and Consumer Behaviour: Insights from Experimental Data,’ *Review of Economic Research on Copyright Issues*, 1, 81-95.
- Mallard, G. (2015). *Bounded Rationality and Behavioural Economics*. Routledge.
- S.S.Rana&Co.Advocates, SupremeCourtOf IndiaSaysThatMonopolyCannotBe, Enjoyed Over Entire Class Of Goods, 2018



Sections 1-45 Trademark (Lanham) Act of 1946. 15 USC §§1051-1127 (1946) [here- after referred to as the “Lanham Act”]. As Justice Frankfurter stated in *Mishawaka Rubber & Woolen Mfg. Co. v. S.S. Kresge Co.*, 316 US 203, 205, 53 USPQ 323, 324-25 (1942). “The IPR protection of trademarks is the law’s recognition of the psychological function of symbols.

Shapiro C. and Varian H.R. (1999), *Information Rules: A Strategic Guide to the Network Economy*, Harvard University Press: Boston.

Snyder, C. R., & Fromkin, H. L. (2012). *Uniqueness: The human Pursuit of Difference*. Springer Science & Business Media.

Disclaimer/Publisher’s Note: The statements, opinions, and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of TJSD and/or the editor(s). The Journal of Scientific Discourse (TJSD) and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.



Legal And Social Implications of Live-in Relationship Breakdowns: A Contemporary Analysis

Karishma B. Gavai

Maharashtra National Law University, Nagpur-441108, Maharashtra, India

Email: karishmabgavai@gmail.com

Abstract: Presently, cohabitation relationship is very popular in Indian society and particularly in urban areas. A cohabitation relationship is also called a live-in relationship. There will be one piece of news in the daily newspaper regarding the impact of the breakdown of cohabitation relationships. A breakdown of this relationship has various consequences which affect the partners of live-in-relationship. It may have social, legal and psychological issues. There is no proper mechanism to address these issues because of the non-acceptance of these kinds of relationships by society. Although due to the intervention of the judiciary some legal backing is given to every individual under the umbrella of the right to life and personal liberty. However, there is an alarming situation to handle these issues which may even lead to honor killings. Therefore, the breakdown of live-in-relationship is a burning topic with legal challenges in it. In this paper, the researcher attempted to study the impact of the breakdown of live-in-relationship. The present study is purely doctrinal and analytical. However, the present study is limited to the legal and social impact of the breakdown of a cohabitation relationship. It is found after the review of literature that the breakdown of live-in-relationship has legal challenges and the law relating to this still has not addressed all the issues. Therefore, the laws relating to property, alimony, harassment, inheritance, and children born out of that relationship are required to revisit to address the present problem of the legal and social impact of the breakdown of a cohabitation relationship.

Keywords: Cohabitation Relationship, Legal Impact, Society & Culture.

Introduction: A Cohabitation relationship is also known as a live-in relationship and which has frowned upon in India. However, for several reasons, such relationships have recently become more widespread. In the lack of any explicit laws, regulations, or traditions on the matter, the Supreme Court has established some criteria in its ruling to govern such relationships. Official documents, cultural concerns, property rights, will and gift rights, anti-religion status, the LGBTQI (Lesbian, Gay, Bisexual, Transgender, Queer, & Intersex Life) community, and other grey situations require adequate care. The article's main goal is to use secondary sources to understand the concept of a live-in relationship. After then, an effort was made to use the analytical and descriptive methodology to analyze the issues and difficulties that the couples encountered. The paper concludes by making the case for the creation of a unique, secular law that considers gender equality for couples who choose to cohabit.



In India, live-in relationships are becoming more common as a simple alternative to marriage. A household cohabitation between an adult couple who are not married is what is meant by the definition. It seems like a stress-free relationship with no legal responsibilities; nonetheless, it has many difficulties, obligations, and legal liabilities. Recently, efforts have been made to include it under the purview of certain laws. It is no longer a crime in India, and numerous recommendations regarding maintenance, property and a child's legal status have been published in several judgments by the Apex Court. In India, it is still a contentious subject. Indian Society is very complex. Since the human civilization the relationship between men and women is under the scanner. In primitive society muscle power was considered the quality of a man to marry a woman in swayamwar¹. Even in the tribal communities' institutions in India like Ghotul were established to have a relationship between men and women.² Therefore, in every civilized society marriage is considered a contractual relationship and also a sacred relationship according to Hindu Religion. Marriage legalized the relationship between men and women. Marriage has different importance in a different religion. However, with the change in culture and influence of western culture through globalization marriage has changed the nature of the relationship between men and women. Due to globalization institutions like marriage are also affected and there is a change in the relationship between men and women. Therefore, Indian society to some extent has started accepting heterosexual and homosexual relationships. Law is a dynamic concept that changes according to the needs of society. In the case of Navtej Singh Johar v. Union of India the Supreme Court of India through its constitutional bench consist of five-judge bench observed that the 162 year old colonial statute i.e. Indian Penal Code 1860 under section 377 that criminalized private and consensual same-sex activity between adults and observed that: "Sexual orientation of a person is an essential attribute of privacy...The right to privacy is broad-based and pervasive under our Constitutional scheme, and encompasses decisional autonomy, to cover intimate/personal decisions and preserves the sanctity of the private sphere of an individual." Homosexuality is no longer an offense in India. Although the cohabitation of man and women without marriage was popular in India it was considered a sin and society were not ready to accept that relationship nowadays live-in-relationship considered the evolution of the western culture and due to the impact of the west, the concept of marriage is also replaced with the live-in-relationship.

A live-in relationship that was at one point of time strictly prohibited in Indian society is now soon turning to be a norm for several young couples. The live-in relationship also known as a cohabitation relationship is now one of the most preferred relationships in the context of Indian metros. A live-in relationship is so ongoing to be part of the Indian social pyramid and is readily acceptable by the younger generation of this Nation. Incompatibility between young married couples



and the high rate of failed arranged marriages are the predominant causes for the acceptability of live-in relationships. The institution of marriage no longer enjoys the same degree of sacrament associated with it due to several factors. The high divorce rate, the taboo associated with divorce, and cumbersome and prolonged divorce proceedings, have propelled the acceptability of several other forms of relationships. The relationships including cohabitation relationships will soon occupy a predominant position in the Indian social framework. Indian society has started appreciating the several pros of live-in relationships and over time the taboo associated with such relationship would vanish to a large extent. Live-in relationships are percolating from urban India to even its countryside and this is one of the several indicators of the acceptability of such a relationship. Non-compatibility between partners has mushroomed the cases of separation and as a consequence, the youth of Indian society prefer staying in a live-in relationship. The advantages of a live-in relationship are manifold and therefore couples prefer this mode of relationship. Some noted studies reflect on the live-in-relationships like Alan Booth, Ann C. Crouter, and Nancy S. Landale in their book titled 'Just Living Together-Implications of Cohabitation on Families, Children, and Social Policy, comprehensively discussed cohabitation relations and their effects'³. The book is divided into four parts, each dealing with a different aspect of cohabitation. Part I addresses the big picture question, "What are the historical and cross-cultural foundations of cohabitation?" Part II focuses specifically on North America and asks, "What is the role of cohabitation in contemporary North American family structure?" Part III turns the focus to the question, "What is the long-and short-term impact of cohabitation on child well-being?" Part IV addresses how cohabiting couples are affected by current policies and what policy innovations could be introduced to support these couples. Further, Anne Barlow et.al., in the book titled "Cohabitation, Marriage and the Law: Social Change and Legal Reform in the 21st Century", discussed the features of cohabitation relationship and also explains the common law marriage and required legal reforms.⁴ author further explains that there should be solid views and guidelines to deal with the cohabitation. It also covered social issues and problems of cohabitations and in chapter two it explains the importance of marriage and attitude towards marriage and cohabitation.

Choudhary Laxmi Narayan et al., in their article Live-In Relationships in India—Legal and Psychological Implications, discussed a Live-in relationship is the living of a couple without marriage and it is considered taboo in Indian society. However, these relationships are increasing due to a variety of reasons and in the absence of legal provisions, and customs it has faced problems in society. Although the Supreme Court of India has issued some guidelines to protect the interest of those couples, it has a very long way to go to be fully accepted by society. These types of relationships are accepted and covered under the Protection of Women from Domestic



Violence Act, 2005 and also under Section 125 of the Criminal Procedure Code, 1973 the female partners are entitled to claim alimony under that law. There are many issues that couple has to face in their day-to-day life. Therefore, the above article tried to address those issues from legal and psychological points of view.⁵

The institution of marriage in the context of Indian society also brings with it several obligations which they sometimes find quite cumbersome to cope with and this results in various issues such as depression, continued stress, etc. the obligations that marriage imposes upon the partners lead to friction between them which in turn distorts their marital ties and harms the psychological well-being of the partners as well as their families. Indian society is concerned and the emergence of live-in relationships points to a thread of western culture is woven into the social fabric of this nation.

It is said that a coin has two sides; despite the multifarious advantages of a live-in relationship, there are some terms associated with it. A live-in relationship is not immune from the malady of friction between the partners and since there is a greater degree of independence, the same may have a cascading effect on the wellbeing of the partners. Live-in relationships deal a severe blow to the values embedded in the Indian society and as a result a large section of the orthodox Indian society is not willing to recognize it. It is not the case that live-in relationship is devoid of any complications/problems as this kind of relationship which primarily origin at the West would still require a great deal of time before it is fully embedded in the Indian social framework. There were many petitions filed before the Supreme Court and High Court to deal with this issue and some of the decisions are landmark in deciding the fate of live-in partners. In *Lata Singh v. State of U.P.* AIR 2006 SC 2522 the Supreme Court of India held that live-in relationship between two consenting adults of heterogenic sex does not amount to any offence (with the obvious exception of 'adultery'), even though it may be perceived as immoral.⁶ In the case of *S. Khushboo v. Kanniammal* (2010) 5SCC 600, the Hon'ble Supreme Court held that a living relationship will come within the ambit of right to life and personal liberty under Article 21 of the Constitution of India and it can't be said that those relationships are illegal and unlawful.⁷ In a very famous case of *Indra Sarma v. V.K.V. Sharma* (2013) 15 SCC 755 the Apex Court held that a live-in relationship is like marriage relationship and it is not crime or sing though not socially acceptable. The decision to marry or not to marry or to have a heterosexual relationship is a personal affair.⁸ A live-in relationship has not yet been completely recognized by a certain section of the Indian society and therefore partners think twice before entering into such a relationship. The fallout from such a relationship harms the emotional and psychological well-being of the partner and as a result, the same partners are still hesitant to enter into such a relationship permanently. The partners of a live-in



relationship might sometimes misuse each other for perpetuating illegal activities and crimes such as financial fraud, cheating, etc. The legal and social problems faced by the couple in a live-in relationship many times lead to severe psychological disturbance in the couple. This, in turn, leads to a breakdown of the relationship which further gives a way to various psychological, social and legal complications.

Therefore, the present research is required to understand the various psychological, social and legal problems faced by the partners in a cohabitation relationship and the effects of a breakdown of such a relationship.

1. Cohabitation relationships vis-a-vis marriage

The Perspective of Marriage Norms: The concept of marriage has evolved. After the formal ceremony, marriage is typically regarded as one of the fundamental rights. It has legal significance and entails several obligations and responsibilities regarding property inheritance, succession, and other issues. As a result, marriage contains all of the legal requirements of tradition, exposure, and selection as well as all of the legal results that flow from that relationship. Contrary to many other nations, India still does not regard live-in relationships as socially acceptable. However, to establish a long-lasting conjugal connection similar to marriage but apart from it, people are increasingly choosing an alternate institution like a live-in relationship.

Since the time of the Vedic culture, marriage has been revered in India as a sacred union. In India, marriages happen according to the Special Marriage Act's requirements or the personal law of the parties' respective religions. According to the law, marriage is a contract between a man and a woman, in which the two promise to support and live together.

Cohabitation relationship and its impacts: It is impossible to overstate the link between healthy relationships and mental well-being. It gets a sense of purpose, meaning, and belongingness when we have intimate, healthy connections. Conversation with a skilled, sympathetic listener during a face-to-face connection reduces stress and aids in the processing of all of our emotions, even unpleasant ones. Many enjoyable and constructive experiences result from interactions with loved ones. People with healthy relationships and strong social ties to their families, friends, and community are happier and less likely to experience mental health issues. Loneliness and isolation contribute to a host of psychological issues as well as poor physical health.

Social interactions also play a significant role for people with impairments and have been shown to improve their mental health and general wellness. Another meta-analytic evaluation indicated that being in a bad relationship or being



dissatisfied had a worse impact on one's physical and psychological well-being than being single.⁹

Cohabitation through social media: social media now plays a significant part in our daily lives. People have begun to invest a significant amount of time in online interactions through social media. However, these conversations, friendships, and connections that take place online cannot have the same impact as those that take place in real life. Social media contacts cannot elicit the same positive psychological and emotional reactions as those seen in relationships that take place in real life. Real-world encounters and face-to-face contact between individuals continue to be rewarding and beneficial forms of connection that support feelings of belonging and well-being. Harvard University has been researching human behavior for a long time to determine what makes individuals healthy. The research began in 1938 and lasted for many years before the findings were released in 2012. The study's findings demonstrated that relationships—rather than money, fame, or labour—are what truly contributes to our happiness and health.¹⁰ Comparing these studies on the present-day cohabitation relationships via social media, social media activity online can be harmful since it blurs the distinction between actual and virtual friends and exposes users to unhealthy communications, which can breed prejudice and biased views that may be corrected when observed in real life. As a result, it can be said that having a live-in relationship in a compatible pair is preferable to having none at all. Numerous different kinds of psychological issues might result from being stuck in an unpleasant marriage or living alone.

2. Legality: According to the Supreme Court's rulings, if a man and a woman have been living together for a long time and have children, the court will infer that they are married and the same rules apply to them and their relationship. In *Payal Sharma v. Nari Niketan*¹¹, the Allahabad High Court recognised the idea of a live-in relationship. The bench, which was made up of Justices M. Katju and R.B. Misra, said that "In our judgment, a man and a woman can live together even without being married if they desire to. Although society may view this as immoral, it is not against the law.

Although society may view this as immoral, it is not against the law. There is a distinction between morality and the law. Following that, the Supreme Court stated in the case of *S. Khushboo v. Kanniammal & Anr*¹², that a live-in relationship between two adults without a legal marriage cannot be considered a crime. It is also mentioned that there was no rule against premarital sex or live-in relationships. In the case of *D. Velusamy and D. Patchaimal*¹³, the Supreme Court established several requirements to be considered as being "in the essence of marriage.



1. The couple must hold themselves out to society as being akin to spouses.
2. They must be of legal age to marry.
3. They must be otherwise qualified to enter into a legal marriage, including being unmarried.
4. They must have voluntarily cohabited and held themselves out to the world as being akin to spouses for a significant period.

According to Indian law, living together as consenting adults is not seen to be unlawful. Despite being viewed as immoral, a live-in relationship between two consenting adults of the opposite sex is not illegal, according to a 2006 ruling in the case *Lata Singh v. the State of U.P.*¹⁴. Although the notion of a live-in relationship is viewed as sinful by society, it is unquestionably legitimate in the eyes of the law, as according to the Supreme Court. Living together is a right to life and so it cannot be declared criminal.

The Supreme Court held that not all stay living engagements are of the type of marriage in the case *Indra Sarma v. VKV Sarma*¹⁵. In this case, it was determined that the appellant could not have entered into a live-in relationship that was like marriage because it lacked any inherent or essential characteristics of marriage and was instead a relationship other than like marriage despite the appellant being fully aware that the respondent was married. In this case, the court also made the following remarks.

5. A growing number of those same partnerships, which may last for a very long time and can lead to a pattern of reliance and vulnerability, demand proper and effective safeguarding, especially for the woman and any children that may be born from such a live-in relationship. Legislation, of course, cannot encourage premarital sex, even if such relationships can occasionally be very intimate and individuals may voice their support or opposition.
6. The Parliament must consider these concerns, pass appropriate laws, or change the Act to safeguard women and children born out of these types of partnerships, even though they may not be unions with the characteristics of marriage.

The same point was made in *SPS Balasubramanian v. Suruttayan*¹⁶, where it was noted that where a man and a woman live together as husband and wife for an extended period, the law would presume their marriage to be valid unless otherwise shown, and children born out of such live-in relationships would be entitled to inherit the parents' property. It is not illegal for two people who are not already married to get together and start dating. Before 2018, Section 497 of the Indian Penal Code considered domestic cohabitation between a married or unmarried man and a married woman to be "adultery" for the man alone (IPC). However, the Supreme Court of India struck down this clause in the case of *Joseph Shine v. Union of India* in September 2018, finding that it violated Article 14 of the Constitution of India. The



section discriminated against men and women because only the man, not the woman, could be charged with adultery. Additionally, only the woman's husband had the authority to file charges against the perpetrator of the conduct; the lady could not file charges against her husband for adultery.

- 3. Adultery and Cohabitation relationship:** While cohabitation with any married man or woman may be a subject of civil issues providing a reason for divorce, in which case it would be gender neutral, even though adultery is no longer a crime. Before 2018, Section 377 of the IPC also considered cohabitation with sexual contact between two adults of the same sex to be an unnatural offense. However, in *Navtej Singh Johar v. Union of India*¹⁸, the situation was reversed. The Supreme Court struck down Section 377 since it made two or more adults who are competent to consent to homosexual conduct in private unlawful. It was declared to be against the Constitution's Articles 14, 15, 19, and 21 and to be unjustified, unreasonable, inadmissible, and arbitrary. However, Section 377 is still included in the statutes as being legally legitimate and relevant since it covers all bestiality, as well as nonconsensual sexual activities between two adults, as well as sexual acts committed against children. While executing a symbolic same-sex marriage is not against the law, same-sex marriages are not recognized in India, despite the legalization of consensual behavior.
- 4. Legal and Social Impact:** A breakdown of live-in-relationship has sour consequences on the personal and social life of an individual. It will affect the person through social values. Till today Indian Society did not accept the live-in relationship completely. It may be possible in urban areas but in rural India still, people believe it a sin and people may outcaste those couples from society. In the following discussion, legal and social impact is discussed in detail to understand the complexity of these relationships.
- 5. Social impact:** In India, culture, tradition, and beliefs all have a big effect on how people think. Therefore, rather than any legislation, the adoption of new standards depends on how strongly held their beliefs are¹⁹. The complexity of an anti-religion live-in relationship must be addressed; this is still a touchy subject. The many cultures and religions of India are well-known. In our nation, the effects of globalization on interpersonal relationships have been unparalleled. Family bonds and values, which once predominated, are undergoing rapid transformation. Every religion has a unique stance on cohabitating relationships. Anti-religious unions are still controversial and are only permitted under the Special Marriage Act of 1955. The notion of a live-in partnership is advanced, and although Christianity supports it, Hinduism and Islam do not.
- 6. Legal Acceptance:** The legality and legal acceptance of a live-in relationship was always challenged and there are no official records for these kinds of relationships. In case of marriage husband and wife are considered a spouse and they have all



immunities and privileges in the society. A live-in relationship couples has to face issues regarding the shared bank accounts, nominee names, insurance and many other things. Indian society is skeptical about live-in relationship and as results couples are frequently encounter with variety of issues and challenges and even they don't get rental houses and they have to live-in isolation and boycott from the society.

Limitations on the application of the law

Same-Sex Couples: Indian society is very complex and difficult to understand the nature of society. There are challenges to the same-sex couples and the LGBTQI community is unable to get support from the society. There is no provision for these communities and after the abolition of the Section 377 of Indian Penal Code 1860 to decriminalize consensual same-sex contacts; India does not recognize the same-sex marriages and same-sex contact. In most of the countries same-sex marriage is legally accepted and they have statutes to govern these relationships like Australia, Argentina, Austria, Brazil, Canada, France, Germany etc. However, there is no single statute which provides legality to the same-sex marriages in India.

Domestic Violence: The introduction of the Protection of Women from Domestic Violence Act, of 2005 is itself a big achievement for Indian society. Before this legislation, there was only Indian Penal Code, 1860 which deals with the offenses relating to women. It penalized the offender for any offense against the women, outraging the modesty of women, rape, grievous hurt, sexual offenses, etc. Even the government of India after the case of Vishaka v. State of Rajasthan introduced the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act was passed in 2013²⁰. It was the Protection of Women from Domestic Violence Act, of 2005 which protects both men and women against any kind of violence in their families.

A woman who has lived with a man for a considerable amount of time is recognized as a wife under the PWDVA of 2005, and several provisions, such as property and maintenance, are also in her favor. Section 2(f) of the Protection of Women from Domestic Violence Act, of 2005 (PWDV Act, 2005) defines a domestic relationship as “a relationship between two persons who live or have lived together, at any point of time, in a shared household, when they are related by consanguinity, marriage, or through a relationship like marriage, adoption or are family members living together as a joint family.”²¹ Unfortunately, neither LGBT couples nor men are taken into account. Males are regularly charged with sexual assault and taking advantage of women by proposing a phony marriage, it has been observed. There is no stronger provision in favor of men in the case of a battle. Similar to that, there is no protection for same-sex partners being sexually abused. By codifying distinct



legislation on a live-in relationship, these delicate concerns about intimate relationships must be appropriately highlighted.

Alimony: In India, the Code of Criminal Procedure 1973 under section 125 allows wives, children's and parents to claim maintenance from a person on whom they are dependent and unable to support themselves.²² The Protection of Women from Domestic Violence Act 2005 defines domestic relationship under section 2 (f) and it covers any domestic relationships even a live-in relationship.²³

Children born out of cohabitation relationships: The children can claim inheritance as well as maintenance rights. As the law itself specifically says "both legitimate and illegitimate child," dependent children born out of live-in relationships have every right to file a support claim under Section 125 of the Cr. P.C. Mother is considered to be the children's natural guardian when it comes to guardianship decisions.

In the case of "Tulsa v. Durghatiya"²⁴, the Supreme Court granted child rights to property and in granting those rights the court observed that the children born out of live-in relationship should not be treated illegitimate. The couple stayed together though they are not husband and wife and lived under the one roof and living together will be considered as husband and wife and it is not like walk in and walk out relationship.

Inheritance Rights: Inheritance and property rights are important challenges in cohabitating relationships. Presently, only Hindu law grants property rights to a child born into a live-in relationship, and even then, only to self-acquired property, not inherited property. Muslim law has a system in place for allocating property, and as of this writing, no attempts have been made to timely start a debate over it. The Hindu Marriage Act, 1955 under section 16 and the Special Marriage Act 1954 under section 26 provides rights to children born out of void and voidable marriages and given the legitimacy to those children's. However, the right of inheritance of such children is restricted to the property of the parents exclusively, under Subsection (3) of the same provisions of the Act.

Inheritance in LGBTQI couple: Regarding both property rights and the LGBTQI community, there is no provision. The live-in partner of an LGBTQI couple cannot be included in a will or be gifted property. Without adequately addressing these impending problems and enacting the necessary legislation, there may be potential for dishonesty and fraud, and it may lead to violent family disputes over money.²⁵

Conclusion: No society is ready to accept modern values unless it has some legal backing and therefore the role of the judiciary is pertinent in every civilized society. A country like India which has the complexity of its culture and religious dogma will



not easily accept cohabitation and its legality. India is multicultural, multilingual and secular. Although the preamble of the Constitution of India provides all those rights and privileges to every person who is living in the territory of India, it has some challenges. And one of the challenges is with the family and society, the acceptance of cohabitation of relationship and its breakdown certainly affects the persons who are involved in it. But they have to face all legal and social challenges and it can be reduced only after the intervention of the judiciary and social acceptance. Therefore, with the change in time, there should be changes in the law and society. It does not mean that everyone should accept what the western culture influences society. There are limitations to every relationship and even fundamental rights are not absolute. Right to life and personal liberty is omnipresent in every part of life and everyone must be protected under that umbrella without affecting others' rights. It is not fair to say that cohabitation relationships have come from western culture because even today in the tribal community's institutions like Ghotul are allowing unmarried boys and girls to stay together for some time and then after sometimes their relationship may be converted into marriage. However, in urban areas, the legal acceptance of cohabitation relationships is the exit but these partners have to face a legal battle for ascertaining their rights because only marriage is an institution that has universal acceptance. Therefore, the researcher attempted to analyze those issues which are still relevant and to address those issues that there should be specific laws so that there would not be any violations of the rights of an individual.

References

1. John f. M'lennan, PRIMITIVE MARRIAGE, AN INQUIRY INTO THE ORIGIN OF THE FORM OF CAPTURE IN MARRIAGE CEREMONIES, 1st ed., 1865, pp.5-10.
2. Sheesh, "Ghotul A village dormitory for unmarried girls and boys", <https://htoindia.com/blog/ghotul-dance/>, (visited on September 05, 2024)
3. Alan Booth et. al., JUST LIVING TOGETHER IMPLICATIONS OF COHABITATION ON FAMILIES, CHILDREN, AND SOCIAL POLICY, 1st ed., 2002, pp.15-25.
4. Jens M. Scherpe, "Cohabitation, Marriage and the Law: Social Change and Legal Reform in the 21st Century", INTERNATIONAL JOURNAL OF LAW, POLICY AND THE FAMILY, Vol. 21
5. Choudhary Laxmi Narayan et.al., "Live-In Relationships in India—Legal and Psychological Implications", JOURNAL OF PSYCHOSEXUAL HEALTH, Vol. 3, No.1, 2021, pp. 18–23.
6. AIR 2006 SC 2522
7. (2010) 5SCC 600
8. (2013) 15 SCC 755.
9. Tough, H, Siegerist, J, Fekete, C., "Social relationships, mental health and wellbeing in physical disability: a systemic review", BMC PUBLIC HEALTH. Vol. 17, 2017, p. 580.
10. Vaillant, GE. TRIUMPHS OF EXPERIENCE. THE MEN OF THE HARVARD GRANT STUDY, 1st ed., 2012 pp.20-50.
11. 2001 SCC Online All 332.



12. (2010) 5 SCC 600.
13. (2010) 10 SCC 469.
14. AIR 2006 SC 2522.
15. (2013) 15 SCC 755.
16. AIR 1992 SC 756.
17. 2018 SCC Online 1676.
18. (2018) 5 SCC 1.
19. Priya Sepaha “Live-in Relationship in India: Laws and Challenges” LAW COLLOQUY JOURNAL OF LEGAL STUDIES (LCJLS) Vol. 1, Issue 2, 2021, pp.1-12.
20. AIR 1997 SC 3011.
21. Section 2(f) of the Protection of Women from Domestic Violence Act 2005.
22. Section 125 of the Criminal Procedure Code, 1973
23. Rajendra Anbhule, “Aggrieved Women and Live-In Relationships: Judicial Discourse”, Bharati Law Review, 2013, pp.66-77.
24. (2008) 4 SCC 520.
25. Rajagopal, Krishanadas (2010). “Living Together a Part of Right to Life, Not an Offence: SC.” The Indian Express, < <http://indianexpress.com/> > (Visited on July 20, 2022).

Disclaimer/Publisher’s Note: The statements, opinions, and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of TJSD and/or the editor(s). The Journal of Scientific Discourse (TJSD) and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.



A Study on Economic Thoughts of Babasaheb Dr. B. R. Ambedkar and Their Relevance in Modern India

Vishnu Kant Verma^{1*} & Veerandra Singh Matsaniya²

1. Dept. of Economics, P.K. University, Shivpuri-473665, M.P., India
2. Dept. of Economics, Dr. Harisingh Gour Vishwavidyalaya, Sagar-470003. M.P., India

*Corresponding Author: vishnu26au@gmail.com

Abstract: Babasaheb Dr. Bhimrao Ramji Ambedkar, a great Humanitarian and an Intellectual personality, who has inculcated Liberty, Equality and Fraternity as his first and foremost motto of life, every citizen of India known him a Father of Indian Constitution and the Representative of Depressed class of the Society, but he was also, an Economist, a Sociologist, a Revolutionist, a Freedom fighter and a Political Leader. The Economic Ideas of Dr. B.R. Ambedkar are highly commendable in quality and highly appreciable by his in-depth knowledge cum research. The Research paper aims at highlighting the Economic Ideas of Dr. B. R. Ambedkar, which has contributed highly for the Economic Development. Dr. B. R. Ambedkar, often recognized as a social reformer and the chief architect of the Indian Constitution, was also a distinguished economist. His economic philosophy was deeply interwoven with his commitment to social justice, equality, labour welfare, and state-led development. The paper reveals how Ambedkar's economic vision continues to resonate in contemporary discourses on development, equity, and social transformation. This paper assesses the relevance of Ambedkar's economic vision in modern India, drawing from his key ideas on industrialization, labour rights, land reforms, and inclusive economic planning.

Keywords: Ambedkar, economic thought, social justice, labour, industrialization, monetary policy, Women Empowerment, inclusive development, Economic Development.

Introduction: Some people are born talented; some have talent thrust upon them and some acquire it. In the last category comes Dr. B.R. Ambedkar. Dr. Bhimrao Ramji Ambedkar (1891–1956), one of India's most influential thinkers. Dr. B. R. Ambedkar was not only a social reformer and constitutional architect but also a trained economist with a deep understanding of finance, labour, land, and inequality. His economic thoughts were deeply intertwined with his mission for social justice and equality. Dr. Ambedkar received his PhD in Economics from the prestigious Columbia University and renowned London School of Economics. Dr. Ambedkar is well-known all over the world as a skilled speaker, writer and enlightened scholar. Mahatma Buddha, Jyotiba Phule, Sahu Ji Maharaj, renowned educationist Professor John Dewey, Elvin Seligman and Booker T. Washington had great influence on the life of Doctor



Ambedkar. Dr. Ambedkar, who had been associated with education for a lifetime, is a philosophy in itself.

Dr. B.R. Ambedkar popularly known as Babasaheb Ambedkar was a pioneer in developing the Indian constitution as well as an early advocate of Buddhism, as well as an economist. His research accomplishments in economics are remarkable. In his early years, Ambedkar's father was a teacher and an army official who has been an inspiration for him throughout his life. Ambedkar grew up in a poor family but he was very rich in their culture and heritage. An enormous corpus of funds was given to the Education and upliftment of poor and downtrodden communities by the Honourable King of Baroda Shahu Maharaja. One of the beneficiaries was Dr. BR Ambedkar who has completed his higher education successfully in Economics, Political Science, and Law. Dr. B.R. Ambedkar is a highly intellectual and sincere person who has devoted a lot of effort and time to his education. According to him “Education which is the right weapon to cut social slavery and it is Education which will enlighten the downtrodden masses to come up and gain Social status, Economic Betterment and political freedom”. His life exemplifies how talent, when combined with perseverance, vision, and moral courage, can overcome even the greatest of obstacles. Dr. Ambedkar did not inherit privilege—he earned respect through struggle and intellect, leaving a legacy that continues to inspire generations.

The literature on Dr. B. R. Ambedkar’s economic thoughts paints him as a visionary economist committed to structural transformation through the principles of equality, justice, and rational planning. While earlier studies focused on his monetary work and labor policies, newer research is expanding into his relevance for modern policy-making and social justice economics-

Ambedkar’s Thesis “The Problem of the Rupee” (1923) is widely cited as a seminal work in Indian monetary economics. **Jagadeeshvari** (2016) took review of socio-economic thoughts and broad philosophy of Dr. Ambedkar along with various rights given to people of India in the constitution. He also found that a provision of directives principles in the constitution gives flavour of welfare state. Ambedkar was in favour of state socialism and inclusive practices to be followed by state in day to day working. **Akhter** (2016) reviewed the contribution of Ambedkar in the discipline of Economics by citing the role of Finance Commission in sharing resources, state socialism, directive principles, recognition of workers organization, minimum wages act, safeguarding social security measures of workers, multipurpose projects are the vital contributions of him. **Bagga** (2014) observed that Ambedkar’s entire thinking is revolving around the principle of Bahunjan Hitay Bahunjan Sukhay means the state policy should be directed towards the welfare of all the communities’ irrespective caste and religion. State and its enterprise should have the human face. He also reviewed economic thoughts of Ambedkar from the various economic perspectives.



Sarkar (2013) found that Dr. B.R. Ambedkar stresses upon state socialism for giving justice to society and establishing the equality among the people. Further, he found that Ambedkar suggested for running key industries by state. Insurance shall be owned by state and agriculture shall be an industry of the state. Thorat and Newman (2010) explore Ambedkar’s view on economic discrimination as a systemic barrier, calling for affirmative action in economic spheres such as education, employment, and entrepreneurship. While Ambedkar’s political contributions are widely studied, his economic thought remains under-researched, especially in mainstream economic curricula. Narender Kumar (2016) and Anand Teltumbde critique the marginalization of Ambedkar’s economic vision in post-independence planning discourse. Recent efforts, such as edited volumes by the Indian Economic Association, have begun to integrate Ambedkar's insights into debates on inclusive growth, caste and poverty, and social capital.

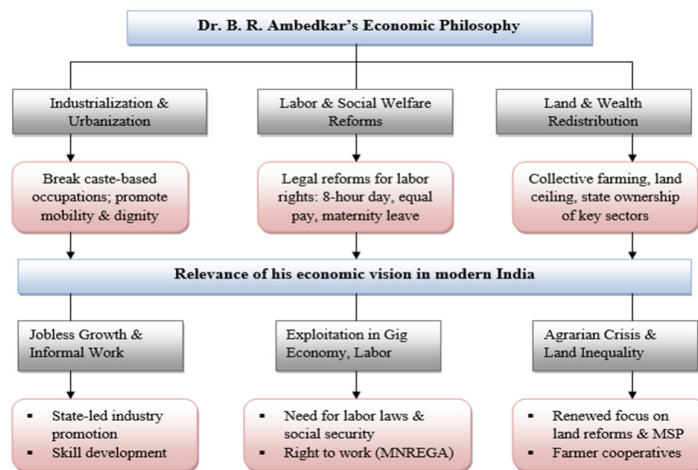
Objectives

- To study the Economics Views of Babasaheb Dr. B. R. Ambedkar
- To assess the relevance of his economic vision in modern India

Methodology: The study follows a qualitative research methodology, using textual analysis of Ambedkar’s writings along with secondary literature including books, journal articles, and contemporary policy reviews. A thematic approach is used to analyze different dimensions of his economic thought.

Introduction to Ambedkar’s Economic Vision: Dr. B. R. Ambedkar was a trained

economist with advanced degrees from Columbia University and the London School of Economics. His economic thoughts were deeply rooted in the principles of social justice, equity, and redistributive justice, shaped by his personal experiences of caste discrimination.



Dr. B.R. Ambedkar’s Major Economic Contributions: Ambedkar began his career as an economist and made significant contributions to the major economic debates of the time, and was considered the best economist of his generation in India. He holds



doctorates from Columbia University and the London School of Economics. His contributions to economics can be outlined as follows:

Currency and Finance

Ambedkar's early economic work, *The Problem of the Rupee* (1923), critically analyzed the British colonial currency system. He opposed the gold standard and argued for a managed currency system to stabilize prices and support economic growth. His ideas influenced the formation of the Reserve Bank of India (RBI), as acknowledged in the Hilton Young Commission report.

Ambedkar's Influence on Indian Monetary Policy

Policy Area	Ambedkar's Contribution	Present Institution
Currency Management	Advocated stable, managed currency system	RBI (established 1935)
Fiscal Discipline	Warned against unregulated inflation	Monetary Policy Committee
Banking Reform	Called for accessible banking	Financial Inclusion Schemes

Money is a commodity that is accepted as a medium of exchange and as such provides the means for the value and price of the commodity to be expressed in currency terms. People can demand as much money as they have, and the purchasing power simply indicates their economic status. Monetary Economics is the study of various theories of money, value, and the basic functions of money, monetary standards and their functions, and the transactions involving money, both internally and externally.

In Dr. B R Ambedkar's London Doctorate thesis, he addressed the issue of the rupee and its management of it. At that time there was a lot of discussion on the merits of the gold standard and what the gold exchange standard is. The gold standard refers to the gold coin as a convertible currency that complements the paper money that is fully backed by gold. The gold exchange standard is not a convertible currency, since it keeps exchanging at fixed rates with gold and can be backed by foreign currency reserves in gold standard countries. Ambedkar's doctoral thesis was in opposition to the suggestion made by JM Keynes that India should adopt the Gold Exchange Standard.

Fiscal Economics is the study of fiscal policy which measures the stability of the economy by manipulating the level and allocation of tax and government expenditure. Under the guidance of famous Fiscal Economist Edwin Seligman, Ambedkar's thesis at Columbia focused on the state central finances, and argued that a sound government would be able to finance its expenditure by raising its own

resources. Dr. B.R.Ambedkar's emphasizes the importance of the economy in the usage of public funds and this was explained in Cannons of Public Expenditure. This cannon explains that, the expenditure decisions is based on the objectives and the availability of the resources in order to ensure economy, efficiency and effectiveness in the implementation of government decisions, schemes, projects, etc. Public finance is the greatest contribution for the economic development which have not reaching its goal, due to the corruption and the political pressure prevailing in the county. In the present context of high fiscal deficits, a rigorous application of the Ambedkar canons can help the Government to reduce the quantum of public expenditure.

Taxation Policy: In his 'Swatantra Majadur Party' in 1936, Ambedkar expressed his ideas on taxation policy. He opposed Land Revenue System and Land Tax System as it would be burden on poor sections of the society. He suggested the following principles of taxation:

- Tax should be imposed on payers' capacity and not on income.
- Tax should be less on poor's and more on riches.
- Tax exemption should be given up to certain limit.
- There should be equality between different sections in tax imposition.
- Taxation should not adversely affect the standard of living of the people.

Land Reform and Agriculture

- Criticized the zamindari system and the exploitative agrarian structure.
- Advocated for:
 - Nationalization of land
 - Collective/cooperative farming
 - Redistribution of land among the landless
- His economic philosophy viewed land as a public resource, not a private commodity.

Industrialization and Urban Economy: Ambedkar believed that industrialization was essential for economic and social liberation, particularly for Dalits who were trapped in rural caste-based occupations. He rejected Gandhian village-centric models and instead emphasized urban employment, mechanization, and large-scale industries.

State Socialism and Planned Economy: Ambedkar advocated for a state-led economy where the government controls major industries, agriculture, and land. Proposed a Five-Year Economic Plan in his memorandum States and Minorities (1947), years before India officially adopted five-year plans. Believed that economic planning was essential to uplift the poor and marginalized



Labor Rights and Social Welfare: As Labour Member in the Viceroy's Executive Council (1942-46), Ambedkar introduced numerous reforms:

- Minimum Wages
- Legalised eight-hour workday
- Introduce Equal pay for equal work
- Right to strike
- Employee insurance
- Framed Maternity benefits
- Strengthened factory and mining regulations
- Advocated for state protection of labor in both public and private sectors

These efforts laid the groundwork for modern labor welfare in India.

Women's Economic Rights: Among the earliest advocates of gender equality in property and labor rights. Pushed for equal pay, maternity benefits, and inheritance rights for women.

Women Empowerment: From birth to death, a woman's life has been engulfed in discrimination, and women are treated as objects of rape, torture, injury, female feticide, bride burning, abduction, domestic violence, gang rapes, and sexual harassment in the workplace. Even in a rural setting or an urban one, it is almost impossible for these crimes to go unnoticed. Crimes against women maintain their consistency, whether in urban or rural areas. The Dr. Ambedkar's view on social justice included unity, equality, equal worth to men and women, tolerance, Human treatment to all classes and castes and right to dignity of all citizens, the education, property, should be distributed equally and he emphasized on fraternity and emotional integration. According to him we can achieve social justice only by removing, manmade inequalities of all shades through law, morality and public conscience; he stood for justice for a sustainable society. The teachings and thoughts of Dr. B. R Ambedkar are useful towards all the women, irrespective of their religion, castes and class, His deep concern and feelings for all round development of women is expressed from each sentence and word. In his last speech in Indian Parliament, we can know his feelings and respect showed towards women.

However, while a number of legislative measures were adopted to guarantee legal equality to women, but in practice not much opportunity available for women. And also need to spread education among women masses especially rural areas, and women should made self 'sufficient economically and given training in self-defence methods to protect themselves from exploitation, then only a new definition of women can come into existence. Women empowerment achieved only by women's sense of self-worth, their right to have choices, have opportunities and resources, power to



control their own lives both within and outside the home and their ability to influence the direction and social change.

Social Justice as Economic Justice

- Ambedkar believed economic inequality and caste oppression were interconnected.
- True economic progress, according to him, was impossible without social and political equality.
- He emphasized “Economic Democracy” as essential for sustaining Political Democracy.

Importance of Education and Economic Upliftment

- Strongly emphasized education as the foundation of economic empowerment.
- Advocated for state-funded education, especially for backward classes and women.
- Economic liberation, he believed, begins with intellectual and moral development through education.

Relevance in Contemporary India: Ambedkar's economic ideas offer valuable insights in the 21st century-

- His focus on inclusive growth aligns with current debates on inequality.
- His vision of education as economic capital is foundational to policies like skill development and affirmative action.
- His advocacy for state intervention is echoed in current welfare schemes and poverty alleviation programs.

Conclusion: Dr. B.R. Ambedkar hoped that, his study of economics will lead to useful policy conclusions. Thus, policy-oriented welfare issues interested him more than studying the technical aspects of the discipline to demonstrate economic theorems. He had contributed not only thoughts but also fought for upliftment of exploited. His economic thoughts have been useful to Indian economy and can be used as positive solution for current economic problems in India. In the wake of rising economic inequality and caste-based exclusion, Ambedkar's economic ideas have regained relevance. His emphasis on redistribution, growth of the public sector, education as capital, and social security measures are often cited in debates on development economics, social entrepreneurship, and welfare policy.

Dr. Ambedkar’s economic thought was revolutionary in its emphasis on structural change, redistribution, and dignity. He integrated sound economic reasoning with moral and social imperatives, creating a holistic model for national development. As India grapples with issues of inequality, unemployment, and caste-



based exclusion, revisiting Ambedkar's economic vision is not only timely but necessary. Dr. Ambedkar's economic views were comprehensive and far-sighted, rooted in both academic excellence and grassroots understanding. His approach connected economic policy with human dignity. Today, as India confronts rising inequality and exclusion, Ambedkar's economic ideas provide a moral and strategic framework for inclusive development. Dr. B. R. Ambedkar's economic thought was visionary and deeply rooted in the realities of India's marginalized communities. His emphasis on equity, redistribution, labour rights, and state responsibility offers timeless solutions to India's ongoing socio-economic challenges. In the 21st century, where economic growth often masks inequality and exclusion, Ambedkar's ideas provide a moral and practical framework for sustainable and inclusive development.

Ambedkar's economic ideas show remarkable foresight; emphasising monetary stability, fiscal balance, cooperative agriculture, labour protection and inclusive growth. Many of his proposals outline the key pillars of India's development strategy.

References:

1. Jayashree, C. & Vijayakanth, A., (2023). "A Study on Economic Ideas of Babasaheb Dr. B.R. Ambedkar" <https://www.researchgate.net/publication/371781503>
2. Hebbar, D. L., (2023). "Economic Thoughts of Dr. Ambedkar" *International Journal for Multidisciplinary Research (IJFMR)*. E-ISSN: 2582-2160, Pp: 1-5
3. Tupe, S. (2022). "Selective economic thoughts of Dr. B. R. Ambedkar and its relevance today", *International Journal of Commerce and Management Research*, Volume 8, Issue 1, ISSN: 2455-1627, Pp: 27-30
4. Badal, S. (2013). "Ambedkar's BR. Theory of State Socialism", *International Journal of Social Science*, 2013:2(8) Pp: 38-41.
5. Ambedkar, B. R. (1923). "The Problem of Rupee: Its Origin and its Solutions", P S King and Sons Ltd.
6. Jadhav, N. (2005). "Untouchables: My Family's Triumphant Journey Out of the Caste System in Modern India", Scribner.
7. Bagga, I. S. (2014). "The Practice of Economics by Dr. B.R. Ambedkar and Its Relevance in Contemporary India", *Journal of Business Management and Social Science Research*, 2014:3(10) Pp: 3-14.
8. Chalam, K. S. (2007). "Economic Reforms and Social Exclusion". *Sage Publications*.
9. Teltumbde, A. (2018). "Republic of Caste: Thinking Equality in the Time of Neoliberal Hindutva. Navayana".
10. Oxfam India (2023). "Inequality Kills: India Supplement".
11. Sarode, J. P. (2013). "Impact of Dr. Ambedkar Thoughts on Indian Economy".
12. Abraham, P. (2002). "Ambedkar's Contribution for Economic Planned & Development, its relevance".
13. Singariya, M. R. (2013). "Dr. B. R. Ambedkar: as an Economist" *International Journal of Humanities and Social Science Invention*, ISSN (Online): 2319-7722, ISSN (Print): 2319-7714
14. Volume 2, Issue 3, Pp: 24-27
15. Tazeem, A. (2016). "Dr. B. R. Ambedkar: His 'Subdued' Economic Visions", *International Journal of Innovative Research and Development*, Volume 5, Issue 1 Pp: 48-50.



16. Sontakke, D. P. (2012). "Economic Contribution Of Dr. Babasaheb Ambedkar", *Ijfans International Journal Of Food And Nutritional Sciences*, ISSN (Print): 2319-1775 ISSN (Online): 2320-7876 Pp: 6882-6885
17. Pandey, S. (2021). "Economic Thoughts of Dr. B.R. Ambedkar" *Journal of Emerging Technologies and Innovative Research (JETIR)*, ISSN-2349-5162, Volume 8, Issue 7 Pp:181-185
18. Arora, G. K. (2017). "The Rising India and Economic Thinking of Dr. Ambedkar", *Academia*, Vol.I No.2, ISSN: 2395-0161, Pp: 37-48
19. Srivastava, H. K. (2021). "Relevance of Dr. B.R. Ambedkar's Economic Thoughts in Twenty First Century", *International Journal of Advances in Engineering and Management (IJAEM)*. Volume 3, Issue 7 July 2021;, ISSN: 2395-5252 Pp: 2553-2555..

Disclaimer/Publisher's Note: The statements, opinions, and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of TJSD and/or the editor(s). The Journal of Scientific Discourse (TJSD) and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.

