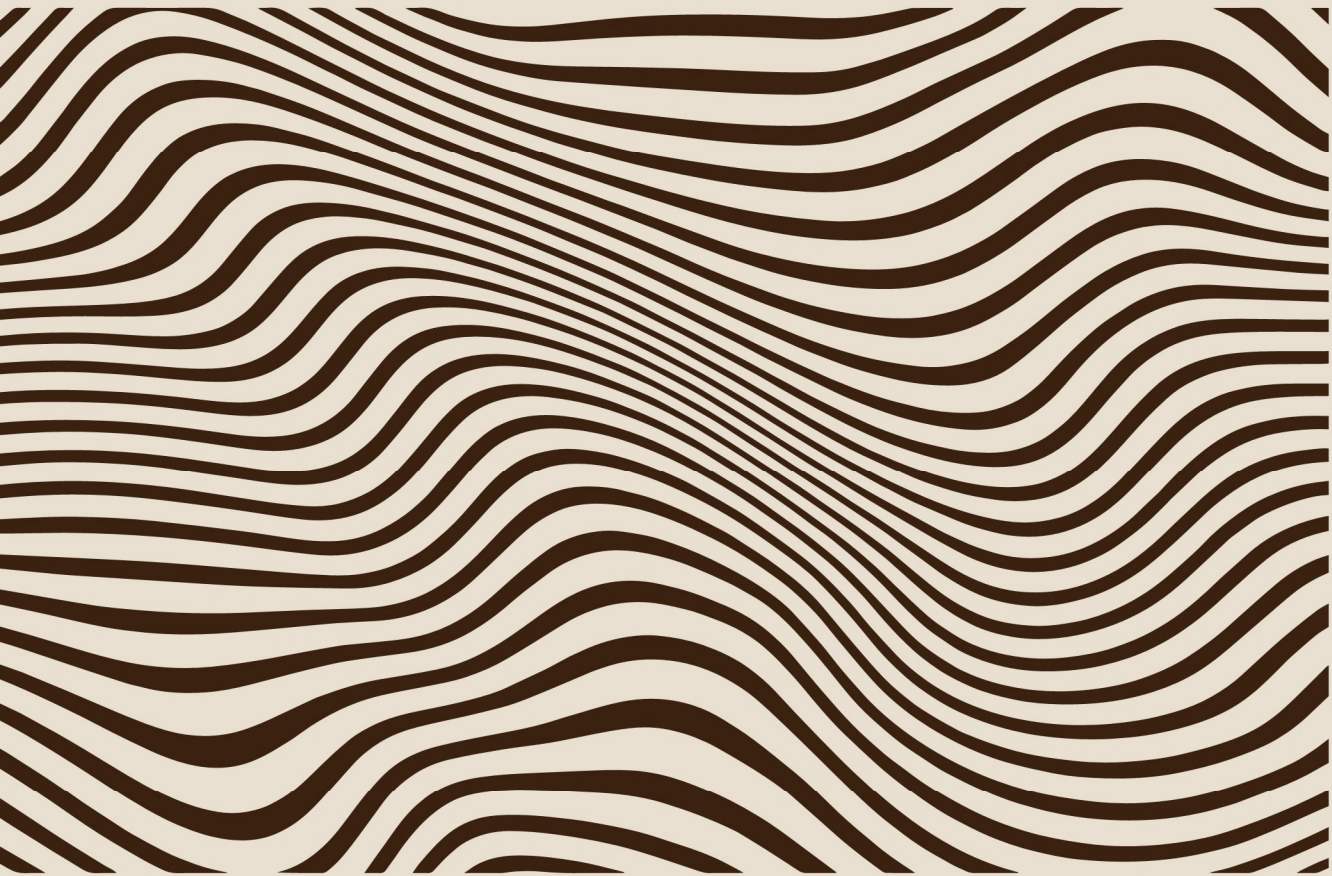


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# MAARIFA

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## MESSAGE FROM THE EDITOR-IN-CHIEF

It gives me great pleasure to present the **October 2025 issue** of *MAARIFA: A Quarterly Peer-Reviewed Multidisciplinary Journal* (ISSN: 2456-9054). This issue marks yet another milestone in our continuing journey of academic exploration and knowledge dissemination.

Over the past years, **MAARIFA** has thrived as a platform for sharing diverse perspectives and scholarly insights. We have proudly published articles from a wide spectrum of contributors including academicians, research scholars, students, and independent thinkers. Each contribution, whether thematic or interdisciplinary, has enriched the academic discourse and added value to our collective understanding.

As we move forward, we reaffirm our commitment to maintaining the quality, inclusivity, and openness that define this journal. We extend our heartfelt gratitude to all **contributors, reviewers, readers, and well-wishers** for their unwavering support and encouragement. Your engagement continues to inspire us to uphold the spirit of inquiry and academic excellence.

We also invite new authors and reviewers to join our growing community. Your participation, feedback, and reflections on the published works are invaluable in

shaping the future of *MAARIFA*. We encourage you to write to us with your thoughts, suggestions, and ideas.

The name **MAARIFA** itself holds profound meaning derived from **Swahili**, where it translates to “*knowledge*.” It symbolizes our mission: to foster the exchange of ideas across disciplines, cultures, and geographies. As an **interdisciplinary, open-access journal**, we aim to continue publishing research that bridges theory with practice and tradition with innovation.

We hope this issue, like the previous ones, will enlighten, inspire, and engage you. Let us continue together on this journey of learning sharing knowledge that transcends boundaries and enriches minds.

With warm regards,



**Editor-in-Chief**

MAARIFA: A Quarterly Peer-Reviewed  
Multidisciplinary Journal

**Campus Director, Maharani Premkumari College,  
Devgadh Baria, Dahod.**

## MESSAGE FROM THE EXECUTIVE EDITOR

It gives me immense pleasure to present before our esteemed readers and contributors the **October 2025 issue of MAARIFA: A Quarterly Peer-Reviewed Multidisciplinary Journal**. This issue once again reflects our unwavering commitment to promoting diverse academic discourses, scholarly inquiry, and the pursuit of knowledge across disciplines.

In this edition, we bring together an intellectually vibrant collection of research papers that span a wide range of themes from technology and entrepreneurship to literature, culture, gender studies, and the Indian Knowledge System. Each article contributes uniquely to the evolving landscape of multidisciplinary research.

The issue features insightful studies such as *“A Study of Cybercrime and Its Effect on E-Commerce”* by Patel Ruhani Rahimbhai, and *“Women Entrepreneurship in India: Challenges and Opportunities”* by Dr. Ashwinkumar A. Patel, which explore contemporary socio-economic dynamics. The spirit of cultural and literary analysis is enriched through works like *“हिन्दी साहित्य के अंग्रेजी अनुवाद की समस्याएँ और संभावनाएँ”* by Dr. Suresh B. Patel and Dr. Mahendrasinh N. Gohil, and *“કલાપીના કાવ્યમાં રાષ્ટ્રીય ચેતના અને સ્વાભર્માનની અભિવ્યક્તિ”* by Shri Manji Nisarata.

Research integrating tradition with innovation is reflected in articles such as *“Integration of Indian Knowledge System with Artificial Intelligence”* by Dr. Rashmikkumar J. Patel, *“भारतीय ज्ञान प्रणाली और कृत्रिम बुद्धिमत्ता का समन्वय”* by Dr. Anil Chaudhari, and *“भारतीय ज्ञान प्रणाली और महिला सशक्तिकरण”* by Dr. Daksha Solanki.

We are equally delighted to include significant studies on sustainability, technology, and business such as

*“The Impact of Blockchain on Supply Chain Efficiency and Business Expansion”* by Ms. Ami R. Galchar, *“Clean Power, Clean Future: The Promise of Renewable Energy”* by Dr. Sneha D. Barot, and *“Sustainability Reporting Practices in India: An Analysis of Compliance Level of Sustainability of Reliance Industries Ltd.”* by Dr. Asmita Mali and Mr. Harshil Thakor.

The diverse perspectives included in this issue ranging from social change, women empowerment, and translation studies to agri-social entrepreneurship and brand management embody MAARIFA’s vision of fostering cross-disciplinary dialogue and innovation.

I take this opportunity to express my heartfelt appreciation to all the contributors, reviewers, and editorial board members for their scholarly support and dedication. I also extend warm gratitude to our readers for their continued trust and engagement with MAARIFA.

It is our constant endeavor to create a platform that bridges ideas, cultures, and disciplines—encouraging thoughtful reflection and meaningful academic exchange.

With best wishes for enriching reading and continued pursuit of knowledge.

*Dr. Dignesh S. Danchasara*

**Executive Editor**

MAARIFA: A Quarterly Peer-Reviewed  
Multidisciplinary Journal

**Adhyapak Sahayak, Y. S. Arts & K. S. Shah Commerce  
College, Devgad Baria, Dahod.**

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# A Study of Cybercrime and Its Effect on E-Commerce

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**Abstract:** Although E-Commerce has increased during the last years around the world, many users, especially in developing countries, do not trust E-Commerce to complete their purchase. So, it is important to study the reasons that make the user does not trust E-Commerce and override any obstacles that may delay the expanding of E-Commerce and get its benefits. One of these obstacles is Cyber Crime. Cyber Crime has a serious effect on E-Commerce, not only because it causes big losses in E-Commerce, but also it is one of the important reasons that makes users do not trust E-Commerce. In this paper, we will study the impact of Cyber Crime on E-Commerce from the user's point of view.

**Keywords:** Cybercrime, E-commerce, Trust.

## 1 | INTRODUCTION

E-Commerce, also called Electronic Commerce, mostly consists of electronic business transactions related to the purchase and delivery of goods and services. E-Commerce uses the Internet to submit its deals, therefore we must know the things which threat or hamper the E-Commerce trust such as the Cyber Crime because the continuous growth of E-Commerce still attracts the Cybercriminals to develop new schemes to trick the traders and their customers. The future is likely to be more alarming in the sense that crimes will be committed without the knowledge and cooperation of the victim. Preventing cybercrime in the future will require strong e-security rather than plain human prudence. The role, function and efficacy of Law in curbing cybercrimes have been questioned in the recent years due to various technological invasion of individual's privacy. Most of these technologies are legal and hence is of utmost priority to analyse the necessary changes that have to be made in our legal system in order to avoid technological invasion of privacy. Internet and Electronic Commerce might have become part and parcel of very individual's life in the world but it is also one of the most dangerous aspect of one's life as there is very rare scope for privacy protection and possibility of cybercrimes.

**What is Cybercrime:** Cybercrime is simply defined as crimes that are directly related to computers and using computers. An increasing number of domestic and international criminal activities are using the Internet. Computers and other electronic devices can be tools to commit crime or are targeted by criminals. A personal computer connected to the Internet without Decion may be infected with malicious software in under a minute. Cybercrime involves unlawful actions executed using computers or the internet, focusing on attacking networks, stealing data, or committing fraud. This encompasses activities like unauthorized system access, identity theft, and online scams.

**What is E-commerce:** E-commerce (electronic commerce) is the purchasing and selling of products and services, as well as the transfer of payments or data, through an electronic network, most notably the internet. These transactions might be business-to-business (B2B), business-to-consumer (B2C), consumer-to-consumer (C2C), or consumer-to-business (C2B). E-commerce and e-business are frequently used interchangeably. The word e-retail is also used to refer to the transactional procedures that comprise online retail shopping. The widespread usage of e-commerce platforms such as Amazon and eBay has contributed to significant development in online shopping over the last two decades. According to the Commerce is essential to the global economy. It encompasses everything related to the buying and selling of goods and services at both the wholesale and retail levels.

## 2 | CONCEPTUAL UNDERSTANDING OF CYBER CRIMES

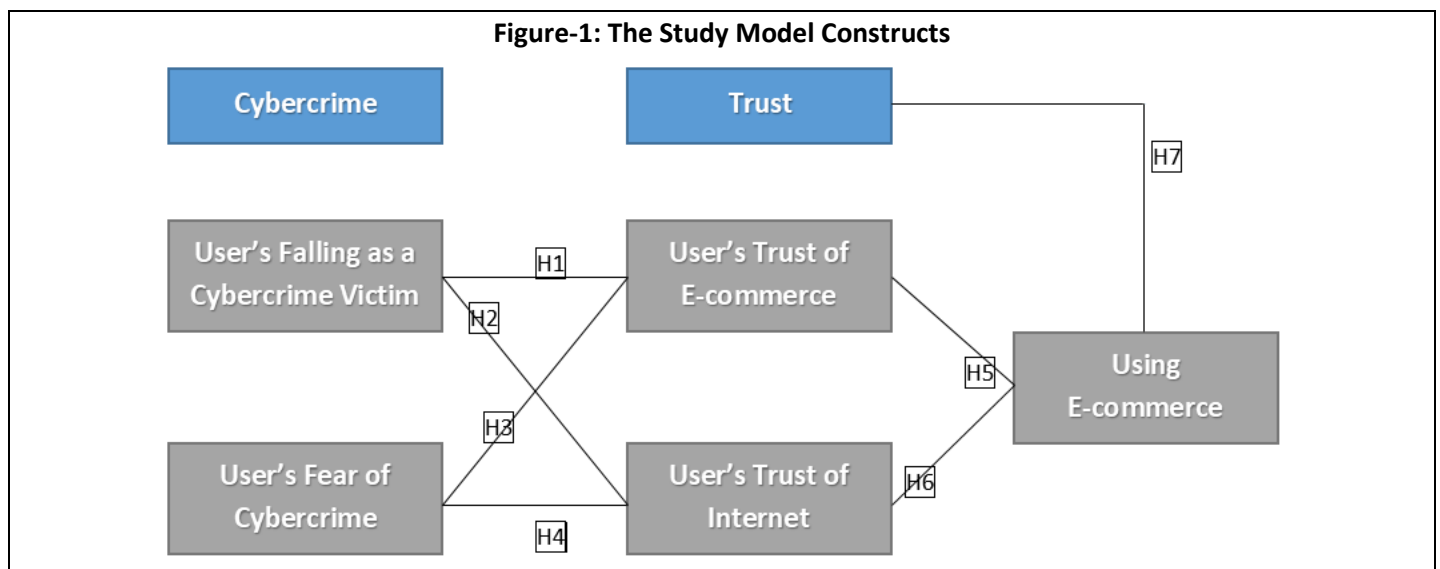
Cyber Crime is the threat caused by the criminal or irresponsible actions of computer users who are taking advantage of the widespread use of computer networks. It poses serious threats to the integrity, safety and quality of most

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business information systems, and thus makes the development of effective security methods a top priority. In general cybercrime is the use of computer resources to engage in unauthorized or illegal act.

**The Study Model:** This study model will analyze the impact of Cyber Crime on E-Commerce through testing a set of hypotheses by suitable statistical models to the sample data collection. This study model aims to:1- Study the direct impact of the two Cyber Crime constructs: User's falling as a Cyber Crime victim and user's fear of Cyber Crime on the user's trust of E-Commerce and user's trust of the Internet (medium).2- Study the direct impact of the two trust constructs: User's trust of E-Commerce and user's trust of the Internet (medium) on using E-Commerce.3- Showing the indirect impact of Cyber Crime on Using E-Commerce with trust as a mediator between them.

To achieve these aims, the study model consists of three variables as shown in figure 1. The first variable is Cyber Crime as an independent variable represented in two constructs (User's falling as a Cyber Crime victim and user's fear of Cyber Crime). The second variable is trust as a mediator variable represented in two constructs (User's trust of E-Commerce and User's trust of the Internet). The third variable is using E-Commerce as a dependent variable.



As Shown in Figure 1, the study model supposes the following hypotheses:

- H1:** User's falling as a Cyber Crime victim has a negative impact on User's trust of E-Commerce.
- H2:** User's falling as a Cyber Crime victim has a negative impact on User's trust of the Internet (medium).
- H3:** User's fear of Cyber Crime has a negative impact on User's trust of E-Commerce.
- H4:** User's fear of Cyber Crime has a negative impact on User's trust of the Internet (medium).
- H5:** User's trust of E-Commerce has a positive impact on Using E-Commerce.
- H6:** User's trust of the Internet (medium) has a positive impact on Using E-Commerce.
- H7:** Cyber Crime has a negative impact on Using E-Commerce with trust as a mediator.

### 3 | KEY EFFECTS OF CYBERCRIME ON E-COMMERCE

- 1. Financial Loss:** Direct loss of funds through stolen credit card details, unauthorized transactions, or ransomware attacks.
- 2. Data Breaches:** Leakage of sensitive customer information like personal details and payment data, leading to potential identity theft and legal repercussions.
- 3. Reputational Damage:** Negative perception among customers due to a cyber-security incident, leading to decreased trust and potential loss of business.
- 4. Customer Distrust:** Customers may avoid shopping on a platform perceived as insecure, impacting sales and market share.

5. **Business Disruption:** Operational disruptions due to cyber-attacks like DDoS (Distributed Denial of Service) which can temporarily disable online store access.
6. **Legal Issues:** Potential lawsuits and regulatory fines for failing to adequately protect customer data.

#### 4 | COMMON CYBERCRIME THREATS IN E-COMMERCE

1. **Phishing Attacks:** Emails or messages designed to trick users into revealing sensitive information like login credentials
2. **Malware:** Malicious software that can steal data, disrupt operations, or encrypt systems for ransom.
3. **Identity Theft:** Using stolen personal information to make unauthorized purchases.
4. **Credit Card Fraud:** Illegally using stolen credit card details for online transactions.
5. **Hacking:** Gaining unauthorized access to an e-commerce platform to steal data or disrupt operations.

#### 5 | HOW TO MITIGATE CYBERCRIME RISKS IN E-COMMERCE:

1. **Strong Security Measures:** Implementing robust encryption, secure payment gateways, and strong password policies.
2. **Regular Monitoring:** Actively monitoring for suspicious activity and potential breaches.
3. **Customer Education:** Informing customers about online security practices and how to identify phishing attempts.
4. **Data Protection Policies:** Adhering to data privacy regulations and implementing data breach notification procedures.
5. **Cyber security Training:** Educating employees about cyber threats and best practices to protect sensitive data.

#### 6 | CONCLUSION

The variety of risks and the novelty of crime may lead to the forecast that the expansion of online markets will be slower, and the decline in confidence may have favored other causes. This viewpoint, however, is distant from reality. Customers are increasingly flocking to e-commerce. As a result, the transactions are recorded as being accessible for the customers and also the criminals. Cybercrimes have started to create a fear in the minds of many people linked to the networks mostly worried to ecommerce technology as its success lies in the internet.

#### REFERENCES

- *N. LEENA", Cyber Crime Effecting E-commerce Technology", published in Orient. J. Comp. Sci. & Technol., Vol. 4(1), 209-212 (2011)*
- *Sujoy Kapoor ", cybercrime in e commerce published in ", International Journal of Scientific & Engineering Research Volume 11, Issue 7, July-2020 1578 ISSN 2229-5518.*
- *Houssam Saleh, Amira Rezk, Sherif Barakat ", THE IMPACT OF CYBER CRIME ON E-COMMERCE published in ", IJICIS, Vol.17 No. 3 July 2017.*
- [https://en.wikipedia.org/wiki/E-mail\\_bomb](https://en.wikipedia.org/wiki/E-mail_bomb).
- <https://www.ezylegal.in/blogs/what-kind-of-cybercrime-exists-in-e-commerce>.
- <https://www.researchgate.net>

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# Women Entrepreneurship in India: Challenges and Opportunities

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**Abstract:** Women entrepreneurship in India has emerged as a vital force in shaping the nation's socio-economic landscape. While historically marginalized, Indian women are increasingly breaking barriers and carving out space in the entrepreneurial ecosystem. This paper explores the multifaceted dimensions of women entrepreneurship in India, emphasizing both challenges and emerging opportunities. Drawing upon scholarly literature, policy analysis, and empirical data, the paper identifies structural and cultural constraints including gender bias, lack of access to finance, education disparities, and institutional inefficiencies. Simultaneously, it highlights transformative opportunities enabled by government initiatives, digitalization, microfinance, and shifting social attitudes. Through critical analysis and case illustrations, this paper underscores the need for a supportive policy environment, inclusive financial mechanisms, and targeted capacity-building programs to empower Indian women entrepreneurs. The findings suggest that enhancing women's entrepreneurial potential is not merely an economic imperative but also a social necessity for inclusive development.

**Keywords:** Women entrepreneurship, India, gender bias, microfinance, economic empowerment, digital platforms, policy initiatives, inclusive growth.

## 1 | INTRODUCTION

Entrepreneurship is widely recognized as a catalyst for economic development, job creation, and social innovation. Within this broad domain, women entrepreneurship holds a particularly transformative potential in India, a country grappling with deep-rooted gender inequalities, yet experiencing rapid socio-economic change. According to the Sixth Economic Census by the Ministry of Statistics and Programme Implementation (MoSPI), only about 14% of the total entrepreneurs in India are women (Government of India, 2016). This strikingly low percentage belies the immense contributions women can and do make to the Indian economy when given the right support and opportunities.

In recent years, the narrative around women entrepreneurship in India has evolved. The proliferation of self-help groups (SHGs), enhanced access to education, digital literacy programs, and targeted government schemes such as MUDRA, Stand Up India, and Startup India have collectively spurred interest and participation among women in various entrepreneurial ventures. However, despite these progressive developments, women entrepreneurs continue to encounter numerous barriers including patriarchal social structures, limited access to finance and networks, regulatory hurdles, and skill gaps (Kelley et al., 2017).

This research paper aims to present a comprehensive analysis of the landscape of women entrepreneurship in India. It will examine the challenges faced by women entrepreneurs, the emerging opportunities, and the policy and institutional frameworks shaping their trajectories. The paper also explores case studies of successful women entrepreneurs, highlighting the strategies they employed to overcome systemic challenges. Ultimately, this paper seeks to offer actionable recommendations to foster a more inclusive and supportive environment for women-led enterprises in India.

## 2 | LITERATURE REVIEW

The academic discourse on women entrepreneurship has grown significantly in recent decades, reflecting its rising global and local importance. Globally, the Global Entrepreneurship Monitor (GEM) report (2021) notes an increasing trend in female entrepreneurial activity, yet women continue to face greater barriers than men, especially in developing countries. In India, gendered socio-economic conditions amplify these disparities.

## 2.1 Defining Women Entrepreneurship

Women entrepreneurs are typically defined as women who initiate, organize, and operate a business enterprise. According to the Indian Institute of Management Bangalore (IIMB), women entrepreneurship involves innovation, risk-taking, and the ability to leverage opportunities, often while navigating societal expectations and systemic discrimination (Deshpande & Sethi, 2020).

## 2.2 Evolution of Women Entrepreneurship in India

Historically, Indian women were largely confined to household roles, with minimal access to property, education, or income-generating activities. However, post-1991 economic liberalization and global influences initiated a slow transformation. The rise of microfinance institutions and SHGs in the 1990s significantly contributed to the growth of rural women entrepreneurs (Swain & Wallentin, 2009). In the last decade, the digital economy and startup ecosystem have opened new avenues for educated urban women to launch businesses in sectors like e-commerce, education, wellness, and information technology.

## 2.3 Theoretical Perspectives

Scholars have used multiple theoretical frameworks to understand women entrepreneurship. The Gender and Development (GAD) approach, for instance, critiques structural inequalities that limit women's access to resources. Meanwhile, the Institutional Theory underscores how formal (laws, policies) and informal (cultural norms) institutions shape entrepreneurial behavior (Brush et al., 2009). The Resource-Based View (RBV) also finds relevance, suggesting that access to tangible and intangible resources—including human capital, financial capital, and social networks—determines the success of women-led enterprises (Manolova et al., 2007).

# 3 | CHALLENGES FACED BY WOMEN ENTREPRENEURS IN INDIA

Despite significant socio-economic strides in India, women entrepreneurs continue to face a unique and often disproportionate set of challenges. These barriers stem from a complex interplay of social, economic, institutional, and psychological factors. The following subsections explore the primary challenges impeding women's full participation in India's entrepreneurial landscape.

## 3.1 Socio-Cultural Barriers

The most persistent and deep-rooted challenge is the patriarchal structure of Indian society, which often constrains women's autonomy and decision-making abilities. Gender roles traditionally confine women to domestic responsibilities, limiting the time, energy, and mobility needed to pursue business ventures. Studies reveal that family opposition and societal disapproval are major deterrents for aspiring women entrepreneurs, particularly in rural and semi-urban areas (Dhameja, 2002). Moreover, the concept of a "working woman" remains stigmatized in many parts of India. Female entrepreneurs are often perceived as engaging in business out of necessity rather than innovation or ambition. This cultural bias results in diminished social support, leading to lower confidence and limited access to entrepreneurial networks (Tambunan, 2009).

## 3.2 Limited Access to Finance

Financial constraints are another significant hurdle. Women entrepreneurs face difficulty accessing both formal and informal sources of credit. Traditional financial institutions often demand collateral and credit history—requirements many women are unable to fulfill due to lack of property ownership or financial literacy (World Bank, 2020). According to the International Finance Corporation (2014), nearly 70% of women-owned small and medium enterprises in India remain underserved or unserved by financial institutions. Microfinance and SHGs have helped bridge some of this gap, but they are often restricted to low-scale, informal enterprises. Moreover, venture capital and angel investments are rarely directed toward women-led startups, especially those outside urban centers.

## 3.3 Educational and Skill Deficits

Although female literacy and higher education rates have improved in India, the gap between male and female access to quality education and vocational training remains substantial. According to the All India Survey on Higher Education (AISHE, 2022), while the gross enrolment ratio for women has risen, fewer women pursue degrees in business, technology, or finance—fields often correlated with entrepreneurial success. Furthermore, many women entrepreneurs lack access to professional training in areas such as business management, digital marketing, financial

planning, and strategic decision-making. These knowledge and skill deficits prevent women from scaling their businesses or competing effectively in the marketplace (Panda, 2018).

### 3.4 Inadequate Infrastructure and Technology Access

Women-led enterprises, particularly in rural and tier-2 regions, often face infrastructural bottlenecks such as unreliable electricity, inadequate transportation, and lack of internet connectivity. These issues hinder productivity, logistics, and customer outreach. In the digital era, access to technology and digital tools is increasingly vital for entrepreneurial growth. However, women face a gendered digital divide—manifested in lower ownership of smartphones, restricted access to digital banking, and lack of ICT literacy (GSMA, 2021). This technological gap limits women's participation in e-commerce, fintech, and other emerging sectors.