भारतीय अर्थव्यवस्था पर कोविड-19 का प्रभाव

अनिल कुमार सांगोड* & ममता पवार²

1. शासकीय पेंच. स्नातकोत्तर महाविद्यालय, परासिया, छिन्दवाड़ा, भारत
2. अर्थशास्त्र शास. माधव कला एवं वाणिज्य महाविद्यालय, उज्जैन, भारत

*Corresponding Author: anil.econ@rediffmail.com

शोध सारांश – कोविड-19 के प्रकोप ने सामाजिक और आर्थिक जीवन को ठप्प कर दिया है। इस अध्ययन में प्रभावित क्षेत्रों जैसे विमानन, पर्यटन, खुदरा, पूंजी बाजार, एमएसएमई और तेल पर प्रभाव का आकलन करने पर ध्यान केंद्रित किया गया है। अंतर्राष्ट्रीय और आंतरिक गतिशीलता प्रतिबंधित है, और यात्रा और पर्यटन से उत्पन्न राजस्व, जो सकल घरेलू उत्पाद में 9.2 का योगदान देता है, सकल घरेलू उत्पाद की वृद्धि दर पर एक बड़ा असर डालेगा। विमानन राजस्व में 1.56 बिलियन अमरीकी डॉलर की कमी आएगी। मार्च में तेल की कीमत 18 साल के निचले स्तर 22 डॉलर प्रति बैरल पर आ गई है, और विदेशी पोर्टफोलियो निवेशकों (एफपीआई) ने भारत से लगभग 571.4 मिलियन अमरीकी डॉलर की भारी मात्रा में निकासी की है। जबकि कम तेल की कीमतें चालू खाता घाटे को कम करेंगी, रिवर्स कैपिटल फ्लो इसे बढ़ाएगा। रुपया लगातार कम हो रहा है। एमएसएमई को नकदी की भारी कमी का सामना करना पड़ेगा। इस संकट ने देशव्यापी तालाबंदी के बीच पैदल ही प्रवासियों की ऐसी अस्थिर आबादी के भयावह सामूहिक पलायन को देखा। उनकी मुख्य चिंताएँ नौकरी, दैनिक राशन और सामाजिक सुरक्षा जाल की अनुपस्थिति थीं। भारत को अपने विकास प्रतिमान पर पुनर्विचार करना चाहिए और इसे अधिक समावेशी बनाना चाहिए। कोविड-19 ने भारत को कुछ अनोखे अवसर भी प्रदान किए हैं। वैश्विक आपूर्ति श्रृंखलाओं में भाग लेने का अवसर है, बहुराष्ट्रीय कंपनियाँ चीन पर भरोसा खो रही हैं। 'मेक इन इंडिया' के लिए कुछ सुधारों की आवश्यकता है, श्रम सुधार उनमें से एक है।

बीज शब्दः— कोविड 19, आर्थिक प्रभाव, जीडीपी विकास दर, क्षेत्रीय प्रभाव, कोविड राहत, उपाय।

परिचय: कोविड -19 के प्रकोप ने राष्ट्रों को बहुत अधिक प्रभावित किया है, विशेष रूप से राष्ट्रव्यापी तालाबंदी जिसने सामाजिक और आर्थिक जीवन को ठप कर दिया है। एक ऐसी दुनिया जो हमेशा गतिविधियों से गुलजार रहती थी, खामोश हो गई है और सभी संसाधन पहले कभी अनुभव न किए गए संकट से निपटने के लिए मोड़ दिए गए हैं। वायरस का बहु-क्षेत्रीय प्रभाव है क्योंकि राष्ट्रों की आर्थिक गतिविधियाँ धीमी हो गई हैं। आश्चर्यजनक और ध्यान देने योग्य बात यह है कि 2019 में विश्व स्वास्थ्य संगठन द्वारा वैश्विक महामारी से लड़ने में दुनिया की अक्षमता के बारे में एक खतरे की घंटी बजाई गई थी। विश्व स्वास्थ्य संगठन और विश्व बैंक की 2019 की संयुक्त रिपोर्ट में इस तरह की महामारी के प्रभाव का अनुमान 2.2 प्रतिशत से 4.8 प्रतिशत लगाया गया था। यह भविष्यवाणी सच होती दिख रही है, क्योंकि हम दुनिया को इस संकट में डूबते हुए देख रहे हैं। अंतर्राष्ट्रीय श्रम संगठन द्वारा 'कोविड-19 के प्रभाव और नीतिगत प्रतिक्रियाएँ' शीर्षक वाली एक अन्य रिपोर्ट में बताया गया कि यह संकट पहले ही आर्थिक और श्रम बाजार के झटके में बदल चुका है, जिसका असर न केवल आपूर्ति (वस्तुओं और सेवाओं का उत्पादन) पर पड़ रहा है, बल्कि माँग (उपभोग और निवेश) पर भी पड़ रहा है।

सामग्री और विधियाँ: महामारी के आर्थिक प्रभाव का आकलन करने के लिए पहले किए गए शोध अध्ययन सिमुलेशन मॉडल पर आधारित हैं। स्वीडिश अर्थव्यवस्था पर 1918 के स्पेनिश फ्लू महामारी के प्रभाव का आकलन करने के लिए मार्टिन कार्लसन (2014) द्वारा किया गया एक अध्ययन नवशास्त्रीय विकास मॉडल पर आधारित है। स्वीडिश क्षेत्रों में अलग-अलग फ्लू मृत्यु दर का फायदा उठाने के

लिए मानक अंतर-अंतर (डीआईडी) अनुमानक का विस्तार किया गया था। एशियाई अर्थव्यवस्थाओं पर एशियन फ्लू महामारी के आर्थिक प्रभाव का आकलन करने के लिए एशियाई विकास बैंक द्वारा जारी नीति संक्षिप्त ऑक्सफोर्ड आर्थिक पूर्वानुमान (ओईएफ) वैश्विक मॉडल पर आधारित व्यापक आर्थिक सिमुलेशन के माध्यम से किया गया है, जो मांग और आपूर्ति दोनों पक्षों को शामिल करता है और एक झटके के बाद एक नए संतुलन को समायोजित करता है। गंभीर तीव्र श्वसन सिंड्रोम महामारी के आर्थिक प्रभावों के अनुभवजन्य अनुमान, क्यूबेड (एशिया-प्रशांत) मॉडल नामक एक वैश्विक मॉडल पर आधारित हैं, जिसे ली और मैककिबिन (2004) द्वारा प्रस्तावित किया गया था। महामारी के आर्थिक प्रभावों को बीमारी से जुड़ी चिकित्सा लागतों या बीमारी से संबंधित रुग्णता और मृत्यु दर के परिणामस्वरूप होने वाली आय से उत्पन्न होने वाली आर्थिक लागतों के माध्यम से मापा जाता है। वैश्विक अर्थव्यवस्था में, एक देश में महामारी के आर्थिक परिणाम एकीकृत आपूर्ति श्रृंखलाओं और पूंजी बाजारों के कारण दूसरे देशों में स्थानांतरित हो जाते हैं। कोविड -19 महामारी नोवेल कोरोनावायरस संक्रमण के कारण होती है, और मानव शरीर पर इस संक्रमण के प्रभाव का अध्ययन करने और संक्रमण का संभावित इलाज खोजने के लिए वैज्ञानिक शोध चल रहा है। इस बीमारी के लिए की गई महामारी विज्ञान गणनाओं में कई चर हैं जो संक्रमण के कारण, संक्रमण दर और लक्षणहीन मामलों और लक्षण वाले मामलों के अनुपात जैसी मान्यताओं पर आधारित हैं। भविष्य में, वैज्ञानिक अनुसंधान इस बीमारी और बीमारी के प्रसार के रहस्यों को उजागर करेगा। आर्थिक अनुमान या सिमुलेशन रोग पैटर्न के महामारी विज्ञान पूर्वानुमान से निकटता से जुड़े हुए हैं। हमने बीमारी से संबंधित अनिश्चितताओं के कारण सिमुलेशन मॉडल का उपयोग नहीं करने का फैसला किया। इस अध्ययन में, प्रभावित क्षेत्रों जैसे विमानन, पर्यटन और खुदरा क्षेत्र में कोविड -19 के कारण होने वाले नुकसान, समग्र उत्पादकता हानि और विकासात्मक नीति और कार्यक्रम निहितार्थों के विश्लेषण के साथ खोए हुए श्रम घंटों के सामाजिक-आर्थिक प्रभाव का आकलन करने पर ध्यान केंद्रित किया गया है।

भारत में कोविड-19 महामारी के क्षेत्रीय निहितार्थ पर्यटन, विमानन और खुदरा व्यापार पर प्रभाव- कोविड संकट के कारण अंतरराष्ट्रीय स्तर पर पर्यटन उद्योग सबसे अधिक प्रभावित हुआ है। विश्व पर्यटन संगठन (यूएनडब्ल्यूटीओ) (2020) के अनुमानों के अनुसार अंतरराष्ट्रीय पर्यटकों के आगमन में 20-30 प्रतिशत की गिरावट आई है। ये आंकड़े भी वर्तमान परिस्थितियों पर आधारित हैं और भविष्य में इनके बढ़ने या घटने की संभावना है। उद्योग से जुड़े लाखों लोगों की नौकरी जाने की संभावना है। भारत में यात्रा और पर्यटन उद्योग फल-फूल रहा है और अर्थव्यवस्था में बड़ा योगदान दे रहा है। फिक्की-यस बैंक की रिपोर्ट 'इंडिया इनबाउंड टूरिज्म: अनलॉकिंग द ऑपर्व्युनिटीज' में भारत को पर्यटन का पावरहाउस और दक्षिण एशिया का सबसे बड़ा बाजार बताया गया है। भारत में पर्यटन का सकल घरेलू उत्पाद में 9.2 प्रतिशत योगदान है और 2018 में इसने 26.7 मिलियन नौकरियों के सृजन के साथ 247.3 बिलियन अमेरिकी डॉलर का उत्पादन किया था। वर्तमान में, यह सकल घरेलू उत्पाद में योगदान के मामले में 8वां सबसे बड़ा देश है (जगनमोहन, 2020)। रिपोर्ट के अनुसार, 2029 तक इस क्षेत्र से लगभग 53 मिलियन लोगों को रोजगार मिलने की उम्मीद है। 2017 में विदेशी पर्यटकों का आगमन (एफटीए) 10 मिलियन को पार कर गया। हालांकि, कोरोनावायरस महामारी ने अंतरराष्ट्रीय गतिशीलता को प्रतिबंधित कर दिया है और इस क्षेत्र द्वारा उत्पन्न राजस्व जीडीपी विकास दर पर एक बड़ा असर डालेगा। यह जीडीपी की वृद्धि दर में 0.45 प्रतिशत की गिरावट ला सकता है। भारत में विमानन क्षेत्र वर्तमान में भारत के सकल घरेलू उत्पाद में 72 बिलियन अमेरिकी डॉलर का योगदान देता है। पहली तिमाही में विदेशी पर्यटकों का आगमन कम रहा है। दूसरी तिमाही में आगमन पर लॉकडाउन का महत्वपूर्ण प्रभाव पड़ेगा। यदि हम विमानन क्षेत्र के योगदान में 25 प्रतिशत की रूढ़िवादी गिरावट का अनुमान लगाते हैं, तो यह 18 बिलियन होगा। रेलवे ने 2019 में सकल घरेलू उत्पाद में



27.13 बिलियन अमेरिकी डॉलर का योगदान दिया। 21 दिन की लॉकडाउन अवधि से राजस्व में 1.56 बिलियन अमेरिकी डॉलर की कमी आएगी। वित्त वर्ष 2019 में भारतीय खुदरा उद्योग का मूल्य 790 बिलियन अमेरिकी डॉलर था। यह देश के सकल घरेलू उत्पाद का 10 प्रतिशत से अधिक और रोजगार का लगभग 8 प्रतिशत है। पिछले कुछ वर्षों में, ऑनलाइन खुदरा क्षेत्र में बहुत तेजी से वृद्धि देखी गई है और बाजार के अनुमानों ने 2020 में ऑनलाइन खुदरा क्षेत्र में 30 प्रतिशत की वृद्धि का संकेत दिया था (राष्ट्रीय निवेश संवर्धन और सुविधा एजेंसी, 2020)। खुदरा क्षेत्र के लिए एक महीने का बंद तिमाही 2 राजस्व को प्रभावित करेगा। खुदरा क्षेत्र में, दबी हुई मांग में बहुत तेजी से सुधार होने की प्रवृत्ति है और इससे लॉकडाउन हटने के बाद क्षेत्र को नुकसान की भरपाई करने में मदद मिलेगी। लॉकडाउन अवधि के दौरान देश के कुछ हिस्सों में ऑनलाइन खुदरा व्यापार चालू था और इससे उद्योग के कुछ नुकसान की भरपाई करने में मदद मिलेगी।

जीडीपी वृद्धि दर पर प्रभाव— जबकि कोविड-19 महामारी लगातार बढ़ रही है और 15 अप्रैल 2020 तक इसके नियंत्रण के बहुत कम संकेत दिख रहे हैं, देश की आर्थिक वृद्धि पर इसका प्रतिकूल प्रभाव संभवतः बहुत गंभीर होगा। संयुक्त राष्ट्र ने चेतावनी दी है कि कोरोना वायरस महामारी का वैश्विक अर्थव्यवस्था पर महत्वपूर्ण प्रतिकूल प्रभाव पड़ने की उम्मीद है, और सबसे महत्वपूर्ण बात यह है कि वर्तमान अर्थव्यवस्था के लिए भारत की जीडीपी वृद्धि घटकर 4.8 प्रतिशत (संयुक्त राष्ट्र 2020) रहने का अनुमान है। इसी तरह,

संयुक्त राष्ट्र के एशिया और प्रशांत के आर्थिक और सामाजिक सर्वेक्षण 2020 ने बताया कि कोविड-19 के क्षेत्र में व्यापक सामाजिक-आर्थिक परिणाम होंगे, जिससे पर्यटन, व्यापार और वित्तीय संबंधों के क्षेत्रों में सीमाओं के पार गतिविधियाँ प्रभावित होंगी (संयुक्त राष्ट्र,

Table 1. Growth of GVA and GDP at Constant Prices (2011-2012) Percentage

	2017-18 1st RE	2018-19 PE	2019-20 1st AE	Percentage Points Change in growth rate in 2019-20 over 2018-19 (Increase+/ Decrease-)
GVA at basic prices	6.9	6.6	4.9	-1.7
Agriculture and allied sectors	5	2.9	2.8	-0.1
Industry	5.9	6.9	2.5	-4.4
Mining and quarrying	5.1	1.3	1.5	-0.2
Manufacturing	5.9	6.9	2	-5
Electricity, Gas, Water, supply and other utility services	8.6	7	5.4	-1.6
Construction	5.6	8.7	3.2	-5.6
Services	8.1	7.5	6.9	-0.7
Trade, Hotel, Transport, communication and services related to broadcasting	7.8	6.9	5.9	-1
Financial, real estate and professional services	6.2	7.4	6.4	-1.1
Public administration, defence and other services	11.9	8.6	9.1	-0.5
GDP at Market Prices	7.2	6.8	5	-1.8

Source: National Statistic Office, Year 2020.

Notes: RE—Revised estimates, PE—provisional estimates and AE—advanced estimates.

2020)। आर्थिक सर्वेक्षण 2019-2020 ने 2019-2020 के दौरान वास्तविक जीडीपी में 5.0 प्रतिशत की वृद्धि के लिए अग्रिम अनुमान प्रदान किए थे, जैसा कि तालिका 1 में दर्शाया गया है, जबकि 2018-2019 में 6.8 प्रतिशत की वृद्धि दर थी। 2018-2019 के लिए जीडीपी के अंतरिम अनुमान (190,100 बिलियन) की तुलना में 7.5 प्रतिशत की वृद्धि के साथ 2019-2020 में नाममात्र जीडीपी 204,400 बिलियन होने का अनुमान है। (आर्थिक सर्वेक्षण, 2020, पृष्ठ 100) 28 फरवरी 2020 को, राष्ट्रीय सांख्यिकी कार्यालय ने जीडीपी वृद्धि के संशोधित अनुमानों की घोषणा की, पहली तिमाही में 8 प्रतिशत से 7.1 प्रतिशत, दूसरी तिमाही में 7 प्रतिशत से 6.2 प्रतिशत और तीसरी तिमाही में 6.6 प्रतिशत से 5.6 प्रतिशत हो गई। गोल्डमैन सैक्स ने जीडीपी की वृद्धि दर 1.6 प्रतिशत रहने का अनुमान लगाया, जो 21 दिन के लॉकडाउन के कारण 400 आधार अंकों की गिरावट है (गोल्डमैन सैक्स, 2020)। मई के मध्य तक दुनिया भर में कोविड-19 महामारी के त्वरित वापसी के मामले में, केपीएमजी इंडिया ने भारत की जीडीपी वृद्धि का अनुमान 5.3 प्रतिशत से 5.7 प्रतिशत के बीच लगाया। दूसरे परिदृश्य में जहां भारत

वायरस के प्रसार को नियंत्रित करता है लेकिन एक महत्वपूर्ण वैश्विक मंदी है केपीएमजी इंडिया ने अपनी रिपोर्ट में अनुमान लगाया है कि अगर भारत में वायरस और फैलता है और लॉकडाउन को बढ़ाया जाता है तो भारत की जीडीपी वृद्धि दर 3 प्रतिशत से नीचे गिर जाएगी (केपीएमजी, 2020)। मोतीलाल ओसवाल के शोध से पता चलता है कि एक दिन का पूर्ण लॉकडाउन वार्षिक वृद्धि से 14–19 आधार अंकों की कमी कर सकता है (ओसवाल, 2020)। बार्कलेज ने बताया कि संचयी शटडाउन लागत लगभग 120 बिलियन अमेरिकी डॉलर या जीडीपी का 4 प्रतिशत है (बार्कलेज, 2020)। भारत के पूर्व वित्त मंत्री श्री यशवंत सिन्हा ने अनुमान लगाया कि 21 दिन के देशव्यापी लॉकडाउन की लागत जीडीपी का 1 प्रतिशत अंक होगी। वैश्विक मंदी और भविष्य की अनिश्चितताओं के कारण विकास दर (2020–2021 के लिए) में 2 प्रतिशत अंकों की गिरावट संभव है।

प्रवासी श्रमिकों पर कोविड-19 महामारी का प्रभाव— अंतर्राष्ट्रीय श्रम संगठन ने अपनी रिपोर्ट में कोरोना वायरस महामारी को 'द्वितीय विश्व युद्ध के बाद सबसे खराब वैश्विक संकट' बताया है। भारत में अनौपचारिक अर्थव्यवस्था में काम करने वाले लगभग 400 मिलियन लोग (कुल कार्यबल का 76.2%) वायरस के भयावह परिणामों के कारण गरीबी में और अधिक गिरने का जोखिम उठा रहे हैं। चूंकि दुनिया का आधा हिस्सा लॉकडाउन में है, इसलिए वैश्विक स्तर पर 195 मिलियन पूर्णकालिक नौकरियों या 6.7 प्रतिशत कार्य घंटों का नुकसान होने वाला है। कई लोग कम वेतन वाली, कम कुशल नौकरियों में हैं, जहाँ आय का अचानक नुकसान विनाशकारी है। काम के लिए श्रमिकों का मौसमी पलायन ग्रामीण भारत में एक व्यापक वास्तविकता है। लाखों लोग ग्रामीण क्षेत्रों से उद्योगों, शहरी बाजारों और खेतों की ओर पलायन करते हैं। भारत में प्रमुख प्रवास गलियारे यूपी और बिहार से लेकर पंजाब, हरियाणा, महाराष्ट्र और गुजरात तक हैं। ओडिशा, पश्चिम बंगाल और पूर्वोत्तर से कर्नाटक और आंध्र प्रदेश, राजस्थान से गुजरात, मध्य प्रदेश से गुजरात और महाराष्ट्र और तमिलनाडु से केरल तक नए गलियारे भी बनाए जा रहे हैं। ये प्रवासी श्रमिक निर्माण क्षेत्र (40 मिलियन), घरेलू काम (20 मिलियन), कपड़ा (11 मिलियन), ईंट भट्टा काम (10 मिलियन), परिवहन, खनन और कृषि (आईआईपीएस, 2001) में कार्यरत हैं। लॉकडाउन के दौरान 92.5 फीसदी मजदूरों ने 1 से 4 हफ्ते का काम खो दिया है। जन साहस द्वारा 27 मार्च से 29 मार्च के बीच उत्तरी और मध्य भारत के 3196 प्रवासी श्रमिकों के बीच किए गए सर्वेक्षण से पता चलता है कि 80 फीसदी प्रवासी श्रमिकों को डर था कि 14 अप्रैल को लॉकडाउन समाप्त होने से पहले उनके पास भोजन खत्म हो जाएगा और उसके बाद उन्हें वापस नौकरी नहीं मिलेगी (चित्र 1)। सर्वेक्षण से पता चला है कि

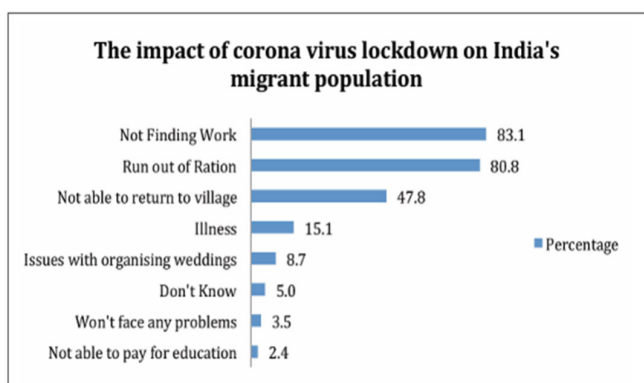


Figure 1. Impact of COVID-19 on Migrant Population
Source: Jan Saahas Survey (2020).

55 प्रतिशत प्रवासी श्रमिकों को 200 से 400 रुपये के बीच दैनिक मजदूरी मिलती है, और 39 प्रतिशत श्रमिकों को 400 से 600 रुपये के बीच मिलती है, जो न्यूनतम मजदूरी दर से कम है। केवल 4 प्रतिशत श्रमिकों को 600 रुपये और उससे अधिक मिलते हैं, जो न्यूनतम मजदूरी दर के करीब है। वे शोषणकारी परिस्थितियों में काम करते हैं, अक्सर कर्ज में डूबे रहते हैं और उनके पास अपनी खुद की बचत बहुत

कम होती है। सर्वेक्षण में लगभग 49.2 प्रतिशत श्रमिकों ने कहा कि उनके पास राशन नहीं है और 39.4 प्रतिशत ने कहा कि उनके पास लगभग 2 सप्ताह तक चलने वाला राशन है।

सर्वेक्षण में आगे बताया गया है कि इनमें से लगभग 99.2 प्रतिशत श्रमिकों के पास आधार कार्ड है, 86.7 प्रतिशत के पास बैंक खाता या जन धन दस्तावेज हैं, 61.7 प्रतिशत के पास राशन कार्ड हैं और 23.7 प्रतिशत के पास गरीबी रेखा से नीचे (बीपीएल) कार्ड हैं। हालाँकि सरकार ने 1,700 बिलियन रुपये के राहत पैकेज की घोषणा की है, लेकिन उनमें से कई को लाभ प्राप्त करना मुश्किल हो सकता है। इन श्रमिकों को उम्मीद थी कि सरकार मासिक राशन और मासिक वित्तीय सहायता प्रदान करेगी। इस संकट ने देशव्यापी तालाबंदी के बीच पैदल प्रवासियों की ऐसी अस्थिर आबादी के भयावह सामूहिक पलायन को देखा। उनकी चिंताएँ मुख्य रूप से नौकरी छूटने और सामाजिक सुरक्षा जाल की अनुपस्थिति से उत्पन्न हुई थीं। सरकार के आश्वासन के बावजूद, वे अपने घरों की ओर पैदल ही चलते रहे। यह असमानता, गरीबी और इस अचानक संकट से उबरने के लिए संघर्ष कर रही कमजोर आबादी के सामाजिक बहिष्कार की गाथा है। सुप्रीम कोर्ट ने प्रवासी मजदूरों के बड़े पैमाने पर अपने गांवों की ओर पलायन को रोकने के लिए उठाए गए कदमों पर केंद्र से स्थिति रिपोर्ट मांगी है। कोरोनावायरस के कारण श्रमिकों के अचानक विस्थापन का भारतीय अर्थव्यवस्था पर दूरगामी प्रभाव पड़ेगा। इनमें से कुछ श्रमिक गुरुग्राम, सूरत और मुंबई के औद्योगिक शहरों में काम पर नहीं लौट सकते हैं। वे अपने सीमांत खेतों या आस-पास के इलाकों में रोजगार की तलाश कर सकते हैं। लॉकडाउन के कारण व्यवहार में आए बदलाव के परिणाम एमएसएमई और कृषि क्षेत्र पर दबाव डालेंगे, क्योंकि लॉकडाउन के तुरंत बाद श्रमिक उपलब्ध नहीं होंगे। यदि नीति के माध्यम से ठीक से संबोधित नहीं किया गया, तो कोविड -19 महामारी से उत्पन्न सामाजिक संकट मध्यम और दीर्घकालिक अवधि में असमानता, बहिष्कार, भेदभाव और वैश्विक बेरोजगारी को भी बढ़ा सकता है।

राजकोषीय और मौद्रिक उपाय- कोरोनावायरस महामारी से निपटने के लिए समन्वित राजकोषीय और मौद्रिक नीति उपायों की आवश्यकता है। राजकोषीय उपायों में महामारी द्वारा उठाए गए स्वास्थ्य सेवा बिल का भुगतान करना शामिल है। मास्क, दस्ताने, परीक्षण किट, व्यक्तिगत सुरक्षा उपकरण, वेंटिलेटर, आईसीयू बेड, संगरोध वार्ड, दवाइयाँ और अन्य उपकरण उपलब्ध कराने का मतलब स्वास्थ्य सेवा खर्च में भारी वृद्धि होगी। भारत में स्वास्थ्य सेवा पर सार्वजनिक व्यय सकल घरेलू उत्पाद का 1.1 प्रतिशत है। चालू वित्त वर्ष में इसमें वृद्धि होने की संभावना है। सरकार ने 1,700 बिलियन रुपये का राहत पैकेज घोषित किया है, इसका उपयोग समाज के गरीब और कमजोर वर्गों को नकद हस्तांतरण करने के लिए किया जाएगा। सबसे अधिक प्रभावित होने वाले क्षेत्र, यानी एमएसएमई और खेत, को एक और राहत पैकेज द्वारा समर्थन दिया जाएगा, जिसकी घोषणा जल्द ही की जाएगी। पर्यटन और वे क्षेत्र जो वैश्विक आपूर्ति श्रृंखलाओं के साथ एकीकृत हैं, उन्हें समर्थन की आवश्यकता होगी। मंदी के कारण कर राजस्व में भी गिरावट आएगी। राजकोषीय प्राप्तियाँ सकल घरेलू उत्पाद के कम से कम 2 प्रतिशत तक घट सकती हैं। इन सभी राजकोषीय उपायों से राजकोषीय घाटा 1-1.5 प्रतिशत बढ़ जाएगा, जो कि अर्थशास्त्रियों के पूर्वानुमान के अनुसार वर्तमान में 3.2 प्रतिशत है। कोरोना वायरस के प्रसार से उत्पन्न संकट निवेश और उपभोग मांग को कम कर देगा। परंपरागत रूप से, सकल घरेलू उत्पाद के मांग पक्ष के घटक 72.1 प्रतिशत उपभोग के लिए जिम्मेदार हैं, जिसमें से सरकारी उपभोग बमुश्किल 11.9 प्रतिशत है, जैसा कि तालिका 2 में दर्शाया गया है। खर्च करने के लिए चिंता से प्रेरित अनिच्छा आर्थिक विकास दर के लिए मुख्य खतरा है। मांग को बढ़ावा देने के लिए सरकार को खर्च बढ़ाना होगा। निवेश मांग को बढ़ावा देने के उपाय के रूप में विभिन्न क्षेत्रों को समर्थन देना होगा। ढीली मौद्रिक नीति के हिस्से के रूप में रेपो दर में 75 आधार अंकों की कमी की गई है। फेडरल रिजर्व ने अपनी ब्याज दर में 1 प्रतिशत की कटौती की थी और इसे यूएसए में 0-0.25 प्रतिशत की



सीमा में रखने का फैसला किया था। महामारी से निपटने में मौद्रिक नीति कम प्रभावी है क्योंकि समस्या सिर्फ तरलता की नहीं है। आर्थिक गतिविधियों में व्यवधान और भविष्य की अनिश्चितता निवेश की भावना को कम करती है। फर्मों और निवेशकों के बीच चिंता से प्रेरित मितव्ययिता निवेश की मांग को खत्म कर देती है। जनवरी के 65 डॉलर प्रति बैरल से मार्च में 18 साल के निचले स्तर 22 डॉलर प्रति बैरल पर ला दिया है। कुछ अनुमानों के अनुसार कच्चे तेल की कीमतों में हर 5 डॉलर प्रति बैरल की गिरावट से भारत को 7-8 बिलियन डॉलर की बचत होगी। कच्चे तेल की कीमतों में गिरावट से भारत के चालू खाता घाटे में कमी आ सकती है, जो 2019-2020 में जीडीपी का 1.55 था (आर्थिक सर्वेक्षण, 2020)। लेकिन भारत से पूंजी का बहिर्वाह चालू खाता घाटे में संभावित बचत से अधिक हो सकता है। INR से USD औसत विनिमय दर 70.4 रुपये प्रति अमेरिकी डॉलर रही है, लेकिन यह पहले से ही 75 रुपये प्रति अमेरिकी डॉलर के मनोवैज्ञानिक अवरोध के करीब है। स्टार्ट-अप और सूक्ष्म, लघु और मध्यम उद्यमों पर प्रभाव सूक्ष्म, लघु और मध्यम उद्यम, जिन्होंने भारत में 90 प्रतिशत से अधिक नौकरियों का सृजन किया है, 114 मिलियन से अधिक लोगों को रोजगार दिया है और सकल घरेलू उत्पाद में 30 प्रतिशत का योगदान दिया है (राधिका पांडे, 2020), यदि लॉकडाउन को 8 सप्ताह तक बढ़ा दिया जाता है, तो उन्हें नकदी की गंभीर कमी का सामना करना पड़ सकता है। इनमें से कई एमएसएमई के पास ऋण दायित्व और मासिक ईएमआई का भुगतान करना है। यदि लॉकडाउन के कारण उनका नकदी चक्र गड़बड़ा जाता है, तो उनमें से कई गायब हो सकते हैं, ऐसी स्थिति में उन पर निश्चित लागतें लटकी हुई हैं। उन्हें ऋण चुकौती के लिए स्थगन की आवश्यकता है।

स्टार्ट-अप और सूक्ष्म, लघु और मध्यम उद्यमों पर प्रभाव- सूक्ष्म, लघु और मध्यम उद्यम, जिन्होंने भारत में 90 प्रतिशत से अधिक नौकरियों का सृजन किया है, 114 मिलियन से अधिक लोगों को रोजगार दिया है और सकल घरेलू उत्पाद में 30 प्रतिशत का योगदान दिया है (राधिका पांडे, 2020), यदि लॉकडाउन को 8 सप्ताह तक बढ़ा दिया जाता है, तो उन्हें नकदी की गंभीर कमी का सामना करना पड़ सकता है। इनमें से कई एमएसएमई के पास ऋण दायित्व और मासिक ईएमआई का भुगतान करना है। यदि लॉकडाउन के कारण उनका नकदी चक्र गड़बड़ा जाता है, तो उनमें से कई गायब हो सकते हैं, ऐसी स्थिति में उन पर निश्चित लागतें लटकी हुई हैं। उन्हें ऋण चुकौती के लिए स्थगन की आवश्यकता है। RBI ने गैर-बैंकिंग वित्तीय निगमों को धन जारी किया है, जिनमें से कुछ एमएसएमई को वित्त प्रदान करने वाले- इसके अलावा, जल्दी खराब होने वाले सामानों की आवाजाही में बाधा आ रही है और इस प्रकार ये व्यवसाय भारी घाटे में हैं- भारत में एमएसएमई क्षेत्र के बिना वास्तविक और टिकाऊ विकास नहीं हो सकता है- कोविड-19 संकट भारत में स्टार्टअप के लचीलेपन का भी परीक्षण करेगा- स्टार्टअप को सीमा पार से धन जुटाने पर निर्भर रहना पड़ता है- कई संस्थापक अपने व्यवसायों को ठप्प होते हुए देख रहे हैं- प्राप्तियां बढ़ रही हैं और उन्हें अपने उद्यमों में दर्दनाक लागत

Table 2. Consumption and Investment Demand in India

	2017-18	2018-19	2019-20	Percentage Points Change in growth rate in 2019-20 over 2018-19 (Increase(+)/ Decrease(-))
	1st RE	PE	1st AE	
Total Consumption	70.0	70.6	72.1	1.5
Government Consumption	11.0	11.2	11.9	0.7
Private Consumption	59.0	59.4	60.2	0.8
Gross Fixed Capital Formation	28.6	29.3	28.1	-1.2
Net Exports	-3.2	-3.9	-2.8	1.1
Exports of Goods and Services	18.8	19.7	18.4	-1.3
Imports of Goods and Services	22.0	23.6	21.2	-2.4

Source: National Statistical Office, Year 2020, Consumption and Investment Demand.

Notes: RE—Revised estimates, PE—provisional estimates and AE—advanced estimates.

और कटौती के उपाय करने पड़ रहे हैं— सरकार को इस क्षेत्र के लिए धन उपलब्ध कराना होगा, क्योंकि प्रतिबंधित वैश्विक पूंजी प्रवाह के कारण उद्यम पूंजी फर्मों को आने और समर्थन करने में थोड़ा अधिक समय लग सकता है।

निष्कर्ष: आधुनिक राज्य के आगमन से पहले, भारत में सामाजिक सुरक्षा काफी हद तक समुदाय आधारित थी। समुदाय (गाँवों और शहरों में) वृद्धों, गरीबों और कमजोरों की देखभाल करता था। भोजन बाँटना या भिक्षा के रूप में भोजन देना दैनिक दिनचर्या का हिस्सा था और हमारी संस्कृति का एक महत्वपूर्ण हिस्सा था। समुदाय के लिए कई धर्मार्थ कार्य उन लोगों द्वारा किए जाते थे जिनके पास समुदाय के भीतर संसाधन होते थे। संकट के समय, राज्य ने मदद प्रदान की, लेकिन मदद का एक बड़ा हिस्सा स्थानीय परोपकारी लोगों से आया। आधुनिक राज्य के निर्माण के बाद, समुदाय—आधारित सामाजिक सुरक्षा उपायों को बंद कर दिया गया। भारत में सभी के लिए राज्य प्रायोजित सामाजिक सुरक्षा जाल अभी तक विकसित नहीं हुआ है। सामाजिक सुरक्षा उपाय अलग—अलग हैं। अब समय आ गया है कि देश में सभी को एक सामाजिक सुरक्षा कार्ड (एक विशिष्ट पहचान संख्या के साथ) प्रदान किया जाए, साथ ही 100 प्रतिशत वित्तीय समावेशन भी किया जाए। उन्नत डिजिटल तकनीक की उपलब्धता भारत में इसे आसानी से संभव बना सकती है। प्रवासी मजदूरों का बड़े पैमाने पर पलायन, चिलचिलाती धूप में मीलों पैदल चलने के कारण उनमें से कुछ की मौत की खबर और कई दिनों तक भूखे रहना लॉकडाउन की कुछ सबसे परेशान करने वाली तस्वीरें हैं। औपचारिक सामाजिक सुरक्षा जाल के अभाव में राहत प्रयासों का दोहराव और अंतिम मील तक पहुँचने का कोई रास्ता नहीं होना, जहाँ आबादी का एक हिस्सा छूट जाता है, कुछ ऐसी वास्तविकताएँ हैं जो महामारी ने सामने ला दी हैं। अब समय आ गया है कि देश के हर नागरिक के लिए एक मजबूत राज्य प्रायोजित सामाजिक सुरक्षा जाल बनाया जाए। निष्कर्ष कोविड-19 महामारी ने दुनिया की संपन्न अर्थव्यवस्था को अप्रत्याशित और अस्पष्ट शब्दों में विकृत कर दिया है। लेकिन इसने महत्वपूर्ण रूप से संकेत दिया कि मौजूदा मंदी मुख्य रूप से अतीत की मंदी से अलग है जिसने देश की आर्थिक व्यवस्था को झकझोर दिया था। जबकि राष्ट्र, समूह, निगम और बहुराष्ट्रीय कंपनियाँ महामारी की भयावहता को समझते हैं, निस्संदेह यह समय की मांग है कि ऐसे भविष्य की तैयारी की जाए जो टिकाऊ हो, संरचनात्मक रूप से रहने और काम करने के लिए अधिक व्यवहार्य हो। जबकि अभूतपूर्व स्थिति ने अर्थव्यवस्था को बहुत नुकसान पहुँचाया है, खासकर लॉकडाउन की अवधि के दौरान, राष्ट्र को राजकोषीय उपायों की शुरुआत करके इससे बाहर निकलना होगा। जैसा कि राष्ट्रीय सरकार ने कल्पना की है, जीवन और आजीविका दोनों की सुरक्षा की आवश्यकता है। श्रम शक्ति की जाँच के बाद आर्थिक गतिविधि धीरे—धीरे शुरू होनी चाहिए। श्रमिकों के स्वास्थ्य की सुरक्षा के लिए उद्योग द्वारा सख्त निवारक उपायों को लागू किया जाना चाहिए। जबकि सरकार द्वारा अर्थव्यवस्था को उबारने के लिए नीति और सुधार पर्याप्त रूप से किए जाने चाहिए, उद्योग, नागरिक समाज और समुदायों की संतुलन बनाए रखने में समान भूमिका है। जब तक हम वायरस को खत्म नहीं कर लेते, तब तक सामाजिक दूरी, भीड़—भाड़ से बचना या उन्हें रद्द करना, मास्क और सैनिटाइजर का इस्तेमाल जीवन का तरीका होना चाहिए। इस दौरान, अर्थव्यवस्था मानव जाति के सामाजिक व्यवहार के साथ जुड़ी हुई है।

संदर्भ सूची:

1. JaganMohan, M. (2020). Travel and tourism industry in India, statistics and facts. <https://www.statista.com/topics/2076/travel-and-tourism-industry-in-india/>
2. Jan Saahas Survey. (2020). Lockdown is only the beginning of misery for India's migrant labourers. Quartz.com. National Investment Promotion and Facilitation Agency. (2020).



3. Invest India. <https://www.investindia.gov.in/sector/> Oswal, M. (2020, March 26). With 75% economy under lockdown, analysts see sharp fall in GDP. Business Standard. https://www.business-standard.com/article/economy-policy/with-75-economy-under-lockdown-analysts-see-sharp-fall-in-gdp-120032600231_1.html
4. Radhika Pandey, A. P. (2020). Covid-19 and MSMEs: The 'identification' problem. Ideas for India for More Evidence Based Policy. <https://www.ideasforindia.in/topics/macroeconomics/covid-19-and-the-msme-sector-the-identification-problem.html> Sonal Verma, A. N. (2020). COVID-19's impact on the world economy. Nomura. The Economist. (2020, February). Apple's Chinese troubles. <https://www.economist.com/business/2020/02/20/>
5. apples-chinese-troubles The Economist. (2020, February 15). The new coronavirus could have a lasting impact on global supply chains. <https://www.economist.com/international/2020/02/15/the-new-coronavirus-could-have-a-lasting-impact-onglobal-supply->
6. The Hindu. (2019). Unemployment rate at 45-year high, confirms Labour Ministry data. United Nations. (2020).
7. Economic and social survey of Asia and the Pacific. Economic and Social Commission for Asia and the Pacific Decade of Action (ESCAP) retail-e-commerce

Disclaimer/Publisher's Note: The statements, opinions, and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of TJSD and/or the editor(s). The Journal of Scientific Discourse (TJSD) and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.

भारतीय कृषि में बौद्धिक संपदा अधिकार की आवश्यकता एवं चुनौतियाँ

बलराम सिंगोतिया

अर्थशास्त्र विभाग, प्रधानमंत्री कॉलेज ऑफ एकसीलेंस शासकीय स्वशासी स्नातकोत्तर महाविद्यालय
छिन्दवाडा (म.प्र) भारत

Email: balramsingotia@gmail.com

शोध सारांश: भारतीय अर्थव्यवस्था में पारंपरिक कृषि में बौद्धिक संपदा अधिकारों की भूमिका अधिक नहीं रही है। परंतु वर्तमान में आधुनिक कृषि विकास एवं नवीन कृषि तकनीकों, अनुसंधान और विकास हेतु कृषि में बढ़ता निवेश ने कृषि को एक उद्योग के रूप में विकसित किया है। प्रस्तुत शोध पत्र में भारत में कृषि के क्षेत्र में हो रहे नवाचारों पर बौद्धिक संपदा अधिकारों की वर्तमान स्थिति का अवलोकन और उसके प्रभावों का विश्लेषण करने का एक प्रयास है। इस शोध पत्र में भारतीय कृषि में विभिन्न फसलों की खेती में वर्तमान नवाचारों की पहचान करने के लिए पेटेंटिंग गतिविधि की जांच की गई है। स्वीकृत पेटेंट के मामले में, अधिकांश पेटेंट पौधे की वृद्धि के क्षेत्र से संबंधित हैं। यह शोध कार्य पेटेंट पोर्टफोलियो की विशिष्टताओं और कृषि इंजीनियरिंग क्षेत्र में भविष्य के नवाचारों को पता लगाता है। यह अध्ययन इन उद्देश्यों पर आधारित है कि विकासशील देशों में उभरती और विकसित हो रही आईपीआर व्यवस्थाएं एवं कानून कृषि उत्पादकता को बढ़ाने में योगदान देंगी। यह शोध कार्य फसल आनुवंशिक सुधार में निजी निवेश और कृषि उत्पादकता पर आईपीआर के प्रभावों का पता लगाने का प्रयास करता है। हालाँकि यह शोध कार्य भारतीय कृषि अर्थव्यवस्था में नवीन तकनीक विकसित करने के लिए मौजूदा बौद्धिक संपदा अधिकारों और कानून को बढ़ावा देने की संभावना का विश्लेषण करता है। इस बात पर ध्यान केंद्रित किया गया है कि क्या भारत में कृषि उत्पादन को बढ़ाने के लिए आईपीआर व्यवस्था एक मॉडल के रूप में एकल प्रणाली है। यह शोध कार्य द्वितीयक समकों पर आधारित है। बौद्धिक संपदा कई मायनों में अचल संपत्ति का पर्याय है। हालाँकि, रियल एस्टेट के तरह बौद्धिक संपदा मूर्त नहीं है। क्योंकि यह एक मात्र मानसिक विचार या आविष्कार है। फिर भी इसे किसी भी संपत्ति की तरह, लाइसेंस प्राप्त बौद्धिक संपदा का भी क्रय-विक्रय या किराए पर दिया जा सकता है। पेटेंट, कॉपीराइट, व्यापार और ट्रेडमार्क के कानूनी तंत्र का उपयोग ऐसी अमूर्त संपत्ति की रक्षा के लिए किया जाता है। इसलिए इन अधिकारों की बुनियादी समझ ऐसे प्रत्येक व्यक्ति के लिए आवश्यक है जिनका शोध कार्य किसी आविष्कार में परिवर्तित हो सकता है। इन्हें तथ्यों को जानने एवं इनका विश्लेषण करके आवश्यक सुझाव प्रस्तुत करने हेतु यह शोध कार्य किया गया है।

बीज शब्द: बौद्धिक संपदा अधिकार की अवधारणा, कृषि उत्पादन व कृषि नवाचार पर प्रभाव, कृषि में बौद्धिक संपदा अधिकारों की आवश्यकता, पौध संरक्षण कानून, कृषि में आईपीआर की चुनौतियाँ।

प्रस्तावना: भारतीय कृषि में बौद्धिक संपदा अधिकार का उपयोग कृषि क्षेत्र में उत्पादित वस्तुओं या सेवाओं की सुरक्षा के लिए किया जाता है। यह मुख्य रूप से पेटेंट, प्लांट ब्रीडर के अधिकार, ट्रेडमार्क, भौगोलिक संकेत और व्यापार तथ्यों से संबंधित है। भारत में पेटेंट अधिनियम 1970 और उसके बाद के संशोधनों ने कृषि उपकरणों और मशीनरी या कृषि रसायनों के विकास की प्रक्रियाओं के लिए पेटेंट प्रदान किए जाते हैं। सन् 2005 तक केवल रासायनिक प्रक्रियाओं द्वारा तैयार पदार्थों से संबंधित विधि आविष्कार ही पेटेंट के पात्र थे। भारत सरकार ने 2001 में पौध किस्मों और किसानों के अधिकारों का संरक्षण (पीपीवी और एफआर) अधिनियम पारित किया। यह पौधों की किस्मों पर दुनिया का एकमात्र आईपीआर कानून बन गया, जिसने पारंपरिक भूमि प्रजातियों को बनाए रखने वाले किसानों के साथ-साथ प्रजनकों के अधिकारों को मान्यता दी देकर संरक्षण प्रदान किया। इस अधिनियम के तहत स्थापित पीपीवी और एफआर प्राधिकरण 2005 वास्तविक रूप के क्रियाशील हुआ। पी.पी.वी.एंड.एफ.आर.