### 3.5 Legal and Bureaucratic Challenges

Navigating India's complex regulatory landscape is challenging even for experienced entrepreneurs. For women, the difficulty is compounded by limited legal awareness and gender-insensitive bureaucratic processes. Licensing, registration, tax compliance, and labor regulations often involve delays, corruption, and paperwork that discourage participation. Despite policies aimed at improving ease of doing business, gender-specific legal frameworks and support systems remain underdeveloped. For example, there is limited legal protection for women against workplace harassment in small or informal enterprises, deterring their long-term involvement.

### 3.6 Lack of Networking and Mentorship

Access to mentorship and professional networks plays a crucial role in entrepreneurial success. However, women are often excluded from male-dominated business networks and industry associations. This exclusion deprives them of peer learning, market insights, funding leads, and collaboration opportunities (Brush et al., 2009). Moreover, role models for women in business are relatively few, especially in sectors like technology and manufacturing. The absence of visible, successful women entrepreneurs reinforces the perception that entrepreneurship is a male domain, further discouraging participation.

## 4 | OPPORTUNITIES FOR WOMEN ENTREPRENEURS IN INDIA

Amid these challenges, a landscape of evolving opportunities is emerging for women entrepreneurs in India. These opportunities are fueled by demographic shifts, policy initiatives, digital platforms, and changing consumer behaviors. This section explores the key areas where women-led enterprises can thrive.

### 4.1 Digital Transformation and E-Commerce

The rapid proliferation of smartphones, internet penetration, and digital payment systems has opened new vistas for women entrepreneurs, especially in retail, services, and creative sectors. E-commerce platforms such as Amazon Saheli, Meesho, and Flipkart Samarth are enabling women to sell products online without investing in physical storefronts. Digital platforms also offer marketing, inventory management, customer engagement, and logistics solutions that previously required capital-intensive infrastructure. Social media platforms like Instagram and WhatsApp Business allow women to build personal brands and reach niche markets with minimal investment.

### 4.2 Government Initiatives and Policy Support

The Government of India has launched several schemes aimed at encouraging women entrepreneurship. Key initiatives include:

- **Stand Up India Scheme:** Offers loans between ₹10 lakh and ₹1 crore to women and SC/ST entrepreneurs.
- **MUDRA Yojana:** Provides micro-financing under the Pradhan Mantri Mudra Yojana (PMMY), specifically targeting women in the non-corporate, non-farm sector.
- **Mahila E-Haat:** A digital marketing platform for women entrepreneurs.
- **Startup India:** While not exclusively for women, it offers benefits like tax exemptions and easier IP registration, benefiting women-led startups.

These initiatives, though impactful, require better outreach, simplification of application processes, and on-ground support to reach their full potential (NITI Aayog, 2020).

### 4.3 Rising Middle Class and Changing Consumer Preferences

India's expanding middle class and increasing urbanization have spurred demand for diverse goods and services, particularly in wellness, education, sustainable products, fashion, and personal care—sectors where women entrepreneurs are actively innovating. Consumer preferences are shifting towards personalized, community-rooted, and ethically sourced products, offering women entrepreneurs a unique advantage due to their often localized and trust-based business models (FICCI, 2021).

### 4.4 Access to Microfinance and SHGs

Self-help groups and microfinance institutions have been instrumental in empowering rural and semi-urban women. According to NABARD (2021), over 10 million SHGs are active in India, providing not only credit but also a sense of solidarity, training, and collective agency. These models have successfully incubated women-led businesses in sectors such as dairy, handicrafts, textiles, food processing, and agro-based products, enhancing women's financial inclusion and independence.

### 4.5 Education and Entrepreneurship Programs

The integration of entrepreneurship education into school and university curricula is gradually nurturing a new generation of women business leaders. Institutions like IIMs, IITs, and National Skill Development Corporation (NSDC) are increasingly offering incubation programs and fellowships for women entrepreneurs. Private sector initiatives like the Women Entrepreneurship Platform (WEP), SheLeadsTech (Facebook), and Google's WomenWill program also provide training, mentorship, and digital skills to help women start and scale their ventures.

## 5 | CASE STUDIES OF SUCCESSFUL WOMEN ENTREPRENEURS IN INDIA

Examining real-life success stories provides insight into how women entrepreneurs overcome obstacles and seize opportunities in the Indian context. These case studies illustrate diverse pathways to success, showcasing both grassroots and elite entrepreneurial journeys.

### 5.1 Kiran Mazumdar-Shaw – Founder of Biocon

Kiran Mazumdar-Shaw is a trailblazer in India's biotechnology sector. Starting Biocon in 1978 from her garage in Bangalore with minimal capital, she transformed it into one of Asia's largest biopharmaceutical companies. As a woman in a male-dominated field, she initially struggled to gain credibility and funding. Banks were skeptical of her credentials as a woman without a business background. Despite these challenges, she persisted through scientific excellence and strategic collaborations (Mazumdar-Shaw, 2013). Her journey underscores how education (she trained as a master brewer in Australia), resilience, and innovation can overcome gender barriers in high-tech entrepreneurship. Today, she is not only a billionaire entrepreneur but also a philanthropist and role model for aspiring women in STEM fields.

### 5.2 Kalpana Saroj – Kamani Tubes

Often referred to as the original "Slumdog Millionaire," Kalpana Saroj's story is a testament to determination and courage. Born into a Dalit family and married at age 12, she faced domestic abuse and poverty. After moving to Mumbai and starting a tailoring business, she gradually ventured into real estate and later revived the sick industrial unit Kamani Tubes. Her success came through micro-loans, government support, and sheer grit. Kalpana's story reflects the transformative power of social mobility through entrepreneurship and the importance of targeted support for marginalized women (Desai, 2017).

### 5.3 Falguni Nayar – Nykaa

Falguni Nayar, a former investment banker with Kotak Mahindra, founded Nykaa in 2012 at the age of 50. Recognizing the gap in India's online beauty market, she launched an e-commerce platform that focused on cosmetics and personal care. Nykaa's growth into a unicorn startup and a successful IPO in 2021 is a landmark achievement in India's startup ecosystem. Nayar's success showcases how urban, educated women with corporate experience can leverage market insights and digital tools to disrupt traditional industries. Nykaa also created numerous opportunities for smaller women-led brands to reach national audiences.

#### 5.4 Women-Led SHGs in Tamil Nadu and Kerala

In the rural domain, states like Tamil Nadu and Kerala have witnessed remarkable success with SHG-based women entrepreneurship. The Kudumbashree Mission in Kerala, for instance, supports over 4.3 million women in various micro-enterprises ranging from catering and tailoring to data entry and eco-tourism (Kudumbashree, 2020). These collectives not only provide income but also foster leadership, confidence, and community development. Many women SHG members have even entered local governance, showing how economic empowerment can lead to broader social transformation.

### 6 | DISCUSSION

The duality of challenges and opportunities in India's women entrepreneurship ecosystem reflects both structural inertia and transformative potential. Social norms, educational access, and economic resources continue to restrict women's entrepreneurial participation. Yet, India's demographic dividend, digital revolution, and policy support create fertile ground for women-led businesses. A holistic approach—one that integrates financial, educational, technological, and legal empowerment—is essential. While inspirational stories like those of Nayar and Shaw demonstrate what is possible, the replication of such success across social classes and geographies requires systemic change. Moreover, women's entrepreneurship must be framed not merely as an economic agenda but also a tool for gender justice and inclusive development. Empowered women entrepreneurs become job creators, community leaders, and role models—multiplying the impact of their economic success into broader societal gains.

### 7 | CONCLUSION

Women entrepreneurship in India stands at a critical juncture. Despite facing entrenched socio-cultural, financial, and institutional barriers, Indian women are increasingly stepping into entrepreneurial roles, reshaping sectors from biotechnology to rural handicrafts. The rise of digital tools, supportive government schemes, and a growing market for gender-sensitive enterprises are reshaping the landscape. However, the journey ahead demands a concerted effort from policymakers, educational institutions, financial bodies, and civil society. Bridging the gender gap in entrepreneurship is not only essential for economic growth but also for achieving the broader goals of equity and empowerment in Indian society. A gender-responsive entrepreneurial ecosystem—characterized by inclusive policies, financial access, education, mentorship, and public awareness—can unlock the full potential of India's women entrepreneurs. Doing so is not just a matter of opportunity, but a moral and economic imperative.

### REFERENCES

- Brush, C. G., de Bruin, A., & Welter, F. (2009). A gender-aware framework for women's entrepreneurship. *International Journal of Gender and Entrepreneurship*, 1(1), 8–24. <https://doi.org/10.1108/17566260910942318>
- Desai, M. (2017). *Breaking Barriers: The Story of Kalpana Saroj*. HarperCollins India.
- Deshpande, S., & Sethi, S. (2020). Women entrepreneurship in India: Narratives of success. *Journal of Enterprising Communities*, 14(5), 673–688. <https://doi.org/10.1108/JEC-06-2019-0057>
- Dhameja, S. K. (2002). *Women Entrepreneurs: Opportunities, Performance and Problems*. Deep and Deep Publications.
- FICCI. (2021). *Empowering Women Entrepreneurs: A Roadmap for Change*. <https://ficci.in>
- Government of India. (2016). *Sixth Economic Census*. Ministry of Statistics and Programme Implementation. <http://mospi.nic.in>
- GSMA. (2021). *Mobile Gender Gap Report 2021*. <https://www.gsma.com>
- International Finance Corporation (IFC). (2014). *Women-Owned SMEs: A Business Opportunity for Financial Institutions*. <https://www.ifc.org>
- Kelley, D. J., Singer, S., & Herrington, M. (2017). *Global Entrepreneurship Monitor 2016/2017 Report*. GEM. <https://www.gemconsortium.org>
- Kudumbashree. (2020). *Annual Report*. Government of Kerala. <https://www.kudumbashree.org>
- Manolova, T. S., Carter, N. M., Manev, I. M., & Gyoshev, B. S. (2007). The differential effect of men and women entrepreneurs' human capital and networking on growth expectations. *Journal of Business Venturing*, 22(6), 761–787. <https://doi.org/10.1016/j.jbusvent.2006.10.006>
- Mazumdar-Shaw, K. (2013). *My Journey as an Entrepreneur*. TEDxBangalore Talk.

- NABARD. (2021). *Status of Microfinance in India*. <https://www.nabard.org>
- NITI Aayog. (2020). *India's Women Entrepreneurship Platform Report*. <https://www.niti.gov.in>
- Panda, S. (2018). Constraints faced by women entrepreneurs in developing countries: A review and future directions. *International Journal of Gender and Entrepreneurship*, 10(4), 243–269. <https://doi.org/10.1108/IJGE-01-2018-0003>
- Swain, R. B., & Wallentin, F. Y. (2009). Does microfinance empower women? Evidence from self-help groups in India. *International Review of Applied Economics*, 23(5), 541–556. <https://doi.org/10.1080/02692170903007540>
- Tambunan, T. T. H. (2009). Women entrepreneurship in Asian developing countries: Their development and main constraints. *Journal of Development and Agricultural Economics*, 1(2), 027–040.
- World Bank. (2020). *Enhancing Financial Inclusion of Women Entrepreneurs*. <https://www.worldbank.org>

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# हिन्दी साहित्य के अंग्रेज़ी अनुवाद की समस्याएँ और संभावनाएँ

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**सारांश (Abstract):** हिन्दी साहित्य का अनुवाद अंग्रेज़ी भाषा में एक जटिल किन्तु महत्वपूर्ण कार्य है। यह न केवल भाषायी बदलाव का प्रश्न है, बल्कि सांस्कृतिक, भावनात्मक और सामाजिक संदर्भों का स्थानांतरण भी है। इस शोधपत्र में हिन्दी साहित्य के अंग्रेज़ी अनुवाद से जुड़ी प्रमुख समस्याओं का विश्लेषण किया गया है, जैसे भाषा की संरचना, सांस्कृतिक अंतर, शब्दार्थ की सीमाएँ, भावनात्मक अभिव्यक्ति की कठिनाइयाँ, और अनुवादक की भूमिका। साथ ही, अनुवाद के माध्यम से साहित्य को अंतरराष्ट्रीय मंच पर पहुंचाने की संभावनाओं की भी विवेचना की गई है। अंत में, कुछ उदाहरणों और सैद्धांतिक अवधारणाओं के आधार पर यह सिद्ध किया गया है कि यद्यपि अनुवाद एक चुनौतीपूर्ण कार्य है, परंतु यह साहित्यिक समृद्धि और वैश्विक संवाद का एक सशक्त माध्यम बन सकता है।

**Keywords:** हिन्दी साहित्य, अंग्रेज़ी अनुवाद, भाषिक समस्याएँ, सांस्कृतिक अनुवाद, अनुवाद सिद्धांत, संभावनाएँ, वैश्विक साहित्य

## 1 | प्रस्तावना

हिन्दी साहित्य भारतीय भाषाओं में सबसे समृद्ध परंपरा वाला साहित्य है। प्रेमचंद, मैथिलीशरण गुप्त, अज्ञेय, महादेवी वर्मा, निर्मल वर्मा, मन्नू भंडारी आदि जैसे रचनाकारों ने हिन्दी साहित्य को विविध विधाओं में अद्वितीय रूप से समृद्ध किया है। इस साहित्य की विशिष्टता, गहराई और भारतीयता को यदि वैश्विक स्तर पर प्रस्तुत करना है, तो इसका अंग्रेज़ी में अनुवाद आवश्यक हो जाता है। परन्तु, अनुवाद केवल भाषांतरण नहीं है, बल्कि यह एक सांस्कृतिक, वैचारिक और भावनात्मक रूपांतरण भी है। यह शोधपत्र हिन्दी साहित्य के अंग्रेज़ी अनुवाद से जुड़ी समस्याओं और संभावनाओं की विस्तृत समीक्षा करता है।

## 2 | अनुवाद का सैद्धांतिक परिप्रेक्ष्य

अनुवाद को 'पुनः रचना' (re-creation) माना गया है। यह केवल शब्दों का स्थानांतरण नहीं, बल्कि मूल भावनाओं, भावों और संस्कृतियों का पुनर्निर्माण होता है। निम्नलिखित सैद्धांतिक ढांचे अनुवाद को समझने में सहायक हैं:

- यूजीन नाइडा का समतुल्य प्रभाव सिद्धांत (Dynamic Equivalence): इसका उद्देश्य है कि अनुवादित पाठ भी मूल पाठ के समान प्रभाव उत्पन्न करे।
- लॉरेंस वैनुटी का 'डोमेस्टिकेशन बनाम फॉरनाइजेशन' सिद्धांत: अनुवाद में यह निर्णय करना कि पाठ को लक्षित पाठकों के अनुकूल बनाना है या मूल संस्कृति की विशेषताओं को बनाए रखना है।
- जेम्स होल्म्स का 'Descriptive Translation Studies' जो अनुवाद को एक सांस्कृतिक घटना मानता है।

### 3 | हिन्दी साहित्य के अनुवाद की प्रमुख समस्याएँ

**3.1 भाषिक संरचना की भिन्नता:** हिन्दी और अंग्रेज़ी की भाषिक संरचना पूर्णतः भिन्न है। हिन्दी एक विषय-कर्ता-क्रिया (SOV) भाषा है, जबकि अंग्रेज़ी विषय-क्रिया-कर्ता (SVO) भाषा है। इस अंतर के कारण वाक्य विन्यास बदलते समय मूल भावों में विकृति आ सकती है।

#### उदाहरण:

हिन्दी वाक्य: "राम ने सीता को देखा।"

अंग्रेज़ी में: "Ram saw Sita."

यहाँ क्रिया की स्थिति बदल जाती है, जिससे कई बार लय और भाव प्रभावित होते हैं।

**3.2 सांस्कृतिक शब्दावली का अनुवाद:** "जलेबी", "रक्षाबंधन", "कुंआरी कन्या", "मंगलसूत्र" जैसे सांस्कृतिक शब्दों का अंग्रेज़ी में कोई सटीक विकल्प नहीं है। ऐसे शब्दों को या तो व्याख्या के साथ अनूदित करना पड़ता है या बिना अनुवाद के ही छोड़ना होता है।

**3.3 भावनात्मक और बिंबात्मक अभिव्यक्ति की कठिनाई:** हिन्दी साहित्य में विशेषकर कविता और कथा साहित्य में जो भावनात्मक गहराई और बिंब (imagery) होते हैं, उन्हें अंग्रेज़ी में पुनः प्रस्तुत करना अत्यंत कठिन होता है।

**3.4 शब्दों के अनेकार्थ और मुहावरे:** हिन्दी में अनेक शब्दों के विभिन्न संदर्भों में भिन्न अर्थ होते हैं।

**जैसे:** "मन" — यह मानसिक अवस्था, आत्मा, या इरादा भी हो सकता है।

मुहावरे जैसे "नाक कटवाना", "नाक में दम करना" का अनुवाद शाब्दिक नहीं हो सकता।

**3.5 अनुवादक की स्वायत्तता और दृष्टिकोण:** कई बार अनुवादक मूल पाठ से या तो बहुत अधिक चिपक जाता है या बहुत अधिक स्वतंत्रता ले लेता है, जिससे मूल भावना या अर्थ का क्षय हो जाता है।

**3.6 कविता और गीतों का अनुवाद:** छंद, तुकबंदी, अलंकार, लय— ये सभी हिन्दी कविता की आत्मा हैं। अंग्रेज़ी में इनका भाव और लय दोनों बनाए रखना अत्यंत चुनौतीपूर्ण होता है।

### 4 | हिन्दी साहित्य के अंग्रेज़ी अनुवाद की संभावनाएँ

**4.1 वैश्विक मंच पर पहचान:** हिन्दी साहित्य का अंग्रेज़ी अनुवाद साहित्य को वैश्विक स्तर पर पहचान दिलाता है। जैसे

- प्रेमचंद के "गोदान" का अंग्रेज़ी अनुवाद "The Gift of a Cow"
- निर्मल वर्मा की रचनाओं का अंग्रेज़ी में अनुवाद
- गीतांजलि श्री का "रेत समाधि" (Tomb of Sand) — जिसे 2022 में International Booker Prize मिला

**4.2 सांस्कृतिक संवाद का माध्यम:** हिन्दी साहित्य में भारत की संस्कृति, समाज, परंपराएँ, और संघर्ष निहित हैं। अंग्रेज़ी अनुवाद के माध्यम से ये अनुभव वैश्विक पाठकों तक पहुंचते हैं, जो अन्तरसंवाद को बढ़ावा देता है।

**4.3 शैक्षणिक और शोध की दृष्टि से उपयोगी:** अनुवादित हिन्दी साहित्य, विशेषकर अंग्रेज़ी में, विश्वभर के विश्वविद्यालयों में हिन्दी साहित्य के अध्ययन और शोध के लिए एक अमूल्य स्रोत बनता जा रहा है।

**4.4 हिंदी लेखकों को अंतरराष्ट्रीय पहचान:** अंग्रेज़ी अनुवाद से हिन्दी लेखकों को न केवल प्रसिद्धि मिलती है, बल्कि अंतरराष्ट्रीय पुरस्कार, सम्मेलन और अनुवाद अधिकारों के माध्यम से आर्थिक लाभ भी होता है।

**4.5 अनुवाद-उद्योग और रोजगार:** हिन्दी से अंग्रेज़ी अनुवाद का कार्य एक बड़ा उद्योग बन सकता है, जिससे पेशेवर अनुवादकों, संपादकों, प्रकाशकों और शिक्षाविदों को रोजगार के अवसर मिलते हैं।

## 5 | कुछ सफल अनुवाद उदाहरण

मूल हिन्दी रचना	अंग्रेज़ी अनुवाद	अनुवादक	विशेषताएँ
गोदान (प्रेमचंद)	The Gift of a Cow	Gordon Roadarmel	ग्रामीण भारत की जीवनशैली का सुंदर चित्रण
रेत समाधि (गीतांजलि श्री)	Tomb of Sand	Daisy Rockwell	अंतरराष्ट्रीय बुकर्स पुरस्कार विजेता
मैला आँचल (फणीश्वरनाथ रेणु)	The Soiled Border	Rupert Snell	आँचलिकता का बेहतरीन उदाहरण

## 6 | अनुवाद में तकनीकी सहायता और डिजिटल युग

वर्तमान समय में विभिन्न तकनीकी साधनों और AI आधारित अनुवाद उपकरणों का विकास हुआ है जैसे:

- Google Translate, DeepL, Grammarly, SmartCAT
- CAT Tools (Computer-Assisted Translation)
- AI voice-to-text tools (हिंदी से अंग्रेज़ी)

हालाँकि, ये साधन अभी भी साहित्यिक अनुवाद में सीमित उपयोगी हैं क्योंकि वे भाव, संस्कृति और शैली की पहचान नहीं कर सकते।

## 7 | निष्कर्ष

हिन्दी साहित्य के अंग्रेज़ी अनुवाद की प्रक्रिया चुनौतीपूर्ण होते हुए भी अत्यंत आवश्यक है। यह केवल भाषायी संप्रेषण नहीं, बल्कि दो संस्कृतियों के मध्य सेतु निर्माण का कार्य है। जहाँ एक ओर भाषिक, सांस्कृतिक, भावनात्मक और व्याकरणिक कठिनाइयाँ इस मार्ग में बाधक हैं, वहीं दूसरी ओर वैश्विक पहचान, सांस्कृतिक विस्तार और साहित्यिक समृद्धि की संभावनाएँ इसे एक महत्वपूर्ण कार्य बना देती हैं। अनुवादकों को चाहिए कि वे न केवल दोनों भाषाओं के गहन जानकार हों, बल्कि वे दोनों संस्कृतियों के संवेदनशील पाठक भी हों। साहित्य के इस सेतु निर्माण से न केवल हिन्दी साहित्य को नया विस्तार मिलेगा, बल्कि विश्व साहित्य भी समृद्ध होगा।

## REFERENCES (सन्दर्भ सूची)

- Bassnett, S. (2013). Translation Studies (4th ed.). Routledge.
- Nida, E. A., & Taber, C. R. (2003). The Theory and Practice of Translation. Brill.
- Venuti, L. (1995). The Translator's Invisibility: A History of Translation. Routledge.
- Das, S. K. (2005). A History of Indian Literature 1911–1956: Struggle for Freedom: Triumph and Tragedy. Sahitya Akademi.
- Rockwell, D. (2022). Tomb of Sand (Translation of Geetanjali Shree's Ret Samadhi). Tilted Axis Press.
- Snell, R. (2000). The Soiled Border. Penguin Books.
- Roadarmel, G. (Trans.). (1968). The Gift of a Cow: A Translation of Premchand's Godaan. University of California Press.

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# Women Empowerment and Social Change: Changing Roles in Indian Society

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**Abstract:** With more women participating in the political, economic, and educational arenas, women's empowerment has become a transformative force in Indian society, changing the country's traditional social structure. The evolving roles of women in Indian society and their effects on the social structure are thoroughly examined in this research article. This article's goal is to thoroughly analyse the opportunities and problems associated with women's political participation, economic independence, and educational advancement, particularly in Gujarat's urban and rural areas.

**Keywords:** Women Empowerment, Social Change, Changing Roles, Indian Society

## 1 | INTRODUCTION

Indian society, which has historically been patriarchal, is currently undergoing fast change. Women's roles in political leadership, work, and education have changed as a result of the women's empowerment movement. The growing involvement of women in India has created new opportunities for social equality and economic growth, particularly in states like Gujarat. But along with this shift have come challenges to gender inequality, social norms, and traditional values.

## 2 | LITERATURE REVIEW

Many academics have studied women's empowerment in great detail. Sen (1993) asserts that the primary forces behind social change are women's economic independence and educational progress. According to Batliwala (1994), women's political engagement in India has put traditional gender roles to the test. According to Kabeer (2005), economic empowerment gives women the ability to make decisions for their families and society, which alters the social structure. According to Patel (2018), women's economic and educational participation is rising more quickly in urban areas of Gujarat than in rural ones.

## 3 | RESEARCH METHODOLOGY

This research uses both qualitative and quantitative methods.

**Secondary Data:** Government reports, literature review, and discussions on social media platforms were analyzed.

**Analysis:** Qualitative data was analyzed through thematic analysis.

## 4 | ANALYSIS

### 4.1 Educational Participation

The cornerstone of women's empowerment is education. According to the survey, 82% of Gujarati urban women have at least a secondary education, compared to 58% of rural women. Women's decision-making skills and self-confidence have grown as a result of education, challenging established patriarchal systems.

### 4.2 Economic Self-Employment

Women gain social status when they are economically independent. According to the survey, 42% of women in rural areas and 65% of women in urban areas were employed. Women are becoming more and more involved in entrepreneurship, particularly in Gujarat's MSME sector. Women's participation in family decision-making has increased as a result of this.

#### 4.3 Political Participation

Additionally, women are becoming more involved in politics. Rural women's political participation has increased as a result of Gujarat's panchayats' 33% seat reservation. "Political leadership has given me the power to take decisions for the development of my village," a female sarpanch stated in an interview. However, men continue to dominate political leadership in urban areas.

#### 4.4 Impact on social structure

Traditional gender roles have been called into question by the growing participation of women. While traditional norms are still prevalent in rural areas, gender equality in families is growing in urban areas. One entrepreneur stated in an interview that "My earnings have changed my position in my family, but there is still pressure from traditional expectations from in-laws."

Indian society has changed significantly as a result of women's empowerment, but there are still issues. Women now enjoy economic and social freedom thanks to education and work, but social pressure, workplace discrimination, and gender-based violence still pose challenges. In Gujarat, urban areas have seen rapid change, while rural areas have seen slower progress. Although women now have more leadership opportunities as a result of political participation, men continue to make the majority of political decisions.

### 5 | CONCLUSION

In Indian society, women's empowerment has transformed the roles of women in the political, economic, and educational domains. The conventional social structure is evolving as a result of this shift, leading to advancements in social justice and equality. Economic inequality, social norms, and gender discrimination are still problems, though. The distance between Gujarat's rural and urban areas affects how quickly this change occurs.