अधिनियम किसानों को संरक्षित किस्म के बीज सहित अपनी उपज को संरक्षित करने उपयोग करने, बुवाई, पुनः बुवाई, विनिमय करने या बेचने का अधिकार देता है। इस अधिकार का उपयोग किसान तब करता है जबकि वह वाणिज्यिक उद्देश्यों के लिए अपने उपज की किस्म ब्रांडिंग या पैकेजिंग को अपनाता है। इसके साथ ही किसानों को अपनी संरक्षित किस्मों के वाणिज्यिक उत्पादन, बिक्री, विपणन, वितरण और निर्यात के लिए विशेष अधिकार प्राप्त हैं। इसके अलावा, कोई भी पौधा प्रजनक या शोधकर्ता प्रयोग और शोध करने के लिए पंजीकृत किस्म का उपयोग कर सकता है अथवा किसी अन्य किस्म को विकसित करने के उद्देश्य से आनुवंशिक सामग्री (जनक) के मूल स्रोत के रूप में उपयोग कर सकता है। भारतीय कृषि के संदर्भ में बौद्धिक संपदा अधिकार को लागू करने में अनेकों चुनौतियों का सामना करना पड़ रहा है। सीमांत एवं लघु किसानों का अशिक्षित होना एवं नवाचारों व अनुसंधान को न अपनाना बड़ी चुनौती है। इस श्रेणी के किसान अनेकों पौध व फसलों का उत्पादन मूल से करते हैं। जिनका उचित भंडारण के अभाव में कम कीमत में विक्रय के लिए मजबूर होते हैं। इन किसानों के द्वारा अपने मूल फसल व पौध के वाणिज्यिक उद्देश्य हेतु किस्म की ब्रांडिंग व पैकेजिंग न होने के कारण पेटेंट नहीं हो पाता है। जिससे अधिकांश भारतीय किसान विभिन्न फसलों के मूल उत्पादक होने के बावजूद भी बौद्धिक संपदा अधिकार को हासिल नहीं कर पाते हैं।

अतः इस शोध पत्र में शोधकर्ता के द्वारा भारतीय कृषि में विभिन्न फसलों की खेती में वर्तमान नवाचारों की पहचान करने के लिए पेटेंटिंग गतिविधि की जांच, पेटेंट पोर्टफोलियो की विशिष्टताओं और कृषि इंजीनियरिंग क्षेत्र में भविष्य के नवाचारों को पता लगाना है। साथ ही इस शोध अध्ययन का उद्देश्य भारतीय कृषि अर्थव्यवस्था में उभरती और विकसित हो रही आईपीआर व्यवस्थाएं एवं कानून और कृषि उत्पादकता में वृद्धि का विप्लेशन करना है। यह शोध कार्य द्वितीयक समकों पर आधारित है। यह शोध कार्य भारतीय कृषि में विद्यमान विभिन्न चुनौतियों और बौद्धिक संपदा अधिकारों का अध्ययन एवं विश्लेषण करके आवश्यक सुझाव प्रस्तुत करने हेतु किया गया है।

बौद्धिक संपदा अधिकार की अवधारणा: भारत में सर्वप्रथम वर्ष 1911 में भारतीय पेटेंट और डिजाइन अधिनियम बनाया गया था। पुनः स्वतंत्रता के बाद 1970 में पेटेंट अधिनियम बना और इसे वर्ष 1972 से लागू किया गया। इस अधिनियम में पेटेंट संशोधन अधिनियम 2002 और पेटेंट संशोधन अधिनियम 2005 द्वारा संशोधन किये गए। वर्ष 2005 से भारत ने दवाओं पर भी पेटेंट देना शुरू कर दिया। भारत में पेटेंट प्रणाली का प्रशासन, पेटेंट डिजाइन, ट्रेडमार्क्स और भौगोलिक संकेतक महानियंत्रक के अधीन होता है। भारतीय पेटेंट कार्यालय का मुख्यालय कोलकाता में है।

व्यक्तियों को उनके बौद्धिक सृजन के परिप्रेक्ष्य में प्रदान किये जाने वाले अधिकार ही बौद्धिक संपदा अधिकार कहलाते हैं। वस्तुतः ऐसा समझा जाता है कि यदि कोई व्यक्ति किसी प्रकार का बौद्धिक सृजन जैसे साहित्यिक कृति की रचनाएँ शोध, आविष्कार आदि करता है तो सर्वप्रथम इस पर उसी व्यक्ति का अनन्य अधिकार होना चाहिये। चूँकि यह अधिकार बौद्धिक सृजन के लिये ही दिया जाता है इसलिए इसे बौद्धिक संपदा अधिकार कहा जाता है। बौद्धिक संपदा से अभिप्राय है नैतिक और वाणिज्यिक रूप से मूल्यवान बौद्धिक सृजन है। बौद्धिक संपदा अधिकार प्रदान किये जाने का यह अर्थ नहीं है कि अमुक बौद्धिक सृजन पर केवल और केवल उसके सृजनकर्ता का सदा-सर्वदा के लिये अधिकार हो जाएगा। बल्कि बौद्धिक संपदा अधिकार एक निश्चित समयावधि और एक निर्धारित भौगोलिक क्षेत्र को ध्यान में रखते हुए प्रदान किये जाते हैं। बौद्धिक संपदा अधिकार दिये जाने का मूल उद्देश्य मानवीय बौद्धिक सृजनशीलता को प्रोत्साहन देना है। बौद्धिक संपदा अधिकारों का क्षेत्र व्यापक होने के कारण यह आवश्यक समझा गया कि क्षेत्र विशेष के लिये उसके संगत अधिकारों एवं सम्बद्ध

नियमों आदि की व्यवस्था की जाए। इस आधार पर इन अधिकारों को कॉपीराइट, पेटेंट, ट्रेडमार्क, औद्योगिक डिज़ाइन और भौगोलिक संकेतक में वर्गीकृत किया जा सकता है।

बौद्धिक संपदा अधिकार का कृषि उत्पादन व कृषि नवाचार पर प्रभाव: कृषि क्षेत्र में नवाचार को अपनाने से कृषि उत्पादकता में वृद्धि होती है। कृषि नवाचारों में मनुष्यों और पशुओं के लिए स्वस्थ, सुरक्षित और अधिक पौष्टिक भोजन विकसित करना शामिल है, जैसे—आनुवंशिक रूप से संशोधित बीज, नई प्रजनन तकनीकें आदि। हालाँकि इस अधिनियम में कुछ ऐसे संरक्षण हैं जो व्यापारियों को कृषि किस्मों को चुराने और घटिया बीज विकसित करने में मदद करते हैं जिसके परिणामस्वरूप किसानों की फसल बर्बाद हो जाती है। हाल के दशकों में कृषि क्षेत्र में अधिकांशतः फसलों में लाभकारी गुणों के हस्तांतरण होने से उल्लेखनीय प्रगति हुई है। जिन फसलों की बीमारियों, सूखे और कीटों के कारण विलुप्त होने की संभावना थी, वह प्रतिरोधी बीज किस्मों की मदद से अधिक उपज दे रही हैं। भारत जैसे विकासशील देशों के किसानों के द्वारा कृषि नवाचार को अपनाने से गरीबी व कुपोषण में कमी, खाद्य सुरक्षा और रोग नियंत्रण करने में सफलता हासिल हुई है।

वर्तमान में कृषि नवाचार को किसान, शोधकर्ता, निजी व्यवसायी, सलाहकार, गैर—सरकारी संगठन (एनजीओ), उपभोक्ता और कई अन्य लोग कृषि नवाचारों का मार्गदर्शन, समर्थन, निर्माण, हस्तांतरण कर रहे हैं। साथ ही किसानों और आम जनता को कृषि नवाचार के बारे में सलाह और जानकारी भी देते हैं। भारत में पिछले कुछ दशकों में कृषि नवाचार के लिए बौद्धिक संपदा संरक्षण का महत्व बढ़ा है। भले ही नवाचार में निवेश आर्थिक विकास के प्राथमिक घटकों में से एक है। परंतु कृषि अनुसंधान और विकास सहित अभिनव परियोजनाओं को वित्तपोषित करने में सरकारें विवश हैं। फसल नवाचार में मुख्यतः पाँच चरण शामिल हैं— खोज, अवधारणा का प्रमाण, प्रारंभिक विकास, उन्नत विकास और प्री—लॉन्च। जिसमें व्यावसायिक रूप से व्यवहार्य बीज विकसित करने में 10—15 साल की समय अवधि लगती है। इसलिए पेटेंट संरक्षण और विनियामक अनुपालन निवेशकों को नवाचार में दीर्घकालिक निवेश करने की अनुमति देता है। परिणामस्वरूप विदेशी प्रत्यक्ष निवेश (एफडीआई), प्रौद्योगिकी हस्तांतरण, व्यापार, आनुवंशिक संसाधनों तक पहुँच और पारंपरिक ज्ञान की सुरक्षा सहित कृषि विकास का समर्थन करने के लिए आईपी अधिकारों पर अधिक ध्यान दिया गया है। इसके अलावा बौद्धिक संपदा अधिकारों ने मुख्य रूप से जीनोमिक्स अनुसंधान को बढ़ाने में सक्षम बनाया है। शोधकर्ता फसलों की जीन अभिव्यक्ति और कृषि संबंधी महत्वपूर्ण लक्षणों के साथ उनके संबंधों को पहचानने, मानचित्र बनाने और समझने के लिए उन्नत जीनोमिक्स का उपयोग कर रहे हैं।

आईपी अधिकार कंपनियों को निवेशकों को आकर्षित करने और विकास लागतों की भरपाई करने तथा आगे के अनुसंधान एवं विकास में निवेश करने के लिए आवश्यक रिटर्न उत्पन्न करने में महत्वपूर्ण भूमिका निभाते हैं। आईपी अधिकारों की कमी इनोवेटर्स को किसी तकनीक में इतनी बड़ी राशि निवेश करने से हतोत्साहित करती है। प्रजनकों के आईपी अधिकारों की रक्षा करने और किसानों तथा पूरे पारिस्थितिकी तंत्र को लाभ पहुँचाने के लिए प्रौद्योगिकी प्रवाह की अनुमति देने के बीच संतुलन को लागू किया जाना चाहिए। यह तभी संभव हो सकता है जबकि कृषि क्षेत्र में धोखा या मिलावटी गतिविधियों के लिए सख्त कार्रवाई की जाए। जो न केवल तकनीक को बल्कि उन किसानों को भी नुकसान पहुँचा सकती है जो फसल विफलता के प्रति संवेदनशील हैं।

कृषि में बौद्धिक संपदा अधिकारों की आवश्यकता: प्रारंभ में, कृषि क्षेत्र में बौद्धिक संपदा कानून लागू नहीं होता था। वर्तमान में कृषि को एक ऐसे उद्योग के रूप में देखा जाता है। जहां निवेश आकर्षित करने के लिए अनुसंधान और विकास अत्यंत महत्वपूर्ण चरण है। इसलिए बौद्धिक संपदा अधिकार धीरे—धीरे कृषि तक भी विस्तारित हो रहे हैं। इससे पहले के पेटेंट कानून किसी भी देश में पौधों,

कृषि उपज, कृषि या बागवानी पद्धतियों से संबंधित आविष्कारों को संरक्षण प्रदान नहीं करते थे। सन् 1930 संयुक्त राज्य अमेरिका (यूएस) में वनस्पति प्रचारित सामग्रियों के लिए पादप पेटेंट अधिनियम, 1930 द्वारा एक विशेष प्रकार का पेटेंट पेश किया गया। 1970 से पूर्व पौधों को पेटेंट संरक्षण देने से आमतौर पर इनकार कर दिया जाता था, क्योंकि पौधों का आविष्कार पेटेंट योग्यता की वैधानिक आवश्यकताओं के अनुरूप नहीं होता था। पादप प्रजनकों के उत्पादों को पेटेंट संरक्षण नहीं दिया जाता था। ऐसा माना जाता था कि यह किसी आविष्कारशील प्रक्रिया का परिणाम नहीं है। इसमें रचनात्मकता का अभाव था, जो पेटेंट देने के लिए मुख्य आवश्यकता होती है। इन्हें प्रकृति का उत्पाद माना जाता था जिसमें मानव का मामूली हस्तक्षेप होता है। इसके अलावा, कृषि उत्पादों के लिए बौद्धिक संपदा अधिकार संरक्षण भी रोक दिया गया क्योंकि यह माना गया कि कृषि उत्पादों में औद्योगिक प्रयोज्यता का अभाव है। 20वीं सदी के पूर्व तक अमेरिका और यूरोप में कृषि व्यावसायिक रूप से कम महत्वपूर्ण हो गयी। इस प्रकार, सरकारों ने कृषि के विकास में अपना योगदान कम कर दिया तथा किसानों को बीज वितरित करना बंद कर दिया। इसके परिणामस्वरूप निजी बीज उद्योगों का विकास हुआ। यह वृद्धि बीजों की विशेषता के कारण कम हो गई, जिन्हें एक बार खरीदने के बाद, कई पीढ़ियों तक किसानों द्वारा पुनः उपयोग में लाया जा सकता था। इस अवसर के परिणामस्वरूप पौधों की किस्मों के लिए कानूनी सुरक्षा की शुरुआत हुई थी।

पौधों की नवीन किस्मों को कई वर्षों तक गुणों की चयनात्मक विरासत के बाद उगाया जाता है, जिससे बेहतर पैदावार, बेहतर गुणवत्ता और ऐसे पौधों की किस्मों की प्रतिरोधक क्षमता में वृद्धि होती है। इससे विश्व के विभिन्न क्षेत्रों में कृषि उत्पादकता में वृद्धि हुई थी। चूंकि पौधों के प्रजनन की प्रक्रिया लंबी और महंगी है, इसलिए जब तक समय और श्रम में निवेश के लिए प्रोत्साहन का अवसर न मिले, तब तक प्रजनन प्रयासों को जारी रखना असंभव है। इससे कृषि क्षेत्र में पौधों के प्रजनन और नवाचार के लिए कानूनी संरक्षण आवश्यक हो गया। कृषि उत्पादों के लिए भौगोलिक संकेत (जीआई) के महत्व को इस तथ्य से समझा जा सकता है कि कई कृषि उत्पाद जैसे चाय, संतरे, केले, चावल, गेहूं, कॉफी आदि की कुछ किस्में उस क्षेत्र से जुड़ी होती हैं जिसमें वे उगाई जाती हैं। प्रतिस्पर्धी कृषि खाद्य बाजार में, जीआई-लेबल अधिक स्थानीय, वास्तविक और उच्च गुणवत्ता वाले खाद्य उत्पादों को सुनिश्चित कर सकता है। इससे किसानों को अपने उत्पादों का विपणन करने और अधिक लाभ कमाने का अवसर भी मिलता है। कृषि उत्पादों के लिए भौगोलिक संकेत से स्थानीय अर्थव्यवस्था को भी बढ़ावा मिलने की संभावना है। कृषि क्षेत्र में विभिन्न प्रकार के बौद्धिक संपदा अधिकार हैं जिनका उपयोग बौद्धिक संपदा की सुरक्षा के लिए किया जा सकता है। वे इस प्रकार हैं—

- पादप प्रजनक और किसानों के अधिकार
- भौगोलिक संकेत
- कृषि उत्पादों पर ट्रेडमार्क
- कृषि उत्पादों के व्यापार रहस्य
- जैविक विविधता के अधिकार

भारत में पौध संरक्षण कानून: भारत में पौध किस्म संरक्षण योजना के प्रारंभ का कारण विश्व व्यापार संगठन के सभी सदस्य देशों पर, विशेष रूप से ट्रिप्स समझौते के अनुच्छेद 27.3 (इ) में पौध किस्मों के मामले में बौद्धिक संपदा के लिए किसी प्रकार के संरक्षण का दायित्व निर्धारित किया जाना था। व्यावसायिक प्रजनकों, किसानों और खाद्य सुरक्षा को बढ़ावा देने के दृष्टिकोण से भी पौध किस्म गुण (पीवीपी) को महत्वपूर्ण माना गया। इसके परिणामस्वरूप पौधा किस्म और कृषक अधिकार संरक्षण

अधिनियम, 2001 पारित हुआ, जिसकी चर्चा हम इस लेख में आगे भारत में कृषि वस्तुओं और किस्मों की सुरक्षा करने वाले अन्य कानूनों के साथ करेंगे।

पौधे की किस्म और कृषक अधिकार संरक्षण अधिनियम, 2001 के तहत पादप प्रजनकों एवं किसानों के अधिकार: पौधे की किस्म और कृषक अधिकार संरक्षण अधिनियम 2001 की धारा 28(1) के अनुसार, पंजीकृत पौधा किस्म के प्रजनक को उस किस्म का उत्पादन, विक्रय, विपणन, वितरण, आयात या निर्यात करने का विशेष अधिकार प्राप्त है। प्रजनक को इस अधिनियम के तहत पंजीकृत किस्म के उत्पादन, बिक्री, विपणन या अन्यथा लेनदेन के लिए किसी भी व्यक्ति को अधिकृत करने का विशेषाधिकार भी प्राप्त है। इसी तरह उन किसानों को भी धारा 39 के तहत कुछ अधिकार प्रदान किये गये हैं जो पौधों की नई किस्मों का प्रजनन करते हैं। वे इस प्रकार हैं—

1. वह किसान जिसने कोई नई किस्म विकसित की है या उसका प्रजनन किया है, वह इस अधिनियम के अंतर्गत किस्म के प्रजनक के समान पंजीकरण और अन्य सुरक्षा उपायों के लिए पात्र होगा।
2. यदि आवेदन में अधिनियम की धारा 18(1) में उल्लिखित घोषणाएं शामिल हैं तो किसान की किस्म पंजीकरण के लिए पात्र होगी।
3. वह किसान जो भूमि प्रजातियों और फसल पौधों की जंगली किस्मों के संरक्षण और चयन द्वारा उनके विकास में शामिल है, वह जीन निधि से मान्यता और प्रोत्साहन के लिए निर्धारित प्रपत्र में पात्र होगा।
4. इस अधिनियम के प्रभावी होने से पहले किसान को अपने कृषि उत्पादों के साथ-साथ इस अधिनियम में संरक्षित किसी किस्म के बीज को भी उसी प्रकार संरक्षित करने, उपयोग करने, बोनो, विनिमय करने, विपणन के लिए योग्य माना जाएगा।

कृषि में बौद्धिक संपदा अधिकारों की चुनौतियाँ: भारत में कृषि क्षेत्र में बौद्धिक संपदा अधिकार के अनुप्रयोग में कई चुनौतियों का सामना करना पड़ रहा है। बौद्धिक संपदा अधिकारों का भारतीय कृषि क्षेत्र में प्रौद्योगिकी के विकास और उसके हस्तांतरण में संलग्न किसानों, शोधकर्ताओं और संगठनों पर कई प्रभाव दिखायी दे रहे हैं। प्रौद्योगिकी विकास और हस्तांतरण के कारण प्रौद्योगिकी के प्रसार और खाद्य सुरक्षा में नैतिकता की कुछ चुनौतियां उजागर हुई हैं। भारत में लगभग 60 प्रतिषत आबादी कृषि व कृषि आधारित गतिविधियों में संलग्न है। इसलिए मुख्य चुनौती यह है कि क्या बौद्धिक संपदा अनुसंधान को कृषि से जोड़ा जाना चाहिए। कृषि में बौद्धिक संपदा अधिकार से संबंधित चुनौतियों का समाधान राष्ट्रीय और अंतर्राष्ट्रीय दोनों स्तरों पर विधि निर्माताओं द्वारा किया जाना चाहिए। आनुवांशिक विशेषताओं की आनुवांशिकता विभिन्न प्रजातियों में भिन्न होती है, उदाहरण के लिए, पर-परागण वाली प्रजातियों में प्राकृतिक बाह्य-संकरण के परिणामस्वरूप आनुवांशिक शुद्धता की हानि होती है। इसके अलावा, आनुवांशिक जानकारी आर्थिक रूप से तभी व्यवहार्य है जब तकनीकी मिश्रण भी उपलब्ध हो। पादप प्रजनक अपने अनुसंधान निवेश से लाभ कमाने के लिए उत्साहित होते हैं। अधिक उपज देने वाली किस्मों की अत्यधिक लागत के कारण प्रजनक अपना निवेश वापस पाने में असमर्थ हैं। इसलिए भारतीय किसान इन प्रौद्योगिकियों को अपनाने में झिझक रहे हैं। आईपीआर आम तौर पर किसानों की इन किस्मों के बीजों को दोबारा लगाने, उनका आदान-प्रदान करने या उनका व्यापार करने की क्षमता पर प्रतिबंध लगाता है। क्योंकि बीज उद्योग को बेहतर वित्त पोषण की आवश्यकता है।

कृषि में बौद्धिक संपदा अधिकारों उद्देश्य यह सुनिश्चित करना होना चाहिए कि अनुसंधान गरीब किसानों की आवश्यकताओं के अनुरूप हो। सार्वजनिक क्षेत्र की किस्मों को निजी क्षेत्र की किस्मों के साथ प्रतिस्पर्धा करने में सक्षम बनाना होगा। राष्ट्रों को निजी क्षेत्र के उच्च संकेन्द्रण से निपटने के



लिए प्रतिस्पर्धा कानून का उपयोग करने पर विचार करना चाहिए। बौद्धिक संपदा अधिकार संरक्षण से कृषि प्रौद्योगिकी के प्रसार की दर कम हो सकती है। बाधाओं का प्रसार अनिश्चितता, जोखिम और नई प्रौद्योगिकी के बारे में जागरूकता की कमी के कारण है। इन मामलों में, तकनीकी जटिलता या नवीनता की सीमा भी प्रसार की कमी का कारण हो सकती है। कृषि एवं संबद्ध उद्योगों में निजी क्षेत्र की कंपनियों के प्रभुत्व की चुनौतियां व्याप्त हैं। किसानों के बीच उनके द्वारा विकसित की जाने वाली फसलों और किस्मों पर उनके बौद्धिक संपदा अधिकारों के बारे में जागरूकता पैदा करना महत्वपूर्ण है। कृषि में नई तकनीक का उपयोग तभी सुविधाजनक होगा जब किसानों को आधुनिक तकनीक के बारे में पर्याप्त जानकारी होगी।

निष्कर्ष: विश्व की 50 प्रतिशत से अधिक जनसंख्या अपनी आजीविका के लिए कृषि और उससे संबंधित गतिविधियों पर निर्भर है। बौद्धिक संपदा अधिकारों और कृषि में नवीन विचारों की सुरक्षा के महत्व को राष्ट्रीय और अंतर्राष्ट्रीय स्तर पर महसूस किया गया है। हालाँकि, किसानों के अधिकारों के साथ-साथ सामुदायिक अधिकारों और जैविक विविधता के संरक्षण के अपर्याप्त कानून के बीच विवाद से कृषि और वैश्विक खाद्य सुरक्षा पर प्रतिकूल प्रभाव पड़ सकता है। निष्कर्षतः यह कहा जा सकता है कि भारत में बौद्धिक संपदा अधिकार व्यवस्था में कानून निर्माण और कानूनों के कार्यान्वयन में सुधार की काफी आवश्यकता है। वर्तमान में नीति निर्माता बौद्धिक संपदा अधिकार कानूनों में इस प्रकार संशोधन करें कि इससे किसानों, वैज्ञानिकों के हितों की पर्याप्त संरक्षण प्राप्त हो सके तथा समाज के बड़े वर्ग के हितों की भी रक्षा हो सके। कृषि में बौद्धिक संपदा अधिकार कानून को प्रवर्तन, लाभ साझाकरण, समानता और न्याय में सुधार के तरीकों के अनुरूप होना चाहिए। इससे भारतीय किसानों को अपनी उपज/पौध किस्मों का उचित संरक्षण होगा। किसानों को इस प्रकार का संरक्षण प्राप्त होने से वह कृषि और उससे संबंधित गतिविधियों को संपन्न करने में कुशल होगा।

संदर्भ सूची:

1. Kumar, P. (2020). Intellectual property rights of farmers in India: issues and challenges. *Journal of Intellectual Property Rights*, 25(3), 171-180.
2. Parayil, G. (2013). Intellectual property rights and traditional knowledge in agriculture: towards a dynamic and transformative approach to biodiversity conservation. *Journal of international development*, 25(4), 502-516.
3. Misra, B. (2019). PepsiCo's legal suit against farmers is an example of how not to conduct IPR business in India. *The Economic Times*.
4. Reddy, R. K. (2019). Farmers' Rights in India. *Economic and Political Weekly*, 54(43), 11-13.
5. The Protection of Plant Varieties and Farmers' Rights Act, 2001, Government of India
6. PepsiCo India Holdings Pvt. Ltd. v. Potato Growers & Merchants Association & Ors, Delhi High Court, 2019 (CS(COMM) 383/2019).
7. The Protection of Plant Varieties and Farmers' Rights Act, 2001, Government of India.
8. Shiva, V. (2019). PepsiCo's Lawsuit Against Indian Farmers Sets Dangerous Precedent. *The Guardian*.
9. <http://nbaindia.org/uploaded/docs/biological-diversityact-ii.pdf>
10. <http://nbaindia.org/uploaded/Biodiversityindia/Legal/30.%20PPVFR%20Act%202001.pdf>
11. <https://plantauthority.gov.in/sites/default/files/gbrochurenewenglish.pdf>
12. https://www.serialsjournals.com/abstract/13589_23.pdf
13. <https://icar.gov.in/sites/default/files/2024-03/Geographical-Indications-of-Plant-Species-in-ITKs-in-Agriculture.pdf>



14. <https://nopr.niscpr.res.in/bitstream/123456789/11571/1/JIPR%2016%282%29%20131-138.pdf#:~:text=Traditionally%2C%20IPR%20was%20not%20applied%20to%20agriculture.%20In,in%20all%20its%20forms%20be%20extended%20to%20agriculture.>
15. <https://nopr.niscpr.res.in/bitstream/123456789/33192/1/JIPR%2020%285%29%20288-296.pdf>
16. <https://shorturl.at/9myjA>
17. <https://hau.ac.in/public/pages-pdf/1548828324.pdf>
18. <https://justagriculture.in/files/newsletter/2022/october/03.%20Role%20of%20Intellectual%20Property%20Rights%20in%20Agriculture.pdf>

Disclaimer/Publisher's Note: The statements, opinions, and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of TJSD and/or the editor(s). The Journal of Scientific Discourse (TJSD) and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.

हापुड़ जिले में कृषि सब्सिडी एवं उत्पादकता: आर्थिक प्रभाव, चुनौतियाँ और संभावित समाधान

रश्मि

सहायक प्राध्यापक, अर्थशास्त्र विभाग, शासकीय स्नातकोत्तर महाविद्यालय दतिया-475661, (म.प्र.)

Email: ssrashmisingh@gmail.com

शोध सारांश: कृषि भारत के आर्थिक ढांचे में महत्वपूर्ण भूमिका निभाती है और भारतीय अर्थव्यवस्था के लिए एक महत्वपूर्ण स्रोत है। कृषि से जुड़े लोगों को रोजगार में योगदान करने का मौका मिलता है। सब्सिडी के माध्यम से सरकार ने कृषि क्षेत्र को समर्थन प्रदान किया है, जिसमें इनपुट सब्सिडी, क्रेडिट सब्सिडी, प्रौद्योगिकी सब्सिडी, सिंचाई सब्सिडी और बीमा सब्सिडी शामिल हैं। ये सब्सिडी उत्तर प्रदेश जैसे प्रमुख कृषि राज्यों में भी महत्वपूर्ण भूमिका निभाती हैं। उत्तर प्रदेश के हापुड़ जिले का कृषि में महत्वपूर्ण स्थान है, खासकर गन्ने की खेती के माध्यम से। इस जिले का कृषि कौशल और अनुकूल जलवायु कृषि को बढ़ावा देने में महत्वपूर्ण योगदान किया जाता है।

प्रस्तुत आलेख में हापुड़ जिले की प्रमुख फसलें एवं भारतीय तथा स्थानीय अर्थव्यवस्था पर उनके प्रभावों का अध्ययन किया गया है। भारतीय कृषि में किन चुनौतियों का सामना करना पड़ता है, कृषकों को सब्सिडी प्रदान करने में आने वाली चुनौतियाँ एवं उनके संभावित समाधानों का इस शोध पत्र में उल्लेख किया गया है।

बीज शब्द : कृषि सब्सिडी, उत्पादकता, नवाचार, प्रबंधन, अर्थव्यवस्था, प्रौद्योगिकी।

परिचय: भारत के आर्थिक ढांचे में कृषि की भूमिका को नकारा नहीं जा सकता। आर्थिक सर्वेक्षण (2018-2019) के अनुसार, वानिकी और मछली पकड़ने सहित कृषि ने भारत के सकल मूल्य वर्धित (जीवीए) में लगभग 16.5 प्रतिशत का योगदान दिया। रोजगार के आंकड़े कृषि के महत्व को बढ़ाते हैं। राष्ट्रीय नमूना सर्वेक्षण कार्यालय (एनएसएसओ) के आंकड़ों से पता चलता है कि 2018 में, भारत के लगभग 43.2 प्रतिशत कार्यबल कृषि गतिविधियों में लगे हुए थे। हालांकि, द्वितीयक और तृतीयक क्षेत्रों की ओर अधिक लोगों के जाने के साथ धीरे-धीरे बदलाव हो रहा है। फिर भी, कृषि ग्रामीण आबादी के एक महत्वपूर्ण हिस्से के लिए आजीविका का एक प्राथमिक स्रोत बनी हुई है (दांडेकर, 2016)।

भारतीय अर्थव्यवस्था को बढ़ावा देने के लिए परिभाषित लक्ष्यों के साथ एकीकृत उत्पादन कार्यक्रम और अन्य उपायों के साथ एक उचित वितरण कार्यक्रम अपनाया गया। नई तकनीकों जिसमें उच्च उपज देने वाली किस्में, सुनिश्चित सिंचाई, रासायनिक उर्वरक, कीटनाशक, और देश में खाद्य उत्पादन बढ़ाने के लिए मशीनरी का उपयोग किया गया। लेकिन, आधुनिक तकनीक में आदान बहुत महंगे हैं, और भारतीय किसान गरीब होने के कारण इन महंगे आदानों को खरीदने की स्थिति में नहीं हैं। इसलिए, खाद्यान्न मूल्य समिति (ज्ञा समिति, 1964) की सिफारिशों पर, भारत सरकार ने किसानों की सुविधा के लिए विभिन्न कृषि आदानों की खरीद पर सब्सिडी की योजना शुरू की (सिंह, 1994)। कृषि आदान सब्सिडी का उपयोग लंबे समय से छोटे किसानों के लिए आदानों के उपयोग को बढ़ावा देने, मजदूरी बढ़ाने, खाद्य कीमतों को कम करने और आर्थिक विकास को बढ़ावा देने के लिए किया जाता रहा है। भारत में पिछले कई वर्षों से कृषि को प्रत्यक्ष और अप्रत्यक्ष रूप से सरकार द्वारा सब्सिडी दी जा रही है।

भारतीय कृषि में सब्सिडी की उत्पत्ति और विकास: भारत में कृषि सब्सिडी का पता स्वतंत्रता के बाद के युग से लगाया जा सकता है। सब्सिडी की जड़ें लंबे समय तक औपनिवेशिक शासन के बाद खाद्य

सुरक्षा और आत्मनिर्भरता प्राप्त करने की आवश्यकता में उत्पन्न होती हैं (दंतवाला, 1986)। स्वतंत्रता के तत्काल बाद के वर्षों को कृषि उत्पादकता बढ़ाने के लिए एक अभियान द्वारा चिह्नित किया गया था। सरकार ने उर्वरकों, बीजों और सिंचाई जैसे आदानों पर मूल्य समर्थन और सब्सिडी सहित विभिन्न समर्थन उपायों की शुरुआत की (चांद, 2012)।

1990 के दशक में भारतीय अर्थव्यवस्था के उदारीकरण ने कृषि क्षेत्र में महत्वपूर्ण बदलाव लाए, जिसमें सरकार सब्सिडी प्रदान करने और राजकोषीय विवेक सुनिश्चित करने के बीच संतुलन बनाने की कोशिश कर रही थी (गुलाटी और शर्मा, 1995)।

उत्तर प्रदेश की कृषि में हापुड़ का महत्व: उत्तर प्रदेश को अक्सर भारत के 'भोजन के कटोरे' के रूप में सम्मानित किया जाता है, और इस भव्य गाथा के भीतर, हापुड़ एक सम्मानित स्थान रखता है। यह जिला उत्तर प्रदेश की कृषि अर्थव्यवस्था में लगातार शीर्ष योगदानकर्ता रहा है। धान, गन्ना और गेहूं के खेतों के इसके विशाल खंड राज्य के कृषि ढांचे में इसके महत्व का प्रमाण हैं (कुमार और सिंह, 2010)।

गन्ने की खेती, विशेष रूप से, हापुड़ के कृषि कौशल का आधार रही है। जिले में कई चीनी मिलों की उपस्थिति नकदी फसल के रूप में गन्ने की प्रमुखता को दर्शाती है (यादव, 2014)। इसके अलावा, उन्नत सिंचाई सुविधाओं और अनुकूल जलवायु परिस्थितियों ने हापुड़ को उत्तर प्रदेश में अभिनव और टिकाऊ कृषि प्रथाओं के लिए एक केंद्र बना दिया है। जिला आधुनिक कृषि तकनीकों और प्रथाओं को अपनाने में सबसे आगे रहा है, जो अक्सर राज्य के अन्य जिलों के लिए एक मॉडल के रूप में कार्य करता है (राय, 2016)।

प्रमुख फसलें और उनका आर्थिक प्रभाव: हापुड़ का कृषि परिदृश्य विविध और मजबूत है। इस क्षेत्र में खेती की जाने वाली प्राथमिक फसलें हैं :

1. गन्ना : जैसा कि पहले ही बताया गया है, गन्ना हापुड़ की प्रमुख फसल है। गन्ने की खेती न केवल जिले की आबादी के एक बड़े हिस्से को प्रत्यक्ष रोजगार प्रदान करती है, बल्कि स्थानीय चीनी मिलों को बनाए रखने में भी सहायता करती है। बदले में, चीनी उद्योग का स्थानीय अर्थव्यवस्था पर व्यापक प्रभाव पड़ता है, जो विभिन्न सहायक उद्योगों और व्यापार गतिविधियों का समर्थन करता है (मेहता, 2007)।
2. धान और गेहूं : ये मुख्य अनाज हापुड़ के खाद्यान्न उत्पादन की रीढ़ हैं। उनकी खेती इस क्षेत्र के लिए खाद्य सुरक्षा सुनिश्चित करती है और उत्तर प्रदेश के अनाज भंडार में महत्वपूर्ण योगदान देती है (चोपड़ा और मेहता, 2011)।
3. फल और सब्जियां : अपनी उपजाऊ भूमि के साथ, हापुड़ विभिन्न प्रकार के फलों और सब्जियों की खेती के लिए अनुकूल है। जिला अपने आम के बागों और सब्जियों के खेतों के लिए जाना जाता है, जो टमाटर, आलू और बैंगन जैसी फसलों का उत्पादन करते हैं। ये न केवल स्थानीय खपत को पूरा करते हैं, बल्कि आस-पास के बाजारों, विशेष रूप से दिल्ली में भी निर्यात किए जाते हैं, जिससे किसानों को पर्याप्त राजस्व मिलता है (घोष और त्यागी, 2013)।

हापुड़ की कृषि का संचयी आर्थिक प्रभाव बहुत अधिक है। यह न केवल उत्तर प्रदेश के सकल घरेलू उत्पाद में योगदान देता है, बल्कि यह ग्रामीण रोजगार में भी महत्वपूर्ण भूमिका निभाता है। कृषि क्षेत्र एक बफर के रूप में कार्य करता है, जिले के कार्यबल के एक महत्वपूर्ण हिस्से को अवशोषित करता है और आजीविका सुनिश्चित करता है (श्रीवास्तव, 2015)।

सब्सिडी का आर्थिक प्रभाव: सब्सिडी संभावित रूप से प्रत्यक्ष और अप्रत्यक्ष दोनों तरह के आर्थिक प्रभाव उत्पन्न कर सकती है। कृषि में, प्रत्यक्ष प्रभावों में विकास और स्थान पैटर्न, निवेश और व्यापार पर प्रभाव शामिल है। आर्थिक सिद्धांत भविष्यवाणी करता है कि कृषि सब्सिडी उत्पादन में वृद्धि करेगी, विश्व की कीमतों को कम करेगी, अंतर्राष्ट्रीय बाजार को बाधित करेगी, और आर्थिक दक्षता को कम करेगी।

कृषि सब्सिडी अपस्ट्रीम और डाउनस्ट्रीम दोनों उद्योगों पर अप्रत्यक्ष प्रभाव डाल सकती है, जैसे इनपुट (जैसे कृषि-रसायन) और परिवर्तन (जैसे प्रसंस्कृत भोजन) उद्योग। अपस्ट्रीम और डाउनस्ट्रीम उद्योगों को प्रत्यक्ष सब्सिडी कृषि उत्पादन और व्यापार को भी प्रभावित कर सकती है। उदाहरण के लिए, बीयर्स और बर्ग परिवहन क्षेत्र में उच्चस्तरीय सब्सिडी की ओर इशारा करते हैं, जो वस्तु क्षेत्र में महत्वपूर्ण भूमिका निभाती है। परिवहन सब्सिडी को ध्यान में रखने से कृषि व्यापार पर सब्सिडी का कुल प्रभाव बढ़ जाएगा।

सब्सिडी की विशिष्ट श्रेणियां उनके प्रभाव और अंतर्निहित गतिशीलता बिंदु के आधार पर अलग-अलग आर्थिक प्रभाव उत्पन्न करती हैं। परिणामी वर्गीकरण पांच श्रेणियों से बना है : बाजार मूल्य समर्थन, आउटपुट और इनपुट सब्सिडी, आपूर्ति और भुगतान सीमाएँ और कृषि आधारित भुगतान।

आधुनिक भारतीय कृषि में चुनौतियां

- **छोटे किसान दुविधा और खंडित भूमि जोत :** भारतीय कृषि को पारंपरिक रूप से छोटे पैमाने पर खेती की विशेषता रही है। 21 वीं सदी की शुरुआत में, भारत में किसानों का एक महत्वपूर्ण अनुपात दो हेक्टेयर से कम भूमि पर काम करता है। इस विखंडन की ऐतिहासिक जड़ें हैं, जो विरासत के रीति-रिवाजों से उपजी हैं जहां भूमि पीढ़ियों में उत्तराधिकारियों के बीच विभाजित हो जाती है (चंद, 2011)।
- **जलवायु चुनौतियां और फसल की पैदावार पर उनका प्रभाव :** भारत की कृषि अत्यधिक वर्षा आधारित है, जिसमें मानसून फसल की पैदावार निर्धारित करने में महत्वपूर्ण भूमिका निभाता है। हालांकि, बदलते वैश्विक जलवायु पैटर्न के साथ, मानसून तेजी से अनियमित हो गया है। अनियमित मानसून, बढ़ता तापमान, कीट और रोग का प्रकोप, आदि जलवायु चुनौतियों के लिए खाद्य सुरक्षा सुनिश्चित करने के लिए जलवायु-लचीला फसल किस्मों और अनुकूली कृषि तकनीकों के विकास की आवश्यकता है (कुमार, 2009)।
- **प्रौद्योगिकी और मशीनीकरण की भूमिका :** जबकि प्रौद्योगिकी और मशीनीकरण भारतीय कृषि को बदलने की कुंजी रखते हैं, उन्हें अपनाने के साथ चुनौतियों का एक सेट आता है :
 1. उच्च प्रारंभिक लागत : आधुनिक कृषि उपकरण, जैसे ट्रैक्टर, कंबाइन हार्वेस्टर, और ड्रिप सिंचाई प्रणालियों को महत्वपूर्ण पूंजी निवेश की आवश्यकता होती है, जो अक्सर छोटे किसानों की पहुंच से परे होती है (सिन्हा 2014)।
 2. कौशल अंतराल : नई प्रौद्योगिकियों को अपनाने के लिए प्रशिक्षण की आवश्यकता होती है। पर्याप्त रूप से प्रशिक्षित जनशक्ति की कमी इन प्रौद्योगिकियों के कुशल उपयोग में बाधा डाल सकती है (रविंद्रन, 2015)।
 3. रखरखाव के मुद्दे : परिष्कृत कृषि उपकरण नियमित रखरखाव की मांग करते हैं। उचित सर्विसिंग बुनियादी ढांचे के अभाव में, किसानों को लंबे समय तक डाउनटाइम का सामना करना पड़ सकता है (मिश्रा, 2016)।
 4. स्थिरता संबंधी चिंताएं : मशीनीकरण पर अत्यधिक निर्भरता, विशेष रूप से पंजाब जैसे क्षेत्रों में, ट्यूबवेल के अत्यधिक उपयोग के कारण भूजल की कमी जैसी चिंताओं को जन्म दिया

है। खेती की दीर्घकालिक व्यवहार्यता के लिए टिकाऊ प्रौद्योगिकी को अपनाना महत्वपूर्ण है (कोहली और त्यागी, 2017)।

➤ **कृषि सब्सिडी में आने वाली चुनौतियां:** कृषकों को सब्सिडी प्रदान करने में कुछ चुनौतियां हो सकती हैं, जैसे :

1. **वित्तीय बजट:** सरकार को किसानों के लिए सब्सिडी प्रदान करने के लिए पर्याप्त वित्तीय संसाधन उपलब्ध कराना होता है, और यह बजट समस्याओं का समाधान करने के लिए पर्याप्त होना चाहिए ।
2. **योजना और प्रबंधन:** सब्सिडी प्रदान करने के लिए उचित योजनाएं और प्रबंधन तंत्र तय करना महत्वपूर्ण है ताकि लाभ किसानों तक पहुंच सके ।
3. **विश्वास:** किसानों को सब्सिडी के लिए सरकार की योजनाओं में विश्वास होना चाहिए, ताकि वे उन्हें उपयोग करें और लाभ उठा सकें ।
4. **लाभार्थियों तक पहुंच:** सब्सिडी का दुरुपयोग हो सकता है, इसलिए सिर्फ वास्तविक किसानों तक ही इसका लाभ पहुंचाना चाहिए। किसानों को सब्सिडी की जानकारी नहीं होती, जिसके कारण वे इसका उपयोग नहीं कर पा सकते। सरकार को किसानों को सही जानकारी पहुंचाने के लिए उपाय ढूँढने की आवश्यकता होती है।
5. **सामाजिक प्रभाव:** सब्सिडी के प्रदान करने से समाज में सामाजिक परिवर्तन आ सकता है, जो साहित्यिक और सामाजिक अधिकार को बढ़ावा देने के रूप में हो सकता है।

किसानों को सब्सिडी प्रदान करने के लिए सरकारों को इन चुनौतियों का समाधान ढूँढना होगा ताकि कृषि क्षेत्र में विकास हो सके।

संभावित समाधान: कृषि सब्सिडी में आने वाले चुनौतियों का समाधान करने के लिए कई कदम उठाए जा सकते हैं:

1. **प्रबंधन की बेहतर सुविधा:** कृषि सब्सिडी के वित्तीय प्रबंधन को बेहतर बनाने के लिए तकनीकी उपायों का इस्तेमाल किया जा सकता है। डिजिटल वित्तीय प्रबंधन सिस्टम या मोबाइल ऐप्स का उपयोग करके धन व्यय को ट्रैक करना और बेहतर निगरानी बनाने में मदद कर सकता है।
2. **सहायता का निर्वचन:** किसानों को सहायता की वित्तीय योजनाओं के लिए योग्यता के आधार पर चयन करने के लिए एक प्राथमिकता दर्जा तैयार कर सकते हैं।
3. **प्रशासनिक सुधार:** कृषि सब्सिडी के वित्तीय प्रबंधन को सुधारने के लिए प्रशासनिक प्रक्रियाओं में सुधार करने की आवश्यकता हो सकती है, ताकि सब्सिडी सही समय पर पहुंच सके।
4. **कृषि तकनीक का प्रोत्साहन:** कृषि तकनीक के प्रयोग को बढ़ावा देने और किसानों को नए और प्रौद्योगिक उपायों के लिए प्रोत्साहित करने के लिए सब्सिडी प्रोग्राम्स को डिजाइन किया जा सकता है।
5. **संविदानिक नियंत्रण:** सब्सिडी प्रोग्राम्स को संविदानिक नियंत्रण और पर्यावरणीय मामलों के साथ अधिक संरचित और प्रशासकीय दृष्टि से प्रबंधित किया जा सकता है।
6. **सरकारी योजनाओं की समीक्षा:** सरकार की कृषि सब्सिडी योजनाओं की समीक्षा करें और उनके लिए सुझाव दें ताकि वे किसानों के लिए अधिक प्रभावी हो सकें। सब्सिडी योजनाएं बदल सकती हैं, इसलिए स्थानीय कृषि विभाग और सरकारी स्रोतों से नवाचार और अपडेट प्राप्त करना महत्वपूर्ण है।
7. **किसानों के वित्तीय शिक्षा:** किसानों को वित्तीय शिक्षा और फार्म मैनेजमेंट में प्रशिक्षण प्रदान करके उनकी वित्तीय स्थिति में सुधार किया जा सकता है, जिससे वे सब्सिडी के बिना भी

अच्छा कारोबार कर सकें। किसानों को वित्तीय शिक्षा और फार्म मैनेजमेंट में प्रशिक्षण प्रदान करके उनकी वित्तीय स्थिति में सुधार किया जा सकता है, जिससे वे सब्सिडी के बिना भी अच्छा कारोबार कर सकें।

निष्कर्ष: कृषि सब्सिडी और उत्पादकता के बीच जटिल संबंध लंबे समय से भारत में अनुसंधान, नीतिगत चर्चा और कार्यान्वयन का केंद्र बिंदु रहा है। कृषि क्षेत्र भारतीय अर्थव्यवस्था की आधारशिला होने के साथ, इसकी उत्पादकता पर किसी भी प्रभाव का इस पर निर्भर लाखों लोगों के लिए व्यापक प्रभाव पड़ता है। उत्तर प्रदेश में हापुड़ जिला, देश के कई अन्य कृषि क्षेत्रों की तरह, भारतीय कृषि में व्याप्त चुनौतियों और अवसरों का प्रतीक है।

इस आलेख में कृषि उत्पादकता और किसानों की सामाजिक-आर्थिक स्थिति पर सब्सिडी के प्रभावों को समझने पर जोर दिया गया है। कृषि सब्सिडी, जब अच्छी तरह से डिजाइन और निष्पादित की जाती है, तो नवाचार को चलाने, उत्पादकता बढ़ाने और किसानों की सामाजिक-आर्थिक स्थिति को ऊपर उठाने की क्षमता होती है। इसके विपरीत, गलत या अक्षम सब्सिडी कार्यक्रम संसाधनों की बर्बादी, पर्यावरणीय गिरावट और सामाजिक-आर्थिक असमानताओं को जन्म दे सकते हैं। कृषि सब्सिडी के इतिहास, वर्तमान प्रथाओं और नीतिगत ढांचे में गहरी गोता लगाने के माध्यम से, अध्ययन इन बारीकियों पर प्रकाश डालने का वादा करता है। इस प्रक्रिया में, इसका उद्देश्य अंतराल की पहचान करना, सुधारों की सिफारिश करना और नीतिगत निर्णयों को सूचित करना है।

इसके अलावा, अध्ययन का महत्व अकादमिक दायरे से परे फैला हुआ है। इसके निष्कर्ष नीतिगत समायोजन का मार्गदर्शन करने और यह सुनिश्चित करने में सहायक हो सकते हैं कि सब्सिडी से कृषि उत्पादकता में स्थायी वृद्धि हो। वास्तविक दुनिया के निहितार्थों पर ध्यान केंद्रित करके, जैसे कि किसानों के सामाजिक-आर्थिक उत्थान और सब्सिडी लाभों में असमानताओं को संबोधित करके, अनुसंधान सतत विकास और सामाजिक समानता के व्यापक लक्ष्यों को रेखांकित करता है। संक्षेप में, जैसा कि भारत का कृषि परिदृश्य वैश्वीकरण, बदलते जलवायु पैटर्न और तकनीकी प्रगति के दबाव में विकसित होता है, सब्सिडी की भूमिका और प्रभाव को समझना सर्वोपरि हो जाता है।

संदर्भ सूची:

1. दांडेकर, वी.एम. (2016)। भारतीय कृषि में रोजगार, आय और उत्पादकता। मुंबई: समीक्षा ट्रस्ट।
2. दंतवाला, एम.एल. (1986)। विकास की दुविधाएं: भारतीय अनुभव। सेज प्रकाशन।
3. चंद, आर. (2012)। विकास नीतियां और कृषि बाजार। इकोनॉमिक एंड पॉलिटिकल वीकली, 47 (52), 53-63।
4. गुलाटी, ए. और शर्मा, ए. (1995)। भारतीय कृषि में सब्सिडी सिंड्रोम। ऑक्सफोर्ड यूनिवर्सिटी प्रेस।
5. कुमार, आर. और सिंह, ए. (2010)। उत्तर प्रदेश में कृषि गतिशीलता: एक जिला स्तरीय अध्ययन। इकोनॉमिक एंड पॉलिटिकल वीकली, 45 (28), 57-65।
6. यादव, आर. (2014)। उत्तर प्रदेश की गन्ना अर्थव्यवस्था। रावत प्रकाशन।
7. राय, ए.के. (2016)। उत्तर प्रदेश में अभिनव खेती: एक केस स्टडी। माणक प्रकाशन।
8. मेहता, पी.एस. (2007)। भारत में चीनी उद्योग: विकास और चुनौतियां। दीप और गहन प्रकाशन।
9. चोपड़ा, आर. और मेहता, आर. (2011)। उत्तरी भारत में खाद्यान्न उत्पादन: रुझानों का विप्लेशन। ऑक्सफोर्ड यूनिवर्सिटी प्रेस।
10. घोष, ए. और त्यागी, एस.के. (2013)। हापुड़ में सब्जी की खेती: एक सामाजिक-आर्थिक अध्ययन। एग्रीबायो पब्लिशर्स।
11. श्रीवास्तव, ए. (2015)। ग्रामीण अर्थव्यवस्था और आजीविका: उत्तर प्रदेश से अंतर्दृष्टि। कैम्ब्रिज यूनिवर्सिटी प्रेस।
12. चंद, आर., प्रसन्ना, पी.एल. और सिंह, ए. (2011)। खेत का आकार और उत्पादकता: छोटे किसानों की ताकत को समझना और उनकी आजीविका में सुधार करना। इकोनॉमिक एंड पॉलिटिकल वीकली, 46 (26 और 27), 5-11।



13. कुमार, के.के., पटवर्धन, एस.के. और कुलकर्णी, ए. (2009). भारतीय कृषि पर जलवायु परिवर्तन का प्रभाव। वर्तमान विज्ञान, 96 (11), 1499–1507।
14. सिन्हा, आर.के. (2014)। कृषि का मशीनीकरण: लाभ और चुनौतियां। भाकृअनुप – केन्द्रीय कृषि अभियांत्रिकी संस्थान।
15. रवींद्रन, ए. (2015)। भारत में कृषि मशीनीकरण और प्रौद्योगिकी अपनाने के पैटर्न। विकासशील और उभरती अर्थव्यवस्थाओं में कृषि व्यवसाय के जर्नल, 5 (2)।
16. त्रिपाठी, ए. और मिश्रा, एच. (2016). भारत में कृषि मशीनीकरण: राज्यों में एक तुलनात्मक विप्लेशन। इकोनॉमिक एंड पॉलिटिकल वीकली, 51 (26 और 27)।
17. कोहली, डी.एस. और त्यागी, ए. (2017). मशीनीकरण और पर्यावरण: पंजाब कृषि का एक अध्ययन। इंडियन जर्नल ऑफ एग्रीकल्चरल इकोनॉमिक्स, 72 (1)।
18. BEERS VAN CEES, Jeroen C.J.M. VAN DEN BERGH, (2001), Perseverance of perverse subsidies and their impact on trade and environment, Ecological Economics 36, pp. 475-486.
19. YOUNG, E.M. BURFISHER, F.NELSON, and L. MITCHEL, (2002), USDA ERS, Domestic Support and the WTO: Comparison of Support Among OECD Countries, pp.1-13.

Disclaimer/Publisher's Note: The statements, opinions, and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of TJSD and/or the editor(s). The Journal of Scientific Discourse (TJSD) and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.

कोरोना संकट का भारतीय अर्थव्यवस्था पर प्रभाव

मंजू कुशवाह

अर्थशास्त्र विभाग, प्रधानमंत्री कॉलेज ऑफ एक्सीलेंस, शा. स्नातकोत्तर महाविद्यालय टीकमगढ़ (म.प्र.)