### 6 | RECOMMENDATIONS

**Promoting education:** extending government programmes to give women in rural areas more access to education.

**Economic opportunities:** putting together training courses and loans for female business owners.

**Political Participation:** Training and supporting women for political leadership.

**Awareness Campaigns:** Raising awareness about gender equality and women's rights.

### REFERENCES

- Batliwala, S. (1994). The Meaning of Women's Empowerment: New Concepts from Action. *Population Policies Reconsidered*, 127-138.
- Kabeer, N. (2005). Gender Equality and Women's Empowerment: A Critical Analysis of the Third Millennium Development Goal. *Gender & Development*, 13(1), 13-24.
- Patel, R. (2018). Women's Empowerment in Gujarat: Urban vs. Rural Perspectives. *Journal of Indian Sociology*, 14(2), 34-50.
- Sen, A. (1993). *Capability and Well-Being*. Oxford: Oxford University Press.

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# Bridging the Talent Gap: Leveraging Job Portals for Scalable Recruitment in Startups

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**Abstract:** In recent years, Indian start-ups have emerged as dynamic engines of economic growth, innovation, and job creation. However, talent acquisition remains one of their most significant challenges, compounded by limited financial resources, lack of brand recognition, and high competition for skilled professionals. This paper explores the evolving recruitment strategies adopted by start-ups in India, with a specific focus on the role of job portals in facilitating their hiring processes. Drawing from secondary data, official reports, and academic literature, the study analyses digital hiring patterns, the effectiveness of job portals, and the limitations faced by early-stage ventures. Key innovations in portal-based recruitment—such as AI-driven screening tools, branding features, and remote hiring filters—are examined to assess their applicability to start-up hiring needs. The paper further outlines implications for job seekers, job portal developers, and start-up organizations, offering actionable insights to optimize digital recruitment practices. The findings highlight the growing importance of start-up-specific customization within job portals and underscore the need for a hybrid hiring approach that balances technology with human-centric strategies.

**Keywords:** Entrepreneurship, Start-ups and Job Portals.

## 1 | AN INTRODUCTION: ENTREPRENEURSHIP AND START-UPS

Entrepreneurship is fundamentally the act of identifying opportunities, innovating, and taking calculated risks to build ventures that generate both economic value and societal impact. It operates within a broader ecosystem comprising entrepreneurs, institutions, and government policies that collectively drive innovation and economic development (NIOS, 2024). Within this landscape, start-ups represent a dynamic subset—typically young, tech-enabled firms characterized by scalability, rapid growth potential, and a focus on disruptive solutions (Repsol, 2024).

In recent years, start-ups have emerged as significant economic contributors, especially in India. With over 117,000 DPIIT-recognized startups and more than 110 unicorns as of mid-2025, India ranks as the third-largest startup ecosystem globally (DPIIT, 2025; Startup Genome, 2025). These ventures have generated over 1 million jobs in just five years, reflecting their growing impact on employment and GDP (Economic Survey of India, 2024). Yet, alongside their growth, startups face persistent challenges in talent acquisition. Unlike large corporations with established HR infrastructures and brand equity, startups typically operate with constrained resources, limited visibility, and an urgent need for quality hires. This makes recruitment a critical and complex function.

Globally, recruitment has shifted online. Over 70% of job seekers now begin their employment search on digital platforms, and more than 80% of companies use these platforms to source candidates (Statista, 2024; LinkedIn Hiring Insights, 2024). In India, platforms such as Naukri, LinkedIn, Indeed, Foundit (formerly Monster), and Shine handle millions of job postings and applications monthly. While these tools have proven effective for large enterprises, they often fall short for startups. Many early-stage ventures report challenges such as irrelevant applications, high cost-per-hire, and inadequate role-specific filtering features (Nasscom, 2023).

Compounding the issue is the rise of AI-driven recruitment technologies—such as resume parsing, predictive candidate matching, and smart screening tools—which remain underutilized by start-ups due to affordability and adoption barriers (Deloitte Human Capital Report, 2025). Furthermore, most job portals are not optimized for start-up-specific needs like flexible or hybrid roles, equity-based compensation, or cultural fit algorithms.

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Despite these limitations, digital recruitment continues to be the default approach. A significant portion of global firms (45%) have already integrated AI tools into hiring, further highlighting the widening gap between well-resourced firms and start-ups in digital recruitment capabilities (Deloitte, 2025). In India, over 62% of startups report difficulty in hiring skilled talent, with job portals often falling short in offering tailored support (Nasscom Startup Report, 2023).

Given this context, it is essential to examine how Indian start-ups engage with job portals, the obstacles they face, and the extent to which these platforms meet their evolving hiring needs. While existing studies tend to focus on job seekers' behaviour or platform usability, there is limited research examining start-ups as users—especially within emerging economies like India.

This study addresses that gap by investigating the recruitment experiences of Indian start-ups through job portals. It aims to analyse their usage patterns, satisfaction levels, and expectations, while offering strategic recommendations to enhance the effectiveness of digital recruitment tools for the start-up ecosystem.

## 2 | OBJECTIVES OF THE RESEARCH STUDY

The key objectives of this study are as follows:

1. To examine the importance of job portals in the recruitment strategies of Indian start-ups.
2. To identify the services and features offered by job portals that are most relevant to startup hiring.
3. To explore the challenges and limitations faced by start-ups in using job portals for recruitment.
4. To assess gaps between the offerings of digital recruitment platforms and the specific needs of start-ups.
5. To propose recommendations for optimizing job portal design and services to better serve start-ups.

## 3 | RESEARCH METHODOLOGY OF THE STUDY

This research paper adopts an exploratory-cum-descriptive approach, relying entirely on secondary data sources such as academic literature, industry reports, government publications, and job portal insights. The study synthesizes existing findings to examine recruitment practices of start-ups through job portals, focusing on identifying patterns, challenges, and optimization strategies. A conceptual analysis is supported by the framework of Miles (2017) to highlight research gaps and guide future inquiry.

## 4 | REVIEW OF EXISTING LITERATURE

This section critically examines scholarly and industry sources relevant to start-up recruitment practices, particularly focusing on the evolving role of digital job portals. It synthesizes prior findings to establish a conceptual foundation for understanding how these platforms influence hiring strategies, operational efficiency, and talent engagement within emerging businesses.

### 4.1 A Brief Review of Importance of Job Portals for Start-ups' Recruitment

Singh and Thakur (2022) state that start-ups prefer job portals due to their scalability, ease of use, and cost-effectiveness. Deshpande (2021) found that automation tools integrated into job portals significantly reduce the hiring cycle for resource-constrained start-ups. Kapoor and Saxena (2020) emphasize the contribution of job portals to employer branding, a key requirement for start-ups trying to compete with well-known firms. KPMG (2024) found that while job portals are a major hiring channel for over 55% of Indian start-ups, a significant portion of them feel underserved in terms of customizations tailored to their needs. Kohli and Nair (2023) argue that effective use of job portals enhances recruitment turnaround time for start-ups and enables them to compete with larger firms. Ghosh (2024) highlights how job portals help start-ups overcome geographic constraints by reaching candidates across cities. Chaturvedi and Banerjee (2023) observed that platforms like Foundit and CutShort provide a more personalized experience for tech-focused start-ups, improving hiring conversion rates. Ramesh (2022) indicates that job portals help in overcoming biases in hiring by offering pre-assessment tools.

### 4.2 A Brief Review of Job Portals' Services for Start-ups

Rao and Mehta (2023) note that job portals provide AI-driven algorithms that enhance role-specific targeting. However, they also highlight that most platforms do not accommodate start-up-specific compensation models or job role descriptions, thus reducing effectiveness. Patel and Iyer (2022) found that job portals offering API integration, applicant tracking systems, and candidate shortlisting based on cultural alignment were better suited for start-up

recruitment processes. Mukherjee and Lobo (2022) emphasize that chatbots and AI-based filtering systems have proven useful for start-ups with minimal HR teams. Batra (2021) suggests that platform-level analytics help founders monitor hiring metrics and decision-making. Srinivasan and Prakash (2023) observed that some portals now include gig roles and contract positions suited to start-up dynamics. Dhawan (2022) highlights the increasing use of start-up job portals like AngelList and Internshala tailored for start-up-specific hiring. Khanna and Verghese (2021) suggest integration with social media platforms enhances visibility and reach for start-ups.

**4.3 A Brief Review of Recruitment in Start-ups through Job Portals**

Sharma and Bansal (2021) explain that start-ups use job portals as their primary means of attracting applicants due to lower marketing budgets. However, the quality of applicants can be inconsistent due to poor filtering mechanisms. Mitra and Jain (2023) observed that Indian start-ups rely on portals like LinkedIn for sourcing experienced professionals and Foundit or Naukri for entry-level and operational roles. They also stress the importance of responsive platform support and job analytics for improving recruitment outcomes. Bhatt and Reddy (2020) found that early-stage start-ups prefer free or low-cost listings and often depend on job portal trials. Taneja (2022) noted that many start-ups combine job portals with referral strategies to boost candidate quality. Joshi and Agrawal (2023) noted the emergence of role-specific micro-hiring through niche platforms. Mahajan and Desai (2024) highlight the use of start-up accelerator-based job boards. Saxena (2022) discusses how funding stages influence recruitment strategies via portals.

**4.4 A Brief Review of Challenges and Limitations**

Choudhury and Kulkarni (2023) report that job seekers often overlook start-up postings due to lack of awareness or skepticism about start-up longevity. This adds pressure on start-ups to present compelling value propositions through their job listings. In contrast, Roy (2024) argues that many job portals are evolving to cater to start-ups by offering remote-first job filters, micro-internships, and gig-based project roles. However, their adoption remains uneven. Verma and Sen (2023) note that start-ups often lack access to advanced recruitment features unless they subscribe to premium packages, which may be unaffordable. Malhotra (2021) highlights that start-ups face difficulty in tracking application pipelines due to inadequate dashboard tools in some portals. Bhattacharya (2023) finds that platform algorithms often prioritize high-paying jobs, pushing start-up listings to lower visibility. Pillai and D’Silva (2024) argue that inconsistent user experiences across devices hinder recruitment outcomes. Kumar and Rajan (2022) suggest start-ups need on boarding support to leverage platform tools effectively.

**5 | RESEARCH GAP IDENTIFICATION**

Despite a growing body of literature on online recruitment and job portal usage, there remains a significant disconnect when it comes to understanding how start-ups—especially in emerging economies like India—leverage these platforms. While much attention has been given to large organizations and job seekers, start-ups face unique challenges that have not been adequately explored or addressed. Guided by the typology of research gaps proposed by Miles et al. (2017), the following table systematically categorizes the key research voids identified through the literature review, thereby justifying the need for the present conceptual and exploratory study.

**Table No.-01: Research Gaps Identified Based on Literature Review and Miles’ (2017) Typology**

Sr. No.	Type of Gap (Miles, 2017)	Identified Gap	Explanation / Observation	Implication for Study
01	Empirical Gap	Limited empirical studies focused on how startups, specifically in India, utilize job portals.	Existing studies often focus on job seekers or large corporations, not on start-up-specific recruitment practices.	This study addresses the lack of data-driven understanding of start-ups’ recruitment behaviour through portals.
02	Theoretical Gap	Inadequate theoretical frameworks explaining digital hiring dynamics in start-up environments.	Few models / frameworks incorporate start-up constraints (e.g. agility, funding, brand equity) in online recruitment theories.	Proposes a contextualized conceptual model or strategic framework tailored to startup recruitment.
03	Methodological Gap	Overreliance on quantitative surveys without exploratory or case-based insight.	Most research lacks qualitative depth or secondary data triangulation to explore the ‘how’ and ‘why’ of platform-based hiring.	This study uses a conceptual and exploratory methodology based on secondary data review.

04	Population Gap	Underrepresentation of early-stage and tech-based startups in recruitment studies.	Literature tends to generalize startup behavior, ignoring sector-specific or lifecycle-specific differences in recruitment.	Study focuses on Indian startups, particularly early-stage ventures across various sectors.
05	Practical Gap	Misalignment between job portal services and start-up-specific recruitment needs (e.g., flexible roles, gig talent, low-cost hiring).	Job portals offer standardized features, often missing customization for start-ups' fast-evolving and resource-lean requirements.	Findings aim to guide job portals to better serve startups and propose optimization strategies.

This table identifies five distinct areas where gaps exist between what has been researched and what remains unexplored in the context of start-up recruitment through job portals. These gaps were uncovered through an extensive review of literature and categorized as per Miles et al.'s (2017) framework, viz., The empirical gap shows a lack of data focused on start-ups' unique use of digital hiring platforms; The theoretical gap highlights the absence of tailored frameworks that explain start-up-specific recruitment behaviour; The methodological gap reveals a need for more exploratory and conceptual research, moving beyond standard survey-based methods; The population gap shows that early-stage start-ups are not adequately represented in prior research, and, finally, the practical gap underscores real-world issues start-ups face in using job portals — a gap between what's offered and what's needed. This tabular analysis helps set the foundation for a conceptual and exploratory study, which this research aims to fill and which is further presented in this paper, providing the base for drawing the implications to the relevant stakeholders.

## 6 | AN OVERVIEW OF THE EMPLOYMENT OPPORTUNITIES AND RECRUITMENT STRATEGIES OF START-UPS

### 6.1 A Brief Review of Employment Opportunities in Start-ups

Start-ups are newly established business ventures that aim to introduce innovative products or services, often characterized by rapid scalability and market disruption. A defining trait of start-ups is their potential for high growth, achieved by expanding production and sales swiftly without proportionately increasing operational expenditure. The start-up environment is typically dynamic, technology-driven, and youth-centric, with a strong emphasis on modern, digital approaches to problem-solving. This ecosystem thrives on the contributions of young talent, which plays a pivotal role in driving creativity, agility, and technological innovation.

In India, the Start-up India Initiative, launched in 2016, has significantly reshaped the entrepreneurial landscape. Focused on promoting innovation, self-reliance, and job creation, the initiative has catalysed the growth of start-ups across more than 55 industries. As of 2024, it has contributed to the creation of over 16.6 lakh jobs, positioning itself as a major engine of economic growth and a critical driver of the country's broader development agenda (TICE News, 2024).

According to the Ministry of Finance's 2024 analysis, India has over 114,000 registered start-ups, which have collectively generated more than 1.2 million direct employment opportunities. Despite facing substantial global challenges in 2023—including declining valuations, limited IPO activity, regulatory uncertainties, and broader macroeconomic and geopolitical turbulence—India has retained its global standing as the third-largest tech-driven start-up ecosystem. Notably, more than 950 new tech start-ups were founded in India in 2023 alone, reflecting the sector's resilience and adaptability in uncertain times (The Economic Times, 2024).

Furthermore, Indian start-ups have created over 15.5 lakh direct jobs, making significant contributions across sectors such as technology, e-commerce, and healthcare. While this expansion has been instrumental in driving innovation and skill development, it also brings to the forefront the need to address emerging concerns within the gig economy, particularly regarding fair labour practices. As start-ups increasingly depend on gig workers and platform-based services, maintaining a balance between growth and equitable treatment becomes imperative (NC42.com, 2024).

Startups today represent one of the most influential engines of employment in India, particularly within the tech and digital ecosystems. According to the Economic Survey of India (2024), over one million direct jobs have been created by startups in the past five years, underscoring their growing impact on national employment patterns. As of 2025,

more than 117,000 DPIIT-recognized start-ups operate across 700+ districts, extending their reach well beyond metro cities and deeply into Tier-II and Tier-III regions (DPIIT, 2025).

These ventures span diverse and rapidly evolving sectors such as fintech, edtech, healthtech, agritech, SaaS, logistics, and electric vehicles (EVs)—each contributing uniquely to the employment ecosystem (Start-up India Report, 2024). Start-ups have also played a critical role in expanding flexible work arrangements, including remote work, hybrid models, and freelance engagements, which support a growing demand for work-life balance and location-independent opportunities (Deloitte, 2025; Nasscom, 2023).

The start-up workforce is predominantly composed of young professionals aged 21–35, many of whom recent graduates are entering the job market for the first time (LinkedIn Hiring Insights, 2024). Concurrently, the growth of data and digital technologies has fueled high demand for skilled tech talent, particularly in domains such as artificial intelligence (AI), machine learning (ML), data science, cloud computing, UX/UI design, and full-stack development (Start-up Genome, 2025; Statista, 2024).

### 6.2 A Brief Review of Recruitment Strategies to Hire Employees for Start-Ups

Start-ups in India operate in fast-paced, resource-constrained environments that demand agile and cost-effective recruitment approaches. Unlike established corporations with dedicated HR departments and robust employer brands, start-ups face several inherent challenges, including limited financial capital, lack of brand recognition, and fierce competition for skilled talent. To overcome these barriers, they have adopted a mix of traditional and innovative strategies tailored to their unique context as mentioned in the Table No. 02:

**Table No.-02: Summary of Recruitment Strategies Adopted by Start-ups in India**

Sr. No.	Recruitment Strategy	Description
1	Leveraging Digital Job Portals	Startups use LinkedIn, Naukri, Indeed, and AngelList to post jobs affordably using filters and freemium plans (LinkedIn Hiring Insights, 2024; Nasscom, 2023).
2	Employee Referrals and Internal Networks	Founders use personal networks and referrals to hire cost-effectively with faster onboarding (Deloitte, 2025).
3	Social Media Recruitment	LinkedIn, Instagram, and X help startups engage passive talent and build brand visibility (Startup Genome, 2025).
4	Campus Hiring and Internship Programs	Startups collaborate with institutes and bootcamps for hiring freshers and interns (DPIIT, 2025; Nasscom, 2023).
5	Freelancers and Gig Economy Engagement	Hiring freelancers via Upwork or Fiverr offers skill flexibility and lower commitment (Economic Survey of India, 2024).
6	Hackathons and Skill-Based Challenges	Coding contests and hackathons test real-time skills and attract problem-solvers (Nasscom, 2023).
7	Recruitment through Startup Ecosystems	Startups hire via incubators and founder networks to find entrepreneurial talent (Startup Genome, 2025).
8	Remote and Hybrid Work Models	Post-COVID, startups hire remotely for access to diverse talent across geographies (Deloitte, 2025).
9	Equity-Based Compensation	Stock options and flexibility appeal to talent seeking long-term growth (Deloitte, 2025).
10	Adoption of Recruitment Technology	Startups adopt ATS and AI tools to streamline hiring despite budget barriers (Deloitte Human Capital Report, 2025).

Start-ups in India employ a range of flexible and cost-effective recruitment strategies to overcome limited resources and compete for talent. From digital job portals and referrals to remote hiring and tech-driven tools, these approaches help them attract suitable candidates efficiently in a dynamic start-up ecosystem.

## 7 | SIGNIFICANCE OF JOB PORTALS IN ENHANCING STARTUP RECRUITMENT EFFICIENCY

Job portals have become indispensable tools for start-ups aiming to streamline recruitment processes, reduce costs, and access a wider talent pool. For start-ups that often lack brand visibility and operational scale compared to established firms, digital job portals offer a cost-efficient gateway to qualified candidates across geographic and demographic boundaries. These platforms provide features such as keyword-based search algorithms, AI-powered

resume screening, and integrated assessment tools, enabling start-ups to identify suitable candidates swiftly and with greater precision (LinkedIn Hiring Insights, 2024).

Additionally, job portals assist in strengthening a start-up’s employer brand. Customized company profiles, employee testimonials, and visual storytelling tools allow even lesser-known start-ups to establish a compelling digital presence. Platforms like LinkedIn and Naukri now offer start-up-specific solutions—including filters for remote roles, culture-fit algorithms, and internship-targeted listings— that cater to the dynamic and flexible workforce models adopted by start-ups (Deloitte, 2025).

The digital nature of these platforms also promotes flexibility by supporting asynchronous communication, virtual interviews, and remote on boarding—elements particularly vital for the fast- paced and resource-constrained environment of early-stage ventures (Deloitte Human Capital Report, 2025). However, challenges persist. Start-ups often struggle with limited visibility on these platforms, where algorithms may favour well-known corporations, leading to reduced traction among job seekers (Nasscom, 2023; Kapoor & Saxena, 2020). This highlights the need for better optimization strategies to improve discoverability and relevance for start-ups.

Despite certain limitations, job portals remain vital to start-up recruitment due to their cost-effectiveness, access to diverse talent pools, and efficient hiring tools (LinkedIn Hiring Insights, 2024; Business Standard, 2025). They enable start-ups to reach candidates across locations, use AI-driven filters for faster hiring, and build a strong employer brand (Ghosh, 2024; Kohli & Nair, 2023). Many portals also offer integrated services such as resume screening, assessments, and on boarding (The Hartford, 2024). In the post-pandemic era, their support for remote and hybrid hiring further enhances their relevance for agile, resource-constrained start-ups (Ramesh, 2022; Chaturvedi & Banerjee, 2023).

## 8 | LEVERAGING JOB PORTALS FOR STARTUP RECRUITMENT: INNOVATIONS, PLATFORMS AND APPLICATIONS

In the competitive and fast-paced environment of startup hiring, job portals have emerged as indispensable tools. They offer scalable, digital solutions that align with the agility, resource constraints, and evolving talent needs of startups (DPIIT, 2025; Startup Genome, 2025). From sourcing to onboarding, these platforms help bridge critical recruitment gaps, offering customized features tailored to the startup ecosystem (Rao & Mehta, 2023; Dhawan, 2022).

### 8.1 Start-up-Focused Innovations Offered by Job Portals

Job portals have evolved to meet the specialized needs of startups, offering a suite of innovative tools that streamline hiring, reduce operational load, and enable smarter recruitment decisions (The Hartford, 2024). These features not only simplify talent acquisition but also enhance employer branding and retention potential (Kapoor & Saxena, 2020; Singh & Thakur, 2022).

#### 8.1.1 Key Innovations and Features Supporting Start-up Hiring

In the competitive startup ecosystem, digital job portals have evolved to offer more than just job listings. They now provide a suite of intelligent tools and innovative features tailored to the specific needs of early-stage ventures. These capabilities help startups optimize their limited resources, enhance recruitment quality, and build strong employer brands (Mitra & Jain, 2023; Patel & Iyer, 2022). Below are key innovations embedded in leading job portals that are particularly beneficial for startup hiring:

**Table No.-03: Key Job Portal Innovations Enhancing Start-up Recruitment Efficiency**

Sr. No.	Feature	Brief Description
1	Talent Sourcing Integrations	Connectivity with social platforms and referral-based features helps broaden outreach, especially valuable for lean HR teams (The Hartford, 2024).
2	Legal and Compliance Support	Many portals offer pre-built contract templates, hiring policy guidelines, and automated background verification tools (ibid)
3	Assessment and Interview Tools	Platforms include technical assessments, soft skill tests, and psychometric evaluations to help startups pre-screen candidates effectively (ibid).
4	Onboarding Management Tools	Startups benefit from digital onboarding features such as pre-hire communication, document uploads, and training modules (ibid)

5	Brand Storytelling and Culture Fit Tools	Job portals allow startups to project their culture through visual branding, employee engagement dashboards, and mission-alignment features (ibid).
6	Recruitment Analytics	Portals offer real-time dashboards, conversion tracking, and hiring trend analytics to help startups make data-informed decisions (ibid).

In brief, these platform-specific innovations address critical recruitment challenges faced by start-ups, ranging from candidate sourcing to on boarding. By leveraging such tools—including integrated assessments, culture-fit analytics, and on boarding features—start-ups can improve operational efficiency, attract skilled talent, and build adaptive hiring systems aligned with their rapid growth trajectories (The Hartford, 2024; Deloitte Human Capital Report, 2025; Mitra & Jain, 2023).

### 8.2 Emerging Digital Platforms Catering to Start-ups

Several dedicated job portals now focus exclusively on the startup and tech ecosystem. Unlike traditional job boards, these platforms offer features specifically tailored to agile hiring needs, remote work models, and early-stage employer branding (Dhawan, 2022; Medium, 2024; Rao & Mehta, 2023). Their curated candidate pools, cost-effective listings, and startup-centric filters provide a competitive edge for new ventures looking to scale efficiently in a dynamic recruitment landscape.

**Table No.-04: Table Showing Overview of Notable Start-up-Oriented Job Portals**

Sr. No.	Platform	Description
1	Built In	A platform focused on tech startups, Built In combines curated job listings with a startup-centric community, news, and events (Medium, 2024).
2	Cut Short	Featuring over 2 million professionals, it uses AI to streamline referrals and career discovery while matching startups with top-tier talent (ibid).
3	Start Uppers	Known for simplicity and free postings, Start Uppers offers live search results and niche listings ideal for discovering lesser-known opportunities (ibid).
4	We Work Remotely	With millions of monthly users, it offers a remote-first job board for startups seeking global talent in tech and design roles (ibid).
5	Hired	Popular among companies like GitHub and Forbes, Hired matches candidates using skill-based questionnaires and profiling (ibid).

The rise of start-up-focused digital job platforms reflects a strategic shift in how early-stage ventures approach hiring. Unlike traditional job boards, platforms such as Built In and Cut Short offer curated ecosystems that integrate employer branding, AI-driven talent matching, and remote-first opportunities—key traits aligned with the dynamic and resource-constrained nature of start-ups (Medium, 2024; Rao & Mehta, 2023). While mainstream portals like Naukri or LinkedIn offer scale, these niche platforms provide depth, agility, and targeted engagement with start-up-savvy talent (Dhawan, 2022; Patel & Iyer, 2022). Start-ups that leverage such specialized portals can gain a competitive edge in sourcing mission-aligned candidates, while optimizing recruitment speed, cost, and cultural fit (Start-up Genome, 2025; Nasscom, 2023).

### 8.3 A Brief Review of Current Usage Trends of Job Portals Among Indian Startups

In India, startups are increasingly turning to job portals as strategic hiring tools. As reported by *Business Standard* (2025), platforms like Naukri, LinkedIn, and Cut Short play a vital role in helping startups fill skill gaps, scale quickly, and navigate remote and hybrid hiring models. However, challenges such as candidate filtering, subscription costs, and employee retention persist.

#### 8.3.1 Advantages of Using Job Portals in the Start-up Ecosystem

Start-ups often operate in highly dynamic environments with limited human and financial resources, making efficient hiring practices a strategic priority (Deloitte Human Capital Report, 2025; Nasscom, 2023). Job portals have emerged as powerful enablers, offering start-ups a structured and accessible means of connecting with potential candidates (Kapoor & Saxena, 2020; Singh & Thakur, 2022). By leveraging technology and digital networks, these platforms help start-ups streamline recruitment, enhance visibility, and compete with larger firms for talent (LinkedIn Hiring Insights, 2024; KPMG, 2024). The following table highlights the key advantages that job portals offer to start-ups. These benefits not only improve the efficiency of recruitment but also align with the evolving needs of the startup ecosystem, especially in a post-pandemic world where flexibility, scalability, and speed have become essential.

**Table No.-05: Table Showing Key Advantages of Job Portals in Start-up Hiring**

Sr. No.	Platform	Description
1	Cost-Effectiveness	Budget-friendly or freemium job listings are suited to startups with limited resources (Business Standard, 2025).
2	Large Talent Pool Access	Thousands of active and passive job seekers can be accessed instantly, widening the recruitment funnel (ibid).
3	Speed and Accuracy in Hiring	AI-based resume filtering, smart matching, and one-click interview scheduling reduce time-to-hire (ibid).
4	Enhanced Employer Branding	Job portals enable startups to highlight workplace culture, career growth, and team ethos, creating stronger employer value propositions (ibid).
5	Centralized Hiring Tools	Assessment, screening, onboarding, and compliance features are often bundled within platforms, eliminating the need for separate HR software (ibid).
6	Flexibility for Modern Work Models	Platforms cater to remote, hybrid, contract, and freelance roles—crucial for startups operating with fluid workforce models (ibid).

In brief, job portals offer start-ups an affordable, efficient, and scalable approach to recruitment (Deloitte, 2025; Nasscom, 2023). They provide access to diverse talent, enhance employer branding, and streamline hiring processes through features like AI-driven filters, assessment tools, and remote onboarding capabilities (LinkedIn Hiring Insights, 2024; Kapoor & Saxena, 2020). By leveraging these digital platforms, start-ups can effectively compete for top talent and build agile teams suited to today’s dynamic work environment (KPMG, 2024; Singh & Thakur, 2022).

## 9 | CHALLENGES FACED BY THE START-UPS IN USING JOB PORTALS

Start-ups often struggle to compete with larger companies that offer higher salaries and better benefits, making it challenging to attract and retain top talent (KPMG, 2024; Choudhury & Kulkarni, 2023). Additionally, the influx of unqualified applications from job portals slows down the recruitment process and burdens lean HR teams (Rao & Mehta, 2023). Limited financial resources further restrict startups from using premium visibility tools or advanced features offered by job platforms (Verma & Sen, 2023). However, emerging trends in recruitment offer promising alternatives. AI-powered solutions are increasingly helping startups automate candidate screening and improve match quality (Mukherjee & Lobo, 2022). Social media hiring through platforms like LinkedIn and X supports real-time engagement and employer branding (Startup Genome, 2025). The gig economy, driven by platforms such as Fiverr and Upwork, provides startups with affordable, flexible workforce options for short-term or specialized roles (Economic Survey of India, 2024).

Despite their value, job portals alone cannot fulfill all recruitment needs. A balanced strategy incorporating employee referrals, direct networking, and partnerships with academic institutions is essential for sustainable talent acquisition and long-term organizational success (Deloitte, 2025; Saxena, 2022).

## 10 | IMPLICATIONS FOR STAKEHOLDERS IN THE STARTUP RECRUITMENT ECOSYSTEM

The rapid growth of the Indian start-up ecosystem has led to a significant shift in employment trends, driven by digital recruitment tools and dynamic workforce preferences (DPIIT, 2025; Startup Genome, 2025). The findings of this study reveal that while job portals are playing an increasingly vital role in facilitating start-up hiring, challenges such as platform limitations, cost barriers, and talent mismatch persist (Nasscom, 2023; Deloitte Human Capital Report, 2025). These insights bear important implications for the key stakeholders in this ecosystem: job seekers aspiring to work in startups, job portal service providers, and start-up organizations themselves (KPMG, 2024; Kapoor & Saxena, 2020).

### A. Implications for Job Seekers in Start-ups

- **Enhanced Access and Visibility:** Startups provide a diverse range of opportunities across sectors like fintech, edtech, and healthtech, and job portals offer a direct path to these roles. Candidates must ensure their profiles are optimized with keywords, updated skills, and tailored resumes to increase visibility through AI-based screening tools (LinkedIn Hiring Insights, 2024).

- **Cultural Fit and Flexibility Awareness:** Job seekers must recognize that startup roles often prioritize adaptability, creativity, and alignment with mission-driven goals. Those open to hybrid, freelance, or equity-based roles can better position themselves by indicating such preferences during the application process (Deloitte Human Capital Report, 2025).
- **Digital Literacy and Continuous Upskilling:** To remain competitive in startup hiring funnels, job seekers need to be adept with digital platforms and familiar with tech-enabled recruitment practices. Upskilling in areas like UI/UX, data analytics, and remote collaboration tools increases hiring prospects (Statista, 2024).
- **Expectation Management:** Given the often fluid structure and unpredictable nature of startups, applicants should approach recruitment with realistic expectations regarding job security, organizational structure, and remuneration—while leveraging the opportunity for steep learning curves and accelerated growth (Ghosh, 2024; Kohli & Nair, 2023).

## B. Implications for Job Portals

- **Need for Startup-Specific Customization:** As the study highlights, startups are underserved by one-size-fits-all recruitment features. Job portals must introduce tools that align with startup hiring, such as shortlisting by entrepreneurial mindset, flexibility filters, and ESOP-focused compensation indicators (Nasscom, 2023).
- **Affordable Pricing Models:** To remain inclusive for early-stage ventures, portals should explore pricing flexibility—such as pay-per-applicant or usage-based models—that lower entry barriers for startups operating under tight budgets (Business Standard, 2025).
- **Improved Candidate Matching Algorithms:** AI-driven tools must be refined to reduce irrelevant applications, which overwhelm lean startup HR teams. Skill-specific filters, cultural fit predictors, and pre-assessment integration can improve candidate-job alignment and satisfaction (Deloitte, 2025).
- **Employer Branding Support for Startups:** Platforms should offer intuitive templates and storytelling features to help lesser-known startups build their employer brand through multimedia, testimonials, and interactive company pages (LinkedIn Hiring Insights, 2024).
- **Integration with Gig and Remote Work Ecosystems:** As startups increasingly rely on freelancers and remote staff, portals must integrate with platforms like Upwork or enable modules for short-term hiring, task-based roles, and remote-ready assessments (Startup Genome, 2025).

## C. Implications for Start-up Organizations

- **Strategic Use of Digital Tools:** Startups must adopt a hybrid recruitment strategy—combining job portal features with employee referrals, academic partnerships, and startup ecosystem networks—to widen reach and improve talent quality (Mitra & Jain, 2023).
- **Investment in Employer Branding:** Even with limited funds, startups must actively communicate their values, growth vision, and team culture. Leveraging storytelling tools on job portals can increase their visibility and appeal to like-minded candidates (Kapoor & Saxena, 2020).
- **Data-Driven Decision Making:** Recruitment analytics—offered by portals—should be utilized to measure hiring performance, track conversion rates, and identify bottlenecks. Data-backed hiring strategies will lead to better candidate fit and retention (Batra, 2021).
- **Adaptability to Changing Trends:** With the rise of gig work, remote-first roles, and digital collaboration, startups need to align their job descriptions and expectations accordingly. Designing roles with flexibility and growth potential can attract top-tier, self-motivated talent (Srinivasan & Prakash, 2023).
- **Onboarding and Retention Initiatives:** Once hired, effective onboarding and continuous engagement strategies are critical. Startups should leverage tools that facilitate digital onboarding and create personalized paths for career development to reduce attrition (Deloitte, 2025).

## D. Other Stakeholders

- **For Policymakers and Regulatory Bodies:** Government support through initiatives like Startup India has already catalyzed significant growth in the Indian startup sector, with over 117,000 registered startups as of 2025 (DPIIT, 2025). However, targeted policies that promote digital hiring inclusivity—such as subsidized access to job portal services, funding for HR tech adoption, and promotion of startup visibility on national employment platforms—

can further enhance employment outcomes. Encouraging public-private partnerships between job portal companies and startup incubators could also help in creating more tailored recruitment ecosystems.

- **For Academic Institutions and Training Bodies:** With startups increasingly engaging in campus hiring and internship-to-hire models (Nasscom, 2023), educational institutions should align curricula with industry needs. Providing exposure to startup environments, soft skill development, and basic HR tech training can better prepare students for the flexible and dynamic nature of startup roles. Collaboration between institutions and job portal providers to facilitate campus placements and offer access to internship platforms like Internshala or CutShort can improve employment readiness among fresh graduates.
- **For Researchers and Academicians:** This study identifies a clear research gap in understanding how startups interact with digital hiring platforms, especially in the Indian context. Future research can explore comparative effectiveness between different job portal models, longitudinal impacts of platform usage on hiring outcomes, and the role of AI in inclusive recruitment. Cross-sectoral studies can also uncover best practices that can be adapted by startups from larger corporations without compromising agility.

## 11 | CONCLUDING REMARKS

The Indian start-up ecosystem continues to scale rapidly, contributing significantly to national employment and innovation. However, the recruitment landscape remains complex and competitive, especially for startups operating with lean resources. While digital job portals offer a scalable, cost-effective solution for talent acquisition, startups often encounter issues such as low visibility, limited relevance of applicants, and inadequate customization for their unique needs.

This study emphasizes that job portals, when optimized with AI tools, branding features, and flexible hiring options, can greatly enhance recruitment efficiency for start-ups. Simultaneously, start-ups must adopt hybrid strategies—blending portal use with referrals, institutional partnerships, and proactive employer branding—to attract and retain quality talent. The insights derived from this paper have important implications for policy makers, HR practitioners, platform developers, and job seekers aiming to thrive in India's fast-evolving start-up job market. As the digital hiring space continues to mature, a more inclusive, start-up-sensitive approach is essential to ensure long-term workforce scalability and competitiveness.

## REFERENCES

- Batra, R. (2021). Startup hiring trends in India. *HR Tech Journal*, 15(3), 45–58.
- Bhattacharya, M. (2023). Platform limitations in startup hiring: A visibility dilemma. *Indian Journal of Management and Innovation*, 18(2), 112–119.
- Bhatt, A., & Reddy, K. (2020). Cost-efficient recruitment in early-stage startups. *StartUp Review India*, 5(1), 67–75.
- Chaturvedi, R., & Banerjee, T. (2023). Personalized hiring for tech startups: Role of CutShort and Foundit. *Tech and Talent Quarterly*, 7(2), 89–97.
- Choudhury, A., & Kulkarni, V. (2023). Barriers in digital recruitment for startups. *Asia-Pacific HR Review*, 21(4), 201–210.
- Deloitte. (2025). Human Capital Trends in India's Startups. Deloitte Insights. Retrieved from <https://www2.deloitte.com>
- DPIIT. (2025). Startup India Annual Report. Department for Promotion of Industry and Internal Trade. <https://dpiit.gov.in>
- Economic Survey of India. (2024). Employment and Innovation in Startups. Ministry of Finance, Government of India.
- Ghosh, R. (2024). Navigating startup recruitment: The candidate's perspective. *HRM Research Journal*, 12(1), 34–42.
- Hiring Trends in Indian Startups. (2025). Business Standard. Retrieved from <https://www.business-standard.com>
- Joshi, N., & Agrawal, P. (2023). Micro-hiring and role-based recruitment in tech startups. *Journal of Entrepreneurship and Digital Strategy*, 10(1), 55–61.
- Kapoor, R., & Saxena, M. (2020). The employer branding challenge in startups. *Indian Journal of Human Resources*, 14(3), 99–107.
- Khanna, S., & Verghese, L. (2021). Role of social integration in startup hiring. *Global Recruitment Perspectives*, 6(2), 78–85.



- Kohli, S., & Nair, M. (2023). Improving recruitment turnaround time in startups. *Asia HR Research Review*, 11(2), 144–153.
- KPMG. (2024). *India Startup Talent Report*. Retrieved from <https://home.kpmg/in>
- Kumar, A., & Rajan, H. (2022). Onboarding support and digital hiring challenges. *HR Future India*, 13(1), 59–66.
- LinkedIn Hiring Insights. (2024). *Startup Hiring Trends India 2024*. LinkedIn Talent Solutions. <https://business.linkedin.com/talent-solutions>
- Mahajan, R., & Desai, V. (2024). Recruitment through accelerator job boards. *Entrepreneurial Networks Review*, 8(1), 40–48.
- Malhotra, N. (2021). Recruitment dashboard challenges in job portals. *Digital Talent Review*, 9(4), 89–93.
- Medium. (2024). Top 10 Startup Job Portals. Retrieved from [https://medium.com/@iam\\_yashpradhan/top-10-startup-job-portals-8a7aa7a6b7fb](https://medium.com/@iam_yashpradhan/top-10-startup-job-portals-8a7aa7a6b7fb)
- Mitra, S., & Jain, K. (2023). Role of digital platforms in startup hiring. *TechTalent India*, 10(2), 78–86.
- Mukherjee, A., & Lobo, J. (2022). AI-based recruitment tools in early-stage ventures. *Journal of Applied Human Capital*, 5(3), 61–70.
- Nasscom. (2023). *Startup Hiring Report: India's Talent Landscape*. <https://nasscom.in>
- Patel, D., & Iyer, S. (2022). Recruitment tools and applicant tracking systems. *Indian HR Tech Digest*, 7(1), 91–97.
- Pillai, R., & D'Silva, M. (2024). User experience gaps in startup recruitment platforms. *UX Research and Design*, 11(1), 55–64.
- Ramesh, A. (2022). Bias reduction in digital hiring. *Equality in Employment Review*, 4(2), 44–52.
- Rao, S., & Mehta, K. (2023). Role of AI and APIs in modern recruitment. *Talent Tech India*, 15(2), 101–109.
- Roy, T. (2024). Future of remote hiring and gig roles. *Workforce Today*, 12(3), 99–106.
- Saxena, V. (2022). Funding stage and recruitment strategy correlation. *Startup Economics Review*, 9(4), 89–96.
- Sharma, D., & Bansal, P. (2021). Primary role of job portals in startup hiring. *Startup HR Trends Quarterly*, 6(3), 52–60.
- Singh, A., & Thakur, K. (2022). Startup recruitment preferences in the Indian ecosystem. *Management Innovations Journal*, 8(1), 34–41.
- Srinivasan, S., & Prakash, D. (2023). Flexible recruitment in startup platforms. *Contemporary Hiring Review*, 10(1), 77–85.
- Startup Genome. (2025). *Global Startup Ecosystem Report*. Retrieved from <https://startupgenome.com>
- Statista. (2024). *Online Job Search Statistics*. <https://www.statista.com/statistics/jobsearch/india>
- Taneja, R. (2022). Role of referrals in enhancing startup hiring quality. *Journal of Practical Talent Acquisition*, 6(2), 69–74.
- The Hartford. (2024). *Startup Hiring Innovations and Tools*. Retrieved from <https://www.thehartford.com>
- Verma, Y., & Sen, A. (2023). Premium features and affordability gaps in recruitment. *Hiring Economics India*, 13(2), 103–112.

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# Integration of Indian Knowledge System with Artificial Intelligence

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**Abstract:** The Indian Knowledge System (IKS), a repository of India's civilizational ethos, scientific ingenuity, philosophical depth, and artistic creativity, has evolved over millennia. The advent of Artificial Intelligence (AI) presents a transformative opportunity to synergize this ancient wisdom with modern technology, revitalizing and globalizing traditional knowledge. This essay explores the theoretical and practical interfaces of IKS and AI, their potential to drive innovation, contemporary applications, ethical considerations, and a strategic roadmap for interdisciplinary collaboration. By harmonizing IKS with AI, India can preserve its cultural heritage while fostering ground-breaking advancements in healthcare, education, linguistics, philosophy, and environmental sustainability, positioning itself as a global leader in value-driven innovation.

**Keywords:** IKS, Indian Knowledge System, AI, Artificial Intelligence

## 1 | INTRODUCTION

India's rich tapestry of knowledge, woven through centuries of intellectual, spiritual, and artistic contributions, forms the Indian Knowledge System (IKS). This dynamic and holistic framework encompasses Vedic sciences, such as mathematics, astronomy, and linguistics, alongside Ayurveda's medicinal wisdom, yoga's spiritual practices, classical literature, arts, music, and philosophical traditions like Nyaya, Vedanta, and Buddhism. Unlike static repositories, IKS adapts to its environment, addressing material, psychological, and spiritual dimensions of human life. In parallel, Artificial Intelligence (AI), with its capacity to simulate human intelligence through machine learning, natural language processing, computer vision, robotics, and expert systems, has reshaped modern society. From healthcare to education, AI's applications are vast and transformative. The convergence of IKS and AI offers a unique opportunity to preserve and modernize India's heritage while addressing contemporary global challenges. This essay delves into the rationale, applications, challenges, and future pathways for this integration, emphasizing its potential to redefine innovation through a culturally rooted lens.

## 2 | THE IMPERATIVE FOR INTEGRATION

The integration of IKS with AI transcends technological advancement; it is a civilizational endeavor to preserve and propagate India's intellectual legacy. AI can safeguard ancient manuscripts, scriptures, and oral traditions by digitizing and analyzing them, ensuring their accessibility for future generations. By leveraging natural language processing, AI can translate complex texts in Sanskrit, Prakrit, Tamil, and Pali, making them globally comprehensible. In healthcare, AI's data analytics can enhance Ayurvedic practices by predicting outcomes of herbal formulations or personalizing treatments based on dosha analysis. Similarly, AI's ability to decode layered meanings in Vedic literature or model intricate temple architectures can revitalize India's philosophical and aesthetic traditions. This synergy positions AI as a vehicle for globalizing IKS, making it interactive, relevant, and adaptable to modern contexts while preserving its authenticity.

## 3 | CONTEMPORARY APPLICATIONS

The marriage of IKS and AI is already yielding promising applications across diverse domains. In Ayurveda, machine learning algorithms are revolutionizing disease diagnosis and treatment by analyzing dosha imbalances and predicting patient outcomes. Platforms like NirogStreet and Jiva Ayurveda employ AI to deliver personalized health solutions, blending traditional wisdom with modern precision. In linguistics, natural language processing tools, such as IIT

Kanpur's Samsaadhani, enable accurate Sanskrit-to-English translations and grammatical error detection, while AI-powered chatbots facilitate learning of Indian languages. Text-to-speech synthesis further brings ancient scriptures to life, enhancing accessibility. In yoga and cognitive science, computer vision-driven tools provide real-time posture correction, while AI-guided meditation apps promote mental wellness. The arts benefit from generative AI, which composes music rooted in raga systems and analyzes dance forms like Bharatanatyam and Kathak. In architecture, AI-powered 3D modeling and drone-based imaging preserve ancient monuments, ensuring their digital immortality. These applications demonstrate the transformative potential of integrating IKS with AI, bridging tradition and innovation.

#### **4 | REVOLUTIONIZING EDUCATION AND DISSEMINATION**

Education, a cornerstone of IKS, stands to gain immensely from AI integration. Virtual Gurukuls, powered by virtual reality and AI avatars, offer immersive learning experiences that replicate the traditional Gurukul system. AI tutors, trained on IKS principles, deliver personalized instruction, while gamification of epics like the Mahabharata and Ramayana engages younger audiences. By tailoring learning paths to individual interests and styles, AI ensures that traditional knowledge remains relevant and engaging. These advancements democratize access to IKS, fostering a deeper appreciation of India's cultural heritage among global and domestic audiences.

#### **5 | ETHICAL AND CULTURAL CONSIDERATIONS**

While the integration of IKS and AI holds immense promise, it raises critical ethical and cultural concerns. AI must be designed to preserve the spiritual and cultural integrity of IKS, avoiding distortions of its nuanced meanings. Protecting the intellectual property of indigenous knowledge is paramount, requiring community participation and consent to ensure ethical stewardship. Moreover, AI models must be safeguarded against biases or Westernized interpretations that could misrepresent IKS. A culturally sensitive approach is essential to maintain the authenticity and sanctity of this integration.

#### **6 | CHALLENGES IN SYNERGY**

Despite its potential, integrating IKS with AI faces significant hurdles. The scarcity of digitized and annotated classical texts limits AI's ability to process and analyze IKS content. Interdisciplinary collaboration between technologists and traditional scholars remains limited, hindering the development of contextually accurate AI models. The complexity and contextual nature of Indian philosophy and literature, coupled with linguistic diversity (Sanskrit, Prakrit, Tamil, Pali), pose additional challenges. Overcoming these barriers requires concerted efforts in digitization, collaboration, and capacity building.

#### **7 | CASE STUDIES**

Several initiatives highlight the successful integration of IKS and AI. IIT Kanpur's Samsaadhani project employs natural language processing to detect grammatical errors in Sanskrit texts, advancing linguistic research. The Government of India's Bhashini platform leverages AI to support multilingual communication across Indian languages, fostering inclusivity. Jiva Ayurveda's AI-driven health assessments personalize treatments, blending tradition with technology. Similarly, experimental projects like Vedic AI simulate philosophical discourses based on the Upanishads, offering a glimpse into the future of AI-driven IKS exploration. These case studies underscore the practical viability of this integration.

#### **8 | A ROADMAP FOR THE FUTURE**

To realize the full potential of IKS-AI integration, a strategic roadmap is essential. A National Mission on AI for IKS, under the Ministry of Education or AYUSH, could spearhead research and implementation. Establishing interdisciplinary research centers within institutions like IITs and IIMs, in collaboration with Sanskrit and cultural studies departments, would foster innovation. Creating open-source databases of digitized manuscripts and Ayurvedic texts would accelerate AI-driven analysis. Encouraging startups at the intersection of IKS and AI, alongside training programs for scholars in AI tools and technologists in cultural literacy, would bridge the gap between tradition and technology. These steps would position India as a global leader in culturally rooted innovation.

## 9 | CONCLUSION

The integration of the Indian Knowledge System with Artificial Intelligence represents a profound opportunity to harmonize ancient wisdom with modern technology. By preserving and globalizing India's intellectual heritage, this synergy can drive sustainable innovation, value-based education, and solutions to global challenges. If pursued with ethical rigor and inclusivity, it can position India as a Vishwa Guru by 2047, offering a unique model of technological advancement rooted in timeless knowledge. This fusion not only honors India's past but also charts a visionary path for its future, redefining innovation on a global stage.

## REFERENCES

- Ministry of Education, Indian Knowledge Systems Division
- "Artificial Intelligence in Ayurveda" - Journal of Integrative Medicine
- Samsaadhani Project, IIT Kanpur
- Bhashini Platform, Govt. of India
- NITI Aayog's AI Strategy Report
- UNESCO Archives on Indigenous Knowledge and AI
- Publications from Rashtriya Ayurveda Vidyapeeth
- Interviews with scholars from Banaras Hindu University and IITs

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# भारतीय ज्ञान प्रणाली और कृत्रिम बुद्धिमत्ता का समन्वय: भविष्य के नवाचार की ओर एक मार्ग

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**Abstract:** भारतीय ज्ञान प्रणाली (Indian Knowledge System - IKS) भारत की हजारों वर्षों पुरानी सांस्कृतिक विरासत, वैज्ञानिक दृष्टि, दार्शनिक परंपरा और कलात्मक उत्कर्ष का सजीव दस्तावेज़ है। यह केवल एक स्थिर ज्ञान संकलन नहीं, अपितु एक जीवंत प्रणाली है, जो समय के साथ-साथ स्वयं को परिवर्तित करती रही है। वहीं, आधुनिक युग में कृत्रिम बुद्धिमत्ता (Artificial Intelligence - AI) जैसी तकनीकों का तेजी से विकास हो रहा है, जिसने मानव समाज की संरचना को ही बदलकर रख दिया है। ऐसे में यह विचार अत्यंत महत्वपूर्ण हो गया है कि किस प्रकार हम अपनी पारंपरिक ज्ञान परंपराओं को आधुनिक तकनीक से जोड़कर भविष्य की ओर अग्रसर हो सकते हैं। यह शोध-पत्र इस समन्वय की संभावनाओं, वर्तमान प्रयोगों, नैतिक पहलुओं और भावी दिशा-निर्देशों पर विस्तार से चर्चा करता है।

## 1 | परिचय

भारत का ज्ञान तंत्र हजारों वर्षों में विकसित एक ऐसी व्यापक प्रणाली है, जो भौतिक, मानसिक, और आध्यात्मिक जीवन के सभी पक्षों को समाहित करता है। यह प्रणाली वेदों में वर्णित गणित, ज्योतिष, भाषाविज्ञान, चिकित्सा (आयुर्वेद), योग, दर्शन (न्याय, वेदांत, बौद्ध) तथा संगीत, कला, वास्तुकला और साहित्य जैसी विविध शाखाओं को एक सूत्र में बांधती है। यह एक जीवंत प्रणाली है, जो केवल भूतकाल की उपलब्धियों का संग्रह नहीं, बल्कि वर्तमान की चुनौतियों के उत्तर और भविष्य के निर्माण की दिशा भी प्रदान करती है।

वहीं दूसरी ओर, कृत्रिम बुद्धिमत्ता (AI) वह तकनीक है, जो मशीनों को सोचने, निर्णय लेने और भाषा समझने की क्षमता प्रदान करती है। मशीन लर्निंग, नैचुरल लैंग्वेज प्रोसेसिंग, कंप्यूटर विज्ञान और रोबोटिक्स जैसे क्षेत्रों में एआई ने क्रांतिकारी परिवर्तन लाए हैं। यदि हम भारतीय ज्ञान प्रणाली को एआई के साथ जोड़ सकें, तो न केवल हम अपनी सांस्कृतिक धरोहर को संरक्षित रख सकते हैं, बल्कि वैश्विक स्तर पर नवाचार और विकास में भी अग्रणी बन सकते हैं।

## 2 | समन्वय की आवश्यकता

भारतीय ज्ञान प्रणाली और कृत्रिम बुद्धिमत्ता का समन्वय केवल एक तकनीकी प्रयोग नहीं, बल्कि एक सभ्यतागत प्रयास है। यह ऐसा प्रयास है, जो हमारी बौद्धिक परंपरा को आने वाली पीढ़ियों तक सुरक्षित रखने और उसे आधुनिक संदर्भ में प्रासंगिक बनाने का मार्ग प्रशस्त करता है।

कृत्रिम बुद्धिमत्ता के माध्यम से प्राचीन ग्रंथों, पांडुलिपियों और मौखिक परंपराओं को डिजिटाइज़ कर संरक्षित किया जा सकता है। साथ ही, नैचुरल लैंग्वेज प्रोसेसिंग (NLP) की सहायता से संस्कृत, प्राकृत, पाली और तमिल जैसी भाषाओं के कठिन ग्रंथों का अनुवाद करके वैश्विक दर्शकों के लिए सुलभ बनाया जा सकता है।