Email: kushwahmann@gmail.com

शोध सारांश: कोरोना संकट 21वीं सदी की सबसे महत्वपूर्ण संकटों में से एक रहा है। जिसका स्वास्थ्य, समाज और संपूर्ण विश्व की अर्थव्यवस्था पर व्यापक प्रभाव पड़ा तथा कोरोना संकट ने भारतीय अर्थव्यवस्था को भी गहराई से प्रभावित किया है उद्योगों, रोजगार और आर्थिक विकास को बाधित किया है। मार्च 2020 में लगाए गए राष्ट्रव्यापी लॉकडाउन से जहां एक ओर प्रकृति से पर्यावरण प्रदूषण कम हो गया वहीं दूसरी ओर जीडीपी में गिरावट, बेरोजगारी में वृद्धि, स्वास्थ्य सेवा एवं आर्थिक वित्त प्रणाली पर बहुत घातक प्रभाव पड़ा। जिससे सबसे अधिक प्रभावित असंगठित क्षेत्र के श्रमिक हुए। कृषि विनिर्माण सेवा एवं एमएसएमई जैसे प्रमुख क्षेत्रों को अभूतपूर्व चुनौतियों का सामना करना पड़ा। जबकि इस संकट ने डिजिटल परिवर्तन और नीति सुधारों को भी गति दी। यह शोध पत्र कोरोना संकट का भारतीय अर्थव्यवस्था के प्रभाव पर आधारित है जिसमें कृषि भी विनिर्माण सेवाओं एवं रोजगार जैसे प्रमुख क्षेत्रों पर पड़ने वाले प्रभावों का विप्लेशन किया गया है।

बीज शब्द: भारतीय अर्थव्यवस्था, कोरोना संकट, लॉकडाउन, जीडीपी, रोजगार।

प्रस्तावना: कोविड-19 महामारी जिसे विश्व स्वास्थ्य संगठन ने वैश्विक स्वास्थ्य आपातकाल (महामारी) घोषित किया इससे विश्व भर में आर्थिक बाधाओं को पैदा किया। भारत विश्व की पांच सबसे बड़ी अर्थव्यवस्थाओं में से एक है। भारत में भी कोरोना संकट का आर्थिक प्रभाव अत्यंत विघटनकारी रहा है कोविड-19 के प्रथम मरीज की पुष्टि चीन के बुहान शहर में दिसंबर 2019 में हुई। भारत में कोविड-19 के प्रथम मरीज की पुष्टि 30 जनवरी 2020 को हुई। 25 मार्च 2020 को संक्रमण से बचाव के लिए केंद्र सरकार ने देशव्यापी लॉकडाउन की घोषणा की। इस महामारी की रोकथाम के लिए सामाजिक दूरी तथा लॉकडाउन को ही उचित उपाय समझा गया, परंतु इससे असंगठित श्रमिकों, व्यवसायों एवं वित्तीय बाजारों को बहुत नुकसान हुआ। 25 मार्च से 14 अप्रैल 2020 को पहले लॉकडाउन (21 दिन) 15 अप्रैल से 3 मई 2020 को दूसरा लॉकडाउन (19 दिन) 4 मई से 17 मई तक तीसरा लॉकडाउन (14 दिन) 18 मई से 31 मई 2020 को चौथा लॉकडाउन 18 दिन तक रहा। लॉकडाउन से संपूर्ण देश की आर्थिक गतिविधियों पर विराम लग गया जिसके परिणामस्वरूप बेरोजगारी में तीव्र वृद्धि, आपूर्ति श्रृंखलाओं पर तनाव, उत्पादन और सेवाओं की मांग व आपूर्ति में असंतुलन उत्पन्न हुआ। कोरोना संकट में भारतीय अर्थव्यवस्था गंभीर रूप से प्रभावित हुई। प्रस्तुत शोध पत्र का उद्देश्य कोरोना संकट का भारतीय अर्थव्यवस्था पर प्रभाव का अध्ययन करना एवं शासन द्वारा किए गए प्रयासों का मूल्यांकन करना है।

कोरोना संकट का भारतीय अर्थव्यवस्था पर प्रभाव

सकल घरेलू उत्पाद (जीडीपी) संकुचन भारत की जीडीपी वर्ष 2020-21 में 7.3 प्रतिशत तक गिरावट आयी, जो स्वतंत्रता के बाद इतिहास में सबसे तीव्र गिरावट है। पहली लहर के दौरान राष्ट्रव्यापी लॉकडाउन

तालिका 1 वर्ष 2020-21 में तिमाही जीडीपी वृद्धि	
वर्ष	सकल घरेलू उत्पाद
पहली तिमाही	-23.9 प्रतिशत
दूसरी तिमाही	-7.4 प्रतिशत
तीसरी तिमाही	0.4 प्रतिशत
चौथी तिमाही	1.6 प्रतिशत

ने आपूर्ति श्रृंखलाओं को बाधित किया, औद्योगिक गतिविधियों को रोक दिया और उपभोक्ताओं की मांग को कम कर दिया। लॉकडाउन के कारण प्रथम तिमाही में जीडीपी में -23.9 प्रतिशत की भारी गिरावट हुई। बाद में शासन द्वारा किए गए प्रयास से V आकर में वृद्धि देखने को मिली। जो दूसरी तिमाही में 7.5 प्रतिशत की अपेक्षाकृत कम गिरावट हुई।

बढ़ती बेरोजगारी: कोरोना संक्रमण को रोकने के लिए देशव्यापी लॉकडाउन से आर्थिक गतिविधियों में ठहराव हो गया जिसके परिणामस्वरूप करोड़ों लोग बेरोजगार हो गए। अप्रैल 2020 में बेरोजगारी का स्तर 23.5 प्रतिशत के शिखर पर पहुंच गया जिसमें लाखों अनौपचारिक श्रमिकों एवं दैनिक वेतन भोगी श्रमिकों ने लॉकडाउन और गतिशीलता प्रतिबंधों के कारण अपनी आजीविका को खो दिया। श्री सेन (सांख्यिकीवेत्ता) के अनुसार पहले शहरी लॉकडाउन में 50 मिलियन व्यक्तियों ने अपने रोजगार को खो दिया। सेंटर फॉर मॉनिटरिंग इंडियन इकोनॉमी (CMIE) के अनुसार शहरी बेरोजगारी दर लगभग 30.9 प्रतिशत थी।

कृषि: अर्थव्यवस्था का प्राथमिक क्षेत्र जिसमें कृषि क्षेत्र महत्वपूर्ण है क्योंकि संपूर्ण जनसंख्या एवं बड़ी संख्या में श्रमिक इस क्षेत्र पर निर्भर है। कृषि जीडीपी ने 2014-15 से 2019-20 तक 6 साल की अवधि में रुक-रुक कर उतार-चढ़ाव के साथ प्रतिवर्ष 3.3 प्रतिशत की औसत वृद्धि दर का अनुभव किया। राष्ट्रीय सांख्यिकी कार्यालय (NSO) के अंतरिम अनुमान बताते हैं कि कृषि में जीडीपी वृद्धि वर्ष 2019 में 2.4 प्रतिशत से बढ़कर वित्त वर्ष 2020 में 4 प्रतिशत हो गई ऐसा इसलिए क्योंकि गैर कृषि क्षेत्रों की तुलना में कृषि क्षेत्र को कोरोना संकट के कारण कम बाधाओं का सामना करना पड़ा। अतः कृषि कोरोना संकट के दौरान अपेक्षाकृत लचीली साबित हुई जिसे अनुकूल मानसून की स्थिति एवं निर्बाध कृषि गतिविधियों का समर्थन मिला।

विनिर्माण (एमएसएमई): कारखानों के बंद होने और वैश्विक आपूर्ति श्रृंखला की रुकावट के कारण विनिर्माण क्षेत्र को भारी बाधाओं का सामना करना पड़ा। एमएसएमआई (सूक्ष्म, लघु और मध्यम उद्यम) ने भारत में 90 प्रतिशत से अधिक नौकरियों का सृजन किया। 114 मिलियन से अधिक लोगों को रोजगार दिया और सकल घरेलू उत्पाद में लगभग 30 प्रतिशत का योगदान दिया है लेकिन देशव्यापी लॉकडाउन के कारण एमएसएमई में नकदी प्रवाह की कमी से ये अधिक प्रभावित हुआ। उनकी आपूर्ति श्रृंखला बाधित हुई और प्रवासी श्रमिकों के पलायन, कच्चे माल की उपलब्धता में प्रतिबंधों के होने से प्रतिकूल रूप से प्रभावित हुई है। अखिल भारतीय निर्माता संगठन (एआईएमओ) जून 2020 द्वारा एमएसएमई के एक सर्वे से पता चला कि 35 प्रतिशत एमएसएमई एवं 43 प्रतिशत स्वरोजगार करने वालों ने कहा कि उन्हें अपने व्यवसाय में सुधार की कोई संभावना नहीं दिखती है। परिणाम स्वरूप इन छोटे व्यवसायों के काम करने वाले लाखों लोग नौकरी और वेतन के नुकसान में फंस सकते हैं।

श्रमिकों पर प्रभाव: कोरोना संक्रमण से बचाव के लिए किए गए लॉकडाउन से सबसे ज्यादा प्रभावित असंगठित क्षेत्र के श्रमिक वर्ग हुए। भारत में लगभग 91 प्रतिशत श्रमिक असंगठित क्षेत्र से आते हैं। लॉकडाउन की घोषणा से 43.5 मिलियन प्रवासी श्रमिक अपने घर पर लौटने लगे। परिवहन साधनों के अभाव में 35 मिलियन श्रमिक पैदल ही घर वापस आये। जिससे उन्हें बहुत सारी परेशानियों का सामना करना पड़ा साथ ही सड़क दुर्घटनाओं के कारण कई श्रमिकों की मृत्यु हुई।

अन्य प्रभाव: औद्योगिक और विनिर्माण क्षेत्र के अंतर्गत वित्त वर्ष 2021 में ऑटोमोबाइल उत्पादन में 50 प्रतिशत की गिरावट आयी। दवाओं और टीकों की उच्च मांग के कारण फार्मास्यूटिकल क्षेत्र में उछाल आया। सेवा क्षेत्र के अंतर्गत पर्यटन एवं आर्थिक राजस्व में 75 प्रतिशत से अधिक की गिरावट आई। खुदरा क्षेत्र में ऑनलाइन बिक्री में वृद्धि हुई लेकिन ऑफलाइन स्टोर प्रभावित हुए। आईटी एवं डिजिटल



अर्थव्यवस्था के अंतर्गत घर से काम करने से आईटी क्षेत्र को बढ़ावा मिला। बैंकिंग क्षेत्र को बढ़ते एनपीए (गैर निष्पादित संपत्ति) का सामना करना पड़ा लेकिन सरकार और आरबीआई के हस्तक्षेप से तरलता को स्थिर करने में मदद मिली।

शासन द्वारा सुधार के लिए किए गए प्रयास: भारत सरकार ने कोरोना संकट की स्थिति से उभरने के लिए कई उपायों की घोषणा की। जिसके अंतर्गत राज्यों के लिए आर्थिक धन एवं कर चुकाने के समय अंतराल को बढ़ाना, खाद सुरक्षा, स्वास्थ्य के साथ साथ गरीबों के लिए आर्थिक राहत पैकेज, जिसकी कुल राशि 170000 करोड़ से अधिक की घोषणा 26 मार्च 2020 को की। कोरोना संकट की स्थिति से निपटने के लिए माननीय प्रधानमंत्री के द्वारा 12 मई 2020 को आत्मनिर्भर भारत अभियान की घोषणा की एवं व्यापक पैकेज 20 लाख करोड़ रुपये की घोषणा की गई जो सकल घरेलू उत्पाद (जीडीपी) का 10 प्रतिशत है इसके अंतर्गत एमएसएमई, कृषि और स्वास्थ्य सेवा का समर्थन करने के लिए आत्मनिर्भर भारत पैकेज दिया गया। गरीब परिवारों के लिए मनरेगा मजदूरी वृद्धि और मुफ्त राशन योजनाएं भी संचालित की गई। साथ ही साथ मौद्रिक नीति के माध्यम से आरबीआई ने आर्थिक सुधार को समर्थन देने के लिए रेपो दरों को घटकर 4 प्रतिशत कर दिया। भारतीय अर्थव्यवस्था को मजबूत करने के लिए निवेश की अहम भूमिका होती है, कोरोना संकट के दौरान आत्मनिर्भरता की पहल की गई जिससे निश्चित ही निजी निवेश में वृद्धि हुई और भारतीय अर्थव्यवस्था सुदृढ़ हुई।

निष्कर्ष: भारतीय अर्थव्यवस्था पर कोरोना महामारी का गहरा और बहुआयामी प्रभाव पड़ा है जिससे जीडीपी में कमी, बेरोजगारी में वृद्धि और आपूर्ति श्रृंखला बाधित हुई हैं जबकि कृषि और आईटी क्षेत्र में गतिशीलता दिखाई दी। संकट की स्थिति ने संरचनात्मक कमजोरियों को उजागर कर भारत को वोकल फॉर लोकल एवं आत्मनिर्भर बनने का अवसर दिया। साथ ही डिजिटलीकरण, नवाचार और समावेशी विकास को प्राथमिकता देकर भारत कोरोना संकट के बाद भी विश्व में अधिक मजबूत एवं लचीला राष्ट्र बनकर उभरा है। भविष्य में, भारत को स्वास्थ्य प्रणाली में और सुधार लाने, शिक्षा क्षेत्र में डिजिटल पहुंच बढ़ाने और आर्थिक असमानता को कम करने की दिशा में काम करना होगा, ताकि देश भविष्य में किसी भी महामारी के लिए तैयार रह सके।

संदर्भ सूची:

1. सेठी, पाण्डेय और पाण्डेय 2021 "कोविड-19 का भारतीय अर्थव्यवस्था पर प्रभाव" रविशंकर विश्वविद्यालय का जनरल 27(1) 84-87
2. देव, महेन्द्र और सेनगुप्ता राजेश्वरी 2020 "कोविड-19 इम्पेक्ट ऑन द इंडियन इकोनॉमी" इंदिरा गांधी इंडस्ट्री ऑफ डेवलपमेंट रिसर्च मुंबई 16-21
3. डॉ. मीणा कैलाशचंद्र (2021) "कोविड-19 का भारतीय अर्थव्यवस्था पर प्रभाव" IJEMMAS 185-188
4. राय निधि (2020) "कोरोना वायरस से भारत की आर्थिक परेशानियां कितनी बढ़ी" बी.बी.सी हिंदी 25 जुलाई 2020
5. अंतर्राष्ट्रीय मुद्रा कोष (2021) विश्व आर्थिक परिदृश्य : महामारी के दौरान सुधार
6. भारत सरकार आर्थिक सर्वेक्षण 2020-21
7. Pib.gov.in
8. Wikipedia.org

Disclaimer/Publisher's Note: The statements, opinions, and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of TJSD and/or the editor(s). The Journal of Scientific Discourse (TJSD) and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content

बौद्धिक संपदा एवं महात्मा गाँधी का दृष्टिकोण

पंकज सिंह¹ & पल्लवी सिंह²

1. इतिहास विभाग, डॉ. हरीसिंह गौर विश्वविद्यालय, सागर-470003, म.प्र., भारत

Corresponding Author: drpankajsingh77@gmail.com

शोध सारांश: महात्मा गाँधी ने भारतीय संस्कृति, विचार और राजनीति को इतनी गहराई से प्रभावित किया है कि उनके समस्त अवदान का सम्यक् मूल्य निर्धारित करना अभी किसी के लिए सम्भव नहीं दिखता। पश्चिमी सभ्यता में बुनियादी प्रवृत्तियों की तरह मौजूद लोभ, शोषण व सत्ता के अमानवीय रूपों की वजह से वहाँ जो प्रगति और विकास हुआ है, उसे गाँधीजी मानव विरोधी और पूरी दुनिया के लिए एक खतरा मानते हैं। अतः इस तरह के विकास व प्रगति को जिन चीजों ने एक व्यवस्था या तंत्र की शक्ल दी है, गाँधीजी उनके विरुद्ध खड़े होकर, मनुष्य व समाज को उससे मुक्ति दिलाने का प्रयास करते हैं। गाँधीजी को यह मालूम था कि विदेशी ज्ञान विज्ञान की चकाचौंध द्वारा प्रायोजित, उपनिवेशवाद के विस्तार की जो आधुनिक प्रक्रिया है, उसके हम मात्र ग्रहीता ही बनेंगे, सृष्टा बनने का अवसर कभी नहीं मिलेगा। इसीलिए गाँधीजी की कोशिश थी कि आधुनिकता के उस वैश्विक मायाजाल को हटा कर ऐसा स्थान ढूँढना जहाँ अपनी आधुनिकता के हम ही नायक बन सकें। प्रस्तुत शोध पत्र के माध्यम से बौद्धिक संपदा पर महात्मा गाँधी का दृष्टिकोण समझने का प्रयास किया गया है।

बीज शब्द : गाँधी, संपत्ति, स्वामित्व, ट्रस्टीशिप, आई पी, बौद्धिक संपदा, विज्ञान, समाज

प्रस्तावना: गाँधीजी ने अपने साधन-साध्य एकत्व के आधार पर एक अहिंसक एवं न्यायपूर्ण तकनीक के बेस के आधार पर एक अहिंसक एवं न्यायपूर्ण समाज को खड़ा करने का प्रस्ताव किया। अतएव गाँधीजी ऐसी तकनीक को चुनते हैं जो स्वतंत्रता, मानवीय गरिमा, पर्यावरण एवं समाज को पुष्ट करने वाली हो। प्रस्तुत शोध पत्र के माध्यम से महात्मा गाँधी के स्वामित्व, संपत्ति तथा बौद्धिक संपदा पर क्या विचार थे? तथा उनका दृष्टिकोण क्या था? यह समझने का प्रयास किया गया है। ध्यातव्य है कि इस मायने में गाँधी का ट्रस्टीशिप का सिद्धांत प्रासंगिक है। ट्रस्टीशिप एक दूसरे के प्रति विश्वास पर आधारित समाज के विकास और समाज के सभी लोगों को 'विश्वास में' संपत्ति प्रदान करने के विचार पर आधारित है।¹

महात्मा गाँधी दुनिया की साझा संपत्ति के विचार में विश्वास करते थे और उनका मानना था कि प्रत्येक संपत्ति के मालिक को शोषण के बिना सावधानीपूर्वक अपने पास रखने या अपने स्वार्थ के लिए नहीं बल्कि राष्ट्र के हित में अपनी संपत्ति बढ़ाने की जिम्मेदारी लेनी चाहिए। संपत्ति के स्वामित्व के बारे में उनका विचार सादगी, साझा करने और स्वार्थ से इनकार करने पर आधारित था। उन्होंने एक व्यक्ति के पास मौजूद संपत्ति और समाज को दिए जाने वाले मूल्य के बीच संतुलन बनाने का सुझाव दिया। संपत्ति की कीमत समाज द्वारा वहन की जाने वाली जिम्मेदारी और समाज को दिए जाने वाले लाभों से अधिक नहीं होनी चाहिए। इसका मतलब यह नहीं है कि गाँधी निजी संपत्ति के विरोधी थे। महात्मा निश्चित रूप से उत्पादन के साधनों पर राज्यों के पूर्ण नियंत्रण का समर्थन नहीं करते थे – उन्होंने कुछ कर्तव्यों के अधीन संपत्ति को स्वीकार किया। गाँधीवादी दृष्टिकोण से, कर्तव्यों के बिना कोई अधिकार नहीं हो सकता है, और दोनों जुड़े हुए हैं।

गाँधी ने संपत्ति के अधिकार और निजी स्वामित्व के विचार को स्वीकार किया, बशर्ते कि संपत्ति मालिकों के पास सार्वजनिक कल्याण के लिए 'ट्रस्ट' के रूप में हो। उनका मानना था कि संपत्ति के मालिकों के कौशल और अधिकारों की रक्षा तभी की जानी चाहिए जब जनता के प्रति उनका कर्तव्य

हो – और ऐसे मालिकों को अपने मांगे गए अधिकार अर्जित करने चाहिए। इस प्रकार, अनन्य स्वामित्व केवल तभी उचित है जब मालिकों की ओर से ट्रस्टीशिप की भावना हो – जिसका अर्थ है कि उन्हें न केवल अपनी संपत्ति रखनी चाहिए, बल्कि उन्हें बड़े पैमाने पर समाज के कल्याण के लिए खुद को जवाबदेह भी रखना चाहिए। ट्रस्टीशिप की खोज आत्म-बलिदान और अर्थव्यवस्था के साथ-साथ समाज के पिछड़े क्षेत्र के उत्थान से शुरू होती है।² इस प्रकार गाँधीने उन लोगों को संबोधित किया जिनके पास समाज में संपत्ति और संसाधनों का बड़ा हिस्सा था, उन्होंने जोर देकर कहा कि ऐसे लोगों को अपने लालच और कब्जे की भावना पर काबू पाना चाहिए ताकि वे उन लोगों के संघर्ष को समझ सकें जो पसीने और श्रम से अपनी रोटी कमाते हैं।

गाँधीजी का आईपी (बौद्धिक संपदा) के प्रति दृष्टिकोण: आईपी (बौद्धिक संपदा) के प्रति गाँधीवादी दृष्टिकोण ऐसा कुछ नहीं है जिसे गाँधी और उनके शिष्यों जैसे जे.सी. कुमारप्पा के लेखन से सीधे तौर पर निकाला या प्राप्त किया जा सके। जबकि अमेरिकी विद्वान श्यामकृष्ण बालगणेश ने दिलचस्प रूप से दावा किया है कि कॉपीराइट के प्रति गाँधीजी का दृष्टिकोण कॉपीराइट व्यावहारिकता का रहा है,³ ऐसा दृष्टिकोण आईपी (बौद्धिक संपदा) को गाँधीवादी दर्शन द्वारा दी जाने वाली पेशकश को समझने में पूरी तरह से सहायक नहीं हो सकता है। ऐसा इसलिए है क्योंकि गाँधी ने कॉपीराइट पर जो कुछ किया या लिखा वह कॉपीराइट या आईपी (बौद्धिक संपदा) पर किसी सुसंगत विप्लेशन या सैद्धांतिक सिद्धांतों पर आधारित होने के बजाय संदर्भपरक प्रतिक्रिया थी। वास्तव में, आईपी (बौद्धिक संपदा) या नवाचार, आईपी (बौद्धिक संपदा) और समाज पर कोई गाँधीवादी दर्शन नहीं रहा है। एक और मुद्दा यह है कि जबकि उनके जीवन और कामकाज के राजनीतिक और नैतिक आयामों पर बहुत ध्यान दिया गया है, विज्ञान, प्रौद्योगिकी और नवाचार (एसटीआई) पर उनके विचारों पर बहुत कुछ नहीं लिखा गया है। गाँधीजी ने ए. के. एन. रेड्डी, सी. वी. शेषाद्रि और जे.सी. कुमारप्पा जैसे वैज्ञानिकों और अर्थशास्त्रियों को विज्ञान, प्रौद्योगिकी और समाज के बीच संबंधों और वैकल्पिक दृष्टिकोणों पर विचार करने के लिए प्रेरित किया। एक तरह से, उनके विचार और रेड्डी तथा शेषाद्रि के विचार जिम्मेदार अनुसंधान और नवाचार के विचार से तुलनीय हैं।⁴ जबकि स्वतंत्रता के बाद के भारत के शुरुआती वर्षों में उनकी राय का नीति निर्माण में बहुत प्रभाव था, बाद में वे कम हो गए और नेहरूवादी प्रतिमान हावी हो गया और परिणामस्वरूप कुमारप्पा जैसे उनके अनुयायी खुद को हाशिए पर पाते हैं।⁵ गाँधीजी हमेशा उन लोगों के लिए एक चुनौती रहे हैं जो उनके जीवन और विचारों को साफ-सुथरी और मौलिक रूप से अलग श्रेणियों में वर्गीकृत करना चाहते थे। लगभग 105 खंडों में संग्रहित 'कलेक्टेड वर्क्स ऑफ महात्मा गाँधी' गाँधीजी के लेखन से यह समझने में अधिक मदद मिलती है कि उनकी सोच कैसे विकसित हुई है, न कि आज हम जिन कई विषयों का सामना कर रहे हैं, उनके लिए एक सुसंगत रूपरेखा या प्रतिक्रिया विकसित करने में। यह स्पष्ट है क्योंकि समाज में आईपी की भूमिका जैसे कुछ मुद्दे उस समय कोई बड़ा मुद्दा नहीं थे, न ही वे कोई अर्थशास्त्री या नीति निर्माता थे जो सिद्धांत या व्यवहार में उनसे निपटते थे। फिर भी, उनके सामाजिक-आर्थिक दर्शन और संपत्ति, विज्ञान और नैतिकता पर उनके विचारों के आधार पर आईपी (बौद्धिक संपदा) के लिए गाँधीवादी दृष्टिकोण क्या होगा, इस पर एक विचार प्राप्त करना अभी भी संभव है। लेकिन इस तरह का दृष्टिकोण हमें आईपी से संबंधित मुद्दों पर सीधे विचारों या समाधानों की तुलना में आगे के विकास के लिए सुराग या विचार दे सकता है।

गाँधीजी विज्ञान या तकनीक के खिलाफ नहीं थे। बल्कि, उनका विरोध इनसे जुड़ी समस्याओं के बारे में था और औद्योगीकरण, श्रम को विस्थापित करने के लिए मशीनरी के उपयोग और उत्पादन और उपभोग में नैतिक मुद्दों पर उनके विचारों से भी जुड़ा था। गाँधीजी ने सर्वोदय का प्रचार किया, यानी सभी का कल्याण, लेकिन अंत्योदय की आवश्यकता पर बल देकर इसे योग्य बनाया, यानी हाशिए पर पड़े लोगों या पीछे छूट गए लोगों का कल्याण या ज़रूरतें। जबकि विज्ञान पर गाँधीजी के विचारों

और आज के लिए उनकी प्रासंगिकता पर राय विभाजित है, कई वैज्ञानिकों द्वारा साझा की गई एक राय यह है कि उनके विचार मानवता के सामने आने वाली चुनौतियों का सामना करने में प्रासंगिक हैं। 2019 में नेचर में प्रकाशित एक संपादकीय में दावा किया गया है कि महात्मा को स्थायी विज्ञान का समर्थक माना जा सकता है, जो रोजमर्रा के जीवन के प्रयोगों से सत्य की तलाश करते हैं।⁶

गाँधीजी के पास विज्ञान और समाज के बारे में एक व्यापक विचार था, और उनका विचार एक ओर नैतिकता से जुड़ा था और दूसरी ओर आम भलाई और दलितों की जरूरतों को पूरा करने के लिए विज्ञान की भूमिका से जुड़ा था। इस बिंदु को महात्मा द्वारा 1925 में त्रिवेंद्रम में दिए गए भाषण में समझा जा सकता है: 'मेरी विनम्र राय में वैज्ञानिक खोज की भी सीमाएँ हैं, और वैज्ञानिक खोज पर मैं जो सीमाएँ लगाता हूँ, वे सीमाएँ मानवता द्वारा हम पर लगाई जाती हैं।'⁷

राजम नीथू ने वास्तव में गाँधीजी की ट्रस्टीशिप को आईपी से जोड़ने का प्रयास किया है: बौद्धिक संपदा कानून के ढाँचे में गाँधीजी को पढ़ते हुए, हम हर मोड़ पर विरोधाभास पाते हैं। यह विशेष रूप से बड़े सामाजिक इंटरफेस वाले मामलों में स्पष्ट है जैसे आविष्कार (ड्रग्स सहित) या रचनात्मक कार्य (अध्ययन के लिए उचित उपयोग) या संस्कृति और पर्यावरण की सुरक्षा तक पहुँच। याद रखें कि ट्रस्टीशिप दर्शन ने निजी संपत्ति को पूरी तरह से खारिज नहीं किया, बल्कि संपत्ति बनाने वाले द्वारा निवेश किए गए कौशल और प्रयासों को मान्यता दी। गाँधीजी का दर्शन बौद्धिक संपदा अधिकार प्रदान करने के उपयोगितावादी आधारों के साथ संगत है। गाँधीवादी ट्रस्ट दर्शन के अनुसार, अधिकार धारकों को अपने प्रत्ययी दायित्व को पूरा करने का तरीका खोजकर स्व-हित पर प्रतिबंध लगाना चाहिए। इस दृष्टिकोण का अधिक ठोस अनुप्रयोग यह सुझाव देगा कि व्यक्तिगत अधिकार धारकों को ट्रस्टी के रूप में कार्य करने में स्व-हित को सीमित करने की आवश्यकता होनी चाहिए। आईपी (बौद्धिक संपदा) ढाँचे में, इसका मतलब है कि अधिकार धारक द्वारा कम वस्तुकरण और एकाधिकार शोषण। इस प्रकार, निर्माता को समाज को अपने कार्यों तक बेहतर पहुँच प्रदान करनी चाहिए या अनुसंधान को प्रोत्साहित करने और समाज में रचनात्मकता को विकसित करने के लिए अपने आविष्कारों के उपयोग की अनुमति देनी चाहिए। आईपी (बौद्धिक संपदा) को विनियमित करने वाले राज्य की भूमिका क्या होगी? जबकि व्यक्तियों और निगमों को ट्रस्टी के रूप में कार्य करने में स्व-हित को सीमित करने की आवश्यकता हो सकती है, राज्य का दायित्व समाज की इच्छा को निष्पादित करना और इसलिए व्यक्तिगत अधिकार धारकों द्वारा शोषण को सीमित करना है।⁸

प्रस्तुत लेख में पूर्व में भी यह उल्लिखित किया गया है कि महात्मा गाँधी के लेखन और/या उनके शिष्यों के लेखन से सीधे आईपी (बौद्धिक संपदा) के लिए एक विशिष्ट गाँधीवादी दृष्टिकोण का अनुमान नहीं लगा सकते हैं। यह देखा जा सकता है कि भारतीय आईपी (बौद्धिक संपदा) व्यवस्था के कुछ पहलू गाँधीवादी विचारों के कुछ तत्वों को दर्शाते हैं। आखिरकार, महात्मा गाँधी के सिद्धांतों का विस्तार पहले से ही अन्य क्षेत्रों में प्रस्तावित किया जा चुका है। उदाहरण के लिए, हाल के वर्षों में, ट्रस्टीशिप के विचार को कॉर्पोरेट सामाजिक जिम्मेदारी की अवधारणा से जोड़ा गया है।⁹

गाँधीजी का कॉपीराइट के प्रति दृष्टिकोण: गाँधीजी द्वारा व्यक्तिवादी और लाभ-उन्मुख दृष्टिकोणों को अस्वीकार करने से कोई यह विश्वास कर सकता है कि महात्मा गाँधीजी कॉपीराइट कानूनों के खिलाफ थे। श्यामकृष्ण बालगणेश इस आईपी (बौद्धिक संपदा) अधिकार के प्रति गाँधी के रुख का एक शानदार और व्यावहारिक विप्लेशन देते हैं।¹⁰ श्यामकृष्ण बालगणेश सबसे पहले यह बताते हैं कि अपने शुरुआती वर्षों में महात्मा गाँधी कॉपीराइट के बारे में संशय में थे क्योंकि इसका ध्यान बाजारों और स्वार्थी व्यवहारों पर था और सूचना, संस्कृति और ज्ञान के प्रवाह पर कृत्रिम प्रतिबंध थे। गाँधीजी ने वास्तव में



पुष्टि की थी कि 'मैंने अभी तक अपने किसी भी लेखन का कॉपीराइट नहीं लिया है। जिन पत्रिकाओं के संपादन का मुझे विशेषाधिकार प्राप्त है, उनमें लिखी गई रचनाएँ सार्वजनिक संपत्ति होनी चाहिए। कॉपीराइट कोई स्वाभाविक चीज नहीं है। यह एक आधुनिक संस्था है, शायद कुछ हद तक वांछनीय भी। लेकिन मैं आत्मकथा के अध्यायों की नकल करने से अखबारों को मना करके यंग इंडिया या नवजीवन के प्रसार को बढ़ाना नहीं चाहता।'¹¹ इसके बावजूद, गाँधीजी का कॉपीराइट से इनकार पूरी तरह से नहीं था, जैसा कि उनके इस स्पष्टीकरण से अनुमान लगाया जा सकता है कि यह 'शायद कुछ हद तक वांछनीय भी हो सकता है'। उनका दृष्टिकोण अधिक सूक्ष्म है। कॉपीराइट कानूनों द्वारा दिए गए सभी अधिकारों को – उनका मानना था – अस्वीकार नहीं किया जाना चाहिए। उदाहरण के लिए, महात्मा अपने लेखों का गुजराती से अन्य भाषाओं में अनुवाद करने का विशेष अधिकार अपने पास सुरक्षित रखना चाहते थे,¹² एक दृष्टिकोण जो मोटे तौर पर क्रिएटिव कॉमन्स दर्शन ('कुछ अधिकार सुरक्षित') की याद दिलाता है। गाँधी कॉपीराइट कानून में वितरणात्मक न्याय और किसी कार्य के अवांछनीय होने पर उसके व्यावसायिक शोषण की रोकथाम जैसे सिद्धांतों को शामिल करना चाहते थे, इस प्रकार इसके मूल उपयोगितावादी ढांचे को गैर-उपयोगितावादी और समुदाय-आधारित लक्ष्यों की ओर प्रभावी रूप से मोड़ना चाहते थे।¹³

गाँधीवादी अपरिग्रह की अवधारणा और व्यापक रूप से महात्मा गाँधी के ट्रस्टीशिप सिद्धांतों को प्रतिबिंबित करती है – जिसमें समाज ज्ञान के पूर्ण निजी स्वामित्व को अस्वीकार करता है और सूचना तक बढ़ी हुई और समान पहुंच रखता है। महात्मा गाँधी ने विज्ञान के विचार को सार्वजनिक वस्तु के रूप में प्रचारित किया न कि बाजार वस्तु के रूप में, जिसका अर्थ था कि ठोस और उपयोगी ज्ञान तभी उत्पन्न होता है जब वैज्ञानिक आम आदमी के साथ भी सहयोग करते हैं जो ऐसे ज्ञान से सीधे प्रभावित होने वाला है, न कि केवल अपने साथी वैज्ञानिकों और शोधकर्ताओं के साथ।¹⁴ यह विश्वास कि ज्ञान की पहुंच और पारस्परिकता को अधिकतम किया जाना चाहिए, गाँधीजी के समाज के संपन्न और वंचितों के बीच ट्रस्टीशिप के सिद्धांतों में निहित है। महात्मा गाँधी का मानना था कि भारतीय समाज के इन दो अलग-अलग वर्गों के बीच की खाई को पाटने के लिए पूर्व को उत्तरार्द्ध के प्रति कर्तव्यों का एहसास करना चाहिए और केवल उनका शोषण करने के बजाय उन्हें प्राप्त ताकत और पोषण के लिए पर्याप्त प्रतिफल देना चाहिए। गाँधीजी का मानना था कि प्राथमिक स्तर पर सह-निर्भरता और कौशल को साझा करने की यह प्रणाली समाज में वर्ग व्यवस्था की शुद्ध बुराइयों को मिटा देगी गाँधीजी ने 'सा विद्या या विमुक्तये' के विचार का प्रचार किया जिसका अर्थ है 'ज्ञान वह है जो मुक्ति देता है।'¹⁵

'नैतिकता के बिना वाणिज्य' की नीति की अस्वीकृति: महात्मा गाँधी स्वयं मानते थे कि विज्ञान और प्रौद्योगिकी को अंततः आम आदमी तक पहुंचना चाहिए और उच्च-स्तरीय अनुसंधान और विकास से समाज को यथासंभव लाभ मिलना चाहिए। उन्होंने कथित तौर पर कहा था: 'मैं सभी के लाभ के लिए किए गए विज्ञान के हर आविष्कार को पुरस्कृत करूंगा।'¹⁶ गाँधीजी का दर्शन 'नैतिकता के बिना वाणिज्य' समाज में अमीर और गरीब के बीच की खाई को और खराब कर सकता है¹⁷ और इसमें धोखाधड़ी और उच्च लागत पर सस्ते उत्पाद बेचने का कार्य और ऐसी स्थितियाँ शामिल हैं जहाँ लाभ नैतिकता, नैतिकता और मूल्यों पर एकमात्र प्रेरणा बन जाता है।¹⁸ वास्तव में, महात्मा गाँधी हमेशा महसूस करते थे कि व्यापार और नैतिकता अविभाज्य हैं और दोनों को साथ-साथ चलना चाहिए। स्वास्थ्य सेवा प्रणाली तक पहुंच को आसान बनाने के लिए उन्होंने इसके व्यावसायिक दोहन के खिलाफ वकालत की क्योंकि उनका मानना था कि बीमार और जरूरतमंद लोगों की देखभाल करना महज एक व्यापारिक लेन-देन नहीं है, बल्कि जनता को बिना किसी भेदभाव के दवाओं और संबंधित सुविधाओं तक सस्ती पहुंच प्रदान करने का एक मिशन है।¹⁹ गाँधीजी की आत्म-देखभाल और स्वास्थ्य सेवा

प्रणाली तक बेहतर पहुंच के बारे में मान्यताएं और 'नैतिकता के बिना वाणिज्य' की उनकी अस्वीकृति। महात्मा जैसे विचारक किसी आवश्यक दवा पर कृत्रिम और अनुचित तरीके से एकाधिकार बढ़ाने को नैतिक रूप से स्वीकार्य कैसे मान सकते हैं? वास्तव में, कोई गाँधीवादी शब्दों में यह नोट कर सकता है कि इन परिस्थितियों में लाभ को नैतिक या नैतिक चिंताओं के आगे झुकना पड़ सकता है, यह ध्यान में रखते हुए कि दवाओं पर पेटेंट अनिवार्य रूप से उन्हें लोगों के लिए कम किफायती बनाते हैं।

क़ानून के पीछे की नीतियाँ खास तौर पर मेहनतकश किसानों और गरीबों की भलाई की गारंटी होनी चाहिए। इसके बजाय, ये सार्वजनिक संसाधन आम जनता के हैं। चूँकि राज्य सिर्फ़ उनका ट्रस्टी है और उनका मालिक नहीं है, इसलिए ऐसे संसाधन आम जनता के हैं, उन्हें विकेंद्रीकृत किया जाना चाहिए और स्थानीय और समुदाय-आधारित व्यवस्था के तहत लाया जाना चाहिए।²⁰ गाँधी यह भी मानते थे कि ग्रामीणों के पास खेती करने के लिए ज़मीन होनी चाहिए, ताकि वे अपने परिवारों की मदद कर सकें और फ़सल उगा सकें और अपनी उपज से अपने मवेशियों का भरण-पोषण कर सकें – जिससे जैव विविधता को नवीनीकृत करने और बनाए रखने में भी मदद मिलेगी। उनका मानना था और उन्होंने किसानों को अपनी जमीन यानी धरती को अपनी मां की तरह मानने का उपदेश दिया।²¹

अगर हम उस संदर्भ और समाज को देखें जिसमें गाँधीजी रहते थे तो ये विचार बहुत आश्चर्यजनक नहीं लगते। उनके दिनों में, बीज उद्योग स्थानीय/राष्ट्रीय बाजारों तक सीमित था और व्यापार ज्यादातर आपसी विश्वास पर आधारित था। इसके अलावा, गाँधीजी के लिए छोटे और सीमांत किसानों की आजीविका स्वराज के विचार के लिए महत्वपूर्ण थी (जिसका अर्थ है 'स्व-शासन' और आमतौर पर इसका उपयोग गाँधीजी की भारत की विदेशी शासन और प्रभाव से राजनीतिक और आर्थिक स्वतंत्रता की अवधारणा को संदर्भित करने के लिए किया जाता है)। महात्मा गाँधी का मत था कि 'कृषि सभी विकास की आधारशिला है' और यह गांवों की पूर्ण स्वतंत्रता का एकमात्र साधन है।²² उनका मानना था कि प्रत्येक किसान के पास मेहनत करने और अपनी रोजी-रोटी कमाने के लिए जमीन का एक टुकड़ा होना चाहिए उनके लिए, उनकी आजीविका राष्ट्र के विकास का मूल थी।²³ आखिरकार, पिछले दशक में भारत में बायोटेक विरोधी आंदोलनों ने अक्सर गाँधी की शिक्षाओं का हवाला देते हुए दावा किया है कि आनुवंशिक रूप से संशोधित जीव किसानों को मानवीय लागत देते हैं।²⁴

निष्कर्ष: निष्कर्षतः यह कहा जा सकता है कि गाँधीजी ने प्रत्यक्ष रूप से आईपी (बौद्धिक संपदा) के संबंध में अपने विचार नहीं व्यक्त किए इसके बावजूद महात्मा गाँधी की शिक्षाओं तथा नैतिक मूल्यों का आधुनिक भारतीय समाज के कई क्षेत्रों पर उनके विचारों का जो व्यापक प्रभाव पड़ा, उसने अप्रत्यक्ष रूप से भारतीय आईपी (बौद्धिक संपदा) व्यवस्था के कुछ क्षेत्रों को भी प्रभावित किया होगा। यह एक ऐसा समाज है जो गाँधीजी के जीवन के दौरान जिस समाज में था, उससे बहुत दूर नहीं है और जिसने वह संदर्भ प्रदान किया जहाँ उनके प्रभावशाली लेखन और दर्शन उभरे।

संदर्भ सूची:

1. सिबी. के. जोसेफ, एट. अल. (2016), ट्रस्टीशिप: ए पाथ लेस ट्रैवेल्ड। (बी. एम. सिबी के. जोसेफ (सं.), वर्धा, महाराष्ट्र, भारत: गाँधीवादी अध्ययन संस्थान से उद्धृत।
2. गाँधी, एम. के., कन्सट्रक्टिव प्रोग्राम : इट्स मिनिंग एण्ड प्लेस (दूसरा संस्करण) अहमदाबाद: नवजीवन पब्लिशिंग हाउस से उद्धृत।
3. बालगणेश, श्यामकृष्ण (2013), "गाँधी एण्ड कॉपीराइट प्रैगमैटिज़्म" 101 कैलिफोर्निया लॉ नहीरिव्यू, https://scholarship.law.upenn.edu/faculty_scholarship/445/ से उद्धृत।



4. कृष्णा रवि श्रीनिवास, पूनम पांडे (2019), इंटरनेशनल पर्सपेक्टिव ऑन रिस्पॉन्सिबल इनोवेशन एण्ड फ्रुगल इनोवेशन इन रेने वॉन शोमबर्ग और जोनाथन हैंकिंस (सं.) इंटरनेशनल हैंडबुक ऑन रिस्पॉन्सिबल इनोवेशन: ए ग्लोबल रिसेर्स, एडवर्ड एल्गर से उद्धृत।
5. सचिन चतुर्वेदी, कृष्णा रवि श्रीनिवास (2015), साइंस एण्ड टेक्नोलॉजी फॉर सोसियो-इकोनॉमिक डेवलपमेंट एण्ड क्वेस्ट फॉर इनक्लुसिव ग्रोथ: इमर्जिंग एविडेंस फ्रॉम इंडिया, इन साइंस एण्ड टेक्नोलॉजी गवर्नेंस एण्ड इथिक्स: अ ग्लोबल पर्सपेक्टिव फ्रॉम यूरोप, इंडिया एण्ड चाइना (संपादक) मिल्टोस लाडिकास, सचिन चतुर्वेदी, यानडॉंग झाओ, डर्क स्टेमरडिंग-स्त्रिगर (अध्याय7, पृष्ठ 83-98)।
6. नेचर (2019), गांधी ऑन साइंस: द चैंपियन ऑफ इंडियाज फ्रीडम मुवमेंट वाज अ सर्पोटर ऑफ सषटेनेबल डेवलपमेंट, पृष्ठ 150।
7. रामचंद्र गुहा, (2006), हाउ मच शूड अ पर्सन कन्ज्यूम?: इनवायरमेंटलिज्म इन इंडिया एण्ड द यूनाइटेड स्टेट्स (कैलिफोर्निया विश्वविद्यालय प्रेस, पृ.182। Gandhi, Trusteeship and Intellectual Property Law
8. राजम नीथू, गांधी, ट्रस्टीशिप एण्ड इंटेलेक्चुअल प्रॉपर्टी लॉ, 24 दिसंबर 2013, globaltrust.tau.ac.il/gandhi-trusteeship-and-intellectual-property-law से उद्धृत। Gandhi's doctrine of trusteeship: spiritualizing interpersonal relationship working paper
9. चक्रवर्ती बी (2017), गांधीज डॉक्टरीन ऑफ ट्रस्टीशिप: स्त्रीचुआलाइजिंग इंटरपर्सनल रिलेशनशिप वर्कींग पेपर नम्बर 67, नवकृष्ण चौधरी विकास अध्ययन केंद्र, भुवनेश्वर।
10. बालगणेश एस (2013), गांधी एण्ड कॉपीराइट प्रैगमेटिज्म, कैलिफ लॉ रेव पृ. 101।
11. वही।
12. वही।
13. वही।
14. गोविंद एम (2009), साइंस, ट्रुथ एण्ड गांधी: डाइवर्जेंस एण्ड कनवर्जेंस, गांधी मार्ग क्वार्ट जे गांधी शांति स्थापना 31(1)।
15. सा विद्या या विमुक्तये एक संस्कृत श्लोक है जिसका अर्थ है ज्ञान वह है जो मुक्त करता है। Understanding the Mechanic Life with Gandhi
16. एम.के. गांधी, अंडरस्टैंडिंग द मैकेनिक लाइफ विद गांधी, <https://www.mk Gandhi.org/short/ev46.htm> से उद्धृत। Gandhi's Seven Sins Still Exist, But We Got a New Tool: Knowledge A Panacea
17. गोवर, विजय, (2015) गांधीज सेवेन सिन्स स्टील इकजीस्टस्, बट वी गॉट अ न्यू टूल: नॉलेज अ पनासीया 1. पृ.1394-1402।
18. जे. ब्राउन और ए. परेल (संपादक)(2011), द कैम्ब्रिज कम्पेनियन टू गांधी, कैम्ब्रिज यूनिवर्सिटी प्रेस, पृ. 135-153।
19. निकोला एल. ब्रागाजी- मारियानो मार्टिनी(2019), "महात्मा गांधी इन द फिल्ड ऑफ 150 इयर्स आफटर्स हिज बर्थ" (आईएमएजे) वाल्यूम 21, पृ. 641-643।
20. कृष्णस्वरूप आनंदी(2006), कृषि प्रणाली, कृषि भूमि और कुटीर उद्योग (ग्राम स्वराज के संदर्भ में), <https://www.mk Gandhi.org/vinoba/anasakti/gramswaraj.htm> से उद्धृत।
21. वही।
22. वही।
23. वही।
24. शिव वैद्यनाथन(2017), बौद्धिक संपदा-एक अति संक्षिप्त परिचय ऑक्सफोर्ड यूनिवर्सिटी प्रेस, पृ. 100।

Disclaimer/Publisher's Note: The statements, opinions, and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of TJSD and/or the editor(s). The Journal of Scientific Discourse (TJSD) and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.

भारतीय अर्थव्यवस्था पर कोरोना का प्रभाव एवं बौद्धिक सम्पदा अधिकार

सरलेश कौशल¹ & बकील सिंह कौशल²

1. शासकीय आदर्श कन्या महाविद्यालय श्योपुर-476337, म.प्र., भारत
2. शासकीय महाविद्यालय ढोढर, श्योपुर-476337, म.प्र., भारत

Corresponding Author: kaushalsarlesh@gmail.com

शोध सारांश :- कोरोना के संक्रमण से बचाव के लिए तालाबंदी की गई, जिससे एक तरफ पर्यावरण प्रदूषण कम हुआ वहीं दूसरी तरफ अर्थव्यवस्था के विकास की गति धीमी होती गई। हमारी अर्थव्यवस्था अर्थवकसित/विकासशील कही जाने वाली अर्थव्यवस्था है। लेकिन कोरोना वायरस ने अर्थव्यवस्था को झकझोर कर रख दिया। अर्थव्यवस्था की दृष्टि से देखा जाए तो इस समय विश्व के सामने दो समस्याएं हैं, कोरोना वायरस के संक्रमण को रोकना एवं द्वितीय अर्थव्यवस्था को विकास के मार्ग पर वापस लाना। कोरोना वायरस के संक्रमण से बचने लिए की गई तालाबंदी से सबसे ज्यादा प्रभावित असंगठित क्षेत्र के श्रमिक हुए हैं। ये श्रमिक दो जून की रोटी के कमाने के लिए अपने घर से बाहर गए, तालाबंदी के समय ये श्रमिक सैकड़ों किलोमीटर चलकर अपने घर वापस आने को मजबूर हुए, जिसके कारण अर्थव्यवस्था में बेरोजगारी की समस्या खड़ी हो गई इसके साथ-ही-साथ कोरोना का संक्रमण भी बढ़ा। भारतीय अर्थव्यवस्था को सही विकास के मार्ग पर लाने के लिए शासन द्वारा 20 लाख करोड़ की घोषणा राहत पैकेज के रूप में की गई थी। जो आकर्षित तो लग रही थी लेकिन सफल होना इसके सही-सही क्रियान्वयन पर निर्भर करेगी। उस समय ना तो कोरोना की कोई वैक्सीन थी, ना ही इसका कोई स्थाई इलाज था। हमारी अर्थव्यवस्था के सामने एक के बाद एक नई चुनौतियां सामने आ रही थीं। इस संकट के दौरान नवाचार, वैक्सीन और तकनीकी समाधानों की अहमियत भी बढ़ी, जिससे बौद्धिक सम्पदा अधिकार (IPR) का महत्त्व भी सामने आया

बीज शब्द :- सामाजिक दूरी, कंटेनमेंट एरिया, रेड जोन, तालाबंदी, कोरोना, बौद्धिक, सम्पदा, अधिकार आदि।

प्रस्तावना :- कोरोना चीन की चाहे कोई चाल हो या फिर कोई प्राकृतिक आपदा थी। कोरोना से पूरी तरह बाहर निकलना इतना आसान नहीं था, इससे निकलने में समय लगेगा। 18 अक्टूबर से 27 अक्टूबर 2019 के बीच सैन्य खेल का आयोजन चीन के बुहान शहर में होने वाला था। इस सैन्य खेल में 140 से अधिक देशों ने सहभागिता की जिसमें 9308 खिलाड़ियों ने भाग लिया था। इस सैन्य खेल के शुरुआत होने के पूर्व ही चीन के बुहान शहर में कोरोना का संक्रमण फैल गया था। कोरोना के संक्रमण को चीन द्वारा विश्व समुदाय से छुपाया गया था। इसकी जानकारी सहभागिता करने वाले देश व अन्य सहयोगी देशों को नहीं बताई गई थी। विश्व सैन्य खेल में सहभागिता करने वाले देश विशेष कर यूरोपियन देश के खिलाड़ी थे जिसके कारण कोरोना संक्रमण यूरोपियन खिलाड़ियों में देखने को मिला।

भारतीय अर्थव्यवस्था को अगर देखा जाए तो, ये अमेरिका, चीन, जापान जर्मनी के बाद पांचवी सबसे बड़ी अर्थव्यवस्था है। विश्व बैंक की एक रिपोर्ट के अनुसार कोरोना के संक्रमण की यह महामारी एक ऐसे समय में आई है जिस समय भारत की अर्थव्यवस्था मंदी के दौर से गुजर रही थी। उस वर्ष या उससे पिछले वर्ष की बात की जाए तो असंगठित क्षेत्र रियल एस्टेट, ऑटोमोबाइल, लघु उद्योग आदि क्षेत्रों में सुस्ती छाई हुई थी। शासन, प्रशासन द्वारा निवेश के माध्यम से बनाए गए नियमों में राहत और आर्थिक मदद प्रदान कर अर्थव्यवस्था में गति बनाए जाने की कोशिश की जा रही थी। कोरोना से प्रभावित पहले मरीज की पुष्टि चीन के बुहान शहर में दिसंबर 2019 में हुई थी।

भारत को कोरोना के मरीज की दृष्टि से देखा जाए तो 30 जनवरी 2020 को प्रथम कोरोना से प्रभावित मरीज का पता चला। कोरोना के संक्रमण से बचने के लिए केंद्र सरकार द्वारा पूरे भारत देश में तालाबंदी की घोषणा की गई पहली तालाबंदी 25 मार्च 2020 से 14 अप्रैल 2020 तक कुल 21 दिवस के लिए तालाबंदी की गई। कोरोना के भयंकर संक्रमण को देखते हुए इसी को और आगे बढ़ाकर द्वितीय तालाबंदी 15 अप्रैल 2020 से 3 मई 2020 तक 19 दिवस के लिए की गई। कोरोना संक्रमण की स्थिति इतनी गंभीर हो गई कि तृतीय एवं चतुर्थ तालाबंदी भी करने के लिए मजबूर हो गए। तृतीय तालाबंदी 4 मई से 17 मई तक कुल 14 दिवस के लिए एवं चतुर्थ तालाबंदी 18 मई से 31 मई तक कुल 18 दिवस की गई।

कोरोना महामारी एक बड़ी चुनौती के रूप में सामने आई लेकिन यह चुनौती केवल भारत के लिए ही नहीं बल्कि अमेरिका, यूरोपीय देशों सहित पूरे विश्व के लिए थी। महामारी को रोकने हेतु सामाजिक दूरी एवं तालाबंदी को ही एक कारगर उपाय माना गया। तालाबंदी से भारतवासी घरों में कैद हो गए। तालाबंदी की घोषणा के बाद असंगठित क्षेत्र में कार्यरत प्रवासी श्रमिक अपने-अपने घर वापस लौटने लगे इस भयानक बीमारी से जो तालाबंदी हुई उसके कारण श्रमिकों को अपने घर वापस लौटने के लिए साधन नहीं मिल पा रहे थे। साधनों के अभाव में बहुत सारे श्रमिक पैदल चलकर ही अपने घर वापस लौटने लगे, जिसके कारण उनके सामने बहुत सारी परेशानियां आईं और इसी बीच कई श्रमिकों और उनके परिवार के घर पहुंचने से पहले ही मृत्यु हो गई। इन सभी समस्याओं को देखते हुए हमारे शासन प्रशासन द्वारा उनके लिए घर वापसी हेतु अनेक प्रयास किए गए। इनके घर वापसी होने पर कोरोना का संक्रमण का खतरा और बढ़ गया। दूर दराज असंगठित क्षेत्रों में संलग्न श्रमिकों के घर वापस आने के बाद उनके सामने रोजगार की समस्या खड़ी हो गई। लेकिन केंद्र के साथ-साथ राज्य सरकारें भी इसके निदान हेतु प्रयासरत थीं रोजगार हेतु मध्य प्रदेश सरकार मनरेगा के माध्यम से श्रमिकों को रोजगार उपलब्ध करा रही थी।

तालाबंदी होने से भारतीय अर्थव्यवस्था में सामाजिक एवं आर्थिक गतिविधियों में पूर्ण विराम सा लग गया था। अति आवश्यक सेवाओं के अतिरिक्त अन्य सभी सेवाओं को बंद कर दिया गया था। सारे उद्योग धंधे थम से गए, आवागमन पूर्ण रूप से प्रतिबंधित हो गया। जिसके कारण भारतीय अर्थव्यवस्था को कई चुनौतियों का सामना करना पड़ा। आई एस मार्केट इंडिया सर्विसेज बिजनेस इंडेक्स मार्च 2020 में 49.3 था, जो अप्रैल में 05.4 पर आ गया। इसी प्रकार PMI आउटपुट इंडेक्स 50.6 से 07.2 पर आ गया।

तालाबंदी होने से भारतीय परिवार पूरी तरह से अपने-अपने घरों में कैद हो गए। जब माननीय प्रधानमंत्री जी द्वारा तालाबंदी की घोषणा की गई तो उसके बाद प्रवासी लोग अपने-अपने घर वापस लौटने लगे। घर लौटने पर कई प्रवासी लोगों को साधन नहीं मिलने के कारण वे पैदल ही अपने घर वापस आने लगे, जिससे उनके सामने बहुत सी समस्याएं आईं। ऐसी विपरीत परिस्थिति में कुछ के घर पहुंचने से पहले ही रास्ते में मृत्यु हो गई। कोरोना संक्रमण से बचाव एवं रोकथाम हेतु, जो प्रवासी बाहर से आए थे उनको क्वॉरेंटाइन किया गया। क्वॉरेंटाइन के बाद जांच करने पर यदि कोई संक्रमित पाया गया तो उन्हें चिकित्सा सुविधा प्रदान की गई।

ऐसी विषम परिस्थितियों ने भारतीय अर्थव्यवस्था के साथ-साथ विश्व की पूरी वैश्विक अर्थव्यवस्था को झकझोर कर रख दिया। कोरोना के संक्रमण ने पूरी तरह से भारतीय अर्थव्यवस्था की धुरी को पूरी तरह जकड़ लिया था। इस जकड़ से अर्थव्यवस्था में सामाजिक एवं आर्थिक रूप से विराम सा लग गया लेकिन जब तालाबंदी को हटाया गया तो भारतीय अर्थव्यवस्था के सामने चारों तरफ से



हर प्रकार की समस्याएं मुंह फैलाए सामने खड़ी थी। इसके निदान हेतु केंद्र एवं राज्य सरकार द्वारा विशेष प्रयास किए गए।

उद्देश्य :- प्रस्तुत अध्ययन के उद्देश्य का आशय भारतीय अर्थव्यवस्था पर कोरोना के प्रभाव का अध्ययन करना है। कोरोना के संक्रमण को रोकने एवं कोरोना से बचाव हेतु शासन द्वारा किए गए प्रयासों का अध्ययन कर उपर्युक्त सुझाव प्रस्तुत करना है।

भारतीय अर्थव्यवस्था पर कोरोना का प्रभाव: कोरोना के समय तालाबंदी से भारतीय अर्थव्यवस्था में निम्नलिखित चुनौतियां उत्पन्न हुईं जो कि निम्नानुसार हैं:

सकल घरेलू उत्पाद में कमी – कोरोना के समय हुई तालाबंदी से जो चुनौतियां उत्पन्न हुईं हैं जिससे सकल घरेलू उत्पाद में कमी हो गई। तालाबंदी के दौरान अर्थव्यवस्था के तीनों महत्वपूर्ण क्षेत्रों— कृषि, उद्योग एवं सेवा क्षेत्र में बहुत ही हानि हुई अर्थव्यवस्था के तीनों क्षेत्रों में से कृषि क्षेत्र में कोरोना के दौरान 12: की हानि हुई जिसका मूल्य 52 बिलियन डॉलर था। उद्योग क्षेत्र में होने वाली हानि 27: थी जिसका यू एस डॉलर कुल मूल्य 184 बिलियन था और 31: की हानि सेवा क्षेत्र में हुई जिसका मूल्य 388 यू एस डॉलर बिलियन के बराबर थी।

रिपोर्टों से पता चलता है कि प्रथम तालाबंदी के दौरान जो की 21 दिन की अवधि का था, जिसमें प्रत्येक दिन लगभग 32 हजार करोड़ की हानि का अनुमान लगाया गया था। भारत देश के सकल घरेलू उत्पाद में यह कमी 2020 में ही नहीं बल्कि 2021 में भी अनुमानित की गई थी। कोरोना संक्रमण के दौरान यह बात भी सामने आई थी के कोरोना का संक्रमण अत्यधिक तीव्र गति से फैल रहा था, इसको नियंत्रित करने हेतु विभिन्न प्रदेशों ने संक्रमित क्षेत्र को रेड जोन एवं contentment एरिया घोषित किया उन क्षेत्रों की सकल घरेलू उत्पाद का एक बहुत बड़ा हिस्सा सरकार को प्राप्त हो रहा था, लेकिन उन क्षेत्रों की आर्थिक गतिविधियां, परिस्थितियों को देखते हुए बंद करनी पड़ी जिसका नुकसान भारतीय अर्थव्यवस्था को उठाना पड़ा। कोरोना संक्रमण को नियंत्रित करने हेतु की गई तालाबंदी से आर्थिक गतिविधियों पर प्रतिबंध लगने से एस एंड पी ने जो अनुमान लगाए उसके अनुसार वर्ष 2020 में अर्थव्यवस्था में 2.4% की कमी आई।

वर्ष	सकल घरेलू उत्पाद GDP विकास दर
2019	04.04
2020	-7.25
2021	8.95
2022	6.68
2023	7.18
2024	08.2

स्रोत- आर्थिक समीक्षा 2024-25

बेरोजगारी में वृद्धि – कोरोना के संक्रमण को नियंत्रित करने हेतु देश के अंदर आर्थिक गतिविधियों पर विराम सा लग गया, जिसके परिणाम स्वरूप लाखों करोड़ों लोग बेरोजगार हो गए थे। कोरोना के दौरान अगर बेरोजगारी की वृद्धि को देखा जाए तो 8 मार्च 2020 को 7.7% थी, जो की 17 मई 2020 को बढ़कर 24% हो गई।

भारतीय एवं प्रमुख सांख्यिकी विद श्री प्रणव सेन जी के अनुसार प्रथम तालाबंदी के दौरान दो सप्ताह में ही 50 मिलियन लोगों को अपने रोजगार से हाथ धोना पड़ा। CMIE के अनुसार शहरी बेरोजगारी की दर लगभग 30: के आसपास थी यदि द्वितीय छमाही में भी तालाबंदी रहती तो बेरोजगारी की दर की स्थिति बहुत ही दयनीय हो जाती। भारतीय अर्थव्यवस्था के तीनों क्षेत्रों में जो क्षति हुई उसकी जल्दी रिकवरी करना आसान नहीं होता जिससे अर्थव्यवस्था में रिकवरी की दर धीमी हो गई है।

अधोसंरचना उद्योग का सकल घरेलू उत्पाद में लगभग 20: तथा ऑटोमोबाइल क्षेत्र का 50: है कोरोना में तालाबंदी से विक्रय में 15: की कमी आई जिसके कारण ऑटोमोबाइल क्षेत्र में 10: की कमी करनी पड़ी। जिससे भारतीय अर्थव्यवस्था को भारी नुकसान हुआ। कोर क्षेत्र अर्थात आठ उद्योग जिन्हें भारतीय अर्थव्यवस्था की रीड माना जाता है। उनमें मार्च एवं अप्रैल में बहुत गिरावट आई अर्थात यह दो महीने में कारोबार आधे से भी कम रह गया।

विदेशी व्यापार में कमी – भारतीय अर्थव्यवस्था की रीड कहे जाने वाले सूक्ष्म लघु एवं मध्यम उद्योगों हेतु आवश्यक कच्चा माल जो उपयोग होता है, वह चीन से आयात किया जाता है। कोरोना के समय भारत के विदेशी व्यापार में बहुत कमी आई तथा भारत के अंदर जो बड़ी-बड़ी दवाई की कंपनियां हैं उन कंपनियों हेतु 70: कच्चा माल चीन से आयात किया जाता है। जिसका मूल्य लगभग 30 बिलियन डॉलर है। इस महामारी के दौरान जो तालाबंदी हुई उसे उसके कारण आयातों में ही नहीं बल्कि निर्यातों में भी कमी आई जिसके कारण भारतीय अर्थव्यवस्था को लगभग 34.8 करोड़ की हानि हुई।

श्रमिकों पर प्रभाव – कोरोना संक्रमण के बचाव के लिए जो तालाबंदी की गई उसे सबसे ज्यादा असंगठित क्षेत्र में संलग्न श्रमिक प्रभावित हुए भारतीय अर्थव्यवस्था में श्रमिकों की स्थिति को देखा जाए तो लगभग 465 मिलियन श्रमिकों में से 422 मिलियन श्रमिक यानी 91: श्रमिक असंगठित क्षेत्र में कार्यरत है निसंदेह यह कह सकते हैं कि कोरोना में तालाबंदी से यह श्रमिक बेरोजगार तो हुए ही साथ ही इनको कार्य स्थल से अपने घर की ओर मजबूरी में वापस आना पड़ा।

इस वैश्विक महामारी से श्रमिकों पर क्या प्रभाव पड़ा और उनकी क्या स्थिति हुई यह मंजर किसी से छिपा हुआ नहीं है, एक तरफ सामाजिक दूरी और मुंह चिढ़ाती लंबी-लंबी कतारें हैं, तो दूसरी ओर श्रमिकों की अपने घर वापसी। श्रमिकों की घर वापसी से कोरोना का संक्रमण और ज्यादा बढ़ता ही गया।

शिक्षा पर कोरोना का प्रभाव – अगर शिक्षा जगत में कोरोना के प्रभाव की बात की जाए तो बहुत ही बुरा प्रभाव पड़ा है। अगर शैक्षणिक गतिविधियों की बात की जाए तो विद्यालय से लेकर महाविद्यालय सभी कोरोना संक्रमण के दौरान बंद करने पड़े विद्यार्थियों की बोर्ड एवं अन्य परीक्षाएं स्थगित कर दी गई। बाद में विद्यार्थियों को बिना परीक्षा के अगली कक्षा में प्रमोट कर दिया गया। यूनेस्को का ऐसा अनुमान है कि भारत में स्कूल एवं कॉलेज में अध्ययन करने वाले लगभग 32 करोड़ विद्यार्थी प्रभावित हुए ऐसी स्थिति में शासन ने शैक्षणिक स्तर को बचाए रखने हेतु ई-लर्निंग के माध्यम से शैक्षणिक गतिविधियां आयोजित की गई। उसी समय शासन में ई-लर्निंग के माध्यम से शैक्षणिक गतिविधियों को प्रोत्साहन दिया।

खाद्य सामग्री पर कोरोना का प्रभाव – कोरोना के संक्रमण के समय की तालाबंदी के कारण खाद्य सामग्री बेचने वालों के सामने एक बहुत बड़ी समस्या थी कि खाद्य सामग्री बेचते समय खुद को कोरोना के संक्रमण से सुरक्षित रखते हुए खाद्य सामग्री की आपूर्तिकरना। खाद्यसामग्री की आपूर्ति हेतु शासन प्रशासन द्वारा ऐसी व्यवस्था की गई कि खाद्य सामग्री की आपूर्ति के लिए परिवहन सुविधाओं को जारी रखा तथा अति आवश्यक वस्तुओं की कमी न हो- किराना फल सब्जी दूध आदि की ऐसी व्यवस्था की गई थी, कि जो लोगों के आसपास ही मिल जाए।

ऑनलाइन कार्य प्रणाली पर कोरोना का प्रभाव – आईटी कंपनियों ने अपने कर्मचारियों को कोरोना के संक्रमण से बचाव हेतु वर्क फ्रॉम होम की सुविधा प्रदान की गई। ऑनलाइन प्रणाली से कार्य भी सुचारु रूप से चलने लगा एवं कर्मचारियों के स्वास्थ्य पर भी कोरोना के संक्रमण का कोई बुरा असर नहीं

होगा। आईटी क्षेत्र में कार्यरत कर्मचारी ऑनलाइन कार्य करने में सुरक्षित महसूस कर रहे थे। कार्य को भी पूरी लगन न और मेहनत से कर रहे थे।

शासकीय प्रयास – कोरोना काल में अगर शासकीय प्रयासों की बात की जाए तो इस वैश्विक महामारी में भी बहुत अच्छे सार्थक प्रयास किए थे। कोरोना काल के दौरान शासन के सामने दो बड़ी चुनौतियां थी की प्रथम कोरोना के संक्रमण को जल्दी से जल्दी रोका जाए द्वितीय कोरोना से प्रभावित हुई अर्थव्यवस्था को विकास के मार्ग पर लाना। इन चुनौतियों के लिए शासन अलग-अलग क्षेत्र में तालाबंदी कर रही थी। वहीं दूसरी तरफ अर्थव्यवस्था को मार्ग पर लाने के लिए अनेक कार्यक्रम अपना रही थी यह कार्यक्रम स्वागत योग्य थे, लेकिन विकास तभी संभव हो सकता है जब हम अपने स्वास्थ्य का भी ध्यान रखें। सरकार द्वारा जब तालाबंदी हटाई गई तो उसके बाद आर्थिक स्थिति में सुधार लेकिन कोरोना का संक्रमण बढ़ता जा रहा था। शासन ने भारतीय अर्थव्यवस्था को विकास के मार्ग पर लाने के लिए 10 लाख करोड़ राहत पैकेज की घोषणा की जो की सकल घरेलू उत्पाद का 10% है जिसमें 10 करोड़ सेवा कर्मियों को लाभ देने का मास्टर प्लान था एमएसएमई (MSME) क्षेत्र में संलग्न कर्मियों को 1.20 करोड़, टेक्सटाइल क्षेत्र में 4.5 करोड़, पर्यटन होटल क्षेत्र में 3.8 करोड़ सेवा कर्मियों को आर्थिक रूप से मदद देने का प्रावधान किया गया।

कोरोना के परिणाम स्वरूप अगर सेवा क्षेत्र को देखा जाए तो इसका भारतीय अर्थव्यवस्था में 55% योगदान है। सेवा क्षेत्र में भी गतिविधियों में कमी आई जिसके कारण पीएमआई (PMI) इंडेक्स में भी भारी कमी हो गई। कोरोना के दौरान गैर जरूरी वस्तुओं की मांग बहुत कम हो गई इसलिए अर्थव्यवस्था में उत्पादन को ज्यादा नहीं बढ़ाया जा सकता ऐसी समय में प्रत्येक परिवार को Rs.10000 प्रदान किए जाए तो भी मांग नहीं बढ़ेगी, क्योंकि लोगों के द्वारा इसे भविष्य के लिए बचत करके रखा जा सकता है। अर्थव्यवस्था का पुनरुत्थान तभी संभव होगा जब लोगों को कोरोना जैसी महामारी के संक्रमण का डर नहीं होगा।

अर्थव्यवस्था के विस्तार में एक महत्वपूर्ण कड़ी निवेश माना जाता है भारतीय अर्थव्यवस्था निजी निवेश की कमी से जूझ रही थी। वर्ष 2019 में 28.9% निजी निवेश का था इस वैश्विक महामारी के दौरान देश में वोकल फॉर लोकल एवं आत्मनिर्भरता की बात कही गई, जिसके परिणाम स्वरूप निश्चित रूप से निजी निवेश में वृद्धि होगी। आपदा को अवसर में बदलना आत्मनिर्भरता की पहचान बन गई। कोरोना से पूर्व हमारे यहां PPE किट नहीं बनती थी तथा N&95 मास्को का निर्माण भी बहुत कम मात्रा में होता था, अब हमारे देश में 4.5 लाख PPE किट एवं 3 लाख N-95 मास्को तथा वेंटीलेटर का उत्पादन प्रतिदिन हो रहा है।

सुझाव – आपदा को अवसर के रूप में बदलने के लिए हमारे देश के प्रधानमंत्री श्री नरेंद्र मोदी जी ने 12 मई 2020 को आत्मनिर्भर भारत अभियान का शुभारंभ किया। जब हम सब आत्मनिर्भर होंगे तो हमारे देश से बेरोजगारी स्वत ही समाप्त हो जाएगी लेकिन आत्मनिर्भर बनने के लिए हम सबको साथ मिलकर प्रयास करना होगा।

कोरोना संक्रमण के लिए पूरा विश्व चीन को दोषी मान रहा है। विश्व के लगभग देश चीन को छोड़कर अन्य देशों के साथ व्यापारिक संबंध बनाना चाहते हैं। भारत सरकार की विदेश में 300 कंपनियों को लगाए जाने की चर्चा है, अगर यह विदेशी कंपनियां भारत में आकर उद्योग स्थापित करती हैं, तो न केवल यहां पर उत्पादन बढ़ेगा बल्कि रोजगार का सृजन होगा, जिससे हमारी भारतीय अर्थव्यवस्था आर्थिक रूप से मजबूत होगी।



कोरोना महामारी कोई सामान्य बीमारी नहीं है जैसा कि लंदन में किंग्स महाविद्यालय द्वारा किए गए अध्ययन से पता चला कि कोरोना के खिलाफ रोगियों में जो एंटीबॉडीज विकसित हुई है वह कुछ दिनों बाद ही कमजोर हो जाती है अर्थात् कुछ दिनों बाद कोरोना का संक्रमण वापस लौटकर होने की संभावना बढ़ जाती है। एम्स के निर्देशक कोरोना के बारे में बताते हैं, कि कोरोना से ठीक हुए मरीजों में न्यूरोलॉजिकल, किडनी एवं सांस संबंधी, जैसी गंभीर समस्याएं बढ़ रही हैं। उनका ऐसा कहना था कि हमें यह बीमारी ना हो सामाजिक दूरी एवं मास्क का उपयोग कर अपने हाथों को साबुन से बार-बार धोना चाहिए या अपने हाथों में सैनिटाइजर लगाना चाहिए इसके अलावा इस महामारी से बचने हेतु शासन द्वारा जो नियम बनाए थे उनका पालन करना चाहिए।

निष्कर्ष :- वैश्विक महामारी कोरोना से मुक्ति पाना उस समय असंभव सा प्रतीत हो रहा था, क्योंकि संक्रमण की लहर रुकने का नाम ही नहीं ले रही थी। इसने भारतीय अर्थव्यवस्था को ही नहीं बल्कि पूरी वैश्विक अर्थव्यवस्था को झकझोर के रख दिया था। लेकिन हमारे देश की सरकार द्वारा लगातार प्रयास किए गए कि कैसे भी करके हमें इसके संक्रमण को फैलने से रोकना है। निरुसंदेह कह सकते हैं कि अब कोरोना से महामारी पर काबू पा लिया है क्योंकि उसकी वैक्सीन भारत में हर नागरिक को लगी है। सरकार की यह सार्थक पहल स्वागत योग्य है कि 50 वर्ष या इसके ऊपर वालों के लिए बूस्टर डोज भी लगाए गए हैं ताकि कोरोना के संक्रमण का असर इन पर ना पड़े।

कोरोना जैसी महामारी के कारण जो अनेक समस्याएं उत्पन्न हुई हैं उन समस्याओं ने भारत को आत्मनिर्भर बनने का अवसर प्रदान किया है। इन अवसरों को भारत किस तरह से लेगा, उभरते अवसरों को कितने कौशल से निभाएगा, इस पर भारत का आर्थिक विकास निर्भर करेगा। भारतीय अर्थव्यवस्था को कोरोना के दौरान जो हानि हुई है। उसकी बहुत ही कम समय में रिकवरी कर भारत ने एक नया इतिहास रच दिया है।

संदर्भ ग्रंथ सूची:

1. सोलंकी राकेश कुमार 2020 आत्मनिर्भर भारत रोजगार और भारतीय अर्थव्यवस्था पर इसके प्रभाव Juni khyat, vol-10, Issue-7, No-14, July 2020.
2. प्रधान अनूप 2020 कोरोना आर्थिक सामाजिक चुनौतियां एवं आर्थिक विकास एक परिदृश्य Juni khyat, vol-10, Issue-7, No-14, July 2020..
3. ठाकुर एसके एवं रेनु मौर्य 2020 प्रभाव Juni khyat, vol-10, Issue-7, No-14, July 2020.
4. आर्थिक समीक्षा 2024-25
5. <https://www.research gate.net>.
6. <https://www.research/publications/340137009> Impact of coronavirus COVID-19 on Indian economy.
7. <https://www.research gate-net/Post/What is the Impact of COVID 19 on your research Acadmic activities>.
8. <https://www.greyb.ceo>
9. <http://www.epo.org>

Disclaimer/Publisher's Note: The statements, opinions, and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of TJSD and/or the editor(s). The Journal of Scientific Discourse (TJSD) and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.

पारंपरिक भारतीय समाज और आर्थिक व्यवस्था में परिवर्तन

सुरेश प्रसाद अहिरवार

समाजशास्त्र विभाग, राजमाता सिंधिया शासकीय स्नातकोत्तर कन्या महाविद्यालय छिन्दवाड़ा मध्यप्रदेश

Email: spjnu77@gmail.com

शोध सारांश: भारतीय पारंपरिक समाज और आर्थिक व्यवस्था में ऐतिहासिक, राजनीतिक और तकनीकी प्रभावों के कारण महत्वपूर्ण परिवर्तन हुए हैं। यह समाज सामाजिक पदानुक्रम, जाति-आधारित व्यवसायों और कृषि अर्थव्यवस्थाओं के साथ आधुनिकीकरण, वैश्वीकरण और आर्थिक उदारीकरण की ताकतों के साथ विकसित हो रहा है। यह शोधपत्र पारंपरिक सामाजिक संरचना और आर्थिक ढांचे में हुए बड़े बदलावों की पड़ताल करता है। इन बदलावों को प्रेरित करने वाले कारकों और समकालीन भारत के लिए उनके निहितार्थों पर प्रकाश डालता है। ऐतिहासिक रूप से, भारतीय समाज में जातिगत विभाजन, संयुक्त परिवार प्रणाली, निर्वाह कृषि और स्थानीय व्यापार व्यवस्थित रहा है। जाति व्यवस्था में व्यावसायिक भूमिकाओं और सामाजिक गतिशीलता की तरलता रही है लेकिन ब्रिटिशकाल में एक ओर कानूनी सुधार, शिक्षा, शहरीकरण और लोकतांत्रिक शासन ने पारंपरिक पदानुक्रमों को कमजोर करने और सामाजिक गतिशीलता को बढ़ावा दिया तो दूसरी ओर जो सामाजिक समूह जातिगत-व्यवसायिकता से बाहर थे उन्होंने आर्थिक उदारीकरण की नीतियों और तकनीकी का सहारा लेकर तमाम जातिगत धंधों को अपने निजी पक्ष में करने सक्षम हुए। इस प्रक्रिया ने जातिगत समाज में निचले तबकों को लोकतान्त्रिक संस्थाओं और व्यावसायिक अर्थव्यवस्था से बाहर का रास्ता दिखा दिया। वर्तमान में विभिन्न जातियों के बीच बढ़ती आय-असमानता, बेरोजगारी और ग्रामीण-शहरी असमानताओं सहित चुनौतियाँ बनी हुई हैं। इन सामाजिक-आर्थिक परिवर्तनों को समझना समावेशी नीतियों को आकार देने के लिए आवश्यक है ताकि जातिगत-व्यवसायिक परंपरा को आधुनिकीकरण के साथ न्याय संगत बनाया जा सके।

बीज शब्द: अर्थव्यवस्था, सामाजिक, आर्थिक, परिवर्तन।

प्रस्तावना: संसार की सारी घटनाएं अनित्य हैं अर्थात् परिवर्तन से गुजर रही है जो भारतीय समाज और संघर्ष का एक महत्वपूर्ण आदर्शिकरण प्रस्तुत करता है। जिसका सामाजिक और राजनीतिक विचारकों ने भी परिवर्तन के विचार का उपयोग किया है, जिसे डार्विन ने अपने विकासवादी सिद्धांत के माध्यम से स्थापित करने का कार्य किया। जो सामाजिक प्रगति और भौतिकवादी उन्नति को तर्कसंगत बनाने के एक साधन के रूप में विकसित हुआ लेकिन फिर भी, यह अनुप्रयोग प्राकृतिक विकास और मानव-प्रेरित परिवर्तन के बीच अंतर्निहित भिन्नता को स्वीकार करने में विफल रहता है। हीगल और कार्ल मार्क्स ने इस धारणा का प्रचार किया, यह कहते हुए कि सामाजिक परिवर्तन अनिवार्य रूप से समाज के एक अधिक उन्नत चरण का परिणाम होते हैं। जैविक विज्ञान ने सामाजिक परिवर्तन पर बिना आलोचना के लागू करने से तर्कसंगत चिंताओं और सार्वभौमिक नैतिक सिद्धांतों की अनदेखी की है। जो उन्नत और कम विकसित सभ्यताओं दोनों के लिए

प्रासंगिक हैं। योगेन्द्र सिंह ने स्पष्ट रूप से कहा कि सामाजिक परिवर्तन के विश्लेषण के लिए संस्थाओं का तुलनात्मक अध्ययन एक पूर्वपेक्षा है, जो समाजशास्त्र के सांस्कृतिक दृष्टिकोण से संभव नहीं है, क्योंकि यह सामाजिक घटना की विशिष्टता पर अत्यधिक जोर देता है (सिंह, 1973)। जैसे आर्थिक और आधुनिकीकरण की अवधारणा को विशुद्ध रूप से इंडोलॉजिकल संदर्भ में समझने में कठिनाई है। कानून, संवैधानिक अधिकार, नौकरशाही, विज्ञान और प्रौद्योगिकी में नए भिन्न विकास के महत्व का विश्लेषण किए बिना भारतीय समाज की सामाजिक संरचना, परिवार, जाति, नागरिक और सामुदायिक प्रशासन और नौकरशाही के क्षेत्रों में परिवर्तनों की व्याख्या कैसे की जा सकती है (पूर्वोक्त)।

सामाजिक व्यवस्था के परिवर्तन पर प्रकाश डालते हुए समाजशास्त्रीय लुईस ड्यूमॉन्ट कहते हैं कि इससे सामाजिक व्यवस्था का औचित्य इस बात में नहीं पाया जाता कि यह क्या है, बल्कि इस बात में पाया जाता है कि यह क्या बन रहा है। ऐसी परिस्थितियों में उन लोगों पर बहुत अधिक दबाव बढ़ता है जिन्हें सार्वजनिक अनुमान में सामाजिक परिवर्तन के बारे में पता होना चाहिए ताकि वैचारिक अभिविन्यास, सामाजिक परिवर्तन का विश्लेषण करने के लिए विशिष्ट रूप भी होना चाहिए (ड्यूमॉन्ट, 1980)। भारत एक प्राचीन सभ्यता है जिसकी सामाजिक और आर्थिक व्यवस्था सदियों से परंपराओं पर आधारित रही है। पारंपरिक भारतीय समाज जाति व्यवस्था, संयुक्त परिवार, कृषि प्रधान अर्थव्यवस्था और सीमित व्यापारिक गतिविधियों पर केंद्रित था। उद्योग, व्यापार और सामाजिक गतिशीलता पर परंपरागत मान्यताओं का प्रभाव था। ब्रिटिश उपनिवेशवाद, औद्योगिकीकरण, स्वतंत्रता संग्राम, और बाद में आर्थिक उदारीकरण जैसी घटनाओं ने भारतीय समाज और अर्थव्यवस्था में व्यापक परिवर्तन लाए। 1991 के आर्थिक सुधारों ने वैश्वीकरण, निजीकरण और उदारीकरण को बढ़ावा दिया, जिससे औद्योगिक विकास और शहरीकरण को गति मिली। आज भारतीय समाज अधिक समावेशी और गतिशील हो गया है, जहाँ शिक्षा, सूचना प्रौद्योगिकी और उद्यमिता ने नई संभावनाएँ खोली हैं। कृषि आधारित अर्थव्यवस्था अब औद्योगिक और सेवा क्षेत्र की ओर बढ़ रही है। इन परिवर्तनों ने न केवल जीवनशैली बदली है, बल्कि सामाजिक मूल्यों और संबंधों को भी प्रभावित किया है। भारतीय समाज में निरंतरता लक्षण हमेशा बना रहा है लेकिन भारतीय समाज अपना मूलतत्त्व हमेशा बचा रखा। इस निरंतरता के साथ भारतीय समाज के परम्परागत स्वरूप को समझने के लिए पुरातन शब्दावली जैसे गण-व्यवस्था, परिवार संरचना, वैवाहिक संरचना, जाति और कृषि संरचना को समझने की आवश्यकता है।

भारतीय सामाजिक संस्थाएं

गण-व्यवस्था: भारत की प्रमुख प्रजाति "नाग" रही है। इसके उत्थान से राजनीतिक इतिहास की शुरुआत होती है जिसे भारतीय ख्याति व गौरव का श्रेय प्राप्त है। एक युगांतकारी घटना सन 642 ईसापूर्व में मगध साम्राज्य का उदय हुआ जिसका संस्थापक शिशुनाग था। बाद में मौर्य साम्राज्य ने सामाजिक व्यवस्था को समत्व, स्वतंत्रता, अहिंसा को स्थापना का कार्य किया। जम्बूद्वीप के नाग लोग जो समूहों में रहते थे इसलिए

उन्हें "गण" कहा जाता था। इसलिए 'गण' एक पूरी संस्कृति और सभ्यता है। इसलिए बौद्ध भिक्षु संघ को भी 'गण' कहा गया। इस गण संस्कृति ने विभिन्न शब्दों को रचना की और स्थानों के नाम भी गण के आधारित पर रचे जाने लगे। जैसे गणपूरक, गणबंधन (सहयोग), गण संगणिका, गणक (हिसाब किताब रखने वाला), गणचरिय (अनेकों का शिक्षक), गणिका (गण की स्त्री), गणित (गिना हुआ), गणी (जिसके अनुयायी हैं), गणोति (गिनता है) आदि शब्दों के विकास नागों की 'गण की गाथा' बता रहा है।

भारत में असुर, देव, गन्धर्व, यक्ष, राक्षस, गण, किन्नर और नाग आदि उत्तर से लेकर दक्षिण तक एवं पूर्व से लेकर पश्चिम तक इनके ऐतिहासिक प्रमाण मिलते हैं। बौद्ध प्रमाणिक साहित्य नागों के सम्बन्ध में प्रमाणिक प्रकाश डालता है। एक कोख से पैदा हुए नाग और दूसरे अंडे से पैदा हुए नागों में भेद करता है। यहाँ नाग शब्द का अर्थ "मानव समूह" के लिए हुआ है (सिंह: 2018:31)। पाली भाषा में "नाग" का अर्थ श्रेष्ठ, पुरुष, सर्प, और हाथी बताया गया है। अब सवाल यह उठता है कि सर्प और हाथी तो शासन करेंगे नहीं, "नाग" पुरुष ही शासन करेंगे। इसलिए नाग शब्द से कई शब्दों का निर्माण हुआ। पाली में नाग दन्त- (हाथी का दांत), नागद्वीप (सिंहली द्वीप का उत्तरी भाग वर्तमान का जाफना), नागबल (हाथी के बल सद्रथ्य बल), नाग बला (लता विशेष), नाग बाला (नागों की लड़की), नागभवन (नागों का निवासस्थल, यह सापों का हो नहीं सकता), नाग-माणवक (नाग तरुण), नाग-माणविका (नाग तरुणी यानि नाग युवती), नाग-राज (नागों का राजा), नाग-रुख (नाग वृक्ष), नाग-लता (पान की बेल), वर्तमान भारत में आज भी बहुत से गांवों के नाम नागों के नाम से विख्यात हैं जिनमें आनंतनाग, सिरीनगर, नागपुर, नागपुर का पठार, नागालैंड आज भी प्रचलन में हैं तो नाग-वन (नागों का वन) नागसेन थेर (मिलिंद राजा से शास्त्रार्थ करने वाले प्रसिद्ध नागसेन स्थविर), नागर (नगर वाला, शहरी), नागरिक (नगर से सम्बंधित) (पाली-हिंदी कोश:2012) आदि संस्कृति का विकास एक दिन में नहीं होता है बल्कि हजारों सदियों लगती हैं। इस गणव्यवस्था में स्वतंत्रता पूर्वक कम्म (कार्यों) की परम्परा, वैवाहिक साथी चुनने की स्वतंत्रता और कबीले के मुखिया चुनने की स्वतंत्रता रही है। नागवंशी ही नागर सभ्यता के जन्मदाता है यानि शहर को विकसित करने का श्रेय भारत में नागों का जाता है। इसलिए सिन्धु घाटी की सभ्यता नगरी सभ्यता है।

परिवार एवं विवाह: भारत में गण-परिवार पाए जाते थे जिसे कबीलाई सभ्य-परिवार के नाम से जान सकते हैं। जहाँ तीन-चार पीढ़ी के लोग एक साथ रहते। नागों के गण-परिवारों में सजातीय नियम लागू नहीं थे अर्थात् परिवार में कोई व्यक्ति किसी भी कार्य को करने के लिए स्वतंत्र था। गण-परिवार प्रायः मात्रसत्तामक रूप में पाए जाते थे। यही गण परिवार कालांतर में जो सात-जातों के रूप में विकसित होने की संभावना प्रकट करता है। बुंदेलखंड में (नागखंड) आज भी सात-जात की कहावत प्रचलन में है। संभवता मौर्यकाल के पतन के बाद अर्थात् विभिन्न गण-वर्गों के बीच विवाह प्रचलन में था भारत में विभिन्न सपिंड, गौत्र और टोटम को मानने लोग अपने सामाजिक समूह में आपस में विवाह नहीं करते हैं यानी भारत में विजातीय विवाह एक आस्था का भी मामला है जिस कारण ही भारत में विजातीय विवाह के कारण ही बाहर से आयी हुई प्रजातीय नश्वे परस्पर घुल मिल गई। इस प्रकार विजातीय विवाह पर सजातीय विवाह का आरोहण ही भारत



में जातियों की उत्पत्ति का जनक माना जा सकता है। *सवणाग्रे द्विजातीनां प्रशस्ता दारकर्मणि । कामतस्तु प्रवृत्तानामिमाः स्युः ऋमशो वराः*॥ अर्थात् द्विजाति को, पहले विवाह में अपने वर्ण की ही स्त्री उत्तम होती है, परंतु काम से प्रवृत्त हुए द्विजातियों को क्रम से ये (आगे कही गई) स्त्रियां श्रेष्ठ हैं। *'शुदैव भ्यां शूद्रस्य सा च स्वा च विशः स्मृते । ते च स्वा चैव राज्ञश्च ताश्च स्वा चाग्रजन्मनः'*॥ शुद्र की स्त्री एक शुद्रा ही हो, वैश्य की वैश्या और शूद्रा हों, क्षत्री की शुद्र, वैश्या और क्षत्रिया हों और ब्राह्मण की ब्राह्मणी, क्षत्रिया, वैश्या तथा शुद्र कही गई हैं। (रामेश्वरभट्ट :2015) संभवता मौर्यकाल के पतन के बाद भी गण-व्यवस्था किसी न किसी स्वरूप में जीवित रही। इस बात की प्रबल संभावना है कि गण व्यवस्था के विश्वास करने वाले नाग लोग गैर-गणी लोगों में विवाह करना उचित नहीं मानते हों क्योंकि विवाह की परम्परा अपने समकक्ष लोगों के बीच ही सम्पन्न होती है। और बाद में मनु ने शूद्र के एक विवाह का उल्लेख किया। यह वैचारिक संभावना है कि नाग गण के लोग वर्ण समर्थकों को सहज रूप में स्वीकार नहीं करते थे इस प्रकार एक विवाह, एक गण-परिवार और भारतीय सामाजिक व्यवस्था का अभिन्न हिस्सा रहे हैं।

भारतीय कार्मिक व्यवस्था: मौर्यकाल के पूर्व चारागाही अर्थव्यवस्था खेतिवारी पर आधारित ग्रामीण अर्थव्यवस्था में बदल चुकी थी और व्यापार के लिए गंगा नदी का परिवहन उपयुक्त रहा है। मेगस्थनीज के अनुसार भारतीय समाज सात वर्गों में बटा हुआ था जो इस प्रकार थे— दार्शनिक किसान, कौशलाकार सिपाही, चरवाहे, दंडनायक और पार्षद, एरियन भी सात वर्गों की बात करता है। उस समय सजातीय विवाह के नियम लागू नहीं थे और यह व्यवसाय तक ही सीमित थे। पुजारियों के द्वारा बलि चढ़ाना, सब बीमारियों का उपचार समझते थे और ऐसे अवसरों पर खूब पैसे बनाते थे तो दूसरी ओर बौद्धों ने पशुवली पर रोक लगाई और असोक ने अमंगल और दूसरी बुरी रीतियों पर प्रतिबन्ध लगाकर अस्वीकार कर दिया (थापर, 2014)। आर्थिक कारणों से व्यक्ति अन्य वर्गों के व्यवसाय अपना सकता था। हर्षवर्धन और जयचंद्र जैसे बौद्ध राजा गण-व्यवस्था के प्रतीक थे, लेकिन मध्यकाल तक यह व्यवस्था जातियों में बदल गई। संस्कृत साहित्य में 'शूद्र' कहे जाने वाले लोग वास्तव में राजा, कौशलकार, व्यापारी और किसान थे। आदिवासी राजाओं के अस्तित्व के प्रमाण आज भी जीवित हैं। हजारों स्थानों के नाम और विभिन्न सरनेम आज भी प्राकृत/पाली भाषा में ही मिलते हैं। इस प्रकार जाति व्यवस्था की आन्तरिक संरचना एक प्रकार से आर्थिक समाजवादी प्रणाली के रूप में देखा जा सकता है, जिसमें मुगलकाल तक अधिक बदलाव नहीं हुए थे। अंग्रेजों के समय जातिगत व्यवसायों को नष्ट कर ईस्ट इंडिया कंपनी के द्वारा व्यापार स्थापित किया गया और जातीय भेदभाव के बढ़ाने हेतु अकादमिक लेखन और जातिगत व्यवसाय को छोड़ने के लिए विभिन्न सामाजिक आंदोलनों का उपयोग किया गया।

ब्रिटिश काल में सामाजिक व्यवस्था और आर्थिक परिवर्तन: ब्रिटिश काल में भारत की सामाजिक व्यवस्था और आर्थिक संरचना में गहरे परिवर्तन हुए हैं। सामाजिक स्तर पर जाति-प्रथा का रूप उभाकर आया एक ओर ईसाई धर्म के प्रचार-प्रसार से भारतीय समाज में धार्मिक ध्रुवीकरण हुआ तो दूसरी ओर पूर्व गण-व्यवस्था के विकृतीकरण के कारण उपजी जाति व्यवस्था की धारणा में बदलाव आया और शिक्षा प्रणाली में

अंग्रेजी का प्रभाव बढ़ा। आर्थिक रूप से भारत को एक उपनिवेश बना दिया गया, जिससे पारंपरिक कुटीर उद्योग नष्ट हुए और कृषि पर निर्भरता बढ़ी। स्थायी बंदोबस्त (1793) और रयतवाड़ी प्रणाली ने किसानों का शोषण किया। रेल, डाक और टेलीग्राफ जैसी आधुनिक व्यवस्थाएँ शुरू हुईं, लेकिन ये मुख्यतः ब्रिटिश व्यापारिक हितों के लिए थीं (चंद्र, 1988)। प्रोफेसर योगेंद्र सिंह ने भारत में सामाजिक परिवर्तन को विभिन्न अवधारणाओं और दृष्टिकोणों में वर्गीकृत किया है, जिनमें संस्कृतिकरण, पश्चिमीकरण, छोटी-बड़ी परंपराएँ, बहु-परंपराएँ, संरचनात्मक और संज्ञानात्मक-ऐतिहासिक दृष्टिकोण शामिल हैं। संस्कृतिकरण की अवधारणा एम.एन. श्रीनिवास ने दी, जिन्होंने मैसूर के कुर्गों का अध्ययन कर पाया कि निचली जातियाँ ब्राह्मणों की रीति-रिवाजों को अपनाकर जाति पदानुक्रम में ऊपर बढ़ने का प्रयास करती थीं। इसे पहले 'ब्राह्मणीकरण' कहा गया, जिसे बाद में 'संस्कृतिकरण' नाम दिया गया। (सिंह, 1973)।

उच्च जातियों के पदों पर सहज गतिशीलता के मार्ग कमोबेश बंद थे। इस बंद के बावजूद जाति पदानुक्रम में समय-समय पर परिवर्तन हुए हैं। उदाहरण के लिए, हिंदू धर्म के वैदिक साहित्य में सांस्कृतिक रूप से जो स्वीकार किया गया था तो वह कुछ मामलों में बाद के काल में वर्जित था। वैदिक हिंदू धर्म जादुई-आत्मिक था, वैदिक ब्राह्मण सोम (शराब) पीते थे, पशु बलि देते थे और गोमांस खाते थे। जिसे बाद में इन पर प्रतिबंध लगा दिया गया और केवल निम्न और अछूत जातियों के मामले में अपवाद बनाया गया। हालाँकि, पदानुक्रमिक सिद्धांत बदल गया। यह और भी मजबूत हो गया क्योंकि कुछ अपवादों को छोड़कर, प्राकृतिक श्रेष्ठता वाली जातियों के पास प्रमुख आर्थिक और राजनीतिक पद थे। योगेंद्र सिंह कहा "वर्तमान में भारत में जनजातियों की परम्पराओं को स्वीकार कर रही हैं" (पूर्वोक्त)। एम.एन. श्रीनिवास ने भारतीय समाज में परिवर्तन का एक प्रमुख कारक पश्चिमीकरण को माना जिसे ब्रिटिश शासन के प्रभाव से उत्पन्न सामाजिक, आर्थिक और राजनीतिक बदलावों के रूप में परिभाषित किया। पश्चिमीकरण ने वैज्ञानिक तकनीकी, शैक्षिक संस्थानों की स्थापना और राष्ट्रवाद को बढ़ावा दिया। हालाँकि उदारीकरण और वैश्वीकरण के कारण शूद्र जातियाँ लोकतांत्रिक संस्थानों से बाहर हो रही हैं जबकि उच्च जातियाँ जनजातीय जीवनशैली को अपनाकर जनजातीयकरण की प्रक्रिया से गुजर रही हैं।

स्वतंत्रता के बाद सामाजिक और आर्थिक परिवर्तन: भारत में औपनिवेशिक काल में उभरे नए अभिजात वर्ग, आदिवासी नेता और अनुसूचित जाति में शामिल विभिन्न नेताओं ने अंततः राष्ट्रवादी आंदोलन को नेतृत्व प्रदान किया जिसके फलस्वरूप भारतीय संविधान के मूलतत्त्वों को लागू करने के लिए नीतियों का निर्माण किया जाना लगा लेकिन जैसा की श्रीनिवास ने तर्क दिया समाज का अभिजात वर्ग एक और अपने समाज की वकालत कर रहा था तो दूसरी ओर पश्चिम की ओर विकास के लिए देख रहा था (श्रीनिवास 1966: 80)। पेशेवर पृष्ठभूमि वाले लोगों के अलावा वाणिज्यिक और औद्योगिक पूंजीपति वर्ग साथ ही औद्योगिक श्रमिक वर्गों का भी उभरती हुई सत्ता संरचना के भीतर अपना प्रभाव क्षेत्र था (सिंह 1973)। 1970 के दशक की शुरुआत में भारतीय राजनीतिक अभिजात वर्ग की छवि में कई महत्वपूर्ण परिवर्तन हुए थे। लोकतांत्रिक भारत के नए राजनीतिक अभिजात वर्ग ने ग्रामीण प्रमुख जातियों और क्षेत्रीय हित समूहों के मूल्यों और



आकांक्षाओं को अभिव्यक्त करना शुरू कर दिया। स्वतंत्रता-पूर्व के दिनों की विरल वैचारिक दिशा उभरते नए राजनीतिक अभिजात वर्ग की चेतना में तेजी से अनुपस्थित पाई गई (सिंह, 1973:139)। 'विचारधारा की राजनीति' से 'प्रतिनिधित्व की राजनीति' में बदलाव की यह प्रक्रिया 1980 और 1990 के दशकों में भी जारी रही (यादव, 1999)।

अगले दशक में उदारीकरण की नीतियों की शुरुआत हुई और अर्थव्यवस्था के क्षेत्र से राज्य का धीरे-धीरे बाहर निकलना शुरू हुआ। यह एक महत्वपूर्ण वैचारिक बदलाव था कि विकास और सामाजिक परिवर्तन के नेहरूवादी ढांचे का पतन हो गया (जोधका, 2001)। सोवियत संघ के पतन, शीत युद्ध की समाप्ति, दूरसंचार की नई तकनीकों के प्रचलन के बाद दुनिया की भू-राजनीति में आए बदलावों के साथ-साथ इस अवधि में वैश्विक पूंजी की पहुंच में एक नए चरण की शुरुआत भी देखी गई। वैश्वीकरण की यह प्रक्रिया जैसा कि इसे जाना जाता है जो केवल अर्थव्यवस्था तक ही सीमित नहीं थी। बल्कि संस्कृति, राजनीति और सामाजिक नेटवर्किंग के लिए नई संभावनाओं के द्वार खोले हैं। यहां तक कि दलित आंदोलनों ने सामाजिक भागीदारी और प्रतिनिधित्व के सवाल को फिर से सन 1980 और 1990 के दशक में खुद को फिर से खोजा और जाति के सवाल को मानवाधिकार और नस्ल के सवाल से जोड़कर अंतरराष्ट्रीय मंचों पर ले जाने की कोशिश की है (थोराट और उमाकांत, 2004)। इस अवधि में एक महत्वपूर्ण प्रवृत्ति का विकास हुआ गैर सरकारी संगठनों (एनजीओ) की बढ़ती भागीदारी का समर्थकों का तर्क था कि स्वैच्छिक कार्रवाई आईआरडीपी जैसे राज्य प्रायोजित कार्यक्रमों का एक व्यवहार्य विकल्प हो सकती है। एनजीओ सामाजिक परिवर्तन लाने समतावादी और मानवीय समाज के निर्माण के लिए एक शक्तिशाली साधन बन सकते हैं। जिसमें समय के साथ सामाजिक परिवर्तन लाने की क्षमता है (दंतवाला और अन्य, 1998: 9)।

भारतीय संविधान सामाजिक, आर्थिक और राजनीतिक न्याय की गारंटी देता है। लेकिन सामाजिक व आर्थिक असमानताएँ बनी हुई हैं। वैश्वीकरण और आर्थिक सुधारों पर विद्वानों में मतभेद है। समर्थक इसे आर्थिक विकास और उच्च वृद्धि दर से जोड़ते हैं जिससे वर्चस्वशाली तबकों को लाभ हुआ जबकि गरीब और मध्यम वर्ग अपेक्षाकृत कम लाभान्वित हुए। अमीर-गरीब की खाई बढ़ी। भले ही गरीबी कम हुई हो। वैश्वीकरण को कुछ विद्वान "नव-औपनिवेशिक" प्रक्रिया मानते हैं। जो संप्रभु देशों की नीति-निर्माण और आर्थिक हस्तक्षेप की क्षमता को सीमित कर पश्चिमी पूंजी और बहुराष्ट्रीय निगमों को लाभ पहुंचाती है जिससे अस्वतंत्रता बढ़ती है (पटनायक, 2003)। कुछ विद्वानों का तर्क है कि पूंजीवादी वैश्वीकरण भारत की खाद्य सुरक्षा के लिए हानिकारक हो सकता है। इसके कारण किसान स्थानीय आवश्यकताओं के बजाय वैश्विक बाजार की मांग के अनुसार वाणिज्यिक फसलों का उत्पादन करने लगेंगे, जिससे खाद्यान्न की कमी हो सकती है। यह स्थिति औपनिवेशिक काल जैसी हो सकती है, जब ब्रिटिश शासकों ने भारतीय किसानों को खाद्यान्न की बजाय कपास उगाने के लिए बाध्य किया था (पटनायक, 1998)। हालाँकि वैश्वीकरण और आर्थिक विकास के सामाजिक और सांस्कृतिक पहलुओं पर पर निर्णायक बयान दिया जा सकता है कि जब संविधान के माध्यम देश के समस्त नागरिकों को गारंटी दी गई हो और इसके विपरीत वैश्वीकरण, उदारीकरण और

निजीकरण के माध्यम से आर्थिक संकेंद्रण हो रहा हो तो ऐसे में लोकतंत्र की गारंटी नई देशी पूंजीवादी संरचना को सुरक्षा देने की नहीं है जिससे आर्थिक विषमता बढ़ रही है। इस प्रकार भारतीय समाज में अनुभव किए जा रहे हैं कि उदारीकरण की प्रक्रिया ने आर्थिक परिवर्तन के माध्यम से शोषण का एक नया रास्ता बना दिया है।

निष्कर्ष: संरचनात्मक या सांस्कृतिक परिस्थितियों में आर्थिक विकास समाज को कठोर पूंजीवादी एकीकृत परिवर्तन की ओर ले जाता दिख रहा है। एक ओर राष्ट्रवाद की विकृत परिभाषा परोसी जा रही है तो दूसरी ओर राष्ट्र के समस्त संसाधन देशी पूंजीवाद के रूप में संकेंद्रित हो रहे हैं। परम्परागत जातिगत संरचना के भले ही कमजोर पड़ने की आहट सुनाई दे रही हो लेकिन ऐसा होता नहीं दिख रहा है। आर्थिक संसाधनों और परिवर्तनों के संस्थागतकरण की प्रक्रिया वर्चस्ववादी तबके की ओर मोड़ दी गई हैं। भारत के सन्दर्भ में किस हद तक आर्थिक विकास और परम्परागत सामाजिक-संरचनात्मक संगठन की संभावना को क्या नकारा जा सकता है? इन सवालों के जवाब विकास की अवधारणा के तरीके से संबंधित हैं। विभिन्न समाजविज्ञानी आर्थिक विकास की अवधारणाओं और मूल्यांकन के मानकों पर एकमत नहीं है। राष्ट्रवादी विचार पर पूंजीवादी दृष्टिकोण का होना अव्यक्त वैचारिक पूर्वाग्रह नहीं है बल्कि स्पष्ट आरोप है कि आर्थिक विकास के लिए 'आर्थिक असमानता और विघटन' एक मात्र विकल्प नहीं होना चाहिए और दूसरी ओर जातिगत समाज की आवश्यकताओं को ध्यान में रखते हुए संवैधानिक गारंटी को कमजोर तबके की भागीदारी और स्वप्रतिनिधित्व को लोकतान्त्रिक संस्थाओं से खदेड़कर, वर्चस्वशाली जातिगत तबके राष्ट्रवाद का सहारा लेकर पूंजीवादी संरचना को मजबूती देकर अपनी सुरक्षा ढूँढ़ रहे हैं। ऐसा सामाजिक-आर्थिक विकास राष्ट्र के अंदर तो हो रहा है। भारत को विकसित राष्ट्र बनने के लिए सभी वर्गों का आर्थिक रूप से लोकतान्त्रिक स्वप्रतिनिधित्व और भागीदारी को ध्यान में रखकर आगे बढ़ने की आवश्यकता है। इसके अभाव में देश तो विकसित होने की घोषणा कर देगा लेकिन समाज का राष्ट्रीय चरित्र अविकसित ही रह जायेगा।

सन्दर्भ सूची:

- चंद्र, विपिन (1988), इण्डिया'स स्ट्रगल फॉर इन्डेंपेंडेंस, पेंगुइन बुक्स इंडिया।
- दंतवाला, एम.एल; एच. सेठी एंड पी. विसारिया (एड्स) (1998), सोशल चेंज थ्रु वोलंटरी एक्शन, न्यू डेल्ही : सेज पब्लिकेशन।
- जोधका, एस.एस. (इड.), (2001), कम्युनिटी एंड आइडेंटिटीज: कन्टेम्पोरेरी डिस्कोर्स ऑन कल्चर पॉलिटिक्स इन इंडिया, न्यू देल्ही: सेज पब्लिकेशन।
- कौसल्यायन, भदन्तआनन्द (संपा.), (2012), पाली – हिंदीकोश, नई दिल्ली : सम्यक प्रकाशन।
- लुइस, ड्रूमॉट (1980), होम हैरार्किसस, शिकागो : यूनिवर्सिटी ऑफ शिकागो प्रेस।
- पटनायक, प्रभात (2003), दा रिट्रेट टू अन्फ्रीडम: ऐसे टू दी इमर्जिंग वर्ल्ड आर्डर, नई दिल्ली: तालुका प्रेस।
- पटनायक, यू. (1998), सेनेरियो इन डेवेलपिंग कंट्रीस एंड इंडिया: एक्सपोर्ट-ओरियेंटेड एग्रीकल्चर एंड फूड सिक्यूरिटी' इन दी ग्रेट ड्रेन, बंगलोर: बुक फॉर चेंज।
- रामेश्वरभद्रकृतया (संपा.), (2015), मनुस्मृति, नई दिल्ली : सम्यक प्रकाशन।



सिंह, डॉ. राजेंद्र प्रसाद (2018), खोय हुए बुद्ध की खोज, नई दिल्ली: कोटिल्य बुक्स ।

सिंह, योगेंद्र (1973), मोडर्नैजेशन ऑफ इंडियन ट्रेडिशन: अ सिस्टेमिक स्टडी ऑफ सोशल चेंज, थामसन प्रेस (इंडिया), रावत पब्लिकेशन ।

श्रीनिवास, एम.एन. (1966), सोशल चेंज इन मॉडर्न इंडिया, यूनिवर्सिटी ऑफ कोलिफोर्निया प्रेस ।

थापर, रोमिला (2014), अशोक और मौर्य साम्राज्य का पतन, नई दिल्ली : ग्रन्थ शिल्पी (इंडिया) प्राइवेट लिमिटेड ।

थोराट एस. एंड उमाकांत (2004), कास्ट रेस एंड डिस्क्रिमिनेशन: डिस्कोर्स इन इंटरनेशनल कॉटेक्स, जयपुर: रावत पब्लिकेशन ।

यादव, योगेन्द्र (1999), इलेक्टोरल पॉलिटिक्स इन दी टाइम्स ऑफ चेंज: इंडीया'स थर्ड इलेक्टोरल सिस्टम, 1989-99, इकोनॉमिक एंड पोलिटिकल वीकली वोल. 34 (34-35) पी.पी. 2393-99 ।

Disclaimer/Publisher's Note: The statements, opinions, and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of TJSD and/or the editor(s). The Journal of Scientific Discourse (TJSD) and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.