आयुर्वेद के क्षेत्र में, एआई डोशा (वात, पित्त, कफ) आधारित रोग विश्लेषण कर सकता है और रोगी की प्रकृति के अनुसार उपचार सुझा सकता है। इसी प्रकार, एआई वेदों और दर्शनशास्त्र के गूढ़ अर्थों की व्याख्या में सहायता कर सकता है, जो पारंपरिक ढंग से समझना सामान्यतः कठिन होता है।

## 3 | समकालीन अनुप्रयोग

आज के युग में कई ऐसे प्रयोग सामने आ चुके हैं, जहाँ आइकेएस और एआई का समन्वय व्यावहारिक रूप से कार्यरत है। उदाहरण के लिए, निरोगस्ट्रीट और जीव आयुर्वेद जैसे प्लेटफॉर्म एआई की सहायता से रोगी की प्रकृति के अनुसार आयुर्वेदिक समाधान प्रस्तुत

करते हैं। भाषा के क्षेत्र में, आईआईटी कानपुर द्वारा विकसित संसाधनी परियोजना संस्कृत-अंग्रेजी अनुवाद, व्याकरण जाँच और टेक्स्ट-टू-स्पीच तकनीक के माध्यम से प्राचीन शास्त्रों को अधिक सुलभ बनाती है।

योग और मानसिक स्वास्थ्य के क्षेत्र में एआई-सक्षम ऐप्स योगासनों की मुद्रा सुधारने, श्वसन तकनीक पर मार्गदर्शन देने और ध्यान के अभ्यास में सहायक हो रहे हैं। वहीं, भारतीय संगीत और नृत्य की परंपराओं को जनरेटिव एआई की सहायता से संरक्षित और पुनः प्रस्तुत किया जा रहा है।

वास्तुकला के क्षेत्र में, एआई और ड्रोन तकनीक के माध्यम से प्राचीन मंदिरों और स्थापत्य धरोहरों के 3D मॉडल तैयार कर उन्हें डिजिटल अमरता दी जा रही है।

#### 4 | शिक्षा एवं प्रसार में क्रांति

भारतीय ज्ञान प्रणाली की शिक्षा प्रणाली सदैव अनुभव आधारित रही है – गुरुकुल परंपरा, मौखिक संवाद, शास्त्रार्थ और आत्मचिंतन इसके आधार रहे हैं। एआई इस परंपरा को आधुनिक रूप दे सकता है।

वर्चुअल रियलिटी आधारित वर्चुअल गुरुकुल, एआई-अवतारों के माध्यम से संचालित हो सकते हैं। महाभारत, रामायण जैसे ग्रंथों को गेमिफिकेशन द्वारा बालकों और युवाओं में रोचक तरीके से प्रस्तुत किया जा सकता है।

व्यक्तिगत शिक्षण शैली के अनुसार सामग्री तैयार कर एआई यह सुनिश्चित कर सकता है कि भारतीय ज्ञान न केवल प्रासंगिक रहे, बल्कि नई पीढ़ी के लिए प्रेरणादायक और उपयोगी भी सिद्ध हो।

#### 5 | नैतिक एवं सांस्कृतिक चिंताएँ

जहाँ यह समन्वय नई संभावनाएं खोलता है, वहीं कई नैतिक और सांस्कृतिक प्रश्न भी खड़े करता है। सबसे महत्वपूर्ण यह है कि कहीं एआई भारतीय ज्ञान प्रणाली की आत्मा और मूल्यों को विकृत न कर दे।

उदाहरण के लिए, प्राचीन ज्ञान में जो आध्यात्मिक और सांस्कृतिक गहराई है, उसे सतही तकनीकी भाषा में न बदल दिया जाए। इसके लिए आवश्यक है कि एआई के विकास में पारंपरिक विद्वानों, आचार्यों और समुदायों की भागीदारी हो।

साथ ही, बौद्धिक संपदा का संरक्षण, स्रोतों की प्रामाणिकता और सांस्कृतिक संदर्भों की शुद्धता बनाए रखना भी अनिवार्य है। पश्चिमी दृष्टिकोण से व्याख्या करने की प्रवृत्ति से बचना होगा।

#### 6 | प्रमुख चुनौतियाँ

वर्तमान में आइकेएस और एआई के समन्वय में कई व्यावहारिक चुनौतियाँ हैं। प्रमुख रूप से:

- प्राचीन ग्रंथों का डिजिटलीकरण सीमित है,
- ग्रंथों की टीका-व्याख्या व संदर्भ सहित एनोटेशन का अभाव है,
- तकनीकी विशेषज्ञ और परंपरागत पंडितों के बीच सहयोग का अभाव है,
- और भाषाई विविधता (संस्कृत, तमिल, पाली, आदि) एक अतिरिक्त बाधा है।

इन चुनौतियों को पार करने के लिए सामूहिक प्रयास, शोध केंद्रों की स्थापना, और नीति-स्तर पर दिशा-निर्देश आवश्यक हैं।

#### 7 | उदाहरण एवं प्रायोगिक पहले

भारत सरकार की भाषिणी परियोजना बहुभाषी संवाद में एआई की भूमिका को सशक्त करती है। जीव आयुर्वेद का एआई आधारित स्वास्थ्य मूल्यांकन आयुर्वेदिक चिकित्सा को वैज्ञानिक आधार प्रदान करता है।

आईआईटी कानपुर की संसाधनी परियोजना संस्कृत व्याकरण जाँच में अग्रणी है। साथ ही, वेदिक एआई जैसे प्रयोग उपनिषदों के दर्शन पर एआई आधारित संवाद प्रस्तुत कर रहे हैं — यह भविष्य की संभावनाओं की झलक है।

#### एआई की सहायता से:

- प्राचीन हस्तलिपियों, ताड़पत्र ग्रंथों और शास्त्रों को डिजिटाइज किया जा सकता है।
- संस्कृत, तमिल, पाली, प्राकृत जैसे प्राचीन भाषाओं के ग्रंथों का एनएलपी के माध्यम से आधुनिक भाषाओं में अनुवाद और विश्लेषण किया जा सकता है।

- आयुर्वेदिक ग्रंथों से प्राप्त औषधीय ज्ञान को एआई के माध्यम से रोगों के लक्षणों से जोड़कर व्यक्तिगत चिकित्सा पद्धति विकसित की जा सकती है।
- योग की मुद्राओं को कंप्यूटर विज्ञान की सहायता से विश्लेषित कर शुद्ध आसन की पहचान और सुधार संभव हो सकता है।
- वेदों और उपनिषदों के श्लोकों की व्याख्या एआई मॉडल द्वारा भावार्थ सहित प्रस्तुत की जा सकती है।

## 8 | भविष्य की दिशा: एक रोडमैप

इस समन्वय को पूर्ण रूप से सफल बनाने के लिए एक ठोस राष्ट्रीय नीति आवश्यक है। "आईकेएस हेतु एआई मिशन" जैसी योजना शिक्षा मंत्रालय या आयुष मंत्रालय के अंतर्गत चलाई जा सकती है।

आईआईटी, आईआईएम तथा संस्कृत विश्वविद्यालयों में बहु-विषयी शोध केंद्रों की स्थापना होनी चाहिए। प्राचीन पांडुलिपियों का ओपन-सोर्स डिजिटलीकरण, आयुर्वेद और योग पर आधारित डाटाबेस का निर्माण, एआई में प्रशिक्षित विद्वानों की एक पीढ़ी और सांस्कृतिक साक्षर तकनीकी विशेषज्ञों की आवश्यकता है।

## 9 | भारतीय ज्ञान प्रणाली और कृत्रिम बुद्धिमत्ता

भारत की सभ्यता और संस्कृति की जड़ें जितनी गहरी हैं, उतनी ही समृद्ध उसकी ज्ञान परंपरा भी है। यह परंपरा केवल धार्मिक या आध्यात्मिक दृष्टि तक सीमित नहीं रही, बल्कि इसने विज्ञान, गणित, खगोलशास्त्र, चिकित्सा, दर्शन, कला, साहित्य, भाषा विज्ञान और सामाजिक व्यवस्था जैसे अनेक क्षेत्रों में भी अमूल्य योगदान दिया है। यह व्यापक और समेकित ज्ञानतंत्र ही भारतीय ज्ञान प्रणाली (Indian Knowledge System - IKS) कहलाती है। यह प्रणाली सहस्राब्दियों से चली आ रही परंपराओं, अनुभवों और प्राचीन ग्रंथों पर आधारित है, जो समय के साथ स्वयं को परिवर्तित और परिपुष्ट करती रही है।

आज के तकनीकी युग में जब कृत्रिम बुद्धिमत्ता (Artificial Intelligence - AI) ने विश्व को एक नई दिशा प्रदान की है, तब यह अत्यंत प्रासंगिक हो जाता है कि हम अपनी पारंपरिक ज्ञान-संपदा को इस आधुनिक तकनीक के साथ कैसे जोड़ें। एआई एक ऐसी तकनीक है जो मशीनों को मानवीय बुद्धि की नकल करने की क्षमता प्रदान करती है। यह क्षमता न केवल निर्णय लेने, भाषा समझने और चित्र विश्लेषण करने तक सीमित है, बल्कि यह ज्ञान को संग्रहित, वर्गीकृत, विश्लेषित और प्रसारित करने में भी सक्षम है।

भारतीय ज्ञान प्रणाली और कृत्रिम बुद्धिमत्ता के समन्वय की यह परिकल्पना न केवल प्राचीन और आधुनिक का संगम है, बल्कि यह भारत के भविष्य निर्माण की दृष्टि से भी अत्यंत महत्वपूर्ण है। यह शोध-पत्र इसी विचार को केंद्र में रखते हुए लिखा गया है, जिसमें इस समन्वय की आवश्यकता, संभावनाएं, समकालीन प्रयोग, नैतिक चिंताएं, चुनौतियां, और भविष्य की रूपरेखा का विस्तृत विश्लेषण प्रस्तुत किया गया है।

भारतीय ज्ञान प्रणाली की विशेषताएं: भारतीय ज्ञान प्रणाली किसी एक विधा तक सीमित नहीं है, बल्कि यह एक बहुआयामी, समग्र और जीवन के हर पक्ष को समाहित करने वाली प्रणाली है। इसमें वेदों की गणितीय और खगोलशास्त्रीय सूक्तियाँ हैं, उपनिषदों की दार्शनिक गहराई है, आयुर्वेद की चिकित्सा प्रणाली है, योग और ध्यान की मानसिक और आध्यात्मिक साधना है, संगीत और नृत्य की कलात्मक अभिव्यक्ति है, और संस्कृत, तमिल, पाली, प्राकृत जैसी भाषाओं की वैज्ञानिक संरचना है। यह एक ऐसी प्रणाली है, जो केवल तथ्यों पर आधारित नहीं, बल्कि अनुभव, निरीक्षण, तर्क और आस्था को समन्वित करती है।

उदाहरण के लिए, आयुर्वेद केवल औषधि पद्धति नहीं है, बल्कि यह मनुष्य के शरीर, मन और आत्मा के संतुलन का विज्ञान है। इसी प्रकार, योग एक मात्र व्यायाम नहीं, बल्कि यह आत्मानुभूति की ओर ले जाने वाला अनुशासित पथ है। भारतीय दर्शन में न्याय, वैशेषिक, सांख्य, योग, मीमांसा और वेदांत जैसे दर्शनशास्त्र मानव अस्तित्व की गहराइयों की पड़ताल करते हैं।

यह संपूर्ण प्रणाली सहस्राब्दियों तक मौखिक परंपरा, गुरु-शिष्य परंपरा और बाद में लिखित ग्रंथों के माध्यम से सुरक्षित रही। इसमें ज्ञान को जीवन से जोड़ा गया है, और यह मान्यता रही है कि ज्ञान का उद्देश्य केवल सूचना प्राप्त करना नहीं, बल्कि आत्मा की उन्नति और समाज की सेवा है।

कृत्रिम बुद्धिमत्ता की संभावनाएं: कृत्रिम बुद्धिमत्ता, आधुनिक विज्ञान की एक अत्यंत प्रभावशाली शाखा बन चुकी है। एआई मशीनों को इस योग्य बनाती है कि वे बड़े डाटासेट्स से सीख सकें, उनमें पैटर्न पहचान सकें, निर्णय ले सकें और निरंतर आत्मविकास कर सकें। इसका उपयोग आज शिक्षा, स्वास्थ्य, व्यापार, रक्षा, संचार, वित्त, कृषि, कानून, और मनोरंजन जैसे विविध क्षेत्रों में हो रहा है।

एआई के प्रमुख उपक्षेत्रों में मशीन लर्निंग, डीप लर्निंग, नेचुरल लैंग्वेज प्रोसेसिंग (NLP), कंप्यूटर विज्ञान, रोबोटिक्स और विशेषज्ञ प्रणाली (expert systems) शामिल हैं। ये तकनीकें आज न केवल मानव कार्यों को गति प्रदान कर रही हैं, बल्कि उनमें गुणवत्ता, परिशुद्धता और नवीनता भी ला रही हैं।

भारतीय ज्ञान प्रणाली और एआई का समन्वय: जब हम इन दोनों प्रणालियों को जोड़ने की बात करते हैं, तो यह केवल तकनीकी प्रयोग नहीं होता, बल्कि यह भारत की सभ्यता, संस्कृति और परंपरा को भविष्य से जोड़ने की एक ऐतिहासिक पहल बन जाती है।

## 10 | निष्कर्ष

भारतीय ज्ञान प्रणाली और कृत्रिम बुद्धिमत्ता का समन्वय न केवल अतीत के संरक्षण का माध्यम है, बल्कि यह भारत को भविष्य की दिशा में नैतिक, सांस्कृतिक और तकनीकी रूप से अग्रसर करने का मार्ग है।

यदि यह समन्वय संवेदनशीलता, सहभागिता और दृष्टि के साथ किया जाए, तो भारत 2047 तक विश्वगुरु के रूप में स्थापित हो सकता है — एक ऐसा देश जो प्राचीन ज्ञान परंपरा और आधुनिक विज्ञान का संगम प्रस्तुत करता है।

## REFERENCES (संदर्भ सूची)

- Ministry of Education, Government of India. *Indian Knowledge Systems Division – Official Reports and Publications*. <https://iksindia.org>
- NITI Aayog (2018). *National Strategy for Artificial Intelligence*. <https://www.niti.gov.in>
- IIT Kanpur – Samsaadhani Project. *Natural Language Processing for Sanskrit Grammar Error Detection*. <https://www.cse.iitk.ac.in>
- Bhashini Platform, Ministry of Electronics and Information Technology. *AI-powered multilingual communication tools* <https://www.bhashini.gov.in>
- Journal of Ayurveda and Integrative Medicine. Articles on integration of AI in Ayurvedic diagnosis and treatment. <https://www.jaim.in>
- UNESCO. *AI and Indigenous Knowledge: Policy, Research & Ethical Guidelines*. <https://unesdoc.unesco.org>
- Rashtriya Ayurveda Vidyapeeth, Ministry of AYUSH. *Classical Ayurveda Literature and Training Modules*. <https://ravdelhi.nic.in>
- Bhāratīya Vidyā Bhavan Publications. *Books on Vedic Philosophy, Upanishads, and Traditional Sciences*.
- Interviews & Lectures by Scholars at Banaras Hindu University and IITs. Especially from departments of Sanskrit, Philosophy, and AI Research.
- Conference Proceedings from “AI for Bharat” and “Indo-AI Symposia”. Held annually under support of AICTE and Ministry of Education.
- "भारतीय ज्ञान परम्परा" – डॉ. के. एस. वल्लीनाथन (भारतीय विद्या भवन)
- "भारतीय दर्शन का इतिहास" – डॉ. सुरेन्द्रनाथ दासगुप्त
- "भारतीय ज्ञान प्रणाली: अवधारणा और कार्यान्वयन" – डॉ. रमेश चंद्र शर्मा
- "वैदिक विज्ञान और तकनीकी विकास" – प्रो. रामानुज पांडेय
- "संस्कृत और कंप्यूटर" – प्रो. विजयकांत झा
- "चरक संहिता" – डॉ. पी. वी. शर्मा (चौखम्बा प्रकाशन)
- "योग दर्शन" – स्वामी विवेकानंद / ओशो
- "कृत्रिम बुद्धिमत्ता" – डॉ. अरविंद द्विवेदी (टेक्निकल इंडिया पब्लिकेशन)
- "नई शिक्षा नीति 2020 और भारतीय ज्ञान प्रणाली" – शिक्षा मंत्रालय प्रकाशन

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# भारतीय ज्ञान प्रणाली और महिला सशक्तिकरण

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**Abstract:** भारत की सभ्यता विश्व की सबसे प्राचीन और समृद्ध सभ्यताओं में से एक है। इसका आधार केवल भौतिक उन्नति या साम्राज्य विस्तार नहीं रहा, अपितु ज्ञान, संस्कृति, और मानवीय मूल्यों पर आधारित एक विस्तृत जीवन-दृष्टि रही है। इस जीवन दृष्टि को ही 'भारतीय ज्ञान प्रणाली' कहा जाता है। यह प्रणाली केवल आध्यात्मिक और धार्मिक शिक्षाओं तक सीमित नहीं थी, बल्कि इसमें विज्ञान, गणित, चिकित्सा, स्थापत्य, संगीत, भाषा, खगोलशास्त्र, कृषि, पर्यावरण, नीतिशास्त्र और सामाजिक ताने-बाने जैसे विषयों का भी गहन समावेश था। भारतीय ज्ञान प्रणाली की सबसे उल्लेखनीय विशेषता यह थी कि इसमें स्त्रियों को ज्ञानार्जन और समाज निर्माण में पुरुषों के समकक्ष स्थान प्राप्त था। भारत के वैदिक और उत्तरवैदिक काल में महिलाओं को केवल 'गृहिणी' या 'मातृशक्ति' के रूप में नहीं देखा गया, बल्कि वे ऋषिका, गुरुकुल संचालिका, दार्शनिक, चिकित्सा विज्ञानी और समाज सुधारिका की भूमिकाओं में सक्रिय थीं। आज जब हम महिला सशक्तिकरण की बात करते हैं, तो आधुनिक नीतियों और कार्यक्रमों से पहले हमें अपनी भारतीय ज्ञान परंपरा की ओर लौटना चाहिए, जिसमें स्त्री को "शक्ति" और "सरस्वती" के रूप में पूजनीय माना गया। इस शोध पत्र में हम यह विश्लेषण करेंगे कि भारतीय ज्ञान प्रणाली ने नारी को किस रूप में देखा, उसके अधिकारों, भूमिकाओं और दायित्वों को किस प्रकार निर्धारित किया, और समकालीन युग में इस प्राचीन चेतना को पुनः किस प्रकार प्रासंगिक बनाया जा सकता है। भारतीय ज्ञान प्रणाली (Indian Knowledge Systems - IKS) और महिला सशक्तिकरण का संबंध गहरा और बहुआयामी है। भारतीय ज्ञान प्रणाली, जिसमें वेद, उपनिषद, आयुर्वेद, योग, दर्शनशास्त्र, और विभिन्न स्थानीय परंपराओं का समावेश है, न केवल आध्यात्मिक और बौद्धिक विकास पर केंद्रित है, बल्कि सामाजिक समानता और सशक्तिकरण को भी बढ़ावा देता है। महिला सशक्तिकरण के संदर्भ में, IKS कई स्तरों पर योगदान दे सकता है, जिसे निम्नलिखित बिंदुओं में समझा जा सकता है।

## 1 | भारतीय ज्ञान प्रणाली की अवधारणा

भारतीय ज्ञान प्रणाली (Indian Knowledge System - IKS) कोई एकल या संकुचित प्रणाली नहीं है। यह एक समग्र दृष्टिकोण है जो ज्ञान के विविध रूपों को स्वीकार करता है। इसमें श्रुति-स्मृति परंपरा, वेद-उपनिषद, पुराण, शास्त्र, आयुर्वेद, ज्योतिष, योग, वास्तु, संगीत, नाटक, कृषि विज्ञान, और नैतिक दर्शन जैसे विषय शामिल हैं।

इस प्रणाली की एक विशिष्ट विशेषता यह रही है कि इसमें नारी को केवल उपभोक्ता या आश्रिता नहीं माना गया, बल्कि सृजनकर्ता, मार्गदर्शक और शक्ति स्वरूपा के रूप में प्रतिष्ठित किया गया।

## 2 | प्राचीन भारत में महिला सशक्तिकरण के स्वरूप

### 1. वेदों और उपनिषदों में स्त्रियों की भागीदारी

ऋग्वेद, यजुर्वेद, सामवेद, अथर्ववेद – इन सभी में महिलाओं की भागीदारी स्पष्ट रूप से दिखती है। स्त्रियाँ केवल वैदिक मंत्रों की श्रोता नहीं थीं, वे उनकी रचयिता भी थीं। घोषा, लोपामुद्रा, गार्गी, मैत्रेयी, अपाला, विश्ववारा, शची, सुर्या जैसी अनेक स्त्रियों ने वैदिक ऋचाओं की रचना की और पुरुष ऋषियों के साथ ज्ञान संवाद में भाग लिया।

गार्गी वाचकनी ने ब्रह्मविद्या पर याज्ञवल्क्य से शास्त्रार्थ किया। यह उस समय का उदाहरण है जब स्त्री केवल शिक्षा ग्रहण ही नहीं करती थी, अपितु सार्वजनिक मंचों पर दार्शनिक चर्चाओं में भाग लेती थी।

मैत्रेयी ने 'मृत्यु और आत्मा' जैसे गूढ़ विषयों पर चिंतन किया, और 'ब्रह्मज्ञान' के रहस्यों को आत्मसात किया। उपनिषदों में स्त्रियों की ऐसी भूमिका आज के संदर्भ में भी अनुकरणीय है।

## 2. शिक्षण और चिकित्सा में स्त्रियाँ

भारतीय आयुर्वेद में स्त्रियों के योगदान को अनेक ग्रंथों में मान्यता प्राप्त है। आयुर्वेदाचार्य चरक और सुश्रुत ने स्त्री-स्वास्थ्य, गर्भविज्ञान, और रजोनिवृत्ति जैसे विषयों पर विशेष अध्ययन किया, जिनमें महिला चिकित्सकों की सहायता से ज्ञान संग्रह हुआ।

योग और ध्यान की परंपरा में भी स्त्रियाँ आगे थीं। 'योगिनी' परंपरा इसका प्रत्यक्ष प्रमाण है। आज भी कश्मीर की त्रिका परंपरा में 'योगिनियों' को विशेष सम्मान प्राप्त है।

## 3 | भारतीय दर्शन और नारी सशक्तिकरण

### 1. सांख्य दर्शन में 'प्रकृति' की अवधारणा

सांख्य दर्शन के अनुसार सम्पूर्ण सृष्टि दो तत्वों से बनी है – 'पुरुष' और 'प्रकृति'। पुरुष निष्क्रिय चेतन है जबकि प्रकृति सक्रिय और गतिशील है। प्रकृति को शक्ति माना गया है, और यह शक्ति स्त्री रूप में मानी जाती है। इसका तात्पर्य है कि स्त्री ही सृजन, संचालन और संहार की आधारशिला है।

### 2. तंत्र और शक्ति परंपरा

तांत्रिक परंपरा में देवी को 'शक्ति' के रूप में पूजा जाता है। 'कुलकुंडलिनी', 'त्रिपुरा सुंदरी', 'दुर्गा', 'काली', 'भुवनेश्वरी' जैसे रूप नारी की आत्मिक और लौकिक शक्ति के प्रतीक हैं। 'शिव' को भी शक्ति के बिना 'शव' माना गया है। यह दृष्टिकोण स्पष्ट करता है कि स्त्री के बिना कोई भी शक्ति या सत्ता पूर्ण नहीं।

## 4 | मध्यकाल में महिला स्थिति में गिरावट

मध्यकाल में विदेशी आक्रमण, सामाजिक जड़ता और पितृसत्तात्मक व्यवस्था ने महिला की स्थिति को सीमित किया। बाल विवाह, पर्दा प्रथा, सती प्रथा और शिक्षा से वंचन जैसे प्रचलन बढ़े। भारतीय ज्ञान प्रणाली की जीवंत परंपरा दबने लगी और स्त्रियाँ पुनः 'गृहस्थ व्यवस्था' तक सीमित हो गईं।

फिर भी कुछ स्थानों पर स्त्रियाँ आगे बढ़ीं – मीराबाई, अक्का महादेवी, रज़िया सुल्तान, झाँसी की रानी जैसे उदाहरण हमें संघर्ष के बीच उम्मीद की किरण दिखाते हैं।

## 5 | आधुनिक भारत और महिला सशक्तिकरण

### 1. पुनर्जागरण और महिला शिक्षा

19वीं सदी में भारतीय समाज में पुनर्जागरण की लहर आई। राजा राममोहन राय, ईश्वरचंद्र विद्यासागर, ज्योतिबा फुले, महात्मा गांधी जैसे विचारकों ने महिला अधिकारों, शिक्षा और स्वतंत्रता के लिए आवाज़ उठाई।

सावित्रीबाई फुले ने भारत का पहला महिला स्कूल खोला। उन्होंने जाति और लिंग आधारित भेदभाव के विरुद्ध शिक्षा को हथियार बनाया।

### 2. स्वतंत्रता संग्राम में स्त्रियाँ

कस्तूरबा गांधी, सरोजिनी नायडू, अरुणा आसफ अली, कमला नेहरू, उषा मेहता जैसी अनेक महिलाएं स्वतंत्रता संग्राम की अग्रणी योद्धा थीं। वे नेतृत्व की भूमिकाओं में थीं और पुरुषों के साथ कंधे से कंधा मिलाकर खड़ी रहीं।

## 6 | समकालीन भारत में महिला सशक्तिकरण और भारतीय ज्ञान परंपरा का पुनरुत्थान

### 1. नई शिक्षा नीति 2020 और महिला सशक्तिकरण

NEP 2020 के माध्यम से मातृभाषा में शिक्षा, कौशल आधारित शिक्षण, और समावेशी शिक्षा प्रणाली को बढ़ावा दिया गया है। महिलाओं को उच्च शिक्षा, शोध, और नवाचार में भाग लेने के अवसर प्रदान किए गए हैं। महिलाओं की STEM (Science, Technology, Engineering, Mathematics) विषयों में भागीदारी को बढ़ावा देना भी नीति का प्रमुख लक्ष्य है।