भारत में बौद्धिक संपदा अधिकार का महत्व: एक आर्थिक अध्ययन

देवेन्द्र सागर^{1*} & पुरुषोत्तम गौतम²

1. शासकीय पी.जी. कॉलेज, PMCOE, गुना-473001, म.प्र., भारत
2. क्रांतिवीर तात्या टोपे विश्वविद्यालय, विश्वविद्यालय, गुना-473001, म.प्र., भारत

*Corresponding Author: debendrasagar29@gmail.com

शोध सारांश: आधुनिक युग में बौद्धिक संपदा सबसे मूल्यवान संपत्ति है क्योंकि यह मानवीय विकास को गति देने वाले तकनीकी नवाचार को पुरस्कृत करती है। यह वैश्विक कला परिदृश्य की उन्नति में सहायक है। बौद्धिक संपदा काल्पनिक रचनाओं को संदर्भित करती है। इसमें सभी प्रकार के आविष्कार, साहित्यिक एवं वैज्ञानिक, कलात्मक कार्य, डिजाइन एवं कई अन्य चीजें शामिल हैं। वे उन व्यक्तियों को भी संदर्भित कर सकते हैं जिनकी प्रतिष्ठा स्वयं ही वाणिज्यिक सुविधा और लाभ को नियंत्रित करती है।

प्रस्तावना : WIPO, संपत्ति के आविष्कारकों या निर्माताओं को कुछ विशेष अधिकार प्रदान करने के लिये नियम निर्धारित करता है ताकि वे अपने रचनात्मक प्रयासों या प्रतिष्ठा से व्यावसायिक लाभ प्राप्त कर सकें। बौद्धिक संपदा अधिकार (IPR) कानूनी संरक्षण का एक रूप है जो व्यक्तियों या कंपनियों को उनके रचनात्मक एवं अभिनव कार्यों के लिये प्रदान किया जाता है। ये अधिकार मानव अधिकारों की सार्वभौम घोषणा के अनुच्छेद 27 में उल्लिखित इन कानूनी सुरक्षा उपायों के कारण रचनाकार को उसकी रचनाओं को विनियमित करने और दूसरों द्वारा उन रचनाओं के उपयोग या अनधिकृत प्रतिकृति को प्रतिबंधित करने में सहायता मिलती है।

बौद्धिक संपदा अधिकार (आईपीआर) आविष्कारक या निर्माता को उनके बौद्धिक कार्य (कला, विज्ञान, साहित्य, आदि में) को एक निश्चित अवधि के लिए सुरक्षित रखने के लिए दिए गए कानूनी विशेषाधिकार हैं। ये कानूनी अधिकार आविष्कारक या निर्माता, या उसके उत्तराधिकारी को एक निश्चित समय के लिए अपने आविष्कार या सृजन का पूर्ण रूप से दोहन करने का एकमात्र अधिकार प्रदान करते हैं। ये बौद्धिक संपदा अधिकार मानव अधिकारों की सार्वभौमिक घोषणा के अनुच्छेद 27 में उल्लिखित हैं, जो विज्ञान, साहित्य या कला के कार्यों के लेखकत्व के परिणामस्वरूप किसी के भौतिक और नैतिक हितों के लिए सुरक्षा प्राप्त करने का अधिकार प्रदान करता है। आईपीआर के वैश्विक संरक्षण की देखरेख करने वाली महत्वपूर्ण संस्था विश्व बौद्धिक संपदा संगठन (डब्ल्यूआईपीओ) है। यह बौद्धिक संपदा के महत्व को स्वीकार करने वाली पहली अंतरराष्ट्रीय संधियों की देखरेख करता है, जो औद्योगिक संपत्ति के संरक्षण के लिए पेरिस कन्वेंशन (1883) और साहित्यिक और कलात्मक कार्यों के संरक्षण के लिए बर्न कन्वेंशन (1886) थीं।

उद्देश्य: "बौद्धिक संपदा" (आईपी) शब्द का तात्पर्य मानव मस्तिष्क के किसी भी मौलिक कार्य से है, जिसमें कला, विज्ञान, साहित्य, प्रौद्योगिकी या अन्य क्षेत्र शामिल हैं। बौद्धिक संपदा अधिकार निम्नलिखित उद्देश्यों हैं:—

- बौद्धिक संपदा के निर्माण को बढ़ावा देना
- बौद्धिक संपदा के हकदारों और लोकहित के बीच संतुलन बनाना
- बौद्धिक संपदा अधिकारों के उल्लंघनों से निपटने के लिए प्रवर्तन और न्यायिक व्यवस्था को मजबूत बनाना
- बौद्धिक संपदा अधिकारों के बारे में जागरूकता बढ़ाना
- आर्थिक विकास के लिए ज़रूरी बौद्धिक संपत्तियों की सुरक्षा करना
- निष्पक्ष प्रतिस्पर्धा को बढ़ावा देना
- स्टार्ट-अप और एसएमई को बड़ी कंपनियों के साथ प्रतिस्पर्धा करने में मदद करना

बौद्धिक संपदा अधिकारों के तहत, आविष्कारों, ट्रेडमार्क, डिजाइन, रचनात्मक सामग्री, और अन्य अमूर्त संपत्तियों को संरक्षित किया जाता है।

बौद्धिक संपदा अधिकार के प्रकार : परंपरागत रूप से, बौद्धिक संपदा अधिकारों की दो मुख्य श्रेणियाँ हैं कॉपीराइट और कॉपीराइट से जुड़े अधिकार और औद्योगिक संपत्ति। औद्योगिक संपत्ति में ट्रेडमार्क, भौगोलिक संकेत, औद्योगिक डिजाइन और व्यापार रहस्य शामिल हैं।

1. **बौद्धिक संपदा अधिकार में पेटेंट :-** जब कोई आविष्कार सामान्य नवीनता, गैर-स्पष्टता और औद्योगिक या वाणिज्यिक अनुप्रयोग की आवश्यकताओं को पूरा करता है, तो उसे पेटेंट प्रदान किया जाता है। उत्पाद के साथ-साथ प्रक्रियाएं भी पेटेंट संरक्षण के लिए पात्र हैं। पेटेंट स्वामी को यह निर्णय लेने का अधिकार देता है कि अन्य लोग किसी आविष्कार का उपयोग कर सकते हैं या नहीं और कैसे कर सकते हैं। इस विशेषाधिकार के बदले में, पेटेंट धारक, आविष्कार के बारे में तकनीकी विवरण को सार्वजनिक उपयोग के लिए पेटेंट दस्तावेज़ में प्रकाशित करता है।
2. **कॉपीराइट :-** कानूनी शब्द " कॉपीराइट" को लेखकों और कलाकारों के अपने रचनात्मक कार्यों पर स्वामित्व अधिकार के रूप में परिभाषित किया जाता है। कॉपीराइट द्वारा संरक्षित कार्यों में पुस्तकों, संगीत, पेंटिंग, मूर्तियों और फिल्मों के कॉपीराइट अलावा कंप्यूटर प्रोग्राम, डेटाबेस, विज्ञापन, मानचित्र और तकनीकी चित्र भी शामिल हो सकते हैं। कॉपीराइट लेखक के साहित्यिक और कलात्मक कार्यों के अधिकारों को स्वामी की मृत्यु के बाद कम से कम 50 वर्षों तक सुरक्षित रखता है। कलाकारों (जैसे अभिनेता, गायक और संगीतकार), फोनोग्राम निर्माता और प्रसारण संगठनों के अधिकार कॉपीराइट और संबंधित अधिकारों द्वारा सुरक्षित हैं।
3. **ट्रेडमार्क:** ट्रेडमार्क को एक प्रतीक के रूप में परिभाषित किया जा सकता है जिसका उपयोग एक कंपनी के उत्पादों या सेवाओं को दूसरी कंपनी से अलग करने के लिए किया जा सकता है। ट्रेडमार्क का अस्तित्व उस समय से है जब कारीगर अपनी कृतियों पर हस्ताक्षर या "चिह्न" लगाते थे।

4. **औद्योगिक डिजाइन:** औद्योगिक डिजाइन किसी वस्तु के सजावटी या सौंदर्य घटक का प्रतिनिधित्व करता है। डिजाइन में पैटर्न, रेखाएँ या रंग जैसे दो-आयामी तत्व और वस्तु के आकार या सतह जैसे तीन-आयामी तत्व शामिल हो सकते हैं।
5. **भौगोलिक संकेत:** भौगोलिक संकेत और उत्पत्ति के नाम ऐसे लेबल हैं जो उन उत्पादों पर लगाए जाते हैं जिनकी एक विशेष भौगोलिक उत्पत्ति होती है और जिनमें ऐसे गुण, प्रतिष्ठा या अन्य विशेषताएं होती हैं जिन्हें मुख्य रूप से उत्पत्ति के उस स्थान से जोड़ा जा सकता है। भौगोलिक संकेत में अक्सर उस स्थान का नाम शामिल किया जाता है जहां सामान बनाया गया था।
6. **व्यापार के रहस्य:** व्यापार रहस्य निजी जानकारी (किसी उत्पाद, जैसे पेप्सी के बारे में) पर बौद्धिक संपदा अधिकार हैं, जिन्हें लाइसेंस दिया जा सकता है या बेचा जा सकता है। इसे अनुचित व्यवहार तथा व्यापारिक गोपनीयता संरक्षण का उल्लंघन माना जाता है जब अन्य लोग बिना अनुमति के ऐसी गुप्त जानकारी प्राप्त करते हैं, उसका उपयोग करते हैं या उसका खुलासा करते हैं, जो ईमानदार वाणिज्यिक व्यवहारों के अनुरूप नहीं है।

बौद्धिक संपदा अधिकारों पर अंतर्राष्ट्रीय निकाय/सम्मेलन: बौद्धिक संपदा अधिकारों की सुरक्षा के लिए अंतर्राष्ट्रीय समुदाय ने विभिन्न सम्मेलनों और स्थापित निकायों की स्थापना की है, जिनका विवरण नीचे दिया गया है।

1. **विश्व बौद्धिक संपदा संगठन (डब्ल्यूआईपीओ) :** बौद्धिक संपदा अधिकारों की वैश्विक सुरक्षा को बढ़ावा देना WIPO की जिम्मेदारी है। यह निम्नलिखित संधियों और सम्मेलनों की निगरानी भी करता है।
2. **औद्योगिक संपत्ति के संरक्षण के लिए पेरिस कन्वेंशन (1883):-** अपने व्यापक अर्थ में, यह कन्वेंशन औद्योगिक संपत्ति के सभी रूपों को कवर करता है, जिसमें पेटेंट, ट्रेडमार्क, औद्योगिक डिजाइन, उपयोगिता मॉडल, सेवा चिह्न, व्यापार नाम, भौगोलिक संकेत और अनुचित प्रतिस्पर्धा का दमन शामिल है। यह रचनाकारों को यह सुनिश्चित करने में सहायता करने के लिए उठाया गया पहला महत्वपूर्ण कदम था कि उनकी बौद्धिक संपदा अन्य देशों में भी सुरक्षित रहे। इस सम्मेलन द्वारा राष्ट्रीय उपचार का प्रावधान स्थापित किया गया था। साहित्यिक और कलात्मक कार्यों के संरक्षण के लिए बर्न कन्वेंशन (1886): यह एक कन्वेंशन है जो अंतरराष्ट्रीय स्तर पर कॉपीराइट को नियंत्रित करता है। कन्वेंशन में लेखकों के अधिकारों के साथ-साथ कार्यों की सुरक्षा भी शामिल है।
3. **बुडापेस्ट संधि :-** पेटेंट प्रक्रिया के प्रयोजनों के लिए सूक्ष्मजीवों के भंडार की अंतर्राष्ट्रीय मान्यता पर।
4. **मारकेश संधि :-** जिसकी देखरेख WIPO द्वारा की जाती है, उन पुस्तकों के निर्माण और अंतर्राष्ट्रीय हस्तांतरण की सुविधा प्रदान करती है, जो विशेष रूप से अंधे या दृष्टिबाधित लोगों के लिए अनुकूलित की गई हैं।
5. **पेटेंट सहयोग संधि (1970) :-** यह अपने सभी हस्ताक्षरकर्ता राज्यों में आविष्कारों की सुरक्षा के लिए पेटेंट आवेदन प्रस्तुत करने हेतु एक मानकीकृत प्रक्रिया प्रदान करती है। इसका उद्देश्य विश्व को

सुलभ बनाना, विभिन्न औपचारिकताओं की पूर्ति की प्रक्रिया को सरल बनाना, अंतर्राष्ट्रीय पेटेंट संरक्षण से संबंधित महत्वपूर्ण लागतों में विलम्ब करना तथा पेटेंट संबंधी निर्णयों के लिए ठोस आधार प्रदान करना है।

6. **ट्रिप्स (व्यापार संबंधी बौद्धिक संपदा अधिकार) समझौता, 1994:** ट्रिप्स समझौता विश्व व्यापार संगठन के सबसे महत्वपूर्ण समझौतों में से एक है। व्यापक स्तर पर, इसमें निम्नलिखित शामिल हैं
- कॉपीराइट और संबंधित अधिकार (कलाकारों, रिकॉर्ड कंपनियों और प्रसारण संगठनों के अधिकार);
 - ट्रेडमार्क, सेवा चिह्नों सहित
 - भौगोलिक संकेत, जैसे उत्पत्ति के नाम;
 - औद्योगिक डिजाइन;
 - पेटेंट, जो नवीन पौधों की किस्मों की रक्षा करते हैं;
 - एकीकृत सर्किट लेआउट-डिजाइन; तथा अघोषित जानकारी, जैसे व्यापार रहस्य और परीक्षण डेटा।

बौद्धिक संपदा अधिकार (आईपीआर) के लाभ : बौद्धिक संपदा अधिकारों (आईपीआर) का मुख्य लाभ आविष्कारों, ट्रेडमार्क, डिजाइन, रचनात्मक कार्यों और अन्य अमूर्त संपत्तियों के विकास और उपयोग पर आधारित नई वस्तुओं और सेवाओं के निर्माण, वितरण और पेशकश को प्रोत्साहित करना और संरक्षित करना है।

1. **आर्थिक विकास:-** सृजनकर्ताओं के आर्थिक अधिकारों को वैधानिक अभिव्यक्ति प्रदान करके तथा निष्पक्ष व्यापार को बढ़ावा देकर, बौद्धिक संपदा अधिकार आर्थिक विकास को बढ़ावा देकर आर्थिक विकास को समर्थन दे सकते हैं। आईपीआर से न केवल प्रत्यक्ष विपणन से आय प्राप्त की जा सकती है, बल्कि तीसरे पक्ष को लाइसेंस देकर भी आय अर्जित की जा सकती है।
2. **संस्कृति को बढ़ावा देना:-** कॉपीराइट लेखकों, कलाकारों, निर्माताओं और अन्य रचनाकारों को उनके कार्यों के लिए आर्थिक पुरस्कार प्राप्त करने की अनुमति देता है जो सांस्कृतिक विरासत को समृद्ध करते हैं, सांस्कृतिक विविधता को बढ़ाते हैं और पूरे समाज को लाभ पहुंचाते हैं। इन रचनात्मक उद्योगों में प्रकाशन, संगीत और फिल्म शामिल हैं।
3. **तकनीकी सूचना का प्रसार:-** शोधकर्ताओं सहित जनता का कोई भी सदस्य पेटेंट सूचना का उपयोग कर सकता है, भले ही कोई कंपनी, विश्वविद्यालय या शोध संस्थान अपने पेटेंट किए गए आविष्कारों का उपयोग करने का इरादा न रखता हो।
4. **निष्पक्ष प्रतिस्पर्धा को प्रोत्साहन:-** उपभोक्ताओं को विभिन्न उत्पादों और सेवाओं के बारे में सूचित निर्णय लेने की अनुमति देकर, विशिष्ट चिह्नों जैसे आईपीआर के संरक्षण का उद्देश्य निष्पक्ष प्रतिस्पर्धा को प्रोत्साहित करना और सुनिश्चित करना तथा उपभोक्ताओं की सुरक्षा करना है।

5. **अनुसंधान और विकास:**— आईपीआर सृजनकर्ताओं को अप्रत्यक्ष रूप से प्रदान किए जाने वाले वित्तीय लाभों के कारण अनुसंधान और विकास गतिविधियों को बढ़ावा देते हैं। ये अनुसंधान और विकास दो चीजों को सुविधाजनक बनाते हैं: यह किसी भी जीवन-घातक बीमारी के खिलाफ दवाओं के नए फार्मूले जैसे नए प्रौद्योगिकी के नवाचारों और उत्पादन को सुविधाजनक बनाता है। यह नई तकनीक/फॉर्मूला, पेटेंट अवधि के बाद, एक बड़ी आबादी की मदद करता है (उदाहरण के लिए, जेनेरिक दवाओं के विकास के माध्यम से)। इस प्रकार, यह आईपीआर के सामाजिक उद्देश्य को पूरा करता है।
6. **"ओपन सोर्स" आईपीआर पर निर्भर है:**— सॉफ्टवेयर जैसे उद्योगों में, जनरल पब्लिक लाइसेंस (जीपीएल) जैसी ओपन सोर्स प्रणाली आम है। किसी एकल विक्रेता का उपयोग करने की संविदागत बाध्यता न होने के कारण, इसके लाभों में कम स्टार्टअप लागत, शीघ्र परियोजना लॉन्च, तीव्र पुनरावृत्ति, अधिक अनुकूलनीय सॉफ्टवेयर विकास प्रक्रियाएं, मजबूत समुदाय-संचालित समर्थन और सरल लाइसेंस प्रबंधन शामिल हैं। यह ध्यान रखना महत्वपूर्ण है कि एक सामान्य GPL वास्तव में IPR पर निर्भर करता है क्योंकि यह सामान्यतः एक कॉपीराइट लाइसेंस होता है जो केवल तभी तक वैध होता है जब तक कुछ निश्चित आवश्यकताएं पूरी होती हैं।
7. **वित्तपोषण सुरक्षित करने के लिए प्रयुक्त संपार्थिक:**— आईपीआर, जो अमूर्त परिसंपत्तियां हैं, अक्सर छोटे और मध्यम उद्यमों (स्टार्ट-अप सहित) को बाहरी पक्षों को वित्तपोषण प्रदान करने के लिए राजी करने के उनके प्रयासों में सहायता करती हैं (जैसे इक्विटी में निवेश करना या ऋण प्रदान करना)। वित्तीय उद्योग, विशेष रूप से ज्ञान-प्रधान एसएमई, अमूर्त परिसंपत्तियों, जैसे पेटेंट, के मूल्यांकन पर बहुत अधिक निर्भर करता है।

बौद्धिक संपदा अधिकारों के कुछ नुकसान इस प्रकार हैं:

1. **रचनाकारों के लिए अतिरिक्त शुल्क:**— पहली बार सुरक्षा प्राप्त करना थोड़ा महंगा हो सकता है, खासकर यदि उत्पाद जटिल है और इसमें विधियां, डिजाइन और प्रक्रियाएं शामिल हैं।
2. **पायरेसी:** कभी-कभी आईपी सुरक्षा प्राप्त करने के बाद भी किसी को इन्वेंट्री कार्य की नकल करने से रोकना मुश्किल हो जाता है। यह पेटेंट के मूल निर्माता के लिए नुकसानदेह हो जाता है।
3. **घटती गुणवत्ता:**— जैसे-जैसे समय बीतता है, बौद्धिक संपदा की गुणवत्ता के साथ-साथ इसके अधिकार भी घटते जाते हैं। विश्वव्यापी असमानताएँ: बौद्धिक संपदा को नियंत्रित करने वाले कानून कभी-कभी अलग-अलग होते हैं। विभिन्न देशों में अलग-अलग आईपी कानून नवाचारों और प्रौद्योगिकियों तक असमान पहुँच का कारण बन सकते हैं, जो विकासशील देशों के विकास को असमान रूप से प्रभावित और बाधित करता है।
4. **पेटेंट उत्पादों की महंगी प्रकृति:**— पेटेंट पंजीकरण, अनुसंधान और विकास तथा पेटेंट के सदाबहार होने की उच्च कीमतों के कारण, फार्मास्यूटिकल्स जैसे पेटेंट उत्पादों की कीमत आसमान छू रही है।

यह आम जनता के हितों को नुकसान पहुंचाता है, क्योंकि वे इन दवाओं पर निर्भर हैं। भारत में बौद्धिक संपदा अधिकार से संबंधित मुद्दे भारत में बौद्धिक संपदा के संबंध में फायदे और नुकसान के साथ, जो मुद्दे बने हुए हैं वे हैं,

5. **सदाबहार:**— भारतीय पेटेंट अधिनियम 1970 (जैसा कि 2005 में संशोधित किया गया) ज्ञात पदार्थों के नए रूपों से संबंधित आविष्कारों के लिए पेटेंट देने पर प्रतिबंध लगाता है, जब तक कि पदार्थ की प्रभावकारिता के संबंध में गुणों में महत्वपूर्ण अंतर न हों। इससे पता चलता है कि भारतीय पेटेंट अधिनियम में पेटेंट को हमेशा के लिए बरकरार रखने की मनाही है। इससे दवा कंपनियों के लिए समस्याएँ पैदा हो गई हैं।
6. **अनिवार्य लाइसेंसिंग:**— यह तब होता है जब सरकार किसी संगठन को पेटेंट स्वामी की सहमति के बिना पेटेंट किए गए आविष्कार को बनाने, बेचने, आयात करने या उपयोग करने के लिए अधिकृत करती है। अनिवार्य लाइसेंसिंग भारतीय पेटेंट अधिनियम के अंतर्गत आता है। प्रौद्योगिकी लाने वाले विदेशी निवेशकों के लिए अनिवार्य लाइसेंसिंग एक चुनौती है, क्योंकि उन्हें चिंता है कि उनके उत्पादों की नकल करने के लिए अनिवार्य लाइसेंसिंग का दुरुपयोग किया जाएगा। बौद्धिक संपदा अधिकारों (आईपीआर) का प्राथमिक कार्य आविष्कारों, ट्रेडमार्क, डिजाइन, रचनात्मक सामग्री या अन्य अमूर्त संपत्तियों के निर्माण और दोहन के आधार पर नए उत्पादों के विकास और वितरण और नई सेवाओं के प्रावधान को संरक्षित और प्रोत्साहित करना है। यह विशेष रूप से स्टार्ट-अप और एसएमई के लिए महत्वपूर्ण है, क्योंकि आईपीआर उन्हें मौजूदा या बड़ी कंपनियों के साथ प्रतिस्पर्धा करने के लिए शक्तिशाली उपकरण प्रदान करता है।

यूरोपीय संघ बौद्धिक संपदा अधिकार उल्लंघन वेधशाला के माध्यम से यूरोपीय संघ-व्यापी कई अध्ययन और रिपोर्ट प्रकाशित कर चुका है, जो यूरोपीय संघ की अर्थव्यवस्था में बौद्धिक संपदा अधिकार के महत्वपूर्ण योगदान को दर्शाते हैं। आईपीआर से धारकों और आम जनता को अन्य लाभ भी मिलते हैं, जिनमें शामिल हैं:

अप्रत्यक्ष राजस्व सक्षम करना : जहाँ कोई कंपनी अपने उत्पादों या प्रक्रियाओं को आईपीआर के साथ सुरक्षित रखती है, वह न केवल प्रत्यक्ष विपणन से बल्कि उत्पादों का निर्माण और व्यावसायीकरण करने वाले तीसरे पक्ष को आईपीआर का लाइसेंस देने से भी राजस्व प्राप्त कर सकती है, बदले में शुल्क या रॉयल्टी के बदले में। ये अतिरिक्त अप्रत्यक्ष राजस्व कभी-कभी प्रत्यक्ष शोषण से होने वाले मुनाफे से अधिक होते हैं, खासकर तब जब उन्हें अतिरिक्त आंतरिक विनिर्माण क्षमताओं की आवश्यकता नहीं होती है। इसलिए ऐसा दृष्टिकोण एसएमई के लिए विशेष रूप से प्रासंगिक हो सकता है। यह विश्वविद्यालयों और सार्वजनिक शोध केंद्रों के लिए भी महत्वपूर्ण है, जिनके पास आमतौर पर आवश्यक उत्पादन सुविधाएं नहीं होती हैं।

संस्कृति को बढ़ावा देना : रचनात्मक क्षेत्रों, जैसे प्रकाशन, संगीत या फिल्म उद्योग में, कॉपीराइट लेखकों, कलाकारों, निर्माताओं और अन्य रचनाकारों को उनकी रचनाओं और गतिविधियों के बदले में आर्थिक पुरस्कार प्राप्त करने में सक्षम बनाता है, जो सांस्कृतिक विरासत को समृद्ध करता है, सांस्कृतिक विविधता को बढ़ाता है, और बड़े पैमाने पर समाज को लाभान्वित करता है।

तकनीकी जानकारी का प्रसार : यहां तक कि जहां कोई कंपनी, विश्वविद्यालय या अनुसंधान संस्थान अपने स्वयं के पेटेंट किए गए आविष्कारों का उपयोग करने का इरादा नहीं रखता है, वहां भी शोधकर्ताओं सहित जनता का कोई भी सदस्य पेटेंट जानकारी का उपयोग कर सकता है।

पेटेंट तकनीकी जानकारी का सबसे प्रचुर और अद्यतन स्रोत हैं, और इसमें विस्तृत तकनीकी जानकारी होती है जो अक्सर कहीं और नहीं मिल सकती: यह अनुमान लगाया गया है कि वर्तमान तकनीकी ज्ञान का 80% केवल पेटेंट दस्तावेजों में ही पाया जा सकता है। इसके अलावा, यह जानकारी तेजी से उपलब्ध है, क्योंकि अधिकांश पेटेंट आवेदन पहली फाइलिंग के 18 महीने बाद प्रकाशित होते हैं। पेटेंट साहित्य में खोज कोई भी व्यक्ति कर सकता है, उदाहरण के लिए निःशुल्क एस्पेसनेट पेटेंट डेटाबेस का उपयोग करके। यह डेटाबेस तकनीकी क्षेत्र के आधार पर वर्गीकृत दुनिया भर के 60 मिलियन से अधिक पेटेंट दस्तावेजों तक पहुँच प्रदान करता है।

पेटेंट साहित्य की खोज करने के कई अच्छे कारण हैं : अनुसंधान एवं विकास प्रयासों और व्यय के दोहराव से बचें (यह अनुमान लगाया गया है कि अनुसंधान एवं विकास में किए गए कुल व्यय का 30% तक हिस्सा मौजूदा आविष्कारों के पुनर्विकास पर बर्बाद हो जाता है)। तकनीकी समस्याओं का समाधान खोजें (अधिकांश पेटेंट लगभग 85% अब प्रभावी नहीं हैं, जिससे बड़ी संख्या में आविष्कार निःशुल्क उपलब्ध हैं)। व्यावसायिक खुफिया जानकारी एकत्रित करें, क्योंकि पेटेंट न केवल तकनीकी जानकारी को उजागर करते हैं, बल्कि बहुत प्रारंभिक चरण में संभावित प्रतिस्पर्धियों, ग्राहकों और भागीदारों की पहचान करना या प्रतिस्पर्धियों की नवाचार रणनीतियों की निगरानी करना भी संभव बनाते हैं।

प्रौद्योगिकी हस्तांतरण को सुविधाजनक बनाना : पेटेंट अक्सर किसी आविष्कार की सुरक्षा का एक सुविधाजनक साधन ही नहीं होते, बल्कि वे उन प्रौद्योगिकियों का भी सटीक तरीके से वर्णन करते हैं जो प्रौद्योगिकी हस्तांतरण और इसी तरह के समझौतों (लाइसेंसिंग, असाइनमेंट, आदि) के विषय हैं। यह 'प्रौद्योगिकी पैकेजिंग' व्यापार सुविधा कार्य इस बात को उचित ठहराता है कि पेटेंट को कभी-कभी ज्ञान-आधारित अर्थव्यवस्था की 'मुद्रा' के रूप में माना जाता है। कुछ हद तक, यही तर्क पेटेंट के अलावा अन्य IPR पर भी लागू होता है।

'ओपन सोर्स' आईपीआर पर निर्भर करता है : ओपन सोर्स मैकेनिज्म सॉफ्टवेयर जैसे क्षेत्रों में लोकप्रिय हैं (जैसे जनरल पब्लिक लाइसेंस या जीपीएल)। जबकि आम धारणा यह है कि इस तरह के मैकेनिज्म की विशेषता किसी भी आईपी सुरक्षा की अनुपस्थिति है, यह ध्यान देने योग्य है कि एक सामान्य जीपीएल वास्तव

में आईपीआर पर निर्भर करता है, क्योंकि यह आम तौर पर एक कॉपीराइट लाइसेंस होता है जो तब तक वैध रहता है जब तक कुछ शर्तों का अनुपालन किया जाता है। लाइसेंसधारक द्वारा प्राप्त लचीलेपन को बाद के उपयोगकर्ताओं को दिया जाना चाहिए, भले ही सॉफ्टवेयर को संशोधित किया गया हो।

वित्तपोषण प्राप्त करने के लिए संपार्श्विक : अमूर्त परिसंपत्तियों के रूप में, आईपीआर अक्सर एसएमई (स्टार्ट-अप और स्पिन-ऑफ सहित) के लिए महत्वपूर्ण भूमिका निभाते हैं, जो तीसरे पक्ष को उन्हें वित्तपोषण प्रदान करने के लिए मनाने की कोशिश करते हैं (जैसे: इक्विटी निवेश करना या ऋण देना)। वित्तीय क्षेत्र के लिए, उदाहरण के लिए, पेटेंट का मूल्यांकन अमूर्त परिसंपत्तियों को महत्व देने के लिए महत्वपूर्ण है, खासकर ज्ञान-गहन एसएमई के लिए।

उत्पादों की गुणवत्ता और सुरक्षा के संबंध में गारंटी प्रदान करना : कई नकली उत्पाद लागू सुरक्षा मानकों का पालन नहीं करते हैं, और यूरोपीय लोगों के स्वास्थ्य और सुरक्षा को जोखिम में डालते हैं – जिसमें बच्चे भी शामिल हैं (उदाहरण के लिए, जहां वाहन स्पेयर पार्ट्स, खिलौने या दवा उत्पाद शामिल हैं)। ऐसे उत्पादों के संबंध में ट्रेडमार्क और डिज़ाइन जैसे IPR को लागू करने से उन्हें बाज़ार में आने से रोका जा सकता है और यह सुनिश्चित किया जा सकता है कि उपभोक्ता मूल निर्माता द्वारा बनाए गए असली उत्पादों की गुणवत्ता और सुरक्षा पर भरोसा कर सकें।

बौद्धिक संपदा अधिकार के सुझाव :-

- आईपीआर नीति सुझावों में ये बातें शामिल हो सकती हैं:
- आईपीआर के क्षेत्र में जागरूकता बढ़ाना।
- आईपीआर के निर्माण को प्रोत्साहित करना।
- आईपीआर के लिए कानून मज़बूत करना।
- आईपीआर के व्यावसायीकरण को बढ़ावा देना।
- आईपीआर उल्लंघनों से निपटने के लिए न्यायिक तंत्र को मज़बूत करना।
- आईपीआर के अध्ययन क्षेत्र में, अनुसंधान, और विकास को बढ़ावा देना।
- आईपीआर पेशेवरों और विशेषज्ञों का एक बड़ा पूल तैयार करना।
- आईपीआर के लिए मानव संसाधनों, प्रतिष्ठानों, और क्षमताओं का विस्तार करना।
- आईपीआर के लिए कानूनी ढांचा तैयार करना।
- आईपीआर के व्यावसायीकरण को बढ़ावा देना।

निष्कर्ष : बौद्धिक संपदा अधिकार वैश्विक अर्थव्यवस्था और प्रौद्योगिकी संगठनों का एक महत्वपूर्ण हिस्सा है अपने उत्पाद प्रौद्योगिकी या बौद्धिक संपदा अधिकारों के साथ काम की सुरक्षा पर विचार करना सुनिश्चित करें। बौद्धिक संपदा अधिकार (आईपीआर) देश के विकास में अहम योगदान देते हैं। आईपीआर का मतलब



है, इंटेलेक्चुअल प्रॉपर्टी राइट्स। यह कानूनी अधिकार हैं जो रचनात्मकता और नवाचार को बढ़ावा देते हैं। आईपीआर से देश के आर्थिक विकास को बढ़ावा मिलता है और नए रोजगार के अवसर उत्पन्न होते हैं।

संदर्भ ग्रंथ सूची :-

1. Datt Gaurav & Mahajan Ashwani (2018) 'Indian Economy', S Chand and company Limited New Delhi-110044.
2. Panneerselvam R. (2018) "Research Methodology", PHI Learning Private Limited, Delhi-110092.
3. 'बौद्धिक संपदा भारत' वार्षिक प्रतिवेदन 2020-21, प्रकाशक, वाणिज्य एवं उद्योग मंत्रालय औद्योगिक नीति एवं संवर्धन विभाग ।
4. Tiwari, Rupinder and Bhardwaj Mamta 'Intellectual properties A primertor or academia' publication bureau Punjab University Chandigarh.
5. <https://www.greyb.com>
6. <https://vajiramandravi.com.transtet>
7. <https://iee-ist.org>
8. <https://www.drishtias.com>
9. <https://www.bajajfinser.in>

Disclaimer/Publisher's Note: The statements, opinions, and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of TJSD and/or the editor(s). The Journal of Scientific Discourse (TJSD) and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.

TRIPS समझौते का भारतीय अर्थव्यवस्था पर प्रभाव: एक अध्ययन

उत्सव आनंद¹ & रामकिशोर अहिरवार^{1*}

1. अर्थशास्त्र विभाग डॉ हरिसिंह गौर विश्वविद्यालय सागर-470003, म.प्र., भारत

*Corresponding Author: ramkishorahirwar1998@gmail.com

शोध सारांश: यह शोध पत्र TRIPS (Trade-Related Aspects of Intellectual Property Rights) समझौते के भारतीय अर्थव्यवस्था पर पड़े प्रभावों का गहन अध्ययन प्रस्तुत करता है। TRIPS, जो विश्व व्यापार संगठन का एक प्रमुख घटक है, का उद्देश्य बौद्धिक संपदा अधिकारों की सुरक्षा के लिए वैश्विक मानकों को स्थापित करना है। इस समझौते ने भारतीय औषधि, कृषि, और प्रौद्योगिकी क्षेत्रों में उल्लेखनीय बदलाव किए हैं।

औषधि उद्योग में, TRIPS समझौते के कारण भारतीय पेटेंट कानूनों में संशोधन करना पड़ा, जिससे जेनरिक दवाओं की उपलब्धता सीमित हुई, लेकिन वैश्विक बाजार में भारतीय फार्मा उद्योग के अनुसंधान और नवाचार को बढ़ावा भी मिला। कृषि क्षेत्र पर इसके प्रभाव में किसानों के लिए बीज की बढ़ती कीमतें और पारंपरिक ज्ञान की सुरक्षा से जुड़े मुद्दे शामिल हैं। प्रौद्योगिकी क्षेत्र में TRIPS ने विदेशी निवेश और उच्च तकनीकी विकास को बढ़ावा दिया, लेकिन घरेलू उद्योगों के लिए प्रतिस्पर्धा में बने रहना चुनौतीपूर्ण बना। इसके अलावा, छोटे और मध्यम उद्यम को बौद्धिक संपदा अधिकारों की जटिल प्रक्रियाओं और उच्च लागत के कारण बाधाओं का सामना करना पड़ा। TRIPS समझौते ने पारंपरिक ज्ञान और जैविक संसाधनों की सुरक्षा की आवश्यकता को भी उजागर किया। इस अध्ययन के निष्कर्ष बताते हैं कि TRIPS समझौते ने भारतीय अर्थव्यवस्था पर सकारात्मक और नकारात्मक दोनों प्रकार के प्रभाव डाले हैं। जबकि यह समझौता भारत को वैश्विक अर्थव्यवस्था के साथ जोड़ने में सहायक रहा है, इसने घरेलू उद्योगों और सामाजिक-आर्थिक संतुलन के लिए गंभीर चुनौतियां भी प्रस्तुत की हैं। नीति निर्माताओं के लिए इन प्रभावों का संतुलन बनाना आवश्यक है।

बीज शब्द :- TRIPS समझौते, भारतीय अर्थव्यवस्था, प्रौद्योगिकी क्षेत्र, बौद्धिक संपदा अधिकार

परिचय: TRIPS (Trade-Related Aspects of Intellectual Property Rights) समझौता एक अंतरराष्ट्रीय समझौता है, जो बौद्धिक संपदा अधिकारों की सुरक्षा और प्रवर्तन से संबंधित है। यह समझौता विश्व व्यापार संगठन का एक महत्वपूर्ण घटक है, जिसे 1995 में लागू किया गया। TRIPS का उद्देश्य वैश्विक व्यापार में बौद्धिक संपदा से जुड़े विवादों का समाधान करना और बौद्धिक संपदा अधिकारों की सुरक्षा के लिए वैश्विक मानक स्थापित करना है। यह समझौता सदस्य देशों को बौद्धिक संपदा के विभिन्न क्षेत्रों—जैसे पेटेंट, कॉपीराइट, ट्रेडमार्क, औद्योगिक डिजाइन, और भौगोलिक संकेत—की रक्षा करने के लिए बाध्य करता है। इसके तहत सदस्य देशों को बौद्धिक संपदा कानूनों के न्यूनतम मानकों का पालन करने की आवश्यकता होती है।

TRIPS समझौते के प्रमुख प्रावधानों में पेटेंट, कॉपीराइट, ट्रेडमार्क, औद्योगिक डिजाइन, और व्यापार रहस्यों की सुरक्षा शामिल है। पेटेंट के मामले में, TRIPS समझौता सदस्य देशों को यह सुनिश्चित करने के लिए बाध्य करता है कि वे अपने देशों में पेटेंट कानून लागू करें, जिससे आविष्कारों और नई तकनीकों को 20 साल तक का संरक्षण प्राप्त हो सके। इसके साथ ही यह सुनिश्चित किया जाता है कि इनोवेटर्स और शोधकर्ता अपने अनुसंधान कार्यों के परिणामस्वरूप प्राप्त नवाचारों का लाभ उठा सकें। कॉपीराइट, जो साहित्यिक, शैक्षिक, और कलात्मक कार्यों के सृजनकर्ताओं के अधिकारों की रक्षा करता है, TRIPS के तहत सदस्य देशों को कम से कम 50 वर्षों तक इन अधिकारों की सुरक्षा प्रदान करने का प्रावधान है। इसके अलावा, ट्रेडमार्क के तहत किसी उत्पाद या सेवा के नाम, प्रतीक या डिजाइन की सुरक्षा की जाती है, ताकि किसी अन्य व्यक्ति या कंपनी द्वारा इसे बिना अनुमति के उपयोग न किया जा सके। औद्योगिक डिजाइन और व्यापार रहस्यों की सुरक्षा भी TRIPS के मुख्य हिस्से हैं, जो कंपनियों और व्यक्तियों को उनके अनूठे डिजाइन और गोपनीय जानकारी की रक्षा करने की अनुमति देता है।

TRIPS का उद्देश्य वैश्विक व्यापार में निष्पक्षता लाना और बौद्धिक संपदा के उल्लंघन को रोकना है। यह वैश्विक स्तर पर व्यापार में प्रतिस्पर्धा को बढ़ावा देता है, साथ ही यह नवाचार और अनुसंधान के लिए अनुकूल वातावरण प्रदान करता है। बौद्धिक संपदा अधिकारों की सुरक्षा से कंपनियाँ और व्यक्ति अपने अनुसंधान, विकास, और रचनात्मक कार्यों में निवेश करने के लिए प्रेरित होते हैं, क्योंकि वे जानते हैं कि उनके उत्पादों और विचारों को कानूनी सुरक्षा प्राप्त है। इससे वैश्विक व्यापार में स्थिरता और निष्पक्षता बनी रहती है।

भारत ने 1995 में TRIPS समझौते को स्वीकार किया और इसके बाद भारतीय कानूनों में कई महत्वपूर्ण संशोधन किए गए। विशेष रूप से पेटेंट कानून में बदलाव आया, जिससे भारतीय कंपनियों और शोधकर्ताओं को वैश्विक मानकों के अनुरूप अनुसंधान और नवाचार के लिए अधिक अवसर मिले। हालांकि, इस समझौते के लागू होने से भारत जैसे विकासशील देशों के लिए कुछ चुनौतियाँ भी पैदा हुईं, जैसे कि जेनेरिक दवाओं की कीमतों में वृद्धि और किसानों के पारंपरिक ज्ञान पर बौद्धिक संपदा अधिकारों का प्रभाव। इन समस्याओं को हल करने के लिए भारतीय नीति निर्माताओं को वैश्विक और घरेलू हितों के बीच संतुलन बनाए रखने की आवश्यकता है। TRIPS समझौता आज वैश्विक व्यापार के एक महत्वपूर्ण हिस्से के रूप में कार्य करता है और यह देशों को बौद्धिक संपदा अधिकारों की सुरक्षा के लिए एक साझा ढांचा प्रदान करता है, जिससे विश्व स्तर पर न्यायसंगत और पारदर्शी व्यापारिक गतिविधियाँ संभव हो सकें।

उद्देश्य:

1. भारतीय अर्थव्यवस्था पर TRIPS के प्रभावों का आकलन करना।
2. कृषि, औषधि, और प्रौद्योगिकी जैसे प्रमुख क्षेत्रों पर इसके प्रभावों का अध्ययन।
3. TRIPS के कारण भारत के छोटे और मध्यम उद्यमों के समक्ष उत्पन्न चुनौतियों और अवसरों का विश्लेषण।

प्रासंगिकता: TRIPS समझौता भारत जैसे विकासशील देशों के लिए अत्यंत प्रासंगिक है, क्योंकि यह घरेलू उद्योगों, नवाचार, और सार्वजनिक हित से जुड़ा हुआ है। यह अध्ययन उन नीतिगत संशोधनों को समझने में मदद करता है, जो TRIPS समझौते के अनुपालन में भारत को अपनाने पड़े। इसके अलावा, यह शोध पत्र TRIPS के सकारात्मक और नकारात्मक पहलुओं पर प्रकाश डालते हुए नीति-निर्माताओं के लिए सुझाव प्रस्तुत करता है।