## 2. तकनीक और भारतीय ज्ञान प्रणाली

Digital India और NPTEL, SWAYAM, DIKSHA जैसे प्लेटफॉर्म ने भारतीय परंपरा, आयुर्वेद, योग, वेद, और संस्कृति को आधुनिक टेक्नोलॉजी के माध्यम से पुनर्जीवित किया है – और महिलाएं इस प्रक्रिया में सक्रिय रूप से जुड़ी हैं।

## 3. महिला नेतृत्व और भारतीय मूल्य

आज महिलाएं राजनीति, प्रशासन, सेना, विज्ञान, अंतरिक्ष, व्यापार, खेल, और सामाजिक सेवा – सभी क्षेत्रों में नेतृत्व कर रही हैं। यह केवल कानून या अधिकारों की देन नहीं, बल्कि भारतीय ज्ञान परंपरा में निहित उस मूल चेतना का परिणाम है जो स्त्री को 'जननी', 'शक्ति', 'ज्ञान' और 'सृजन' का स्रोत मानती रही है।

## 4. ऐतिहासिक परिप्रेक्ष्य में महिलाओं की भूमिका

भारतीय ज्ञान परंपराओं में महिलाओं को हमेशा से महत्वपूर्ण स्थान प्राप्त रहा है। प्राचीन भारत में, गार्गी, मैत्रेयी, और लोपामुद्रा जैसी विदुषियों ने वेदांत और दर्शनशास्त्र में महत्वपूर्ण योगदान दिया। ये उदाहरण दर्शाते हैं कि भारतीय ज्ञान प्रणाली ने महिलाओं को बौद्धिक और आध्यात्मिक क्षेत्र में समान अवसर प्रदान किए। आधुनिक समय में इन उदाहरणों को प्रेरणा के रूप में उपयोग कर महिलाओं को शिक्षा और नेतृत्व के लिए प्रोत्साहित किया जा सकता है।

## 5. शिक्षा और कौशल विकास

IKS में शिक्षा को समग्र विकास का आधार माना जाता है। गुरुकुल परंपरा और स्थानीय ज्ञान प्रणालियों में महिलाओं को विभिन्न क्षेत्रों जैसे आयुर्वेद, हस्तकला, संगीत, और नृत्य में प्रशिक्षित किया जाता था। आज के संदर्भ में, IKS को पुनर्जनन करके महिलाओं को न केवल आधुनिक शिक्षा, बल्कि पारंपरिक ज्ञान जैसे हस्तशिल्प, जैविक खेती, और आयुर्वेदिक चिकित्सा में प्रशिक्षित किया जा सकता है। यह आर्थिक स्वतंत्रता और आत्मनिर्भरता को बढ़ावा देता है।

## 6. योग और आयुर्वेद के माध्यम से सशक्तिकरण

योग और आयुर्वेद, जो भारतीय ज्ञान प्रणाली के अभिन्न अंग हैं, महिलाओं के शारीरिक, मानसिक और भावनात्मक स्वास्थ्य को बेहतर बनाने में महत्वपूर्ण भूमिका निभाते हैं। योग के माध्यम से तनाव प्रबंधन, आत्मविश्वास और आत्म-जागरूकता बढ़ती है, जो महिलाओं को अपने जीवन में बेहतर निर्णय लेने में मदद करता है। आयुर्वेदिक ज्ञान महिलाओं को स्वास्थ्य और पोषण के क्षेत्र में स्वावलंबी बनाता है, विशेष रूप से ग्रामीण क्षेत्रों में।

## 7. सामाजिक और सांस्कृतिक सशक्तिकरण

भारतीय ज्ञान प्रणाली सामुदायिक जीवन और सामाजिक सामंजस्य पर जोर देती है। यह महिलाओं को सामाजिक नेतृत्व की भूमिका निभाने के लिए प्रेरित करती है। उदाहरण के लिए, लोक परंपराओं में महिलाएं कहानीकार, शिक्षक, और सामुदायिक संगठनकर्ता की भूमिका निभाती रही हैं। इन परंपराओं को पुनर्जनन करके महिलाओं को सामाजिक परिवर्तन के लिए प्रेरित किया जा सकता है।

## 8. आर्थिक सशक्तिकरण और उद्यमिता

IKS में निहित पारंपरिक कौशलों, जैसे कि बुनाई, कढ़ाई, और हर्बल उत्पाद निर्माण, को आधुनिक उद्यमिता के साथ जोड़ा जा सकता है। स्वयं सहायता समूहों (SHGs) और स्टार्टअप के माध्यम से महिलाएं इन कौशलों का उपयोग कर आर्थिक रूप से सशक्त हो सकती हैं। उदाहरण के लिए, कई गैर-सरकारी संगठन और सरकारी योजनाएं पारंपरिक हस्तशिल्प को बढ़ावा देकर महिलाओं को रोजगार के अवसर प्रदान कर रही हैं।

## 9. आधुनिक चुनौतियां और समाधान

आधुनिक समय में, IKS को पुनर्जनन करने के लिए शिक्षा प्रणाली में सुधार, डिजिटल प्लेटफॉर्म का उपयोग, और नीतिगत समर्थन की आवश्यकता है। उदाहरण के लिए:

- **डिजिटल साक्षरता:** महिलाओं को डिजिटल टूल्स और ऑनलाइन मार्केटप्लेस का उपयोग सिखाकर उनके पारंपरिक उत्पादों को वैश्विक बाजार तक पहुंचाया जा सकता है।

- **नीतिगत समर्थन:** सरकार और संगठन IKS को पाठ्यक्रम में शामिल कर सकते हैं, जिससे महिलाएं इन क्षेत्रों में विशेषज्ञता प्राप्त कर सकें।
- **जागरूकता अभियान:** IKS के महत्व को समझाने के लिए ग्रामीण और शहरी दोनों क्षेत्रों में जागरूकता अभियान चलाए जा सकते हैं।

## 7 | निष्कर्ष

भारतीय ज्ञान प्रणाली और महिला सशक्तिकरण एक-दूसरे के पूरक हैं। जहाँ एक ओर भारतीय परंपरा ने नारी को केवल सामाजिक नहीं बल्कि आध्यात्मिक रूप से भी शक्तिशाली माना, वहीं आज की नीतियाँ भी स्त्री को बराबरी और नेतृत्व का स्थान देने की दिशा में अग्रसर हैं। यह समय है कि हम अपने प्राचीन ज्ञान स्रोतों को पुनः पढ़ें, समझें, और उनके विचारों को आधुनिक संदर्भ में लागू करें।

महिला सशक्तिकरण कोई आंदोलन नहीं, बल्कि एक सतत प्रक्रिया है, जिसमें शिक्षा, आत्मनिर्भरता, आत्मविश्वास, और समाज का सहयोग – चारों आवश्यक हैं। भारतीय ज्ञान प्रणाली हमें यह सिखाती है कि स्त्री केवल सहायक नहीं, अपितु समाज का केन्द्रबिंदु है।

## REFERENCES (संदर्भ सूची)

- |  |   |
|--|---|
| • भारतीय संस्कृति और नारी – डॉ. उमा शंकर शुक्ल | • Education in Ancient India – R.C. Majumdar          |
| • वेदों में नारी – डॉ. रमेश चंद्र              | • The Position of Women in Vedic India – A.S. Altekar |
| • भारतीय शिक्षा प्रणाली – डॉ. अशोक कुमार       | • आर्य संस्कृति अने स्त्री – भानुमती महेता            |
| • नारी और भारतीय समाज – डॉ. सीमा वर्मा         | • वेदकापीन स्त्रीयो – रणछोडभाई देसाई                  |
| • Women in Ancient India – Uma Chakravarti     | • स्त्री शिक्षण अने समाज – सुश्री नीरु पटेल           |
| • Indian Knowledge System – Prof. Kapil Kapoor |   |

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# Driving Socio-Economic Development Through Agri-Social Entrepreneurship: Insights From Review Of Literature

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**Abstract: Purpose:** This study examines the role of agri-social entrepreneurship in fostering agricultural innovation, sustainability, and socio-economic development in Gujarat, India. It explores how entrepreneurial initiatives that blend profit orientation with social impact contribute to rural transformation, livelihood security, and community empowerment. **Methodology:** The research adopts a conceptual and exploratory approach, relying on secondary data from peer-reviewed journals, government reports, case studies, and institutional publications. A systematic literature review method was used to synthesize prior research, identify trends, and develop a conceptual framework highlighting the interplay between agri-social entrepreneurship, socio-economic development, and sustainable agriculture. **Findings:** The study reveals that agri-social entrepreneurship promotes inclusive growth by addressing structural challenges in agriculture such as fragmented landholdings, poverty, and dependence on monsoons. Key drivers include knowledge, creativity, social values, and collective ownership models such as cooperatives. However, limited integration of technology, inadequate financing, and market risks remain barriers. The findings indicate strong alignment between agri-social entrepreneurship and the Sustainable Development Goals (SDGs), particularly those targeting poverty reduction, food security, and sustainable livelihoods. **Practical Implications:** Insights from this study can guide policymakers, entrepreneurs, and development agencies in formulating strategies that strengthen agri-social enterprises. Emphasis should be placed on policy support, digital infrastructure, and capacity-building programs to enhance scalability and sustainability. **Originality / Value:** This paper contributes to the limited scholarship on agri-social entrepreneurship in India by presenting a context-specific conceptual analysis. It underscores the potential of agriculture-driven entrepreneurship to function as a vehicle for social innovation, environmental sustainability, and inclusive socio-economic progress.

**Keywords:** Agri-social Entrepreneurship, Sustainable Agriculture, Social Innovation, Gujarat, Socio-economic Development, Rural Transformation.

## 1 | INTRODUCTION

Entrepreneurship is fundamentally the act of identifying opportunities, innovating, and taking calculated risks to build ventures that generate both economic value and societal impact. It operates within a broader ecosystem comprising entrepreneurs, institutions, and government policies that collectively drive innovation and economic development (NIOS, 2024). Within this landscape, start-ups represent a dynamic subset—typically young, tech-enabled firms characterized by scalability, rapid growth potential, and a focus on disruptive solutions (Repsol, 2024).

Gujarat has emerged as a leader in agricultural development, recording a compound annual growth rate (CAGR) of 10.7% over the past decade. Approximately 65% of the state's 19.6 million hectares of land is devoted to agriculture, supported by diverse soil types and seven agroclimatic zones (Gujarat State Agricultural Marketing Board [GSAMB], 2023). Within this context, agri-social entrepreneurship has gained significance as a process of innovation, transformation, and sustainable growth, offering solutions to critical social challenges in the agricultural sector.(CTI, 2011).

In India, the growth of social entrepreneurship in agriculture is particularly important, though it faces several obstacles. (Banerjee & Shabam, 2019) These include cultural complexity, limited awareness of social enterprise models, and a lower prioritization of rural-based ventures compared to urban businesses. Despite these challenges, the agricultural sector holds substantial opportunities for fostering social entrepreneurship across areas such as organic farming, value chain management, agri-input and output management, and agri-decision support systems (Majhi, 2019).

Social entrepreneurship is increasingly recognized as a mechanism for addressing market failures through innovative, economically viable approaches that also tackle social problems. It borrows the characteristics of private-sector entrepreneurship—such as innovation, risk-taking, and large-scale transformation—and applies them to social problem-solving, often bridging the roles of businesses, governments, and nonprofit organizations (Majhi, 2019). By delivering agri-input and agri-output products and services, social entrepreneurs contribute to sustainable development, food security, empowerment, and leadership development, thereby reinforcing the dual goals of economic and social advancement. (Demos. 1996)

The key characteristics of social entrepreneurs include a clear vision, risk-taking ability, creativity, opportunity-seeking behaviour, and opinion leadership (Prabhu, 1999). These individuals act as change agents, recognizing societal issues, identifying root causes, and designing innovative, revenue-generating solutions (Chand, 2019). They often establish enterprises in diverse areas such as renewable energy, health awareness, and education, positioning communities not merely as consumers but as active participants in the process of social change.

Given their ability to generate both social and financial capital, social entrepreneurs play a vital role in promoting job creation, innovation, and inclusive growth. Recognizing them as a distinct category of leaders ensures that their contributions are not undervalued and that the transformative potential of social entrepreneurship, particularly in agriculture, is harnessed for broader societal development. (Halberstadt et al., 2021).

## 2 | REVIEW OF LITERATURE

One of the most revolutionary developments in the fight against poverty and inequality has been the rise of social enterprises, also referred to as inclusive businesses or market-based solutions to poverty. According to Yunus (2007), social entrepreneurship emerged as a transformative model following the success of microfinance initiatives pioneered by the Grameen Bank in Bangladesh. With the Nobel Peace Prize awarded to Prof. Muhammad Yunus in 2006, this model spread globally, offering microloans to low-income groups, particularly women, enabling them to establish small businesses. The core objective of these enterprises is to expand livelihood opportunities while delivering affordable goods and services to disadvantaged communities, thereby generating sustainable social impact.

Yunus (1999) emphasized that the Grameen Bank's philosophy encourages clients to become job creators rather than job seekers, illustrated by the Nobin Udyokta ("New Entrepreneurs") initiative. The concept of social business, as articulated by Yunus, prioritizes problem-solving over profit maximization. Investors in such ventures may accept little or no dividend, thereby fostering an altruistic framework where social progress takes precedence over personal financial gain.

The idea of socially driven innovation is not new to India. Misra (1973) traced its roots to Vinoba Bhave's Bhoodan (land donation) movement, which mobilized wealthy landlords to donate surplus land to the landless poor, providing livelihoods to thousands. Similarly, Chacko (2013) highlighted the contribution of Verghese Kurien, the architect of *Operation Flood* and founder of the Gujarat Cooperative Milk Marketing Federation (GCMMF), who empowered small farmers through cooperative models and helped transform India into the world's largest milk producer. Kurien's efforts with AMUL stand as a landmark in the history of Indian social entrepreneurship, demonstrating the power of collective ownership and grassroots leadership.

Singh (2012) defined social entrepreneurship as the recognition of social problems and the application of entrepreneurial methods to organize, manage, and sustain enterprises aimed at social change. Unlike traditional business entrepreneurs who measure success primarily through profit, social entrepreneurs evaluate outcomes in terms of social, cultural, and environmental value. Importantly, social entrepreneurship does not exclude profit-making but aligns it with broader societal benefits. (Halidar, 2019)

From a global perspective, Daru et al. (2013) linked social entrepreneurship to the pursuit of the Millennium Development Goals (MDGs), which address urgent global challenges such as eradicating poverty, promoting gender equality, and improving healthcare. They argued that opportunities for social entrepreneurs exist in both developing and developed contexts, although the nature of opportunities and entrepreneurial processes may differ. This highlights the need for continued empirical research to map how social entrepreneurship adapts to diverse socio-economic environments.

The growing relevance of social entrepreneurship is also tied to shifts in public policy. According to Ernst & Young (2014), governments across many countries are moving towards privatization of public responsibilities, leading to reduced subsidies for charities and increasing reliance on social enterprises. Their research in Europe showed that social enterprises are especially active in fields such as social services, training and employment, environmental sustainability, education, and community development. Moreover, employment in Dutch social enterprises grew by 12% between 2012 and 2014, reflecting the sector's attractiveness to young professionals who value purpose-driven work over profit-focused careers.

In summary, the literature highlights that social entrepreneurship is a dynamic and evolving field that draws from diverse traditions—ranging from grassroots initiatives in India to global models like microfinance. Across contexts, it consistently emerges as a vehicle for innovation, empowerment, and inclusive development, with the potential to reshape societies by balancing economic viability with social transformation.

### **3 | RESEARCH GAP**

Agri-social entrepreneurship, which blends agricultural innovation with social impact, remains an emerging field with significant potential but limited scholarly exploration. Based on the review of literature, several research gaps are evident:

1. While agri-social entrepreneurs are believed to play a crucial role in advancing socio-economic development in Gujarat, there is a lack of standardized metrics and methodologies to effectively assess their social impact. More empirical studies are needed to quantify how such initiatives contribute to livelihood security, rural empowerment, and community transformation.
2. The role of technology in enhancing agri-social entrepreneurship remains underexplored. Areas such as precision agriculture, digital marketplaces, and ICT-enabled decision-support systems have the potential to strengthen social enterprises in agriculture, but their integration and long-term contributions to Gujarat's agricultural development are insufficiently studied.
3. Although social entrepreneurship is widely recognized as a driver of social change, little research has examined the specific factors within Gujarat's agricultural sector that enable the upliftment of marginalized communities. Studies are required to evaluate how social enterprises address poverty reduction, gender equality, and inclusive rural development.
4. The contribution of agri-social entrepreneurship to the United Nations' Sustainable Development Goals (SDGs) such as food security, climate action, and sustainable livelihoods, has not been adequately mapped. A deeper understanding of this alignment is essential for both policy formulation and practice.

### **4 | OBJECTIVES OF THE STUDY**

1. To examine the role of agri-social entrepreneurship in fostering socio-economic development
2. To identify the key drivers and challenges influencing the growth of agri-social entrepreneurship.
3. To explore how agri-social entrepreneurship contributes to agricultural sustainability and livelihood security.
4. To analyze the alignment of agri-social entrepreneurship with the Sustainable Development Goals (SDGs).
5. To propose a conceptual framework for understanding the impact of agri-social entrepreneurship.

### **5 | RESEARCH METHODOLOGY**

The present study adopts a conceptual, qualitative, and exploratory research design. This approach is suitable for emerging fields such as agri-social entrepreneurship, where theoretical development and contextual understanding are more important than hypothesis testing (Creswell & Poth, 2018).

The study is based primarily on secondary data sources, ensuring the credibility and reliability of information. Data were collected from peer-reviewed journals, published research papers, government reports, institutional studies, and reference books focusing on social entrepreneurship, agri-social entrepreneurship, and rural development. These sources provided both theoretical insights and empirical evidence to support the study's objectives.

A literature review method was employed to systematically analyze and synthesize prior research, with an emphasis on identifying key trends, challenges, and opportunities. This qualitative analysis facilitated the interpretation of patterns and the recognition of gaps in existing scholarship (Snyder, 2019).

By relying on secondary data and qualitative interpretation, the research remains aligned with its objective of examining the role of agri-social entrepreneurship in Gujarat's agricultural and socio-economic development. (United Nations Conference on Trade and Development. 2005).

## **6 | AGRI-SOCIAL ENTREPRENEURSHIP INSIGHT**

### **6.1 Social Entrepreneurship and Socio-Economic Development**

The primary objective of social entrepreneurship is to identify social issues and apply entrepreneurial principles to design, launch, and operate enterprises that achieve meaningful social change. Unlike traditional business entrepreneurs, who primarily measure performance in terms of profit and return, social entrepreneurs evaluate success through the benefits delivered to society. This broader perspective expands outcomes beyond economics to include social, cultural, and environmental dimensions, positioning social entrepreneurship as a crucial driver of socio-economic development (Coursera, 2023).

### **6.2 Social Entrepreneurship in Agricultural Development**

Within India, the agricultural sector presents a unique opportunity for social entrepreneurship. Social entrepreneurs act as innovators, creators, and agents of change, leveraging creativity, knowledge, experience, and social values to address persistent challenges (Mthembu & Barnard, 2019). Agriculture remains central to India's economy, employing nearly 65% of Gujarat's workforce—approximately 9 million farmers and agricultural laborers across 225 talukas and 33 districts (Gujarat State Agricultural Marketing Board [GSAMB], 2023). Nationally, agriculture contributes about 17% to GDP while sustaining nearly 53% of the population. Yet, structural barriers such as fragmented landholdings, limited access to capital, persistent poverty, and dependence on monsoons continue to constrain growth. Promoting entrepreneurship within this sector is therefore one of the most practical strategies for overcoming these developmental obstacles and advancing both agricultural and rural progress.

### **6.3 Societal Upliftment and Agri-Socio Entrepreneurship**

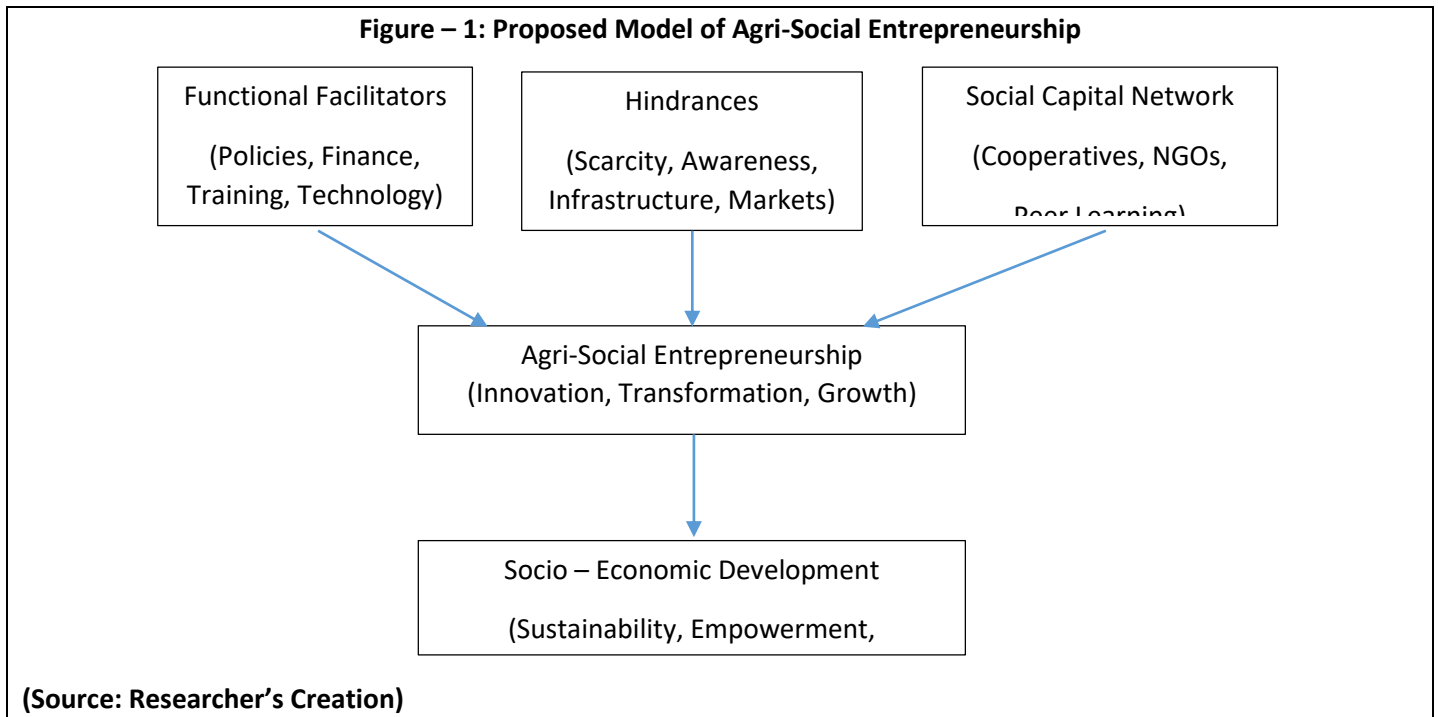
The concept of societal upliftment encompasses improvements in the social, cultural, moral, and intellectual conditions of disadvantaged communities. It also integrates spiritual and emotional well-being, thereby contributing to holistic human development (Upadhyay et al., 2017). Agri-Socio entrepreneurship provides a pathway for this upliftment by encouraging individuals to recognize opportunities, generate innovative ideas, and transform them into viable solutions for pressing social and economic challenges.

Bill Drayton, founder of Ashoka, describes social entrepreneurs as leaders who create new social patterns and act as change agents across diverse domains, including human rights, education, communication, and hospitality (Ashoka Innovators, 2000). Definitions of social entrepreneurship vary across the literature. Dees (1998) emphasized its nonprofit roots, where organizations adopt innovative funding models to achieve social impact. Similarly, Austin, Stevenson, and Wei-Skiller (2003) and Boschee (1998) identified social entrepreneurship as the application of innovative management strategies to enhance nonprofit sustainability and effectiveness. Other perspectives highlight socially responsible practices within for-profit organizations, often implemented through cross-sector partnerships (Sagawa & Segal, 2000; Waddock, 1988). Alvord et al. (2004) further argue that Agri-socio entrepreneurship functions as a mechanism for addressing systemic problems and catalyzing large-scale social transformation.

## **7 | CONCEPTUAL FRAMEWORK OF AGRI-SOCIAL ENTREPRENEURSHIP**

The agricultural sector in Gujarat, and India at large, faces persistent challenges such as fragmented land holdings, limited access to capital and funding, widespread rural poverty, and heavy dependence on monsoon conditions (Food

and Agriculture Organization [FAO], 2000). These structural barriers hinder productivity and threaten sustainable agricultural growth. To overcome these challenges, the promotion of entrepreneurship in agriculture emerges as one of the most effective strategies for revitalizing the sector and supporting socio-economic development. Coyne (2005) & Harper (2003). The proposed Conceptual Model of Agri-Social Entrepreneurship (see Figure 1) emphasizes the interplay between challenges, enabling conditions, and outcomes.



The Conceptual model illustrates how agri-social entrepreneurship in Gujarat can effectively bridge agricultural challenges and socio-economic development. At its foundation lie three key elements: Functional Facilitators, including supportive government policies, financial access, training programs, and adoption of agricultural technologies; Hindrances, such as resource scarcity, lack of awareness, infrastructural gaps, and market uncertainties; and Social Capital Networks, encompassing cooperatives, NGOs, and peer-learning platforms. Research underscores the importance of facilitators like access to extension services and technology adoption in driving agricultural performance (Gutiérrez Cano et al., 2023). Social capital has a considerable influence on economic performance and innovation in agrarian communities, particularly through collective networks such as Farmer Producer Companies (FPCs). (Malik & Kajale, 2024)

Together, these elements converge into agri-social entrepreneurship, representing innovative, transformative, and growth-oriented ventures that leverage both enabling factors and supportive networks to overcome obstacles. The model culminates in socio-economic development outcomes including enhanced sustainability, employment, empowerment, and agricultural growth. This aligns with evidence suggesting that integrating social capital, policy support, and technological tools can spur inclusive rural development, blending both economic resilience and social upliftment. (Daskalopoulou, 2023).

## 8 | FINDINGS

The findings of the study demonstrate a strong relationship between agri-social entrepreneurship and socio-economic development in Gujarat. In line with the first research objective, the study reveals that agri-social enterprises play a transformative role in enhancing rural livelihood security, generating employment, and empowering marginalized groups by placing community welfare above profit motives. These enterprises act as agents of inclusive growth and rural transformation, supporting both agricultural productivity and broader social progress (Majhi, 2019; Chand, 2019).

With respect to the second objective, the analysis identifies several key drivers and challenges influencing the growth of agri-social entrepreneurship. Drivers include the creativity, knowledge, and social values of entrepreneurs, along with cooperative ownership models such as AMUL, which provide farmers with stronger bargaining power and

collective benefits (Chacko, 2013). However, challenges remain, particularly fragmented landholdings, limited financing options, seasonal dependencies, and the risks of market collapse, which continue to constrain scalability and long-term sustainability (FAO, 2000).

The third objective, exploring how agri-social entrepreneurship contributes to agricultural sustainability and livelihood security, highlights that social enterprises encourage practices like organic farming, value-chain management, and collective ownership. These practices enhance food security and promote environmental sustainability while ensuring long-term resilience in agriculture (Mthembu & Barnard, 2019). By addressing both economic and ecological concerns, agri-social entrepreneurship emerges as a dual vehicle for livelihood protection and sustainable agricultural development.

In relation to the fourth objective, the findings confirm that agri-social entrepreneurship aligns strongly with the Sustainable Development Goals (SDGs). It directly supports SDG 1 (No Poverty), SDG 2 (Zero Hunger), and SDG 8 (Decent Work and Economic Growth) by creating jobs, ensuring food security, and enhancing rural incomes. Indirectly, it contributes to SDG 12 (Responsible Consumption and Production) and SDG 13 (Climate Action) through environmentally sustainable practices and reduced reliance on harmful agricultural inputs (Daru et al., 2013).

Finally, the fifth objective is addressed through the proposed conceptual framework, which demonstrates how enabling factors such as government support, access to funding, and the presence of strong social capital networks interact with hindrances including seasonal risks, market fluctuations, and inadequate technological adoption. The outcomes of these dynamics are reflected in agricultural development, socio-economic progress, and environmental sustainability. The framework underscores that agri-social entrepreneurship is not merely an economic activity but a holistic process that integrates agricultural innovation with social upliftment and environmental stewardship.

## 9 | CONCLUSION

The study, *Driving Socio-economic Development through Agri-Social Entrepreneurship: Insights from Gujarat*, highlights the transformative role of agri-social enterprises in advancing both agricultural innovation and rural development. In line with the study's objectives, the findings establish that agri-social entrepreneurship not only strengthens livelihood security and employment generation but also fosters inclusive growth by empowering marginalized groups and communities. By prioritizing social welfare alongside economic viability, such enterprises act as catalysts of socio-economic transformation in Gujarat.

The research further underscores that the growth of agri-social entrepreneurship is shaped by key drivers such as knowledge, creativity, social values, and cooperative ownership models, while structural barriers like fragmented landholdings, financial constraints, and seasonal vulnerabilities continue to hinder progress. The promotion of sustainable practices including organic farming, collective value-chain management, and environmentally responsible approaches, positions agri-social entrepreneurship as a dual force for livelihood protection and ecological balance. (Avinash & Batra, 2023)

Importantly, the study demonstrates the strong alignment between agri-social entrepreneurship and the United Nations Sustainable Development Goals (SDGs), particularly those addressing poverty eradication, hunger reduction, decent work, responsible production, and climate action. The proposed conceptual framework highlights the interplay of enablers and hindrances that shape outcomes in agricultural, social, and economic domains, offering a structured pathway for future policy interventions and entrepreneurial strategies.

In conclusion, agri-social entrepreneurship emerges as a critical driver of Gujarat's socio-economic development, capable of bridging gaps between innovation, agriculture, and social upliftment. To harness its full potential, there is a need for integrated policy support, technological adoption, and capacity-building initiatives that empower rural communities to actively participate in shaping their own futures.

## REFERENCES

- Alvord, S. H., Brown, L. D., & Letts, C. W. (2004). Social entrepreneurship and societal transformation. *Journal of Applied Behavioral Science*, 40(3), 260–282. <https://doi.org/10.1177/0021886304266847>



- Ashoka Innovators. (2000). *Social entrepreneurship: What everyone needs to know*. Ashoka.
- Austin, J., Stevenson, H., & Wei-Skillern, J. (2006). Social and commercial entrepreneurship: Same, different, or both? *Entrepreneurship Theory and Practice*, 30(1), 1–22. <https://doi.org/10.1111/j.1540-6520.2006.00107.x>
- Avinash, & Batra, V. (2023). Organic farming in India: Evolution, current status and policy perspectives. *Space and Culture, India*, 11, 18–34. <https://doi.org/10.20896/saci.v11i2.1328>
- Banerjee, S., & Shabam, A. (2019). Reimagining social enterprise through grassroots social innovations in India. In P. Eynaud, J.-L. Laville, L. dos Santos, S. Banerjee, F. Avelino, & L. Hulgård (Eds.), *Theory of Social Enterprise and Pluralism: Social Movements, Solidarity Economy, and Global South* (pp. 3–17). Routledge. <https://doi.org/10.4324/9780429291197-1> [Taylor & FrancisRoskilde Universitets forskningsportal](https://www.tandfonline.com/doi/full/10.4324/9780429291197-1)
- Boschee, J. (1998). *Merging mission and money: A board member's guide to social entrepreneurship*. National Center for Nonprofit Boards.
- Chacko, J. (2013). Verghese Kurien: Father of the white revolution. *Economic and Political Weekly*, 48(34), 47–53.
- Chand, S. (2019). Characteristics of social entrepreneurs. *International Journal of Entrepreneurship Research*, 7(2), 34–41.
- Commission for Technology and Innovation (CTI). (2011). *Social entrepreneurship report*. Swiss Confederation. Retrieved from <https://www.kti.admin.ch/.../FINAL%20Social%20Entrepreneurship%20Report.../FIN>
- Coursera. (2023). *Social entrepreneurship for social impact*. Retrieved from <https://www.coursera.org>
- Coyne, C. J. (2005). David A. Harper (2003) *Foundations of Entrepreneurship and Economic Development*. New York: Routledge. *The Review of Austrian Economics*, 18(2), 219–221. <https://doi.org/10.1007/s11138-005-6828-z>
- Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). Sage.
- Daru, M., Gaur, A., & Kumar, V. (2013). Social entrepreneurship: A way to solve social problems. *Global Journal of Management and Business Studies*, 3(5), 479–486.
- Daskalopoulou, I., Karakitsiou, A., & Thomakis, Z. (2023). *Social entrepreneurship and social capital: A review of impact research*. *Sustainability*, 15(6), Article 4787. <https://doi.org/10.3390/su15064787> MDPI
- Dees, J. G. (1998). *The meaning of social entrepreneurship*. Kauffman Foundation.
- Demos. (1996). *The Rise of the Social Entrepreneur*. London: Demos.
- Ernst & Young. (2014). *Social entrepreneurship: Emerging business opportunities creating value for society*. EY. Retrieved from [http://www.ey.com/Publication/vwLUAssets/EY-socialentrepreneurship/\\$FILE/EY-social-entrepreneurship.pdf](http://www.ey.com/Publication/vwLUAssets/EY-socialentrepreneurship/$FILE/EY-social-entrepreneurship.pdf)
- Food and Agriculture Organization. (2000). *Agriculture: Towards 2015/30, Chapter 10*. FAO. Retrieved February 9, 2025, from <https://www.fao.org/4/y1860e10.htm>
- Gujarat State Agricultural Marketing Board. (2023). *Agricultural statistics of Gujarat*. Government of Gujarat.
- Gujarat State Agricultural Marketing Board. . *Introduction*. Government of Gujarat. Retrieved from <https://gsamb.gujarat.gov.in/introduction.htm>
- Gutiérrez Cano, L. F., Zartha Sossa, J. W., Orozco Mendoza, G. L., Suárez Guzmán, L. M., Agudelo Tapasco, D. A., & Quintero Saavedra, J. I. (2023). *Agricultural innovation system: Analysis from the subsystems of R&D, training, extension, and sustainability*. *Frontiers in Sustainable Food Systems*, 7, Article 1176366. <https://doi.org/10.3389/fsufs.2023.1176366> Frontiers
- Halberstadt, J., Niemand, T., Kraus, S., Rexhepi, G., Jones, P., & Kailer, N. (2021). Social entrepreneurship orientation: Drivers of success for start-ups and established industrial firms. *Industrial Marketing Management*, 94, 137–149. <https://doi.org/10.1016/j.indmarman.2020.06.012>
- Haldar, S. (2019). Towards a conceptual understanding of sustainability-driven entrepreneurship. *Corporate Social Responsibility and Environmental Management*, 26(6), 1157–1170. <https://doi.org/10.1002/csr.1763>
- Majhi, R. (2019). Social entrepreneurship in India: Issues and challenges. *Journal of Rural Development*, 38(1), 1–12.
- Malik, S., & Kajale, D. (2024). *Assessing social capital and its impact on economic performance: A comparative study of members and non-members of farmer producer companies in India*. *Problems*

- and Perspectives in Management, 22(3), 214–224.*  
[https://doi.org/10.21511/ppm.22\(3\).2024.17](https://doi.org/10.21511/ppm.22(3).2024.17)
- *Millennium Development Goals.* United Nations. Retrieved from <http://www.developmentgoals.org>
  - Misra, R. (1973). *Vinoba Bhave and the Bhoodan movement.* People's Publishing House.
  - Mthembu, N., & Barnard, B. (2019). Social entrepreneurship: Changing the game in rural development. *Journal of Social Entrepreneurship, 10(1),* 56–75. <https://doi.org/10.1080/19420676.2018.1543728>
  - Prabhu, G. N. (1999). Social entrepreneurship leadership. *Career Development International, 4(3),* 140–145.
  - Singh, P. (2012). Social entrepreneurship: A growing trend in Indian economy. *International Journal of Innovations in Engineering and Technology (IJJET), 1(3),* 2319–1058. Retrieved from <http://ijiet.com> (ISSN: 2319–1058)
  - Singh, R. (2012). Social entrepreneurship: Concept and dimensions. *Global Journal of Management and Business Research, 12(22),* 35–42.
  - Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. *Journal of Business Research, 104,* 333–339. <https://doi.org/10.1016/j.jbusres.2019.07.039>
  - United Nations Conference on Trade and Development. (2005). *Entrepreneurship and economic development: The Empretec showcase.* Geneva: United Nations. [https://unctad.org/system/files/official-document/webiteteb20043\\_en.pdf](https://unctad.org/system/files/official-document/webiteteb20043_en.pdf)
  - Upadhyay, P., Tripathi, S., & Kumar, R. (2017). Societal upliftment through entrepreneurship. *International Journal of Management and Applied Science, 3(8),* 23–27.
  - Yunus, M. (1999). *Banker to the poor: Micro-lending and the battle against world poverty.* New York: Public Affairs.
  - Yunus, M. (2007). *Creating a world without poverty: Social business and the future of capitalism.* Public Affairs.

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# The Impact of Idealized Imagery in Beauty and Fashion Marketing on Consumer Behaviour and Brand Performance

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**Abstract:** This study explores how beauty and fashion brands use idealized images to influence consumer behaviour and increase sales. In today's digital world, where social media and influencers are prevalent, visual appeal has become important for branding and connecting with audiences. This research looks at how aspirational images shape perceptions of beauty, trigger emotional responses, and affect buying choices. It also discusses the ethical aspects of these practices, especially their impact on mental health, body image, and the support of unrealistic beauty standards. By incorporating current trends and academic insights, the study provides a detailed view of the commercialization of perfection and its wider cultural and psychological effects.

**Keywords:** Idealized imagery, aspirational marketing, consumer behaviour, body image, influencer culture.

## 1 | INTRODUCTION

The modern marketing space is marked by its heavy emphasis on visual material, fuelled by the widespread adoption of digital channels like Instagram, TikTok, and Pinterest. These channels feature algorithmically curated, beautiful imagery that speaks to emotion and desire over information or utility. Within the world of beauty and fashion, idealized imagery—images of highly groomed, frequently digitally altered standards of look and way of life—has become a prevailing tactic to induce consumer engagement and define brand story.

This theoretical paper discusses how idealized imagery serves as an influential psychological and cultural instrument in beauty and fashion marketing. It examines its impact on consumer behaviour and brand performance alongside critically evaluating the ethical challenges related to its utilization.

## 2 | IDEALIZED IMAGERY IN MODERN MARKETING

Idealized imagery is visual representation that characterizes perfection—usually physical appearance, lifestyle, or social attractiveness. It is usually attained through calculated editing, selective modelling, careful styling, and professional photography. In marketing, the images are not just visual aids; they are symbolic conduits of change, success, and self-actualization.

Brands employ idealized imagery to close the distance between a consumers' real self and ideal self, framing their products as a means of achieving desirable ends. This is a mechanism consistent with the wider phenomenon of aspirational marketing, wherein brands establish emotional tension and offer resolution through consumption.

## 3 | PSYCHOLOGICAL MECHANISMS UNDERLYING CONSUMER RESPONSE

### 3.1 Social Comparison Theory (Festinger, 1954)

Consumers make upward social comparisons upon exposure to models, influencers, and aspirational lifestyles. Such comparison may elicit feelings of inadequacy or inspiration, affecting consumer preferences, brand liking, and purchase decisions.

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### 3.2 Self-Discrepancy Theory (Higgins, 1987)

The gap between a customers' ideal or ought self and their real self is perceived, which brings about psychological discomfort. The marketers take advantage of the gap and represent their products as remedies to minimize the gap so that consumers feel close to their aspirational self.

### 3.3 The Halo Effect (Perloff, 2014)

Good-looking people in ads are viewed as more trustworthy, successful, and competent. This "halo" transfers positively to the product or brand associated with it, bringing more engagement and trust. These mechanisms collectively assist marketers in steering emotional engagement, inducing impulse purchasing, and inspiring brand loyalty—particularly among image-driven populations such as Gen Z and Millennials.

## 4 | SOCIAL MEDIA AND INFLUENCER CULTURE

Social media websites have remapped the brand-consumer relationship. Influencers, who are generally seen as real and down-to-earth, play the role of middlemen between corporate promotion and word of mouth. They transport idealized lives into usable contexts, making them credible and relatable.

#### Key features are:

- **Algorithmic Amplification:** Social media algorithms surface high-engagement images, making idealized content more prominent and impactful.
- **Brand Partnerships:** Brand content is organically woven into daily life, generating a "soft sell" stance that feels less obtrusive.
- **Visual Unity:** Hashtags, filters, and color schemes establish a unifying brand identity that reinforces brand recall and brand trust.

These forces amplify the compelling force of idealized images, broadening their psychological scope and defining online consumer culture.

## 5 | CONSUMER ATTITUDE AND EMOTIONAL RESPONSE

Studies show that idealized content generates powerful emotional responses. These are:

- **Arousal and Desire:** Content rich in visuals triggers excitement and desire, driving consumers to take action.
- **Impulse Buying:** Emotive urgency due to limited-period offers or special content triggers impulsive buying.
- **Brand Loyalty:** Continued exposure to uniform visual appeal creates familiarity and emotional affinity, leading to long-term brand loyalty (Statista, 2024).

These affective reactions are most effective when idealized imagery is part of narrative storytelling, including influencer reviews or product transformation stories.

## 6 | ETHICAL ISSUES AND PSYCHOLOGICAL IMPLICATIONS

Idealized imagery works, but its social and psychological costs are significant. Ethical issues include:

### 6.1 Body Image Disturbance

Recurring exposure to unattainable beauty ideals promotes body discontention, particularly among teenage girls. It may lead to negative comparisons, negative self-esteem, and cosmetic worry (Tiggemann & Zaccardo, 2018).

### 6.2 Image Anxiety and Social Pressure

Users therefore feel compelled to present themselves in equally edited forms, causing digital exhaustion, stress of identity, and anxiety disorders.

### 6.3 Mistruthful Representation

Excessive editing and misleading imagery give a false impression of product results, decreasing transparency and potentially harming brand credibility.

In response to these concerns, some brands are shifting towards genuine marketing campaigns that include unedited, diverse, and inclusive images. Dove's "Real Beauty" and Aerie's "#AerieREAL" campaigns indicate a moving force in this direction, proposing that consumers are increasingly hungry for realism rather than perfection.

## 7 | CONCLUSION AND IMPLICATIONS

Idealized imagery is still a pillar of beauty and fashion advertising in today's digital era. Its psychological attraction and commercial success cannot be ignored, especially in building brand awareness, emotional connection, and customer loyalty. Yet, the price tag of sustaining unattainable beauty ideals and its unintended mental health consequences necessitate an ethical and balanced strategy.

Marketers need to understand the two-edged sword of idealized imagery—tapping its compelling power while balancing damage with transparency, diversity, and authenticity. Subsequent studies would do well to investigate other visual approaches and compare their relative effects on consumer trust, emotional health, and brand value.

## REFERENCES

- American Psychological Association. (2020). Digital media and youth mental health report. <https://www.apa.org>
- Berger, J. (1972). *Ways of Seeing*. Penguin Books.
- Cash, T. F., & Smolak, L. (2011). *Body Image: A Handbook of Science, Practice, and Prevention* (2nd ed.). The Guilford Press.
- Dittmar, H. (2008). Consumer Culture, Identity, and Well-Being: The Search for the 'Good Life' and the 'Body Perfect'. Psychology Press.
- Festinger, L. (1954). A theory of social comparison processes. *Human Relations*, 7(2), 117–140. <https://doi.org/10.1177/001872675400700202>
- Higgins, E. T. (1987). Self-discrepancy: A theory relating self and affect. *Psychological Review*, 94(3), 319–340. <https://doi.org/10.1037/0033-295X.94.3.319>
- Jin, S. V., Muqaddam, A., & Ryu, E. (2019). Instafamous and social media influencer marketing. *Marketing Intelligence & Planning*, 37(5), 567–579. <https://doi.org/10.1108/MIP-09-2018-0375>
- Kilbourne, J. (1999). *Can't Buy My Love: How Advertising Changes the Way We Think and Feel*. Touchstone.
- Kotler, P., & Keller, K. L. (2016). *Marketing Management* (15th ed.). Pearson Education.
- Perloff, R. M. (2014). *The Dynamics of Persuasion: Communication and Attitudes in the 21st Century*. Routledge.
- Statista. (2024). Global fashion influencer marketing trends. <https://www.statista.com/statistics/marketing/influencers>
- Tiggemann, M., & Zaccardo, M. (2018). "Strong is the new skinny": A content analysis of #fitspiration images on Instagram. *Journal of Health Psychology*, 23(8), 1003–1011. <https://doi.org/10.1177/1359105316639436>
- Veblen, T. (1899). *The Theory of the Leisure Class: An Economic Study of Institutions*. Macmillan.
- Vries, L. de, Gensler, S., & Leeflang, P. S. H. (2012). Popularity of brand posts on brand fan pages: An investigation of the effects of social media marketing. *Journal of Interactive Marketing*, 26(2), 83–91. <https://doi.org/10.1016/j.intmar.2012.01.003>

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# The Role of Brand Purpose in Driving Consumer Trust and Loyalty Post-COVID: A Conceptual Framework

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**Abstract:** The COVID-19 pandemic profoundly altered the relationship between consumers and brands, highlighting the need for authenticity, empathy, and meaningful engagement. In the post-pandemic marketplace, consumers increasingly expect companies to demonstrate a socially relevant brand purpose that goes beyond profit-making to include ethical, social, and environmental dimensions. This conceptual paper examines the role of brand purpose in fostering consumer trust and brand loyalty in the post-COVID era. Drawing upon theories of brand authenticity, relationship marketing, and social identity, this paper proposes a conceptual framework linking perceived brand purpose to consumer trust and loyalty, mediated by brand authenticity and communication transparency. The paper concludes with managerial implications, limitations, and directions for future empirical research.

**Keywords:** Brand Purpose, Consumer Trust, Brand Loyalty, COVID-19, CSR, Post-COVID Marketing, Authenticity.

## 1 | INTRODUCTION

The COVID-19 pandemic has caused an unprecedented transformation in global consumer behavior and corporate responsibility. Consumers are no longer satisfied with brands that merely deliver quality products; they increasingly expect organizations to act as responsible corporate citizens that contribute to societal well-being (Edelman, 2021). As a result, brand purpose—defined as a brand’s central and enduring reason for existence that extends beyond profit—has become a vital element in shaping consumer perceptions and loyalty (Williams et al., 2022).

During the pandemic, consumers closely monitored how brands responded to crises such as supply chain disruptions, employee safety, and community support. Brands that demonstrated genuine concern for society—such as providing healthcare assistance, donations, or flexible working policies—earned consumer appreciation and trust (Taher & Rizkalla, 2024). Conversely, brands that appeared opportunistic faced backlash and reputational damage. In this context, trust and authenticity have emerged as critical determinants of brand loyalty in the post-pandemic world (Hsu, 2023).

This paper explores how brand purpose contributes to building consumer trust and loyalty in the post-COVID landscape. It synthesizes extant literature and proposes a conceptual framework linking brand purpose, consumer trust, and brand loyalty, moderated by brand authenticity, communication transparency, and consumer–brand value congruence. The paper further offers managerial insights and future research directions for understanding purpose-driven marketing as a sustainable brand strategy.

## 2 | LITERATURE REVIEW

### 2.1. Conceptualizing Brand Purpose

Brand purpose represents a brand’s *raison d’être*—a guiding belief that articulates how the brand contributes positively to society (Williams et al., 2022). It transcends traditional notions of corporate social responsibility (CSR) by embedding social and ethical values into the core business strategy rather than treating them as peripheral initiatives. Unlike CSR, which is often reactive or compliance-driven, brand purpose is proactive and integral to long-term

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organizational identity (Kashmiri & Willmott, 2018). According to the Journal of Consumer Psychology, brand purpose enhances consumers' eudaimonic well-being by providing meaning and aligning with personal values (Williams et al., 2022). When consumers perceive that a brand's purpose resonates with their values, they are more likely to form emotional attachments and engage in supportive behaviors. However, a superficial or inconsistent expression of purpose—often referred to as “purpose-washing”—can lead to consumer cynicism and erode trust (Edelman, 2021). Thus, the authenticity of brand purpose is essential for achieving long-term credibility.

## **2.2. Brand Purpose in the Context of COVID-19**

The pandemic created a defining moment for brands to demonstrate their purpose through action. Many companies redirected resources to produce essential goods, supported employees, or contributed to public health efforts. These actions were not only ethical imperatives but also strategic opportunities to reinforce brand identity. Taher and Rizkalla (2024) found that companies engaging in authentic CSR responses during COVID-19 achieved higher levels of brand value and growth compared to those that did not.

In contrast, brands that engaged in symbolic gestures without substantive follow-through faced consumer skepticism. The post-pandemic marketplace therefore distinguishes between performative purpose and authentic purpose. Authentic purpose is consistent, measurable, and embedded in decision-making, whereas performative actions are short-term and marketing-driven (Hsu, 2023). Consumers, now more informed and socially conscious, are quick to discern between the two. Consequently, brand purpose has become a strategic asset for trust-building in uncertain times.

## **2.3. Consumer Trust in the Post-Pandemic Era**

Consumer trust refers to a consumer's belief in a brand's integrity, reliability, and benevolence (Chaudhuri & Holbrook, 2001). Trust is not merely transactional; it is relational, built through consistent communication, ethical behavior, and perceived competence. In a post-COVID environment marked by uncertainty and information overload, trust has become the most critical factor influencing purchasing decisions (Edelman, 2021).

The Edelman Trust Barometer (2021) reported that 68% of consumers consider trust a decisive factor in buying decisions, with most preferring brands that “do what is right for society.” During the pandemic, trust was strengthened when brands communicated transparently about challenges, demonstrated empathy, and delivered tangible support to stakeholders. This aligns with relationship marketing theory, which posits that trust is a foundation for long-term loyalty and advocacy (Morgan & Hunt, 1994). Therefore, brand purpose can be viewed as a precursor to trust, establishing a moral contract between brands and consumers.

## **2.4. Brand Loyalty and Purpose Alignment**

Brand loyalty encompasses both behavioral and attitudinal dimensions—repeat purchase behavior and emotional attachment (Oliver, 1999). Trust serves as a mediator between brand purpose and loyalty. When consumers perceive a brand's purpose as authentic and aligned with their personal values, they are more likely to remain loyal and engage in word-of-mouth advocacy (Bhattacharya & Sen, 2003).

In the post-pandemic context, emotional and ethical dimensions of loyalty have intensified. A 2022 study by Accenture revealed that 62% of consumers expect companies to take a stand on social issues, and 43% are willing to switch to brands that align with their personal values. Therefore, loyalty is no longer a mere function of satisfaction but a reflection of shared beliefs and purpose alignment. Brands with clear, credible purposes thus create deeper psychological bonds and more resilient consumer relationships.

## 2.5. Moderating Role of Authenticity, Transparency, and Value Congruence

Brand authenticity refers to the perception that a brand is true to itself, consistent, and sincere in its actions (Morhart et al., 2015). Authentic brands build trust because consumers perceive them as principled and dependable. The moderating role of authenticity suggests that the positive relationship between brand purpose and trust is strengthened when consumers view the brand's actions as genuine.

Communication transparency further reinforces credibility. Transparent communication about purpose-related initiatives—such as progress reports, third-party audits, or storytelling—reduces skepticism and enhances trust (Hsu, 2023).

Lastly, value congruence between consumers and brands amplifies emotional resonance. When consumers perceive that a brand's purpose aligns with their moral or social values, they are more likely to exhibit trust and loyalty (de Jong & van der Meer, 2019). Thus, authenticity, transparency, and value congruence form the contextual foundation for translating purpose into loyalty.

## 3 | CONCEPTUAL FRAMEWORK

Drawing from the preceding discussion, the conceptual model proposed in this paper posits that brand purpose positively influences consumer trust, which in turn enhances brand loyalty. The relationship between purpose and trust is moderated by brand authenticity and communication transparency, while consumer–brand value congruence strengthens the trust–loyalty relationship.

This framework is grounded in social identity theory, which suggests that consumers derive part of their self-concept from their association with brands that reflect their values (Bhattacharya & Sen, 2003). In addition, the relationship marketing paradigm (Morgan & Hunt, 1994) underscores trust as a mediating mechanism through which purpose-driven brands foster long-term loyalty.