साहित्य समीक्षा: Basheer, S. (2005) – India's Tryst with TRIPS: The Patents (Amendment) Act, 2005, यह शोध TRIPS समझौते के तहत भारतीय पेटेंट अधिनियम, 1970 में किए गए संशोधनों पर केंद्रित है। यह भारतीय फार्मास्युटिकल क्षेत्र पर कानून के बदलाव के प्रभावों को समझाता है। यह भी बताता है कि कैसे संशोधन ने जेनरिक दवाओं के उत्पादन को सीमित किया और नवाचार को बढ़ावा देने के लिए नए अवसर बनाए।

Correa, C. M. (2000) – Intellectual Property Rights, the WTO, and Developing Countries: The TRIPS Agreement and Policy Options, यह पुस्तक TRIPS समझौते के मुख्य प्रावधानों और विकासशील देशों, विशेष रूप से भारत, के लिए चुनौतियों और अवसरों पर प्रकाश डालती है। यह पेटेंट, बौद्धिक संपदा अधिकार (IPR), और इनसे संबंधित नीतिगत विकल्पों का विश्लेषण करती है। भारत के औद्योगिक और कृषि क्षेत्रों पर इसके संभावित प्रभावों का विस्तृत अध्ययन इसमें किया गया है।

Chaudhuri, S. (2007) – The WTO and India's Pharmaceutical Industry: Patent Protection, TRIPS, and Developing Countries, इस शोध में भारत के फार्मास्युटिकल उद्योग और TRIPS के प्रभाव का विश्लेषण किया गया है। यह पेटेंट संरक्षण के कारण दवाओं की बढ़ती कीमतों और औषधि क्षेत्र के वैश्विक व्यापार में भारत की भूमिका का अध्ययन करता है। यह विशेष रूप से सार्वजनिक स्वास्थ्य और जेनरिक दवाओं की सस्ती उपलब्धता पर प्रकाश डालता है।

Watal, J. (2001) – Intellectual Property Rights in the WTO and Developing Countries, यह पुस्तक TRIPS समझौते के कानूनी और आर्थिक पहलुओं पर केंद्रित है। इसमें विकासशील देशों, विशेष रूप से भारत, के लिए IPR के कार्यान्वयन की चुनौतियों और प्रभावों का विश्लेषण किया गया है। यह जैविक संसाधनों और औद्योगिक क्षेत्र पर TRIPS के प्रभाव पर भी चर्चा करती है। Ghosh, A. (2006) – TRIPS Agreement and Intellectual Property Rights in India: Pharmaceutical Industry Impact, यह शोध-पत्र TRIPS समझौते और भारतीय औषधि उद्योग पर इसके प्रभाव का गहन विश्लेषण प्रस्तुत करता है। इसमें पेटेंट के सख्त प्रावधानों के कारण दवा की कीमतों और उद्योग की संरचना में आए बदलावों पर चर्चा की गई है।

Chaturvedi, S., & Nagpal, G. (2004) – Agriculture and TRIPS Agreement: Issues and Challenges for India, यह पेपर TRIPS समझौते के कारण भारत के कृषि क्षेत्र में उत्पन्न चुनौतियों

और अवसरों पर चर्चा करता है। इसमें बीज पेटेंट, जैविक संसाधनों की सुरक्षा, और किसानों के अधिकारों की रक्षा पर जोर दिया गया है। यह TRIPS के कृषि क्षेत्र पर आर्थिक और सामाजिक प्रभाव का एक व्यापक विश्लेषण है।

शोध पद्धति: इस शोध पद्धति में द्वितीय डाटा का उपयोग किया गया है। TRIPS समझौते के भारतीय अर्थव्यवस्था पर प्रभाव का आकलन करने के लिए विभिन्न सरकारी रिपोर्टों, शोध-पत्रों, विश्व व्यापार संगठन के दस्तावेजों, भारतीय पेटेंट कार्यालय की वार्षिक रिपोर्ट,

TRIPS समझौते का भारतीय अर्थव्यवस्था पर प्रभाव

- i. **TRIPS समझौते का औषधि उद्योग पर प्रभाव:** TRIPS समझौते के तहत भारत को अपने पेटेंट कानून में 2005 में महत्वपूर्ण बदलाव करने पड़े, जिसके तहत दवाओं और रासायनिक यौगिकों पर भी पेटेंट का प्रावधान लागू हुआ। इससे पहले, भारत की प्रक्रिया में केवल पेटेंट मान्य था, जिससे दवाओं की सस्ती जेनरिक संस्करणों का निर्माण और वितरण आसान था। इस बदलाव के कारण जेनरिक दवाओं की सस्ती उपलब्धता पर असर पड़ा, विशेष रूप से गंभीर बीमारियों जैसे एचआईवी/एड्स, कैंसर और अन्य पुरानी बीमारियों के इलाज में उपयोग होने वाली दवाओं की कीमतों में वृद्धि हुई। हालांकि, इस परिवर्तन ने भारतीय औषधि उद्योग को नवाचार और अनुसंधान एवं विकास में निवेश बढ़ाने का अवसर प्रदान किया। वैश्विक स्तर पर प्रतिस्पर्धा करने के लिए भारतीय फार्मा कंपनियों ने नई दवाओं, टीकों और प्रौद्योगिकियों के विकास में अधिक निवेश करना शुरू किया। इसके परिणामस्वरूप, भारत ने खुद को "विश्व की फार्मसी" के रूप में स्थापित किया, जहां कई उच्च-गुणवत्ता वाली जेनरिक दवाएं और टीके अंतरराष्ट्रीय बाजार में उपलब्ध हैं। हालांकि, पेटेंट कानून के सख्त प्रावधानों ने दवा निर्माण की स्वतंत्रता को सीमित किया और गरीब व निम्न-मध्यम वर्गीय परिवारों की स्वास्थ्य देखभाल तक पहुंच को चुनौतीपूर्ण बना दिया। इस प्रकार, TRIPS समझौते ने भारतीय औषधि उद्योग को एक ओर वैश्विक प्रतिस्पर्धा में अग्रणी बनाया, वहीं दूसरी ओर घरेलू स्तर पर सार्वजनिक स्वास्थ्य के लिए कुछ गंभीर चुनौतियां भी प्रस्तुत की।
- ii. **TRIPS समझौते का कृषि क्षेत्र पर प्रभाव:** TRIPS समझौते के लागू होने के बाद, भारत को अपने कृषि क्षेत्र में भी बौद्धिक संपदा अधिकारों के तहत कानूनों को संशोधित करना पड़ा, जिससे पौध किस्मों और बीजों पर पेटेंट अधिकार लागू हो गए। इसने बीज उद्योग को कॉर्पोरेट कंपनियों के प्रभुत्व में लाने का मार्ग प्रशस्त किया। बड़ी बहुराष्ट्रीय कंपनियों ने बीज उत्पादन और वितरण पर नियंत्रण स्थापित करना शुरू कर दिया, जिससे पारंपरिक बीज प्रणाली कमजोर हुई। किसानों को अब अपने अगले फसल चक्र के लिए बीजों को संरक्षित करने या पुनः उपयोग करने की बजाय पेटेंट वाले बीजों को हर बार खरीदने के लिए मजबूर होना पड़ा। यह न केवल बीज की कीमतों में वृद्धि का कारण बना, बल्कि किसानों पर आर्थिक बोझ भी बढ़ा।

इसके अलावा, जेनेटिकली मॉडिफाइड बीजों के आगमन ने छोटे किसानों के लिए चुनौतियां बढ़ा दीं। इन बीजों की उच्च कीमतें और इन पर कंपनियों के पेटेंट अधिकारों ने किसानों की स्वतंत्रता को सीमित कर दिया। पारंपरिक फसलों और बीजों की विविधता पर भी इसका नकारात्मक प्रभाव पड़ा। साथ ही, किसानों को जैविक संसाधनों के उपयोग के लिए रॉयल्टी का भुगतान करना पड़ा, जिससे उनकी आय पर प्रतिकूल प्रभाव पड़ा।

TRIPS समझौते ने पारंपरिक ज्ञान और जैविक संसाधनों की सुरक्षा की आवश्यकता को भी बढ़ा दिया। भारत ने इस दिशा में जैविक विविधता अधिनियम, 2002 और पारंपरिक ज्ञान डिजिटल लाइब्रेरी जैसे उपाय अपनाए। इन प्रयासों का उद्देश्य था कि स्थानीय समुदायों को उनके पारंपरिक ज्ञान और जैविक संसाधनों का उचित लाभ मिले और उनका दुरुपयोग रोका जा सके। हालांकि, इन प्रयासों के बावजूद, छोटे और सीमांत किसानों की आय में गिरावट और खेती की लागत में वृद्धि एक गंभीर समस्या बनी रही। TRIPS ने भारतीय कृषि क्षेत्र को आधुनिक बनाने और तकनीकी नवाचार के अवसर दिए, लेकिन इससे किसानों की आत्मनिर्भरता और परंपरागत कृषि प्रणालियों को नुकसान भी हुआ।

- iii. **TRIPS समझौते का प्रौद्योगिकी और नवाचार पर प्रभाव:** TRIPS समझौते ने भारतीय प्रौद्योगिकी और नवाचार क्षेत्र में कई महत्वपूर्ण बदलावों को जन्म दिया। इस समझौते के तहत भारत को बौद्धिक संपदा अधिकारों के मानकों को अंतरराष्ट्रीय स्तर पर मजबूत करना पड़ा, जिससे उच्च तकनीकी उद्योगों और नवाचार को बढ़ावा मिला। TRIPS के कारण भारत में विदेशी निवेश में वृद्धि हुई, क्योंकि मजबूत पेटेंट सुरक्षा के चलते बहुराष्ट्रीय कंपनियों को भारत में अपने अनुसंधान और विकास केंद्र स्थापित करने के लिए प्रोत्साहन मिला। विशेष रूप से आईटी, सॉफ्टवेयर और बायोटेक्नोलॉजी जैसे क्षेत्रों में, TRIPS ने भारत को वैश्विक प्रतिस्पर्धा में शामिल किया और तकनीकी हस्तांतरण के अवसर प्रदान किए। हालांकि, इस परिवर्तन ने घरेलू उद्योगों के लिए कई चुनौतियां भी खड़ी कीं। पेटेंट की कठोर शर्तों और अंतरराष्ट्रीय प्रतिस्पर्धा के चलते छोटे और मध्यम प्रौद्योगिकी उद्योगों को बाजार में बने रहने के लिए संघर्ष करना पड़ा। भारतीय कंपनियों को अनुसंधान और नवाचार में भारी निवेश करना पड़ा, जो कई कंपनियों के लिए आर्थिक रूप से कठिन था। इसके अलावा, उच्च पेटेंट शुल्क और बौद्धिक संपदा विवादों ने घरेलू उद्योगों पर अतिरिक्त दबाव डाला।

TRIPS ने जहां भारत को नई तकनीकों और वैश्विक साझेदारी के अवसर दिए, वहीं यह भी सुनिश्चित किया कि भारत को तकनीकी ज्ञान के स्वदेशी विकास पर अधिक ध्यान देना पड़े। इस संदर्भ में भारत ने "मेक इन इंडिया" और "स्टार्टअप इंडिया" जैसी योजनाओं के माध्यम से घरेलू नवाचार और प्रौद्योगिकी को बढ़ावा देने का प्रयास किया। हालांकि, बौद्धिक संपदा अधिकारों के कठोर मानकों ने यह सुनिश्चित किया कि कई बार भारतीय उद्योग वैश्विक बाजार में प्रतिस्पर्धा के लिए कमजोर साबित हुए। समग्र रूप से, TRIPS ने भारत में तकनीकी विकास और नवाचार को प्रोत्साहित किया, लेकिन घरेलू उद्योगों के सामने संरचनात्मक सुधारों और लागत प्रबंधन जैसी चुनौतियां भी प्रस्तुत कीं। यह आवश्यक हो गया कि भारत अपनी तकनीकी क्षमताओं को सुदृढ़ करते हुए, वैश्विक तकनीकी आपूर्ति श्रृंखला में अपनी स्थिति मजबूत करें।



चुनौतियां: TRIPS समझौते के भारतीय अर्थव्यवस्था पर प्रभाव का अध्ययन करते समय कई चुनौतियां सामने आईं। सबसे पहली चुनौती डेटा की सीमित उपलब्धता थी। माध्यमिक डेटा पर आधारित इस शोध में सटीक और अद्यतन आंकड़ों की कमी एक प्रमुख समस्या रही। विशेष रूप से, भारतीय उद्योगों पर TRIPS के दीर्घकालिक प्रभावों से संबंधित आंकड़े प्राप्त करना कठिन था। इसके अलावा, TRIPS का प्रभाव देश के विभिन्न हिस्सों और उद्योगों में भिन्न-भिन्न रूपों में देखा गया, जिससे एक सामान्य निष्कर्ष तक पहुंचना चुनौतीपूर्ण हो गया।

TRIPS से संबंधित नीतियों और कानूनों को समझने में भी जटिलताएं थीं। भारतीय पेटेंट कानून में किए गए संशोधनों के विभिन्न व्याख्यान और उनके प्रभाव को समझना सरल नहीं था। इसके अलावा, बहुराष्ट्रीय कंपनियों का प्रभुत्व और उनके पेटेंट दावों से जुड़े मामलों में पारदर्शिता की कमी ने भी अध्ययन को और जटिल बना दिया।

निष्कर्ष: TRIPS समझौते ने भारतीय अर्थव्यवस्था को सकारात्मक और नकारात्मक दोनों प्रकार के प्रभाव दिए हैं। सकारात्मक पक्ष में, यह समझौता भारत को वैश्विक व्यापार में शामिल करने, विदेशी निवेश को आकर्षित करने, और अनुसंधान एवं विकास को प्रोत्साहित करने में सहायक रहा। औषधि और प्रौद्योगिकी जैसे क्षेत्रों में, TRIPS ने नवाचार और वैश्विक प्रतिस्पर्धा में भागीदारी के नए अवसर दिए। हालांकि, इसका नकारात्मक प्रभाव किसानों, छोटे उद्यमों, और सामाजिक-आर्थिक असमानता पर स्पष्ट रूप से देखा गया। जेनरिक दवाओं की उपलब्धता में कमी, किसानों पर बीजों की उच्च लागत का बोझ, और SMEs के लिए प्रतिस्पर्धा में बने रहने की कठिनाइयों ने TRIPS की कमियों को उजागर किया।

संदर्भ सूची:

1. Basheer, S. (2005) - India's Tryst with TRIPS: The Patents (Amendment) Act, 2005
2. Correa, C. M. (2000) - Intellectual Property Rights, the WTO, and Developing Countries: The TRIPS Agreement and Policy Options
3. Chaudhuri, S. (2007) - The WTO and India's Pharmaceutical Industry: Patent Protection, TRIPS, and Developing Countries
4. Dhar, B., & Rao, N. C. (2002) - Transfer of Technology for Successful Integration into the Global Economy: A Case Study of the Pharmaceutical Industry in India
5. Watal, J. (2001) - Intellectual Property Rights in the WTO and Developing Countries
6. Ghosh, A. (2006) - TRIPS Agreement and Intellectual Property Rights in India: Pharmaceutical Industry Impact
7. Maskus, K. E. (2000) - Intellectual Property Rights in the Global Economy
8. Chaturvedi, S., & Nagpal, G. (2004) - Agriculture and TRIPS Agreement: Issues and Challenges for India

Disclaimer/Publisher's Note: The statements, opinions, and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of TJSD and/or the editor(s). The Journal of Scientific Discourse (TJSD) and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.

आर्थिक विकास में बौद्धिक संपदा अधिकारों की भूमिका

कविता बागरी^{1*} & कमलेश कुमार दुबे²

1. अर्थशास्त्र विभाग, शासकीय स्वशासी कन्या स्नातकोत्तर उत्कृष्टता महाविद्यालय, सागर-470001, म.प्र., भारत
 2. अर्थशास्त्र विभाग, शासकीय महाविद्यालय, मकरोनिया, सागर-470004, म.प्र., भारत
- *Corresponding Author: arvendrabagri100@gmail.com

शोध सारांश: आर्थिक विकास में बौद्धिक संपदा अधिकारों की भूमिका नामक शीर्षक से प्रस्तुत शोध पत्र में आर्थिक विकास एवं बौद्धिक संपदा का परिचय देते हुए आर्थिक विकास में इसकी भूमिका आवश्यकता एवं चुनौतियां का वर्णन किया गया है। साथ ही बौद्धिक संपदा संरक्षण न केवल सामाजिक, मानसिक विकास के लिए आवश्यक है बल्कि यह अधिकार आर्थिक प्रगति के लिए महत्वपूर्ण है, और यह उत्पादकों को उनके अभिनव खर्चों की लागत वापस लेने में भी मदद करता है। सामाजिक, आर्थिक कल्याण के लिए बौद्धिक संपदा अधिकार मिलने ही चाहिए, साथ ही बौद्धिक संपदा में व्यक्तियों के किसी भी बौद्धिक सृजन को रखा जा सकता है (जैसे साहित्यिक कृति की रचना, शोध, आविष्कार आदि) परंतु इनका सही प्रकार प्रयोग ना हो पाने का कारण देखने को मिला है और वह कारण है- जागरूकता का ना होना। हमारे अधिकारों में वर्णित है कि जो व्यक्ति अपने बौद्धिक क्षमता से कुछ भी सृजन करता है तो सर्वप्रथम उसमें उसी का ही अधिकार होना चाहिए, बौद्धिक संपदा का अधिकार मानव की बुद्धि एवं मस्तिष्क की एक खोज है, जो देश समाज और मानव जीवन की अनेक समस्याओं से निपटने का समाधान देती है। बौद्धिक संपदा का इनपुट अनुप्रयोग और परिवर्तन किसी क्षेत्र के आर्थिक विकास को महत्वपूर्ण रूप से बढ़ावा दे सकता है लेकिन आर्थिक विकास पर अभी भी पूर्ण रूपेण बौद्धिक संपदा प्रबंधन मार्ग और संचालन बहुत स्पष्ट नहीं हो पाया है। बौद्धिक संपदा अधिकारों के लिए भारतीय संसद में पारित किए गए अधिकारों, अधिनियम, नीतियों को भी इसी शोध पत्र में दर्शाया गया है। इस शोध पत्र में वर्तमान में आईपीआर की आवश्यकता लाभ स्थिति एवं आईपीआर से आर्थिक लाभ पर भी प्रकाश डाला गया है। पेटेंट अधिनियम, कॉपीराइट अधिनियम, ट्रेडमार्क अधिनियम की भी व्याख्या की गई है।

बीज शब्द: बौद्धिक संपदा अधिकार, आर्थिक विकास, बौद्धिक संपदा प्रबंधन, नवाचार, तकनीकी जागरूकता, प्रबंधन गतिविधियां, प्रौद्योगिकी, औद्योगिक विकास।

1. आर्थिक विकास से आशय

आर्थिक विकास से आशय उस प्रक्रिया से है जिसके परिणाम स्वरूप देश के समस्त उत्पादन साधनों का कुशलता पूर्वक दोहन होता है, साथ ही राष्ट्रीय आय और प्रति व्यक्ति आय में निरंतर एवं दीर्घकालिक वृद्धि होती है, तथा जीवन स्तर एवं मानव विकास सूचकांक में सुधार की स्थिति उत्पन्न होती है। अर्थशास्त्री

आमतौर पर सहमत हैं कि आर्थिक विकास और विकास चार कारकों से प्रभावित होते हैं मानव संसाधन, भौतिक पूंजी, प्राकृतिक संसाधन, और प्रौद्योगिकी।

आर्थिक विकास एक जटिल प्रक्रिया है, जिसके द्वारा देश अपने नागरिकों के आर्थिक कल्याण में सुधार करते हैं और दुनिया में अपने प्रभाव का विस्तार करते हैं। अर्थशास्त्रियों द्वारा सफल विकास प्रयासों से जुड़े कारकों पर कई ग्रंथ लिखे गए। एक विषय के सभी आधुनिक उपचारों में तकनीकी परिवर्तन को आर्थिक विकास का इंजन समझा जाता है। आर्थिक विकास जिसका अर्थ है- जनसंख्या की तुलना में उत्पादन में तेजी से वृद्धि, उत्पादकता में वृद्धि की आवश्यकता है। उत्पादकता में वृद्धि के लिए तकनीकी की आवश्यकता है।

आर्थिक विकास की परिभाषाएं :

1. प्रोफेसर लुईस के शब्दों में – "आर्थिक विकास से आशय प्रति व्यक्ति उत्पादन में वृद्धि से लगाया जाता है"
2. प्रोफेसर यांगसन के अनुसार- "आर्थिक प्रगति आशय किसी समाज से संबंधित आर्थिक उद्देश्यों को प्राप्त करने की शक्ति में वृद्धि करना है"
3. ओपन ओकेन तथा रिचर्डसन के अनुसार- आर्थिक विकास से आशय वस्तुओं को अधिक से अधिक मात्रा में उत्पादन करने से है जिससे कि जन सामान्य के भौतिक कल्याण में सतत व दीर्घकाल में वृद्धि होती है।

2. बौद्धिक संपदा अधिकार का आशय

व्यक्तियों को उनके बौद्धिक सृजन के परिप्रेक्ष्य में प्रदान किए जाने वाले अधिकार ही बौद्धिक संपदा अधिकार कहलाते हैं। वस्तुतः ऐसा समझा जाता है कि यदि कोई व्यक्ति किसी प्रकार का बौद्धिक सृजन करता है तब सबसे पहले वह अधिकार उसे ही मिलना चाहिए। बौद्धिक संपदा का अधिकार वह विधिक अधिकार है जो मानवीय बुद्धि के उत्पादों के उपयोग को नियंत्रित करते हैं इन अधिकारों का मुख्य उद्देश्य एक निश्चित अवधि तक अधिकार आविष्कारक की अनुमति के बिना किसी अन्य व्यक्ति द्वारा संरक्षित विषय वस्तु का लाभ उठाने को प्रतिबंधित करना है। बौद्धिक संपदा अधिकार लेखकों, आविष्कारों को आदि की बुद्धि जनित रचनात्मक और आविष्कारशील क्रियाकलापों को प्रोत्साहित, संवर्धित एवं संरक्षित करता है, और गुणवत्ता पूर्ण माल और सेवाओं के वितरण को सरल बनाते हुए उपभोक्ताओं के हितों का भी संरक्षण करता है। इस प्रकार से बौद्धिक संपदा अधिकारों के अंतर्गत उन सभी विचारों, व्यवहार, ज्ञान, गोपनीय जानकारी इत्यादि को संरक्षण प्रदान किया जाता है।

बौद्धिक संपदा अधिकार एक ऐसा अधिकार है जो किसी वस्तु अथवा बौद्धिक सृजन या विचार के निर्माणकर्ता को उस वस्तु अथवा बौद्धिक सृजन के निर्माण का श्रेय प्रदान करता है। आज हमारे समाज में विभिन्न सुविधाओं एवं उत्पादों के निर्माण के पीछे गहन चिंतन एवं शोध के गंभीर प्रयास सम्मिलित होते हैं,



और इन्हीं प्रयासों के परिणाम स्वरूप प्राप्त परिणाम अथवा उत्पाद अन्य कई व्यक्तियों के द्वारा भिन्न-भिन्न तरीकों से प्रयोग में लाया जाता है। और कई बार इसे दूसरे व्यक्तियों द्वारा उन उत्पादों को नवीन स्वरूप में परिवर्तित कर उनके आधार पर अन्य परिष्कृत उत्पाद तैयार कर उसका संपूर्ण श्रेय स्वयं लेने का प्रयास करते हैं। बौद्धिक संपदा अधिकार इसी तरह के कृत्यों से खोजकर्ताओं के अधिकारों की रक्षा करता है, एवं खोजकर्ताओं का उनके द्वारा की गई खोज का श्रेय देने के लिए उनके वित्तीय एवं व्यवसायिक अधिकारों को भी संरक्षित करता है। बौद्धिक संपदा के अधिकार के अंतर्गत आने वाले मुख्य तत्व कॉपीराइट एवं इसी तरह के अन्य अधिकार जैसे ट्रेडमार्क, औद्योगिक डिजाइन, भौगोलिक संकेत, पेटेंट्स आदि अधिकार शामिल हैं।

3. वर्तमान में बौद्धिक संपदा अधिकारों की आवश्यकता

बौद्धिक संपदा अधिकार किसी देश की समग्र विकास के लिए महत्वपूर्ण है, और विभिन्न देशों में यह अलग-अलग हैं। बौद्धिक संपदा कानून की सफल योजना और सरल क्रियान्वयन कई विकसित देशों के आर्थिक विकास में महत्वपूर्ण योगदान देता है। बौद्धिक संपदा अधिकार नवाचार को बढ़ावा देते हैं जिससे आर्थिक विकास होता है, लोगों के अधिकारों की रक्षा नवाचार को बढ़ावा देता है जो सीधे देश के विकास और वृद्धि से जुड़ा हुआ है। भारत जैसी विकासशील अर्थव्यवस्थाओं को अपने बाजारों में उत्पादकता बढ़ाने पर ध्यान केंद्रित करना चाहिए। नवाचार के लिए महत्वपूर्ण निवेश की आवश्यकता होती लेकिन यह निवेश में महत्वपूर्ण भूमिका निभाता है। बौद्धिक संपदा कानून लागू करने के बाद अमेरिका, जापान और चीन जैसे विकसित देशों ने विकास दर में 5 गुना वृद्धि का अनुभव किया है। समय के साथ हमने औद्योगिक युग में बदलाव देखा है जहां उत्पाद – अर्थव्यवस्था के केंद्र बिंदु रूप में काम काम करते थे। वर्तमान में हम खुद को सूचना युग पाते हैं, जहां बौद्धिक सामग्री और विचारों का अधिक महत्व है। नतीजतन इन बौद्धिक संपत्तियां, विचारों और नवाचारों की सुरक्षा तेजी से महत्वपूर्ण हो जाती है जिसके लिए बौद्धिक संपदा अधिकारों का अस्तित्व आवश्यक हो जाता है।

1. बौद्धिक संपदा अधिकार यह सुनिश्चित करने के लिए आवश्यक है कि लेखकों/रचनाकारों/आविष्कारकों/कलाकारों/ डिजाइनरों आदि को उनके कार्य/ रचना/आविष्कार/ कला /रूप /डिजाइन आदि को संभव बनाने के लिए किए गए निवेश, समय और प्रयासों का 2 लाभ विशेष रूप से प्राप्त करने की अनुमति देकर प्रोत्साहन दिया जाए।
2. बौद्धिक संपदा अधिकार कुछ बौद्धिक संपदा में अन्य लोगों को शामिल न करके उनके अन्य उत्पादन/निर्माण/ प्रौद्योगिकी/बिक्री आदि के अधिकार हैं जो उसे बौद्धिक संपदा की नकल करने पर रोक लगाते हैं।
3. दार्शनिक दृष्टिकोण से बौद्धिक संपदा अधिकार प्रदान करना आवश्यक है क्योंकि वे आविष्कारों को मूल्यवान तकनीकी जानकारी को जनता के सामने प्रकट करने के लिए प्रोत्साहन प्रदान करते हैं, जो अन्यथा गुप्त रह जाती है क्योंकि इस प्रकट करने के लिए कोई प्रोत्साहन या लाभ नहीं है। ट्रेडमार्क

अधिकारों की आवश्यकता यह सुनिश्चित करने के लिए है कि व्यापारियों और सेवा प्रदाताओं को उनके नाम/लोबो आदि की नकल किए जाने के कारण लाभ खोजने के डर के बिना अपने इष्टतम गुणवत्ता वाले उत्पाद पेश करने के लिए प्रोत्साहित किया जाए। वह प्रोत्साहन कुछ और नहीं बल्कि उसे आविष्कार/निर्माण को सीधे या परोक्ष रूप से मुद्रीकृत करने का विशेष अधिकार है।

4. बौद्धिक संपदा अधिकारों को मान्यता देना आविष्कारक/रचनाकार की कड़ी मेहनत का पुरस्कार है जो उन्हें और अधिक अनुसंधान, विकास और नवाचार करने के लिए प्रोत्साहित करता है तथा ऐसे नवाचारों या रचनाओं को जनता के लिए उपलब्ध करा कर समाज की बेहतरी में योगदान देता है।

बौद्धिक संपदा अधिकारों की आवश्यकता तब और बढ़ जाती है जब किसी पिछड़े हुए क्षेत्र में सृजन शक्ति होते हुए जागरूकता का अभाव पाया जाता है जिससे उसकी सृजनशीलता का कोई दूसरा ही लाभ उठाना शुरू कर देता है; आधुनिक युग तकनीकी युग है इसलिए बौद्धिक संपदा अधिकारों की सहायता से संतुलन बनाए जा सकता है।

4. भारत में बौद्धिक संपदा अधिकार से संबंधित मुद्दे एवं चुनौतियां

बौद्धिक संपदा अधिकार आविष्कारक या निर्माता को उनके बौद्धिक कार्यों को निश्चित एवं सुरक्षित रखने के लिए दिए गए कानूनी विशेषाधिकार हैं। यह बौद्धिक संपदा अधिकार मानव अधिकारों की सार्वभौमिक घोषणा के अनुच्छेद 27 में उल्लेखित हैं। बौद्धिक संपदा अधिकार के वैश्विक संरक्षण की देखरेख करने वाली महत्वपूर्ण संस्था (WIPO) विश्व बौद्धिक संपदा संगठन है। बौद्धिक संपदा के महत्व को स्वीकार करने वाली प्रणाली पहली अंतरराष्ट्रीय संधियों की देखरेख करता है, जो औद्योगिक संपत्ति संरक्षण के पेरिस कन्वेंशन (1883) और साहित्य और कलात्मक कार्यों के संरक्षण के लिए बर्न कन्वेंशन (1836) थी।

डिजिटल युग के आधुनिकीकरण अपनाते में प्रौद्योगिकी के लाभ निर्विवाद हैं। हालांकि इन प्रगति के साथ-साथ समाज की मशीन, लर्निंग, पायरेसी, डेटा सुरक्षा, साइबर अपराध और अन्य सहित विभिन्न मुद्दों का सामना करना पड़ा है इनमें से कई मुद्दे बौद्धिक संपदा अधिकारों की सुरक्षा के इर्द-गिर्द घूमते हैं –

- बौद्धिक संपदा अधिकारों के बारे में जागरूकता थी और ज्ञान का अभाव।
- गहन शिक्षण, मिशन शिक्षण और तकनीकी कौशल का अपर्याप्त विकास।
- बौद्धिक संपदा कानून का अपर्याप्त कार्यान्वयन।
- बौद्धिक संपदा अधिकार पर प्रभावी समीक्षा समिति का अभाव।
- सीमित तकनीकी अंतर्दृष्टि और अनुप्रयोग विशेषज्ञ का अभाव।

बौद्धिक संपदा अधिकारों में कई मुद्दे और भी शामिल हैं जो इस प्रकार हैं –

1. **कार्यान्वयन संबंधी मुद्दे** – एक महत्वपूर्ण बाधा न्यायपालिका और प्रवर्तन अधिकारियों द्वारा बौद्धिक संपदा अधिकारों से संबंधित चिंताओं को अन्य आर्थिक अपराधों के समान अपनी नीति के अंतर्गत लाकर संबोधित करना है।
2. **साहित्यिक चोरी से संबंधित मुद्दे** – साहित्यिक चोरी एक और गंभीर समस्या है। यह किसी अन्य व्यक्ति की बौद्धिक संपदा को बिना अनुमति लेने का काम है जिसमें शब्द, नारे, डिजाइन, गोपनीय जानकारी और लेखक के रचनात्मक कार्य हैं।
3. **साइबर स्पेस में बौद्धिक संपदा कानूनों का अनुचित प्रवर्तन** – इंटरनेट पर बौद्धिक संपदा अधिकार लागू होते हैं लेकिन इनका प्रवर्तन मुख्य चिंता का विषय है। इंटरनेट विकेंद्रित होने के कारण कोई भी उपयोगकर्ता विभिन्न माध्यमों से साइबर स्पेस नामक इलेक्ट्रिकल नेटवर्क पर अपने कार्य को व्यापक रूप से प्रसारित कर सकता है। कोई व्यक्ति ईमेल या किसी निजी वेबसाइट के जरिए न्यूज़ ग्रुप के साथ कला का कोई टुकड़ा आसानी से साझा कर सकता है।
4. **पेटेंट की सदाबहारता** – सदाबहारता ऐसी रणनीति है जिसके तहत किसी पेटेंट की अवधि को बढ़ाकर रॉयल्टी को बरकरार रखा जाता है जो औषधि प्रभावकारिता में सुधार किए बिना ही समाप्त होने वाली होती है।
5. **अनिवार लाइसेंसिंग मानदंड** – कई मामलों में सरकार द्वारा भारतीय नागरिकों के हितों की रक्षा के लिए बौद्धिक संपदा अधिकार लागू करने में कमी करती हुई नजर आ रही है।
6. **पश्चिमी कॉपीराइट कानून के समक्ष कोई कानून नहीं**– वर्तमान भारतीय कॉपीराइट अधिनियम में "तकनीकी सुरक्षा उपाय" या इलेक्ट्रॉनिक अधिकार प्रबंधन डाटा को सुरक्षित करने की आवश्यकता का उल्लेख देखने में नहीं मिल पा रहा है। भारतीय दंड संहिता 1860 आईपीसी में कई धाराएं हैं जो तकनीकी उपाय के लिए कानूनी सुरक्षा प्रदान कर सकती हैं।

चुनौतियां: बौद्धिक संपदा अधिकार को राष्ट्रीय मानकों के साथ सुसंगत बनाना कठिन हो सकता है क्योंकि देश में विकास के विभिन्न स्तर, आर्थिक प्राथमिकताएं और सांस्कृतिक अंतर होते हैं। कभी-कभी आविष्कारकों और रचनाकारों को दिए गए पेटेंट और विशेष अधिकार एकाधिकार या कीमतों में बढ़ोतरी की ओर ले जा सकते हैं, जिससे कुछ उत्पाद जरूरतमंद लोगों के लिए अप्रत्यक्ष हो जाते हैं। इससे आविष्कारकों /कंपनियों के बीच आर्थिक प्रतिस्पर्धा पैदा होती है, और वह उत्पाद को वर्तमान दुनिया में बनाए रखने के लिए जरूरी बनाकर जनता का शोषण करते हैं। आवश्यक वस्तुओं तक पहुंच सुनिश्चित करने के साथ नवाचार की आवश्यकता को संतुष्ट संतुलित करना बौद्धिक संपदा अधिकार के लिए एक सतत चुनौती है। पेटेंट प्रणाली आय में एक जटिल और बोझिल हो सकती है, खासकर छोटे आविष्कारकों और उद्यमियों के लिए। पेटेंट प्राप्त करने और उसका बचाव करने में शामिल उच्च लागत लंबी और जटिल आवेदन प्रक्रियाओं के साथ मिलकर सीमित संसाधनों वाले नव प्रवर्तकों के लिए प्रवेश में अराजकता पैदा कर सकती हैं। इसके अलावा जालसाजी, चोरी और उल्लंघन किसी भी देश के सामने आने वाली प्रमुख चुनौतियों में से एक हैं।

अपर्याप्त प्रवर्तन तंत्र, सीमित संसाधन और पुराने जमाने की कानूनी व्यवस्था बौद्धिक संपदा की रक्षा करने में कठिनाई पैदा करती है। ऑनलाइन चोरी जैसे किसी का डाटा कंप्यूटर या लैपटॉप से हैक करना। कॉपीराइट उल्लंघन और डिजिटल सामग्री की नकल और वितरण में आसानी महत्वपूर्ण चिंता का विषय बन गए हैं। इसलिए इसकी क्षमता का पूरा लाभ उठाने के लिए नीति को समय-समय पर परिवर्तन, संवर्धन और वैश्विक मानकों के साथ समीक्षा से गुजरना चाहिए, इन चुनौतियों के अलावा भी कुछ प्रमुख चुनौतियां मुख्य हैं जो इस प्रकार हैं।

वैश्विक पहुंच, गुमनाम, कमजोर प्रवर्तन, जेनरेटिव AI, अनिवार्य लाइसेंसिंग, मुकदमेबाजी, कमजोर कार्यान्वयन, अंतरराष्ट्रीय वार्ता में बाधा, उल्लंघन की आसानी आदि। भारत में अनुसंधान एवं विकास में निजी क्षेत्र की भागीदारी बहुत कम देखी जा रही है और इसका प्रमुख कारण भारत की कमजोरी आईपीआर व्यवस्था है।

5. भारत में बौद्धिक संपदा अधिकारों की स्थिति

बौद्धिक संपदा अधिकार आज वर्तमान की ज्ञान आधारित अर्थव्यवस्था में नवाचार को बढ़ावा देने, रचनात्मकता को बढ़ावा देने और प्रतिस्पर्धा सुनिश्चित करने में महत्वपूर्ण भूमिका निभाते हैं। 2016 में भारत में रचनात्मकता को प्रोत्साहित करने और बौद्धिक संपदा की रक्षा करने, इसके व्यवसाय कारण को बढ़ावा देने के उद्देश्य से अपनी राष्ट्रीय आईपीआर नीति पेश की इस नीति का प्रमुख लक्ष्य एक मजबूत और कुशल आईपीआर पारिस्थितिकी तंत्र बनाना था जो नवाचार को प्रोत्साहित करता है, बौद्धिक संपदा की रक्षा करता है और भारत के विभिन्न क्षेत्रों में रचनात्मकता के लिए सम्मान की संस्कृति को बढ़ावा देता है। हालांकि देश में बौद्धिक संपदा की क्षमता का पूरा दोहन करने के लिए, सुधार के क्षेत्रों की पहचान करना और नीति को नियमित रूप से मजबूत करने के लिए आवश्यक कदम उठाना अनिवार्य है जिससे अधिक नवीन और समृद्ध भविष्य का मार्ग प्रशस्त हो सके।

बौद्धिक संपदा अधिकार जागरूकता आविष्कारकों के पक्ष में अधिक बौद्धिक संपदा अधिकारों का निर्माण करना है। एक मूल्यवान संपत्ति के रूप में बौद्धिक संपदा अधिकार को बढ़ावा देने से अधिक अधिकारों का निर्माण होगा, वह बदले में ज्ञान के हर टुकड़े को एक मूल्यवान संपत्ति में बदलने में मदद करेगा। इसी स्थिति को ध्यान में रखते हुए बौद्धिक संपदा अधिकार के लिए एक राष्ट्रीय शोध संस्थान के निर्माण की भी पर कल्पना की गई है जो आईपीआर निर्माण आउटरिच कार्यक्रमों के लिए केंद्र के रूप में ग्रामीण क्षेत्रों सहित जहां पारंपरिक ज्ञान की भरमार है। भारत में आईपीआर से संबंधित वर्तमान में कई एक्ट हैं जो इस प्रकार हैं—

1. कॉपीराइट अधिनियम 1957।
2. पेटेंट अधिनियम 1970।
3. ट्रेडमार्क अधिनियम 1999।

4. डिजाइन अधिनियम 1999 आदि

- भारत में बौद्धिक संपदा अधिकार की स्थिति बेहतर हो रही है। पेटेंट आवेदनों की संख्या में वृद्धि हुई है और बौद्धिक संपदा गतिविधि में भारत का योगदान बढ़ा है।
- पेटेंट आवेदनों के मामले में भारत दुनिया में छठे स्थान पर है
- बौद्धिक संपदा अधिकार प्रबंधन के लिए अलग-अलग उपचार होते हैं जैसे हैंडलिंग योजना की रणनीति।
- बौद्धिक संपदा अधिकार के प्रबंधन में विज्ञान इंजीनियरिंग दवा कानून वित्त विपणन और अर्थशास्त्र जैसे क्षेत्र के विशेषज्ञों की भागीदारी होती है।
- साल 2023 में भारत ने दुनिया भर में रिकॉर्ड 3.55 मिलियन पेटेंट आवेदनों में से एक महत्वपूर्ण हिस्से का योगदान दिया।
- बौद्धिक संपदा अधिकार के प्रबंधन में वर्तमान में व्यापार और प्रीती संबंधी विचारों को महत्व दिया जा रहा है।

भारत में नवाचार और उत्पादकता में वैश्विक नेता बनने की अपार क्षमता है। हालांकि इस शिखर तक पहुंचाने के लिए बौद्धिक संपदा कानून में निवास निवेश करना, अत्यंत महत्वपूर्ण है। भारत द्वारा व्यापार संबंधित बौद्धिक संपदा अधिकार (TRIPS) समझौते को अपनाने से पेटेंट दाखिल करने में उल्लेखनीय वृद्धि हुई है, जिसके परिणाम स्वरूप अनुसंधान और विकास में नवाचार और निजी क्षेत्र के निवेश में वृद्धि हुई है। यह अनुकूल प्रवृत्ति भारत के लिए फलने फूलने और विश्व व्यापी अर्थव्यवस्था में महत्वपूर्ण योगदान दे रही है।

हाल ही में पेटेंट कानून में भी संशोधन किए गए हैं और पेटेंट नियम 2020 (संशोधित नियम 2020), 20 अक्टूबर 2020 से लागू हो गया है। संशोधित नियम 2020 से पहले पेटेंट धारकों और लाइसेंस धारकों को प्रत्येक वर्ष (जनवरी से दिसंबर) के लिए वाणिज्यिक कामकाज का विवरण प्रस्तुत करना पड़ता था, क्योंकि भारत में आए वितरण आमतौर पर एक वित्तीय वर्ष (1 अप्रैल से 31 मार्च) के लिए तैयार किए जाते हैं, इसलिए संशोधित नियम 2020 प्रत्येक वर्ष के लिए पेटेंट किए गए आविष्कार के वाणिज्यिक कामकाज का विवरण दाखिल करना बहुत आसान बना देगा। आविष्कारक/ डेवलपर/ डिजाइनर और लेखक अपने द्वारा विकसित किए गए विचारों की रक्षा कर सकते हैं जैसे कि पेटेंट या कॉपीराइट के माध्यम से। इसका उद्देश्य दूसरों को उनकी रचनाओं या आविष्कारों का अनुचित लाभ उठाने से रोकता है। यह उन्हें उत्पाद विकसित करने में निवेश किए गए पैसे को वापस पाने का अवसर भी देता है।

बौद्धिक संपदा अधिकार का दायरा लगातार बढ़ रहा है, और विकास की गति के साथ तालमेल बनाए रखने के लिए ये संशोधन बहुत जरूरी भूमिका निभा रहे हैं। इस क्षेत्र में बदलाव जरूरी है; खास कर तब जब दुनिया प्रतिस्पर्धा कर रही है। आविष्कारकों के अधिकारों की रक्षा करना और समाज के कल्याण

को बढ़ावा देना, राष्ट्र का कर्तव्य बन गया है साथ ही निकट भविष्य में ऐसी और भी बदलाव समय-समय पर किए जाते रहें।

6. बौद्धिक संपदा विकास के लिए सुझाव:

बौद्धिक संपदा के विकास की जरूरत को पूरा करने के लिए बौद्धिक संपदा कर्मियों के प्रशिक्षण को बौद्धिक संपदा रणनीति को विकास की गति के साथ पकड़ना चाहिए, जिससे एक गाइड और एक मांग गाइड की योजना बनाने पर जोर दिया जा सके और बौद्धिक संपदा प्रतिभा मूल्यांकन तंत्र में लगातार सुधार किया जा सके। सभी देश एक प्रभावित बौद्धिक संपदा प्रणाली से लाभान्वित हो सकते हैं जो उन्हें आर्थिक विकास और सामाजिक एवं सांस्कृतिक कल्याण के लिए एक प्रेरक के रूप में बौद्धिक संपदा की क्षमता का एहसास कराने में मदद कर सकती है।

नवाचार उन्मुख देश के निर्माण के लिए हमें प्रौद्योगिकी बाजार की खेती और प्रौद्योगिकी मध्यस्थ द्वारा नवाचार इनपुट और उद्योग के बीच संबंध को महत्व देना चाहिए। जो उद्योग, विश्वविद्यालय और अनुसंधान के गहन एकीकरण के साथ एक बाजार उन्मुख नवाचार प्रणाली के निर्माण को बढ़ावा देने और नवाचार उपलब्धियों के औद्योगिकरण में तेजी लाने के लिए महत्वपूर्ण है। सेवा प्लेटफार्म के आधार पर सूचना संसाधनों को एकीकृत करना, उद्योग, कॉलेज की सूचना प्लेटफार्म का निर्माण करना और प्रौद्योगिकी अनुसंधान और विकास, सार्वजनिक सेवा, विज्ञान और प्रौद्योगिकी संसाधनों और अन्य प्रकार की सूचनाओं पर व्यापक जानकारी प्रदान करना आवश्यक है। उद्यमी और अनुसंधान संस्थानों के बीच बातचीत और सहयोग पर अधिक ध्यान दिया जाना चाहिए जिससे की गतिविधियों में बौद्धिक संपदा प्रबंधन का पूर्ण प्रदर्शन किया जा सके, जिसमें प्रबंधन गतिविधियों में सिस्टम डायनामिक पद्धति की शुरुआत सिस्टम की दृष्टिकोण से मुख्य निकाय और प्रबंधन गतिविधियों से मेल खाती हों और विकास के बीच मध्यस्थता स्थापित की जा सके।

भारत को पेटेंट डिजाइन, डिजाइन और वास्तु शिल्प महानियंत्रक के रूप में जाना जाता है। बड़ी संख्या में आवेदनों के उपकरणों में यह बात शामिल है कि प्रॉट अधिकार प्रदान करने की हमारी व्यवस्था में राष्ट्रीय स्तर पर सुधार किया गया है और एक निश्चित समय के लिए अधिक एप्लीकेशंस के तत्वों की आवश्यकता है भारत सरकार ने लघु संपदा अधिकार व्यवस्था में सुधार की शुरुआत की है और यह तय किया है कि पात्रता अधिकार प्राप्ति के लिए आवेदन करने वालों के लिए आय की समय सीमा एक माह होगी और यह निश्चित ही स्वागत योग्य काम होगा।

- आईपीआर की सुरक्षा के लिए एक पी मॉडल अपनाना।
- भारत में उत्पादकता और निवेश को बढ़ाना अत्यंत महत्वपूर्ण जो उत्पादकों और उपभोक्ताओं के अधिकारों की रक्षा करता है।
- आईपीआर के उल्लंघन से होने वाले मौद्रिक जोखिमों को कम करने के लिए बीमा अधिनियम 1938 में संशोधन करना।

- कॉपीराइट के तहत इंटरनेट और डिजिटल ब्रॉडकास्टर के काम को शामिल करना।
- फार्मास्यूटिकल अनुसंधान को विशिष्ट क्षेत्रों और नई दावों की खोज पर केंद्रित करना।
- भौतिक संपदा अधिकार के महत्व को शोधकर्ताओं शिक्षकों और छात्रों को प्रोत्साहित करना।
- याद उन्मुख उत्पादों के लिए ट्रेडमार्क को प्राथमिकता देना।
- पेटेंट आवेदनों को फास्ट ट्रैक करना।
- गैर सरकारी संगठनों को प्रोत्साहित करना।
- वैज्ञानिक प्रवृत्ति को बढ़ावा देना।
- आईपीआर विकास के लिए शासन प्रशासन द्वारा कई अधिनियम समय-समय पर लागू किए गए हैं जो निम्न हैं।
- 2015 में अधिनियमित और 2018 में संशोधित वाणिज्यिक न्यायालय अधिनियम, पौधों की किस्मों के लिए पौधा किस्म और किसान अधिकार संरक्षण अधिनियम 2001, डिजाइन अधिनियम, बौद्धिक संपदा अधिकार प्रवर्तन नियम 2007 आदि हैं।

सरकार को आर्थिक विकास और प्रबंधन कार्यों को बौद्धिक संपदा प्रबंधन गतिविधियों में प्रभावी रूप से भूमिका निभाना चाहिए जिसमें सार्वजनिक सेवाओं और वित्तीय निवेश को बढ़ावा दिया जा सके।

आर्थिक सिद्धांत दर्शाता है की बौद्धिक संपदा अधिकार विकास और सुधार को बढ़ावा देने में सकारात्मक भूमिका निभाता है। उपलब्ध सीमित संसाधन प्रमाण यह सुझाव देते हैं कि संबंध निश्चित है हालांकि लाइसेंस प्राप्त नवाचार आश्वासन से लाभ को आगे बढ़ाने में मदद करने वाले विभिन्न चर पर निर्भर हैं। संक्षेप में बौद्धिक संपदा अधिकार डाटा निर्माण और बिखराव के लिए व्यावसायिक क्षेत्र में मौजूद मुद्दों पर विजय पाने के लिए आकर्षक और विज्ञापन आधारित घटक हो सकते हैं। ऐसे दृष्टिकोण में मानव पूंजी और योग्यता अधिग्रहण को मजबूत करना एक बड़े व्यापारिक संघ में अनुकूलनशीलता को बढ़ावा देना आवासीय बाजारों पर प्रतिस्पर्धा के एक ठोस स्तर की गारंटी देना और एक सीधी, निष्पक्ष और आकर्षक चुनौती प्रभावी का निर्माण करना शामिल है। इसलिए देश के विकास और आर्थिक विकास के लिए बौद्धिक संपदा अधिकार अपनी महत्वपूर्ण भूमिका निभाते हैं।

7. बौद्धिक संपदा अधिकार से होने वाले आर्थिक लाभ

किसी भी व्यवसाय के लिए खुद के लिए एक खास जगह बनाने के लिए आर्थिक विकास "रीढ़ की हड्डी" साबित होता है, खासकर आज की गंभीर प्रतिस्पर्धा में। आर्थिक विकास लाइसेंस प्राप्त नवाचार बनाने का रास्ता साफ करता है और इस संरक्षित नवाचार का उपयोग करने से किसी भी व्यवसाय में बहुत बढ़त देखने को मिलती है। संरक्षित नवाचार हर एक व्यवसाय के लिए एक महत्वपूर्ण संपत्ति है, खासकर उन लोगों के लिए जो अभिनव कार्य के लिए बड़ी मात्रा में नकदी का निवेश करते हैं ताकि उत्पादन और सेवाएं बढ़ाई जा सकें। बौद्धिक संपदा अधिकार से वित्तीय लाभ प्राप्त करने के लिए संगठनों को सक्रिय रूप से लाइसेंस प्राप्त

नवाचार व्यवस्थाओं को क्रियान्वित करना चाहिए। इससे उन्हें नए अनोखे अभिव्यक्तियों की पहचान करने और अपनी आय बढ़ाने की राह मिलती है।

बौद्धिक संपदा अधिकार आर्थिक विकास को गति देने, नवाचार को बढ़ावा देने में एक अपार भूमिका निभाते हैं। रचनाकारों और नवोन्मेषकों के अधिकारों की रक्षा करके आईपीआर नए उत्पादों सेवाओं और रचनात्मक कार्यों के विकास को प्रोत्साहित करता है, जो बदले में रोजगार सृजन, अंतर्राष्ट्रीय व्यापार और समग्र आर्थिक समृद्धि में योगदान देता है। हालांकि वैश्विक समुदाय को आईपीआर से जुड़ी विशेष रूप से आवश्यक वस्तुओं तक पहुंच सुनिश्चित करने और कमजोर आईपीआर ढांचे वाले क्षेत्रों में परिवर्तन तंत्र में सुधार करने में मदद मिलती है।

- अप्रत्यक्ष राजस्व सक्षम करना
- प्रौद्योगिकी हस्तांतरण को सुविधाजनक बनाना।
- वित्त पोषण प्राप्त करने के लिए संपर्क बढ़ाना।
- उत्पादों की गुणवत्ता और सुरक्षा के संबंध में गारंटी प्रदान करना।
- तकनीकी जानकारी का प्रसार करना
- संस्कृति को बढ़ावा देना।

1. नए व्यावसायिक अवसर सृजित करना – बौद्धिक संपदा अधिकार के साथ मालिक पंजीकृत नवाचारों के आधार पर उत्पाद या सेवा लाइनों का विस्तार कर सकते हैं जिससे नया राजस्व उत्पन्न होगा।

2. संपत्ति का मूल्यांकन बढ़कर – पंजीकृत आईपीआर जैसे की पेटेंट और ट्रेडमार्क, किसी कंपनी के मूल्यांकन को बढ़ा सकते हैं। निवेदक अक्सर भविष्य की संभावनाओं के संकेतक के रूप में मजबूत आईपीआर पोर्टफोलियो वाली कंपनियों की तलाश करते हैं।

8. निष्कर्ष

भारत जैसे विकासशील देश के लिए आर्थिक विकास को कल्याणकारी मुद्दों के साथ संतुलित करना काफी महत्वपूर्ण है। एक कुशल एवं न्याय संगत बौद्धिक संपदा प्रणाली सभी देशों को आर्थिक विकास और सामाजिक एवं सांस्कृतिक कल्याण के लिए एक उत्प्रेरक के रूप में बौद्धिक संपदा की क्षमता का अनुभव करने में मदद करती है। बौद्धिक संपदा अधिकार आर्थिक विकास में महत्वपूर्ण भूमिका निभाते हैं क्योंकि यह ऐसे माहौल को बढ़ावा देते हैं जो रचनाकारों और नव प्रवर्तनों को अपने विचारों को बाजार में लाने के लिए प्रोत्साहित करना होता है। पेटेंट, ट्रेडमार्क, कॉपीराइट और व्यापार रहस्यों सहित आईपीआर संरक्षण अनुसंधान और विकास में निवेश को प्रोत्साहित करता है, जिससे नई प्रौद्योगिकियों, उत्पादों और सेवाओं की शुरुआत के माध्यम से आर्थिक विकास होता है। भारत जैसे विकासशील देश में आईपीआर कानून पर रणनीतिक जोर देने से लाभान्वित हो सकते हैं हालांकि आईपीआर कानून में संतुलन बनाना आवश्यक है जो पर्याप्त सुरक्षा



प्रदान करते हैं और विशेष अधिकारों के दुरुपयोग को रोकते हैं जो एकाधिकार को जन्म दे सकते हैं जिससे आईपीआर प्रणाली की अखंडता को बनाए रखने के लिए प्रभावी प्रवर्तन तंत्र महत्वपूर्ण है। अंततः आईपीआर रचनात्मक, उद्यमशीलता और सतत विकास का समर्थन करने वाले सभी स्तंभों के रूप में खड़ा है जो समाज और अर्थव्यवस्थाओं दोनों को लाभान्वित करता है।

सन्दर्भ सूची:

1. Singh, S.K., Intellectual Property Right Laws, Delhi, Jain Book Agency, 2012.
2. Acharya, N.K., Text Book on Intellectual Property Right, Asia Law House, Hyderabad, 2006.
3. Chandra, Ramesh, Issues of Intellectual Property Right, Isha Books, New Delhi, 2004.
4. Agrawal, Namita, Jurisprudence, Allahabad law agency, Faridabad, 2001.
5. रस्तोगी, वसुंधरा और भारद्वाज, नैना, बौद्धिक संपदा अधिकार पंजीकरण के लिए कानून और प्रक्रिया
6. Blair, Roger D, Intellectual Property. Cambridge University, New York. 2005.
7. Bodenheimer, Edgar, The Philosophy and Method of Law, Universal law Publishing Co. Ltd., Delhi, Indian Economy Reprint, 2004.
8. Bouchoux, Deborah E., Intellectual Property: The Law of Trademarks, Copyrights, Patents, and Trade Secrets, Cengage learning India Pvt. Ltd, 3rd edition, 2012.
9. Brennan, Paul, Encyclopedia of Information Technology Law: law for IT Professionals. Universal Law Publishing. Delhi, 2007.
10. Brian, Bix, Jurisprudence Theory and Context, Sweet and Maxwell, London, 2009.
11. Campbell, Dennis, E-commerce and Law of Digital Signatures, Ocean Publications, New York, 2005.
12. Carey and Peter, Data protection: A Practical Guide to UK and EU law, 2nd Ed., Oxford University Press, 2004.
13. Chander, Harish, Cyber Laws and IT Protection, PHI Publications, New Delhi, 2012.
14. Chandra, Rameh. Issues of Intellectual Property Rights, Isha Books. New Delhi, 2004.
15. Colston, Catherine and Middleton, Kirsty, Modern Intellectual Property law, Cavendish, London, 2006.
16. Cornish, William, Intellectual Property Omnipresent. Distracting. Irrelevant? Clarendon Law Lectures, Oxford University Press, London, 2004.
17. Cornish, William, Intellectual Property. Oxford University Press, New York, 2005.
18. Cornish, Graham P., Copyright Interpreting the Law for Libraries, Archives and Information Services, Facet Publishing. U.K. 2009.
19. [Http:// www. India](http://www.India)
20. Briefing.com/news/intellectual-property-right-India-laws-procedures-registration-14312.html

Disclaimer/Publisher's Note: The statements, opinions, and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of TJSD and/or the editor(s). The Journal of Scientific Discourse (TJSD) and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.

आंतरिक वायु प्रदूषण एवं ग्रामीण महिलाओं का स्वास्थ्य

अंशुल जैन^{1*} & आनंद सुगंधे¹

1. अर्थशास्त्र विभाग, इंदिरा गाँधी राष्ट्रीय जनजातीय विश्वविद्यालय, अमरकंटक-484886, म.प्र., भारत

*Corresponding Author: jainanshu3434@gmail.com

शोध सारांश: राष्ट्रीय परिवार स्वास्थ्य सर्वेक्षण की पाँचवी रिपोर्ट(2022) के अनुसार लगभग 57 प्रतिशत ग्रामीण जनसंख्या जीवाश्म ईंधन का उपयोग भोजन निर्माण हेतु करती है। साथ ही सर्दी के दिनों में ठंड से बचने के लिए घरों में लकड़ी का उपयोग किया जाता है। शहरों की अपेक्षा ग्रामीण क्षेत्रों में जीवाश्म ईंधन का उपयोग बहुत ज्यादा किया जाता है। भोजन निर्माण का कार्य प्रमुख रूप से महिलाओं द्वारा किया जाता है। जीवाश्म ईंधन से होने वाले प्रदूषण से महिलाओं के स्वास्थ्य पर गंभीर परिणाम होते हैं। जिसमें गंभीर बीमारी जैसे- आँखों में जलन, चिडचिडापन, सिर में दर्द, गर्भधारण करने में समस्या, सर्दी-जुखाम, अस्थमा, कैंसर आदि होने की सम्भावनाएँ बढ़ जाती हैं। महिलाओं में इन समस्याओं का कारण गाँव में स्वच्छ ईंधन की पर्याप्त उपलब्धता का अभाव है।

इस शोध पत्र का मुख्य उद्देश्य आंतरिक वायु प्रदूषण के कारण ग्रामीण महिलाओं के स्वास्थ्य पर होने वाले प्रभावों का अध्ययन करना है। यह शोध पत्र विश्लेषणात्मक शोध पर आधारित है। यह शोध कार्य द्वितीयक समको के माध्यम से पूर्ण किया गया है। जिसके लिए राष्ट्रीय परिवार स्वास्थ्य सर्वेक्षण की पाँचवी रिपोर्ट(2022), विभिन्न अंतर्राष्ट्रीय संगठनों की वेबसाइट, पत्रिकाओं और शोधपत्रों आदि से आँकड़ों का संकलन किया। इस शोध का संभावित निष्कर्ष निकलता है कि, महिलाओं और बच्चों के स्वास्थ्य पर प्रतिकूल प्रभाव पड़ता है। यह शोध कार्य आंतरिक वायु प्रदूषण के कारण महिलाओं के स्वास्थ्य के प्रभाव तक सीमित है।

बीज शब्द :- आंतरिक वायु प्रदूषण, स्वास्थ्य, जीवाश्म ईंधन, ग्रामीण महिलाएँ।

प्रस्तावना: जीवाश्म ईंधन के जलने से सूक्ष्म कण पदार्थ, कार्बन मोनोआक्साइड और विभिन्न हानिकारक प्रदूषकों का उत्सर्जन होता है , आंतरिक वायु प्रदूषण कहलाता है (विश्व आर्थिक मंच, 2022)। मृत्यु के लिए वैश्विक जोखिम कारक का प्रथम कारण उच्च रक्त चाप है तथा, द्वितीय कारण वायु प्रदूषण है। 2021 में वायु प्रदूषण से होने वाली मृत्यु में 38 प्रतिशत मृत्यु आंतरिक वायु प्रदूषण के कारण हुई है (स्टेट ऑफ ग्लोबल एयर, 2024)। विश्व स्वास्थ्य संगठन के अनुसार 2021 में सात करोड़ लोगों की मृत्यु वायु प्रदूषण के कारण हुई है। जिसमें 4.2 करोड़ लोगों की मृत्यु बाह्य वायु प्रदूषण के कारण एवं 3.8 करोड़ लोगों की मृत्यु आंतरिक वायु प्रदूषण के कारण हुई है(विश्व आर्थिक मंच, 2021)। आंतरिक वायु प्रदूषण विकासशील देशों की एक गंभीर समस्या है। यह समस्या आफ्रीका एवं दक्षिण-पूर्वी एशिया में मुख्य रूप से देखी जाती है। इन देशों में लोग भोजन निर्माण के लिए एवं सर्दी से बचने के लिए घरों में लकड़ी, कोयला, गोबर व कृषि

अपशिष्ट एवं अन्य प्रकार के ठोस ईंधन का उपयोग करते हैं। इन ईंधनों के उपयोग से सूक्ष्म कण पदार्थ, कार्बन मोनोआक्साइड जैसे हानिकारक प्रदूषक घरेलू वातावरण में मिल जाते हैं। जिससे आंतरिक वायु प्रदूषण की समस्या उत्पन्न होती है।

स्वच्छ आंतरिक पर्यावरणीय स्थिति मानव के सुदृढ़ स्वास्थ्य के लिए आवश्यक है। अधिकांश लोग अपने प्रतिदिन का 90 प्रतिशत समय आंतरिक वातावरण में व्यतीत करते हैं। प्रमुख रूप से अपने घर एवं कार्यस्थल पर (त्रन वी.वी., 2020)। इसलिए आंतरिक वातावरण का स्वच्छ होना अति आवश्यक है। आंतरिक वातावरण स्वच्छ न होने से आंतरिक वायु प्रदूषण जैसी समस्याएँ उत्पन्न होती हैं। इसका मुख्य कारण भोजन निर्माण के लिए प्रदूषणकारी ईंधन व तकनीकियों के उपयोग पर अधिक निर्भर होना है। विश्व स्वास्थ्य संगठन के अनुसार विश्व की कुल जनसंख्या का लगभग एक तिहाई भाग भोजन निर्माण के लिए प्रदूषणकारी ईंधन पर निर्भर है (विश्व स्वास्थ्य संगठन, 2024)। आंतरिक वायु प्रदूषण का मानव स्वास्थ्य पर गंभीर प्रभाव होता है। जिसमें पाँच साल से कम उम्र के बच्चे एवं महिलाओं पर यह प्रभाव अधिक देखने को मिलते हैं। क्योंकि इनका अधिकांश समय चूल्हे एवं गृह कार्यों में व्यतीत होता है। भारत में 2021 में 2.1 मिलियन मृत्यु वायु प्रदूषण के कारण हुई है (स्टेट ऑफ़ ग्लोबल एयर, 2024)। जो वैश्विक भार का लगभग 25 प्रतिशत है।

रोहरा एवं तनेजा (2016), ने अपने अध्ययन में कहा कि, भारत में, मुख्य रूप से गांवों में भोजन बनाने के लिए लोगों के द्वारा जीवाश्म ईंधन के उपयोग से एक वर्ष में लाखों लोगों की मृत्यु हो जाती है। बालमेस (2019), ने अपने अध्ययन में कहा कि, विकासशील देशों में, घरों में ठोस ईंधन के उपयोग से एवं पर्याप्त चिमनियों की व्यवस्था न होने से लोगों के स्वास्थ्य पर बुरा प्रभाव पड़ता है, इससे विभिन्न बीमारियों जैसे- कैंसर, अस्थमा होने की सम्भावना होती है। आंतरिक वायु प्रदूषण के प्रभाव के कारण शिशुओं की मृत्यु भी हो जाती है। दत्ता एवं बेनर्जी (2014) ने अपने अध्ययन में कहा कि, महिलायें अधिकांश समय घर के कार्यों में लगी रहती हैं। जिसमें खाना पकाने का कार्य मुख्य रूप से महिलाओं द्वारा किया जाता है। खाना पकाने एवं शिशु पालन का कार्य एक साथ करती हैं। खाना पकाने के लिए उपयोग किये गए अस्वच्छ ईंधन के उपयोग से होने वाले आंतरिक वायु प्रदूषण का प्रभाव महिलाओं एवं बच्चों पर पुरुषों की तुलना में अधिक हुआ है। जिससे गंभीर श्वसन संक्रमण, अस्थमा, फेफड़े का कैंसर जैसी बीमारियाँ देखने को मिली हैं। पिककार्डो एवं अन्य (2014) ने अपने अध्ययन में कहा कि, ठंड के दिनों में लकड़ी जला कर घर को गर्म रखा जाता है, जिससे होने वाले प्रदूषण से स्वास्थ्य संबंधी समस्याएँ उत्पन्न होती हैं। इन समस्याओं से बचने के लिए जागरूकता अभियान चलाया जाना चाहिए। सहगल (2014) ने अपने अध्ययन में कहा कि, खाना बनाने के लिए जीवाश्म ईंधन का उपयोग एवं इनका अपूर्ण दोहन आंतरिक वायु को और अधिक दूषित कर देते हैं, जिससे सेहत पर प्रतिकूल प्रभाव पड़ता है। इससे विभिन्न प्रकार की समस्याएँ उत्पन्न होती हैं, जैसे- मोतियाबिंद, बच्चों में जन्म के समय वजन कम होना, गर्भधारण संबंधी समस्याएँ, शिशु मृत्यु आदि। इन्गाले

एवं अन्य (2011) ने अपने अध्ययन में कहा कि, स्वच्छ ईंधन की कमी के कारण गाँव में निवास करने वाली महिलायें खाना पकाने के लिए जीवाश्म ईंधन का उपयोग करती हैं। जिससे उनमें श्वसन संबंधी बीमारी, गले में जलन, सीने में दर्द आदि समस्या पाई गयी। बेहरा एवं अग्रवाल (2010) ने अपने अध्ययन में कहा कि, क्षय रोग (ट्यूबरक्यूलोसिस) का खाना बनाने के ईंधन से कोई संबंध नहीं है। गाँव में महिलायें जीवाश्म ईंधन का प्रयोग करती हैं पर उनमें क्षय रोग के लक्षण कम पाए गए जबकि शहरों में एल.पी.जी. का प्रयोग करती हैं, फिर भी उनमें क्षय रोग के लक्षण अधिक देखने में आये। होल्कातोवा एवं अन्य (2005) ने अपने अध्ययन में कहा कि, धूम्रपान एवं ठोस ईंधन के उपयोग से निकलने वाले धुएँ से लोगों में कई प्रकार के कैंसर देखे गए। जहाँ एवं स्मिथ (2003), ने अपने अध्ययन में कहा कि, भवन निर्माण के तरीके जिनमें रासायनिकों का प्रयोग होता है, जो ठोस ईंधन के उपयोग से होने वाले प्रदूषण को और बढ़ा देती हैं। जिससे बच्चों में कैंसर, अस्थमा, एवं अन्य लक्षण जिन्हें समझना मुश्किल है की सम्भावना को बढ़ा देती हैं। बेर्गलुन्द एवं अन्य (1992) ने अपने अध्ययन में कहा कि, घरों में होने वाले वायु प्रदूषण से नाक एवं गले में तकलीफ, श्वसन प्रणाली, प्रजनन, यकृत, तंत्रिका तंत्र आदि पर प्रतिकूल प्रभाव होते हैं। कोदामा एवं अन्य (1991) ने अपने अध्ययन में कहा कि, तेल स्टोव के उपयोग के समय एवं बाद में वायु संचार की उचित व्यवस्था होनी चाहिए।

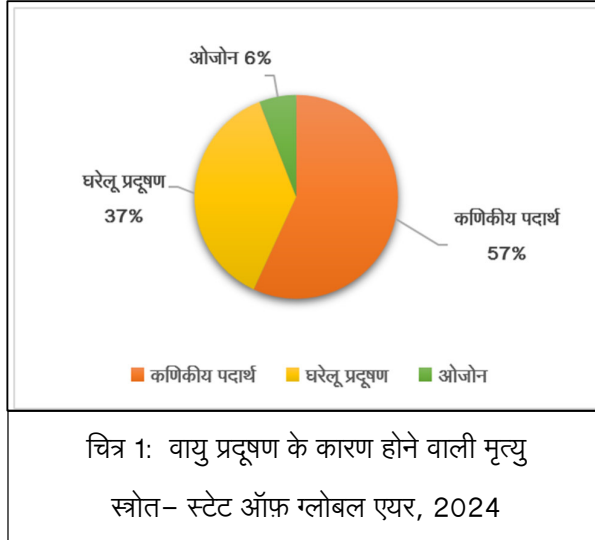
उद्देश्य: इस शोध का मुख्य उद्देश्य आंतरिक वायु प्रदूषण का ग्रामीण महिलाओं के स्वास्थ्य पर होने वाले प्रभावों का अध्ययन करना है।

अनुसंधान पद्धति: यह शोधपत्र विश्लेषणात्मक है। इस शोध पत्र के प्रस्तावित उद्देश्य को प्राप्त करने के लिए आँकड़ों और सूचना के द्वितीयक स्रोतों का उपयोग किया गया है। जिसके लिए पाँचवी राष्ट्रीय परिवार स्वास्थ्य सर्वेक्षण रिपोर्ट 2022, स्टेट ऑफ ग्लोबल एयर 2024, वर्ल्ड हेल्थ स्टैटिस्टिक 2024 से आँकड़ों का संकलन किया गया है। इसके अलावा, विभिन्न अंतर्राष्ट्रीय संगठन की वेबसाइट, पत्रिकाओं और शोधपत्रों के संदर्भ का उपयोग किया गया है।

परिणाम:

आंतरिक वायु गुणवत्ता एवं आंतरिक वायु प्रदूषण: आंतरिक वायु गुणवत्ता का तात्पर्य इमारत और संरचनाओं के भीतर और आसपास की वायु की गुणवत्ता से है, विशेष रूप से यह घर में रहने वालों के स्वास्थ्य और आराम से सम्बंधित है। घर के अन्दर विभिन्न हानिकारक प्रदूषकों के निकलने से घर के अन्दर वायु प्रदूषण उत्पन्न होता है, आंतरिक वायु प्रदूषण कहलाता है (यू.एस.एनवायर्नमेंटल प्रोटेक्शन एजेंसी, 2024)। आंतरिक वायु प्रदूषण प्रमुख रूप से घरों में खाना बनाने के लिए उपयोग किये जाने वाले ठोस ईंधन (लकड़ी, पशु गोबर, कृषि अपशिष्ट, जीवाश्म ईंधन), कोयला, मिट्टी के तेल आदि से निकलने वाली हानिकारक पदार्थों से होता है। तथा इनके अपूर्ण दोहन से और अधिक हानिकारक गैस उत्सर्जित होती है, जो आंतरिक वायु को और अधिक प्रदूषित करती है।

ठोस ईंधन उपयोग एवं उससे होने वाले आंतरिक वायु प्रदूषण का मानव स्वास्थ्य पर प्रभाव : ठोस ईंधन के उपयोग से कार्बन मोनो ऑक्साइड (CO), कार्बन डाई आक्साइड (CO₂), वाष्पशील कार्बनिक यौगिक (VOCs), कणिकीय पदार्थ (PM), नाइट्रोजन ऑक्साइड (NO₂), आदि हानिकारक गैस निकलती है जो मानव स्वास्थ्य के लिए हानिकारक होती है। (त्रन वी.वी., 2020) श्वसन क्रिया के माध्यम से यह हानिकारक गैसों हमारे शरीर में प्रवेश करती है, जिससे विभिन्न प्रकार के रोग जैसे-श्वसन संक्रमण, आँखों में जलन, अस्थमा, बच्चों में जन्म के समय वजन कम होना, फेफड़ों का कैंसर आदि होने की सम्भावना होती है। 2021 में 8.1 मिलियन लोगों की मृत्यु वायु प्रदूषण के कारण हुई है। जिसमें 37 प्रतिशत मृत्यु घरेलू प्रदूषण के कारण हुई है। (स्टेट ऑफ ग्लोबल एयर, 2024) इसके अन्य मुख्य कारण पाई चार्ट द्वारा दर्शाये गए हैं।



ठोस ईंधन के उपयोग से उत्सर्जित प्रदूषण से स्वास्थ्य पर पड़ने वाले प्रभावों को तालिका के माध्यम से बताया गया है-

प्रदूषक	स्रोत	प्रभाव
कणिकीय पदार्थ(PM)	स्टोव, चिमनियों से, धूम्रपान, चूल्हे से	हृदय एवं फेफड़ों की बीमारी के साथ आसमयिक मृत्यु, हृदयाघात, अनियमित हृदय गति, अस्थमा
वाष्पशील कार्बनिक यौगिक(VOCs)	लकड़ी के संरक्षण से, पेंट, खाना बनाने से, तम्बाकू उत्पाद, धूम्रपान, आंतरिक रासायनिक प्रतिक्रिया	आँख, नाक, गले में जलन, सिरदर्द, यकृत, किडनी की खराबी, कुछ कार्बनिक यौगिक कैंसर का कारण भी होते हैं
नाइट्रोजन डाई ऑक्साइड (NO ₂)	ताप उपकरणों के प्रयोग से	अस्थमा की प्रतिक्रियाओं की बढ़ाना, श्वसन संबंधी समस्या,
सल्फर डाई ऑक्साइड(SO ₂)	स्टोव, आग जलाने से	श्वसन क्रिया का क्षीण होना, अस्थमा, हृदय रोग, लम्बे समय तक फेफड़ों में रुकावट
कार्बन डाई आक्साइड(CO ₂)	स्टोव, चूल्हा	सीने में दर्द, ठीक से दिखाई न देना, मास्तिष्क की कार्य क्षमता कम होना
कार्बन मोनो आक्साइड(CO)	चूल्हा, लकड़ी जलाने से	सिरदर्द, सांस लेने में तकलीफ, सीने में दर्द

चित्र 1: वायु प्रदूषण के कारण होने वाली मृत्यु (स्रोत- स्टेट ऑफ ग्लोबल एयर, 2024)

उपरोक्त तालिका में ठोस ईंधन के उपयोग से होने वाले आंतरिक वायु प्रदूषण का मानव स्वास्थ्य पर होने वाले प्रभावों को बताया है, कभी-कभी इन प्रभावों के कारण लोगों की मृत्यु भी हो जाती है। विश्व स्वास्थ्य संगठन के अनुसार विश्व में हृदय रोग से होने वाली मृत्यु का 12 प्रतिशत, स्ट्रोक से होने वाली मृत्यु का 12 प्रतिशत, क्रॉनिक ऑब्सट्रक्टिव पल्मोनरी डिजीज (सीओपीडी) से होने वाली सभी मौतों में से 23 प्रतिशत आंतरिक वायु प्रदूषण के संपर्क में आने के कारण होती हैं। वयस्कों में फेफड़ों के कैंसर से होने वाली लगभग 11 प्रतिशत मौतें मिट्टी के तेल या लकड़ी, लकड़ी का कोयला या कोयले जैसे ठोस ईंधन के उपयोग से होने वाले आंतरिक वायु प्रदूषण के संपर्क के कारण होती हैं (विश्व स्वास्थ्य संगठन , 2024)

आंतरिक वायु प्रदूषण से महिलाओं एवं बच्चों के स्वास्थ्य पर प्रभाव : घर का कार्य प्रमुख रूप से महिलाओं के द्वारा किया जाता है, जिसमें भोजन निर्माण एवं बच्चों की देखभाल का कार्य सबसे महत्वपूर्ण है। उनके प्रतिदिन का अधिकांश समय बच्चों की देखभाल एवं खाना पकाने में ही व्यतीत हो जाता है। खाना पकाने का लिए अस्वच्छ ईंधन अथवा ठोस ईंधन के प्रयोग से महिलाओं और बच्चों के स्वास्थ्य पर प्रतिकूल प्रभाव पड़ता है, क्योंकि महिलायें खाना पकाने एवं बच्चों की देखभाल का कार्य साथ-साथ करती हैं। जिससे पुरुषों की तुलना में महिलाओं व बच्चों में खतरा बढ़ जाता है। महिलाओं में गर्भावधि के समय मधुमेह, उच्च रक्तचाप, प्रसवोत्तर अवसाद, प्रतिकूल जन्म परिणाम जैसे, जन्म के समय कम वजन, गर्भपात, समय से पहले जन्म, मृत जन्म, आजीवन बाल स्वास्थ्य पर प्रभाव, बच्चों में जन्मजात हृदय दोष, निमोनिया, जीवन के प्रथम वर्ष में तंत्रिका तंत्र संबंधी विकृति, बौनापन, अस्थमा के लक्षण, एग्जिमा और एलर्जी रोग, और उच्च रक्तचाप आदि समस्याएँ वायु प्रदूषण के कारण होने लगती हैं(स्टेट ऑफ ग्लोबल एयर, 2024)। 5 साल से कम उम्र के बच्चों में निमोनिया से होने वाली 44% मौतों के लिए आंतरिक वायु प्रदूषण जिम्मेदार है। आंतरिक वायु प्रदूषण के कारण 2019 में अनुमानित 86 मिलियन स्वास्थ्य जीवन वर्षों का नुकसान हुआ, जिसका सबसे बड़ा बोझ निम्न और मध्यम आय वाले देशों में रहने वाली महिलाओं पर पड़ा (विश्व स्वास्थ्य संगठन, 2024)।

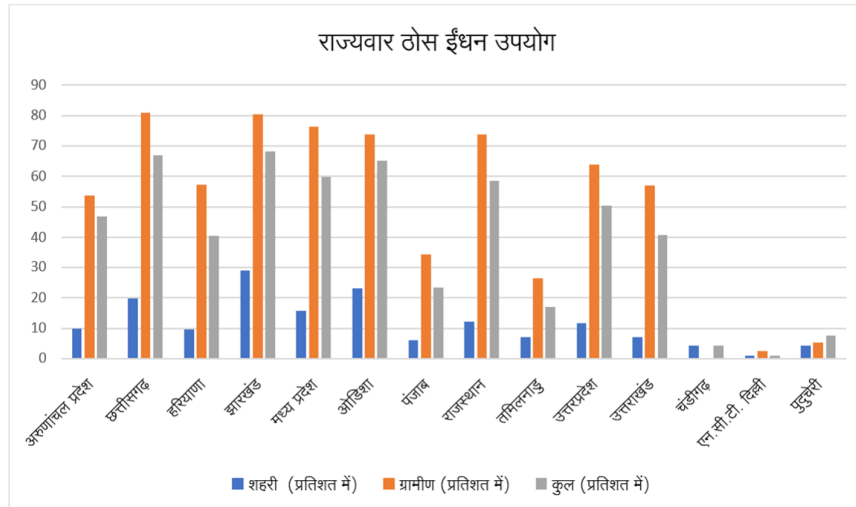
भारत में ठोस ईंधन उपयोग: भारत में राष्ट्रीय स्वास्थ्य सर्वेक्षण की पाँचवी रिपोर्ट (2022) के अनुसार देश की कुल जनसंख्या का 41.4 प्रतिशत जनसंख्या ठोस ईंधन का प्रयोग करती है। शहरी क्षेत्र की लगभग 10 प्रतिशत जनसंख्या एवं ग्रामीण क्षेत्र की लगभग 57 प्रतिशत जनसंख्या ठोस ईंधन का प्रयोग करती है। ग्रामीण परिवारों के द्वारा उपयोग किये जाने वाले कुल ईंधन उपयोग का आधे से भी अधिक प्रतिशत ठोस ईंधन का उपयोग करती है। नीचे दी गयी तालिका में राज्यवार ठोस ईंधन का शहरी, ग्रामीण एवं कुल उपयोग दिया गया है। तालिका का अध्ययन करने से पता चलता है की, शहरों में स्वच्छ ईंधन का उपयोग अधिक किया जाता है जबकि गांवों में लोग मुख्यतया ठोस ईंधन पर निर्भर है कुछ एक राज्य जो अधिक विकसित एवं शहरीकृत है, वहाँ गांवों में स्वच्छ ईंधन का उपयोग अधिक किया जाता है। परन्तु इनकी संख्या बहुत कम है। अधिकांश राज्यों के गांवों में आधे से अधिक जनसंख्या ठोस ईंधन पर ही निर्भर है।

राज्य	शहरी (प्रतिशत में)	ग्रामीण (प्रतिशत में)	कुल (प्रतिशत में)
अरुणांचल प्रदेश	9.8	53.7	46.8
छत्तीसगढ़	19.8	80.8	67.0
हरियाणा	9.5	57.4	40.5
झारखंड	29.0	80.5	68.1
मध्य प्रदेश	15.7	76.4	59.9
ओडिशा	23.1	73.9	65.3
पंजाब	6.2	34.4	23.3
राजस्थान	12.2	73.8	58.6
तमिलनाडु	7.1	26.3	17.1
उत्तरप्रदेश	11.7	63.8	50.5
उत्तराखंड	7.1	57.1	40.8
चंडीगढ़	4.2	*	4.2
एन.सी.टी. दिल्ली	1	2.4	1.1
पुदुचेरी	4.2	5.4	7.7
भारत	10.3	56.8	41.4

तालिका 2: राज्यों में खाना पकाने के लिए ठोस ईंधन का उपयोग करने वाले परिवारों का प्रतिशत

*आंकड़े उपलब्ध नहीं हैं।

स्रोत:पाँचवी रिपोर्ट राष्ट्रीय परिवार स्वास्थ्य सर्वेक्षण द्वितीय चरण 2022



चित्र 2: गांवों में उपयोग किये जाने वाले ठोस ईंधन के प्रतिशत का राज्यवार विवरण

स्रोत: लेखक द्वारा तालिका के आंकड़ों का उपयोग करते हुए

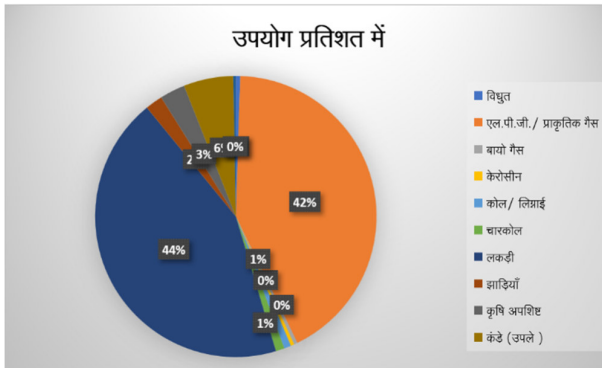
तालिका 2 का विश्लेषण करने से पता चलता है की, अधिकांश राज्यों में, ग्रामीण अंचल में परिवार प्रमुख रूप से ठोस ईंधन पर निर्भर है। छत्तीसगढ़, झारखंड, मध्यप्रदेश, ओडिशा, राजस्थान, में 70 प्रतिशत से ज्यादा परिवार ठोस ईंधन पर निर्भर है। अरुणांचल प्रदेश, हरियाणा, उत्तरप्रदेश, उत्तराखंड 50 प्रतिशत से अधिक परिवार ठोस ईंधन पर निर्भर है। पंजाब में लगभग 35 प्रतिशत, तमिलनाडु में लगभग 27 प्रतिशत परिवार ही ठोस ईंधन पर निर्भर है। एन.सी.टी. दिल्ली 2.4 एवं पुदुचेरी में 5.4 में परिवार ही ठोस ईंधन पर निर्भर है।

ग्रामीण अंचल में खाना पकाने के लिए उपयोग किये जाने वाले विभिन्न ईंधन:

ग्रामीण अंचल में खाना पकाने के लिए लकड़ी का प्रमुखतया से उपयोग किया जाता है। राष्ट्रीय परिवार स्वास्थ्य सर्वेक्षण की पाँचवी रिपोर्ट (2022) के अनुसार गांवों में निवास करने वाले परिवारों में से लगभग 44 प्रतिशत परिवार ईंधन के लिए लकड़ी पर निर्भर है, उसके बाद लगभग 42 प्रतिशत एल.पी.जी. का उपयोग करते हैं, फिर कंडे, कृषि अपशिष्ट, मिट्टी का तेल आदि। इस प्रकार ग्रामीण अंचल में लगभग 57 प्रतिशत परिवार ठोस ईंधन पर आज भी निर्भर है। गांवों में ईंधन के उपयोग को तालिका एवं ग्राफ के माध्यम से दर्शाया गया है।

क्र.	ईंधन के स्रोत	उपयोग प्रतिशत में
1	विद्युत	0.5
2	एल.पी.जी. / प्राकृतिक गैस	42.3
3	बायो गैस	0.4
4	केरोसीन	0.4
5	कोल/ लिग्नाई	0.8
6	चारकोल	1.0
7	लकड़ी	43.7
8	झाड़ियाँ	2.0
9	कृषि अपशिष्ट	2.9
10	कंडे (उपले)	5.7
11	अन्य	0.3

तालिका 3: ग्रामीण अंचल में खाना पकाने के लिए उपयोग किये जाने वाले विभिन्न ईंधन (प्रतिशत में)
 स्रोत: पाँचवी रिपोर्ट राष्ट्रीय परिवार स्वास्थ्य सर्वेक्षण प्रथम चरण 2022



चित्र 3: गांवों में उपयोग किये जाने वाले ईंधन (प्रतिशत में)

स्रोत: लेखक द्वारा तालिका के आंकड़ों का उपयोग

आंतरिक वायु प्रदूषण का स्वास्थ्य पर प्रभाव इस बात पर भी निर्भर करता है की खाना पकाने के लिए किस प्रकार के स्टोव का उपयोग किया जाता है। रिपोर्ट में हमने पाया की गांवों में लगभग 95 प्रतिशत परिवार खाना पकाने के लिए चूल्हे का प्रयोग करते हैं (एन.एफ.एच.एस. 2022)। स्टोव में मिट्टी के तेल का उपयोग किया जाता है, जो की तरल जीवाश्म ईंधन है। जबकि चूल्हे में

ठोस ईंधन मुख्यतः लकड़ी का उपयोग किया जाता है। मिट्टी के तेल का कैलोरी मान लकड़ी की तुलना में अधिक होता है, जिसका अर्थ है कि, जलने पर यह प्रति इकाई द्रव्यमान में अधिक ऊर्जा उत्सर्जित करती

है। इसकी लौ स्वच्छ होती है, तथा इसका अवशेष भी कम होता है। जबकि लकड़ी के जलने पर अधिक धुआं और राख निकलती है। यह अधिक कण पदार्थ और कार्बन डाई आक्साइड उत्सर्जित करती है। यह मिट्टी के तेल की तुलना में अधिक प्रदूषण उत्पन्न करती है। जिससे आंतरिक वातावरण अधिक दूषित होता है और आंतरिक वायु प्रदूषण उत्पन्न करता है। ठोस ईंधन का उपयोग करने वाले विभिन्न प्रकार के स्टोव का उपयोग को तालिका 4 के माध्यम से दर्शाया गया है-

क्र.	प्रकार	उपयोग प्रतिशत
1	स्टोव	0.6
2	खुले में आग जलाकर	4.4
3	चूल्हा	94.9
4	अन्य	0.1
5	कुल	100

तालिका 4: ठोस ईंधन का उपयोग करने वाले विभिन्न प्रकार के चूल्हे का उपयोग प्रतिशत में
 स्रोत: पाँचवी रिपोर्ट राष्ट्रीय परिवार स्वास्थ्य सर्वेक्षण प्रथम चरण 2020

ग्रामीण अंचल में परिवार द्वारा खाना पकाने का स्थान: ग्रामीण अंचल में अधिकांश परिवारों की आर्थिक स्थिति बहुत अच्छी नहीं होती है, उनके पास खाना पकाने के लिए अलग से कोई रसोई घर नहीं होता है। वह जिस कमरे में रहते हैं उसी कमरे में खाना बनाने का कार्य भी करते हैं। ग्रामीण अंचल में 48.8 प्रतिशत ही परिवार ऐसे हैं जिनके पास खाना पकाने के लिए अलग से कमरा है। 27.3 प्रतिशत परिवार ऐसे हैं जिनके पास आज भी अलग से कोई और कमरा नहीं है। वह उसी एक कमरे में रहते भी हैं और खाना पकाने का भी कार्य उसी कमरे में करते हैं। सिर्फ 13.7 प्रतिशत परिवार ही खाना पकाने के लिए अलग भवन का उपयोग करते हैं जो की बहुत कम है। ग्रामीण परिवार में खाना पकाने के स्थान को तालिका के माध्यम से दर्शाया गया है।

खाना पकाने का स्थान	परिवार (प्रतिशत में)
घर में, अलग कमरा	48.8
घर में, कोई अलग कमरा नहीं	27.3
अलग भवन में	13.7
बहार में (खुले में)	9.9
अन्य	0.2
अनुपस्थित	0.1

तालिका 5: ग्रामीण अंचल में खाना पकाने का स्थान एवं उनका प्रतिशत
 स्रोत : पाँचवी रिपोर्ट राष्ट्रीय परिवार स्वास्थ्य सर्वेक्षण प्रथम चरण 2022

ठोस ईंधन से होने वाले आंतरिक वायु प्रदूषण का ग्रामीण महिलाओं के स्वास्थ्य पर प्रभाव: भारत में ग्रामीण अंचल में ठोस ईंधन का उपयोग बहुतायत में होता है, लगभग 57 प्रतिशत परिवार ठोस ईंधन का उपयोग करते हैं। जो भारत के कुल ग्रामीण परिवार के ईंधन उपयोग का आधे से भी अधिक है। कुछ राज्यों में 70 प्रतिशत से भी अधिक परिवार ठोस ईंधन पर पूर्ण रूप से निर्भर हैं। उसमें भी अधिकांश ग्रामीण परिवार लकड़ी के माध्यम से खाना पकाने का कार्य करते हैं। लकड़ी से होने वाला धुआं आंतरिक वातावरण को और अधिक प्रदूषित करता है। महिलायें ही खाना बनाने का कार्य एवं बच्चों की देखभाल का कार्य मुख्य रूप से करती हैं,

जिससे ठोस ईंधन उपयोग के कारण होने वाला आंतरिक वायु प्रदूषण महिलाओं और बच्चों को प्रमुख रूप से प्रभावित करता है। ठोस ईंधन के उपयोग से जो प्रदूषक गैसों उत्सर्जित होती हैं उनकी संकेंद्रण न सिर्फ खाना पकाने के समय तक होती है बल्कि कुछ घंटों तक वे वातावरण में रहती हैं। खाना पकाने से होने वाला प्रदूषण आंतरिक वातावरण को लम्बे समय तक दूषित रखता है। आंतरिक वातावरण के लम्बे समय तक दूषित रहने से हानिकारक गैसों से श्वसन क्रिया के माध्यम से शरीर में निरंतर प्रवेश करती हैं, जिससे महिलाओं और बच्चों के स्वास्थ्य पर गंभीर परिणाम दिखाई देते हैं। अनेकों बीमारियाँ जैसे- अस्थमा, श्वसन तंत्र संबंधी, गर्भावस्था के समय रक्तचाप बढ़ना, सरदर्द, बच्चों में जन्म से ही अस्थमा के लक्षण, बोनापन, निमोनिया, हृदय संबंधी समस्याएँ आदि का खतरा बढ़ जाता है, कई बार इससे मृत्यु भी हो जाती है। 27.3 प्रतिशत ग्रामीण परिवार ऐसे हैं जिनके पास खाना पकाने के लिए कोई भी अलग से कमरा नहीं है। उनका खाना पकाने का स्थान उसी कमरे में है जिसमें वे अन्य कार्य भी करते हैं, जिससे आंतरिक वायु प्रदूषण से होने वाली समस्याओं का खतरा और बढ़ जाता है। इन समस्याओं का खतरा ग्रामीण महिलाओं में शहरी महिलाओं की तुलना में अधिक होता है, क्योंकि यह खाना बनाने के लिए पूर्णतः ठोस ईंधन पर निर्भर है।

निष्कर्ष: उपरोक्त अध्ययन से पता चलता है की भारत में अधिकांश राज्यों में ग्रामीण अंचल में निवास करने वाले परिवार आज भी मुख्य रूप से खाना पकाने के लिए ठोस ईंधन पर निर्भर है। ठोस ईंधन में प्रमुख रूप से लकड़ी एवं चूल्हे का उपयोग किया जाता है। लकड़ी जलाने से जो हानिकारक गैसों उत्सर्जित होती हैं, वह खाना पकाने के बाद भी आंतरिक वातावरण में कुछ घंटों तक मौजूद रहती हैं और आंतरिक वायु प्रदूषण का कारण बनती हैं। यह हानिकारक गैसों से श्वसन क्रिया के माध्यम से शरीर में निरंतर प्रवेश करती हैं। घर का कार्य महिलाओं द्वारा किया जाता है जैसे खाना बनाना, बच्चों की देखभाल करना आदि। इस प्रकार महिलाओं का अधिकांश समय घर के अन्दर एवं चूल्हे के पास व्यतीत होता है। जिससे आंतरिक वायु प्रदूषण का प्रभाव महिलाओं पर गंभीर रूप से पड़ता है और अनेक रोगों को जन्म देता है। कई बार इससे महिलाओं की मृत्यु भी हो जाती है। ठोस ईंधन न सिर्फ महिलाओं की शारीरिक स्थिति बल्कि उनकी आर्थिक स्थिति को भी प्रभावित करता है। उनका अधिकांश समय जंगलों से लकड़ियों को इकट्ठा करने में ही व्यतीत हो जाता है। जिसके कारण महिलायें आर्थिक क्रिया में संलग्न नहीं हो पाती।

संदर्भ सूची:

- Balmes, J. R. (2019). Household air pollution from domestic combustion of solid fuels and health. *Journal of Allergy and Clinical Immunology*, 143(6), 1979-1987.
- Rohra, H., & Taneja, A. (2016). Indoor air quality scenario in India—an outline of household fuel combustion. *Atmospheric Environment*, 129, 243-255.
- Piccardo, M. T., Cipolla, M., Stella, A., Ceppi, M., Bruzzone, M., Izzotti, A., & Valerio, F. (2014). Indoor pollution and burning practices in wood stove management. *Journal of the Air & Waste Management Association*, 64(11), 1309-1316.
- Dutta, S., & Banerjee, S. (2014). Exposure to indoor air pollution & women health: the situation in urban India. *Environment and Urbanization ASIA*, 5(1), 131-145.



- Sehgal, M., Rizwan, S. A., & Krishnan, A. (2014). Disease burden due to biomass cooking-fuel-related household air pollution among women in India. *Global health action*, 7(1), 25326.
- Ingle, L. T., Dube, K. J., Sarode, D. B., Attarde, S. B., & Ingle, S. T. (2011). Monitoring and respiratory health assessment of the population exposed to cooking fuel emissions in a rural area of Jalgaon district, India. *Asia Pacific Journal of Public Health*, 25(6), 463-475.
- Behera, D., & Aggarwal, G. (2010). Domestic cooking fuel exposure and tuberculosis in Indian women. *The Indian journal of chest diseases & allied sciences*, 52(3), 139.
- Holcatova, I., Slamova, A., & Valenta, Z. (2005). Cancer risk from common sources of indoor pollution. *Indoor and Built Environment*, 14(3-4), 221-228.
- Zhang, J., & Smith, K. R. (2003). Indoor air pollution: a global health concern. *British medical bulletin*, 68(1), 209-225.
- Berglund, B., Brunekreef, B., Knoppe, H., Lindvall, T., Maroni, M., Molhave, L., & Skov, P. (1992). Effects of indoor air pollution on human health. *Indoor air*, 2(1), 2-25.
- Kodama, Y., Arashidani, K., Kawamoto, T., Matsuno, K., Yoshikawa, M., Kayama, F., & Hirai, M. (1991). Indoor pollution by oil heaters and cigarette smoke. *Toxicology and Industrial Health*, 7(5-6), 169-177.
- Tran, V. V., Park, D., & Lee, Y. C. (2020). Indoor air pollution, related human diseases, and recent trends in the control and improvement of indoor air quality. *International journal of environmental research and public health*, 17(8), 2927.
- Citation: Health Effects Institute. 2024. State of Global Air 2024. Special Report. Boston, MA: (Welfare, 2022) Health Effects Institute
- Organization, W. H. (2024). World Health Statistics 2024 SDGs, Sustainable Development Goals. World Health Organization.
- Welfare, M. o. (2022). National Family Health Survey. Ministry of Health and Family Welfare.
- Agency, U. S. (2024, 11 10). Google. Retrieved from epa.gov: <https://www.epa.gov/indoor-air-quality-iaq/introduction-indoor-air-quality>
- Forum, W. E. (2024, 11 10). Google. Retrieved from www.weforum.org: <https://www.weforum.org/stories/2022/07/what-causes-indoor-air-pollution-sources-how-to-reduce/>
- Organization, W. H. (2024, 11 12). Google. Retrieved from WHO: <https://www.who.int/news-room/fact-sheets/detail/household-air-pollution-and-health>

Disclaimer/Publisher's Note: The statements, opinions, and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of TJSD and/or the editor(s). The Journal of Scientific Discourse (TJSD) and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.

Publisher Information

Publishing Body

Gaveshna Manavoutthan Paryavaran Tatha Swasthya Jagrukta Samiti
(Registration No. 06/09/01/13885/21)

Publisher Address

Gaveshna Manavoutthan Paryavaran Tatha Swasthya Jagrukta Samiti
(Registration No. 06/09/01/13885/21),
House No. 10 Ward Tilli, Kalpchhaya, Sagar City S.O, Sagar-470002, MP, India
Website: <https://gaveshana.org>
E-mail: contact@gaveshana.org
Mobile Number: **8817269203**

Editor-in- Chief

Dr. Rajesh Gautam,
Professor in Anthropology,
Dept. of Anthropology, Dr. Harisingh Gour Vishwavidyalaya Sagar-470003,
Madhya Pradesh, India
E-mail: rkgautam@dhsgsu.edu.in
Mobile Number: **9425437414**



Publisher:

Gaveshna Manavoutthan Paryavaran Tatha Swasthya Jagrukta Samiti
House No. 10 Ward Tilli, Kalpchhaya, Sagar City SO, Sagar-470002, MP, India