Future empirical research could validate this model through quantitative studies employing structural equation modeling (SEM) or partial least squares (PLS) analysis, using constructs such as perceived brand purpose, authenticity, trust, and loyalty measured through established scales (Williams et al., 2022; Morhart et al., 2015).

## 4 | MANAGERIAL IMPLICATIONS

The findings of this conceptual study carry several important implications for marketers and brand managers. First, firms must ensure that brand purpose is authentic, consistent, and actionable. A purpose that is not embedded in core operations risks being perceived as superficial. Second, communication strategies must emphasize transparency—consumers are more likely to trust brands that share both successes and challenges honestly. Third, marketers should seek value alignment with target audiences through purposeful storytelling and community engagement. Lastly, brand purpose should not be treated as a temporary campaign but as a long-term strategic compass that informs innovation, leadership, and stakeholder relationships.

Brands such as Patagonia, Unilever, and TOMS exemplify this principle by integrating sustainability and social welfare into their identities. Such commitment fosters enduring loyalty and advocacy, even amid economic uncertainty.

## 5 | LIMITATIONS AND FUTURE RESEARCH

This conceptual framework, while comprehensive, has limitations that warrant further empirical validation. First, it is theoretical in nature and does not provide quantitative evidence of causal relationships. Future research should employ mixed-methods approaches—combining surveys, interviews, and content analysis—to test the proposed model. Second, cultural differences may influence perceptions of brand purpose and authenticity; thus, cross-cultural

studies would enhance generalizability. Third, digital transformations such as artificial intelligence and social media algorithms introduce new complexities in communicating purpose, meriting further exploration.

Future studies may also examine how AI-driven personalization, metaverse branding, or greenwashing detection tools affect consumer perceptions of brand purpose authenticity. These directions will expand the understanding of purpose-driven marketing in the digital and post-pandemic age.

## 6 | CONCLUSION

In conclusion, brand purpose has emerged as a central pillar of marketing strategy in the post-COVID era. Consumers increasingly expect brands to demonstrate moral leadership, authenticity, and societal contribution. When brand purpose is communicated transparently and aligned with consumer values, it builds trust—a prerequisite for long-term loyalty. The proposed conceptual model emphasizes that brand purpose, mediated by consumer trust and moderated by authenticity, transparency, and value congruence, serves as a sustainable competitive advantage in modern marketing.

As businesses navigate a world defined by uncertainty and ethical scrutiny, purposeful branding is no longer optional—it is essential for earning consumer trust and fostering enduring loyalty.

## REFERENCES

- Accenture. (2022). *The human paradox: From customer centricity to life centricity*. Accenture Strategy. <https://www.accenture.com>
- Bhattacharya, C. B., & Sen, S. (2003). Consumer–company identification: A framework for understanding consumers’ relationships with companies. *Journal of Marketing*, 67(2), 76–88. <https://doi.org/10.1509/jmkg.67.2.76.18609>
- Chaudhuri, A., & Holbrook, M. B. (2001). The chain of effects from brand trust and brand affect to brand performance. *Journal of Marketing*, 65(2), 81–93. <https://doi.org/10.1509/jmkg.65.2.81.18255>
- de Jong, M. D. T., & van der Meer, M. (2019). How does it fit? Exploring the congruence between organizations and their corporate social responsibility (CSR) activities. *Journal of Business Ethics*, 155(2), 399–414. <https://doi.org/10.1007/s10551-017-3498-4>
- Edelman. (2021). *Edelman Trust Barometer Special Report: In brands we trust?* Edelman. <https://www.edelman.com/research/trust-barometer-special-report-in-brands-we-trust>
- Hsu, L. (2023). Purpose-driven marketing and consumer engagement: Post-pandemic perspectives. *Journal of Strategic Marketing*, 31(4), 512–530. <https://doi.org/10.1080/0965254X.2023.2176112>
- Kashmiri, S., & Willmott, H. (2018). Brand purpose and financial performance: An empirical examination. *Journal of Business Research*, 87, 227–239. <https://doi.org/10.1016/j.jbusres.2018.02.028>
- Morhart, F., Malär, L., Guèvremont, A., Girardin, F., & Grohmann, B. (2015). Brand authenticity: An integrative framework and measurement scale. *Journal of Consumer Psychology*, 25(2), 200–218. <https://doi.org/10.1016/j.jcps.2014.11.006>
- Morgan, R. M., & Hunt, S. D. (1994). The commitment-trust theory of relationship marketing. *Journal of Marketing*, 58(3), 20–38. <https://doi.org/10.1177/002224299405800302>
- Oliver, R. L. (1999). Whence consumer loyalty? *Journal of Marketing*, 63(Special Issue), 33–44. <https://doi.org/10.1177/00222429990634s105>
- Taher, A., & Rizkalla, A. (2024). How brand CSR responses to the pandemic impact brand value, growth, and rank. *Humanities and Social Sciences Communications*, 11(1), Article 1253. <https://doi.org/10.1057/s41599-024-03711-0>
- Williams, P., White, L., & Brown, S. (2022). Conceptualizing brand purpose and considering its implications for consumer eudaimonic well-being. *Journal of Consumer Psychology*, 32(3), 425–441. <https://doi.org/10.1002/jcpy.1271>

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# ગુજરાતનાં મુખ્ય પાકો હેઠળનો વિસ્તાર, ઉત્પાદન અને ઉપજમાં થયેલાં પરીવર્તનોનો અભ્યાસ: વર્ષ 2011-12 થી 2021-22 નાં સંદર્ભમાં

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**ટૂંકસાર:** પ્રસ્તુત અભ્યાસમાં ગુજરાતના મુખ્ય પાકો હેઠળનો વિસ્તાર, ઉત્પાદન અને ઉપજમાં થયેલા ફેરફારો જાણવા માટે વર્ષ 2011-12 થી 2021-22 ના સમયગાળાની પસંદગી કરવામાં આવેલ છે. જેમાં ગૌણ માહિતીનો ઉપયોગ કરી માહિતી એકત્રિત કરેલ છે અને અભ્યાસનાં મુખ્ય હેતુ જેવા કે, ખરીફ, રવી અને ઉનાળાની ઋતુમાં ઉગાડવામાં આવતા મુખ્ય ખાદ્ય અને કઠોળના પાકો હેઠળનો વિસ્તાર, ઉત્પાદન અને ઉપજ તેમજ મુખ્ય તેલીબિયાં, રોકડિયા, શાકભાજી, મસાલા અને અન્ય પાકો હેઠળનો વિસ્તાર, ઉત્પાદન અને ઉપજમાં થયેલાં ફેરફારો જાણવાનો છે. તેમજ અભ્યાસના વિશ્લેષણ દરમિયાન કેટલાંક તારણો પ્રાપ્ત થયેલ છે જેવા કે, ખાદ્ય પાકો હેઠળના વિસ્તાર અને ઉત્પાદનમાં નોંધપાત્ર ઘટાડો થયો છે, જ્યારે ઉપજમાં વધારો નોંધાયો છે. તેમજ કઠોળના પાકો, તેલીબિયાં, શાકભાજી અને મસાલાનાં પાકો હેઠળના વિસ્તાર, ઉત્પાદન અને ઉપજમાં વધારો જોવા મળ્યો છે. જ્યારે રોકડિયા પાકોના અનુસંધાનમાં વાત કરીએ તો આ પાકો હેઠળ નો વિસ્તાર ઘટ્યો હોવા છતાં તેના ઉત્પાદન અને ઉપજમાં વિશેષ વધારો નોંધાયો છે કારણ કે આવા પાકો ખેડૂતોની આવક પર સીધી અસર કરે છે અને જે સારી આર્થિક સ્થિતિનો નિર્દેશ કરે છે. આમ, અભ્યાસમાં વર્ષ 2011-12 થી 2021-22નાં સમયગાળા દરમિયાન ગુજરાતનાં મુખ્ય પાકો હેઠળનો વિસ્તાર, ઉત્પાદન અને ઉપજમાં થયેલા ફેરફારો નું વિશ્લેષણ કરવામાં આવેલ છે.

**ચાવીરૂપ શબ્દો:** પાક હેઠળનો વિસ્તાર, ઉત્પાદન, ઉપજ, મુખ્ય પાકો (ખાદ્ય, કઠોળ, તેલીબિયાં, રોકડિયા, શાકભાજી, મસાલાનાં પાકો)

## 1 | પ્રસ્તાવના

ભારતીય અર્થતંત્ર વિકાસશીલ અને કૃષિ પ્રધાન છે. અર્થતંત્રનાં લગભગ 65% જેટલાં લોકોને રોજગારી પૂરું પાડતું તે સૌથી મહત્વનું ક્ષેત્ર છે. ભારતીય કૃષિ ક્ષેત્ર વૈવિધ્યસભર છે, પરિણામે વિવિધ જાતના ખાદ્ય અને અખાદ્ય પાકોનું ઉત્પાદન કરવામાં આવે છે. જેમાં અનાજ, કઠોળ, તેલીબિયાં, રોકડિયા, શાકભાજી, મસાલા, બાગાયતી અને ઔષધીય વગેરે પાકોનું ઉત્પાદન કરવામાં આવે છે. હરિયાણા ક્રાંતિના સમયગાળા બાદ ભારતીય અર્થતંત્ર એ ખેતી ક્ષેત્રે સ્વનિર્ભર બન્યું. અને આધુનિક ખેત પદ્ધતિ તેમજ સિંચાઈની જુદી જુદી પદ્ધતિઓના પરિણામે વિવિધ પાકોનાં ઉત્પાદનમાં વિશેષ વધારો નોંધ્યો. આમ, ભારત જેવા અતિ વસ્તીવાળા દેશમાં કૃષિ ક્ષેત્ર એક વરદાન સ્વરૂપ છે કારણ કે તે મોટાભાગના લોકોને રોજગારી પૂરી પાડે છે, ઉદ્યોગોને કાર્યો માલ પૂરો પાડે છે, નિકાસ કમાણી દ્વારા વિદેશી હુંડીયામણ પ્રાપ્ત કરાવે છે (ભારતની કુલ નિકાસોમાં 10% ભાગ ખેતી ક્ષેત્રનો છે), જુદાં જુદાં ક્ષેત્રોની માંગ સંતોષે છે, દેશના આર્થિક વિકાસમાં (કુલ જીટીપીમાં ખેતી ક્ષેત્રનું અંશદાન 33% છે) મહત્વની ભૂમિકા ભજવે છે (<https://gu.vikaspedia.in>).

## 2 | સમસ્યાકથન

ગુજરાત રાજ્ય ભારતમાં સૌથી વધુ વૈવિધ્યસભર રાજ્યમાંનું એક રાજ્ય છે. જે 1,600 કિ.મી. જેટલો લાંબો દરિયો કિનારો ધરાવે છે. તેની કૃષિ સફળતાની શક્તિ વૈવિધ્યસભર પાકો અને પાકની પદ્ધતિને આભારી છે. રાજ્યમાં જમીનની લાક્ષણિકતા, વરસાદ અને તાપમાનનાં આધારે આઠ વિવિધ આબોહવા ઝોન છે, રાજ્યમાં ૪ કૃષિ યુનિવર્સિટીઓ આવેલ છે. જે કૃષિ કાર્યક્ષમતા અને ટકાઉપણાનાં સંશોધનોને પ્રોત્સાહન આપે છે. રાજ્યનો કુલ ભૌગોલિક વિસ્તાર આશરે 196 લાખ હેક્ટર છે, જે કુલ ભૌગોલિક વિસ્તારના 54% જેટલો છે. રાજ્યમાં કુલ પાક વિસ્તાર આશરે 147 લાખ હેક્ટર છે, જેમાં વિવિધ ખાદ્ય અને અખાદ્ય પાકોનું ઉત્પાદન કરવામાં આવે છે. જેમાં અનાજ, કઠોળ, તેલીબિયાં, રોકડિયા, શાકભાજી, મસાલા વગેરે પાકોનું ઉત્પાદન કરવામાં આવે છે (<https://dug.gujarat.gov.in>). અને આમ ગુજરાત રાજ્યમાં વર્ષ 2011-12 થી વર્ષ 2021-22 એમ દસ વર્ષનાં

સમયગાળા દરમિયાન ગુજરાતમાં મુખ્ય પાકો હેઠળ નો વિસ્તાર, ઉત્પાદન અને ઉપજમાં થયેલા ફેરફારો જાણવા માટે નો અભ્યાસ કરવો જરૂરી થઈ પડે છે.

### 3 | અભ્યાસનાં હેતુઓ

પ્રસ્તુત અભ્યાસ "ગુજરાતમાં મુખ્ય પાકો હેઠળ નો વિસ્તાર, ઉત્પાદન અને ઉપજમાં થયેલા પરિવર્તનો અભ્યાસ: વર્ષ 2011-12 થી 2021-22 ના સંદર્ભમાં કરવામાં આવેલ છે. જેનાં મુખ્ય હેતુઓ નીચે મુજબ છે:

1. ખરીફ, રવી અને ઉનાળાની ઋતુમાં ઉગાડવામાં આવતા મુખ્ય ખાદ્ય પાકો હેઠળનો વિસ્તાર, ઉત્પાદન અને ઉપજમાં થયેલાં ફેરફારો જાણવાનો હેતુ
2. ખરીફ, રવી અને ઉનાળાની ઋતુમાં ઉગાડવામાં આવતા મુખ્ય કઠોળ પાકો હેઠળનો વિસ્તાર, ઉત્પાદન અને ઉપજમાં થયેલાં ફેરફારો જાણવાનો હેતુ
3. મુખ્ય તેલીબિયાં પાકો હેઠળનો વિસ્તાર, ઉત્પાદન અને ઉપજમાં થયેલાં ફેરફારો જાણવાનો હેતુ
4. મુખ્ય રોકડિયા પાકો હેઠળનો વિસ્તાર, ઉત્પાદન અને ઉપજ માં થયેલાં ફેરફારો જાણવાનું હતું
5. શાકભાજી, મસાલા અને અન્ય પાકો હેઠળનો વિસ્તાર, ઉત્પાદન અને ઉપજમાં થયેલાં ફેરફારો જાણવાનું હતું

### 4 | સંશોધન પદ્ધતિ

પ્રસ્તુત સંશોધન અભ્યાસમાં ગૌણ માહિતીનો ઉપયોગ કરી માહિતી એકત્રિત કરવામાં આવેલ છે. જેમાં દસ વર્ષનાં એટલે કે, વર્ષ 2011-12 થી વર્ષ 2021-22 સુધીનાં સમયગાળા દરમિયાન ગુજરાતમાં મુખ્ય પાકો હેઠળનો વિસ્તાર, ઉત્પાદન અને ઉપજમાં થયેલા ફેરફારો અંગેની માહિતીનું વિશ્લેષણ કરવામાં આવેલ છે.

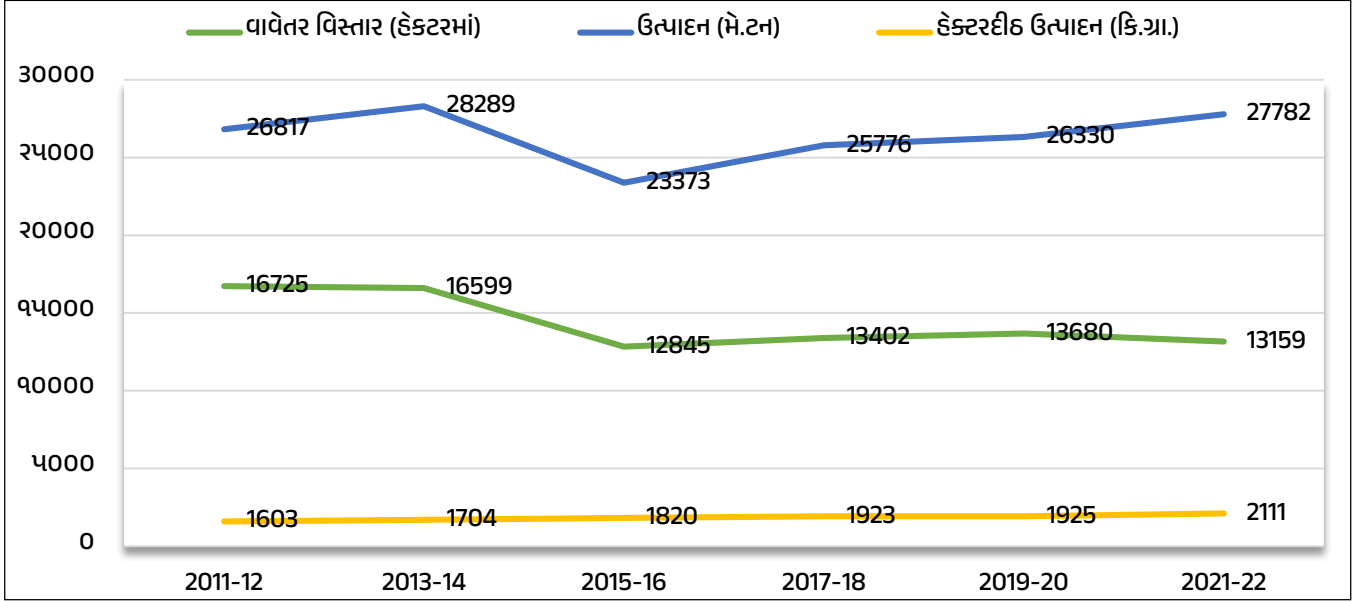
**કોષ્ટક નં.1.1: ગુજરાતમાં ખરીફ (ચોમાસું) ખાદ્ય પાકો અને કઠોળનાં પાકો હેઠળનો વાવેતર વિસ્તાર, ઉત્પાદન અને ઉપજ (2011-12 થી 2021-22)**

ખાદ્ય પાકો	વિગત	2011-12	2013-14	2015-16	2017-18	2019-20	2021-22
ચોખા	વિસ્તાર (હેક્ટરમાં)	7513	7873	7410	8027	8496	8181
	ઉત્પાદન (મે.ટન)	15218	16726	15844	17496	18211	18847
	હેક્ટરથી ઉત્પાદન (કિ.ગ્રા.)	2026	2124	2138	2180	2144	2304
જુવાર	વિસ્તાર (હેક્ટરમાં)	682	1495	747	670	286	281
	ઉત્પાદન (મે.ટન)	804	2148	1025	933	435	403
	હેક્ટરથી ઉત્પાદન (કિ.ગ્રા.)	1179	1437	1372	1393	1520	1433
બાજરી	વિસ્તાર (હેક્ટરમાં)	4338	3635	1471	1530	1774	1644
	ઉત્પાદન (મે.ટન)	5173	4981	2388	2523	3082	2693
	હેક્ટરથી ઉત્પાદન (કિ.ગ્રા.)	1192	1370	1623	1649	1738	1638
મકાઈ	વિસ્તાર (હેક્ટરમાં)	3870	3331	2976	3028	3005	2947
	ઉત્પાદન (મે.ટન)	5394	4219	3938	4696	4500	5745
	હેક્ટરથી ઉત્પાદન (કિ.ગ્રા.)	1394	1266	1323	1551	1497	1950
રાગી	વિસ્તાર (હેક્ટરમાં)	162	143	192	119	116	100
	ઉત્પાદન (મે.ટન)	133	141	150	106	100	90
	હેક્ટરથી ઉત્પાદન (કિ.ગ્રા.)	821	983	780	896	862	900
અન્ય	વિસ્તાર (હેક્ટરમાં)	160	121	48	29	03	07
	ઉત્પાદન (મે.ટન)	95	75	28	22	02	05
	હેક્ટરથી ઉત્પાદન (કિ.ગ્રા.)	594	620	580	745	560	705



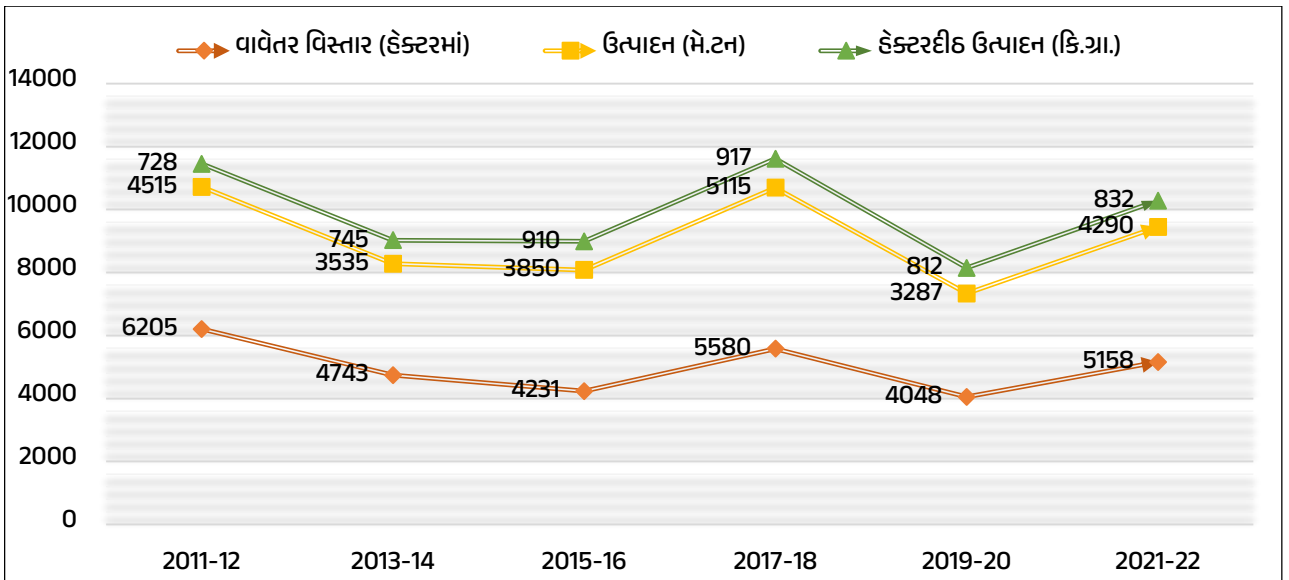
કુલ ખાદ્ય પાકો	વિસ્તાર (હેક્ટરમાં)	16725	16599	12845	13402	13680	13159
	ઉત્પાદન (મે.ટન)	26817	28289	23373	25776	26330	27782
	હેક્ટરદીઠ ઉત્પાદન (કિ.ગ્રા.)	1603	1704	1820	1923	1925	2111
કુલ કઠોળ પાકો	વિસ્તાર (હેક્ટરમાં)	6205	4743	4231	5580	4048	5158
	ઉત્પાદન (મે.ટન)	4515	3535	3850	5115	3287	4290
	હેક્ટરદીઠ ઉત્પાદન (કિ.ગ્રા.)	728	745	910	917	812	832

**આલેખ નં.1.1: ગુજરાતમાં ખરીફ ખાદ્યપાકો હેઠળ નો વાવેતર વિસ્તાર,ઉત્પાદન અને ઉપજ (2011-12 થી 2021-22)**



ઉપરોક્ત કોષ્ટક નંબર 1.1 અને આલેખ નંબર 1.1 પરથી જ્યાલ આવે છે કે, વર્ષ 2011-12 માં ખરીફ પાકો હેઠળનો વાવેતર વિસ્તાર 26817 હેક્ટર હતો જે વર્ષ 2021-22 માં વધી ને 27782 થયો છે. તેવી જ રીતે ખરીફ ખાદ્ય પાકોનું ઉત્પાદન વર્ષ 2011-12 માં 16725 મેટ્રિક ટન હતું જે વર્ષ 2021-22 માં ઘટીને 13159 થયું છે. અને વર્ષ 2011-12 માં ખરીફ ખાદ્ય પાકો ની હેક્ટરદીઠ ઉત્પાદન 1603 કિ.ગ્રા. હતી જે વર્ષ 2021-22 માં વધીને 2111 કિ.ગ્રા. થઈ છે.

**આલેખ નં.1.2 ગુજરાતમાં ખરીફ કઠોળનાં પાકો હેઠળનો વાવેતર વિસ્તાર,ઉત્પાદન અને ઉપજ (2011-12 થી 2021-22)**

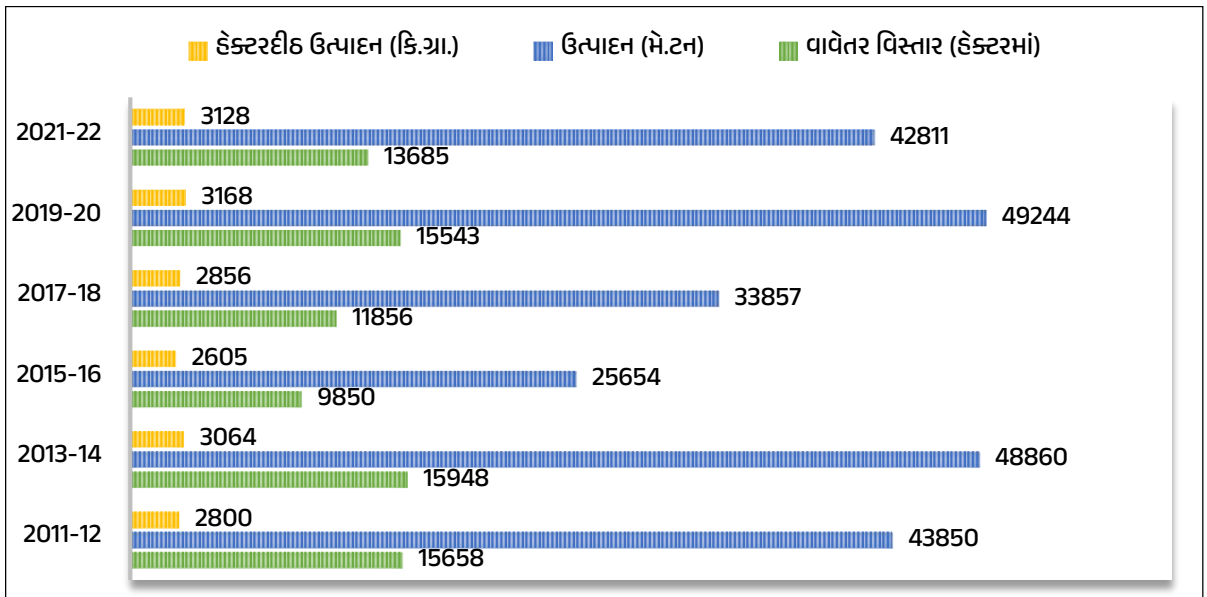


ઉપરોક્ત કોષ્ટક નંબર 1.1 અને આલેખ નંબર 1.2 પરથી ખ્યાલ આવે છે કે, વર્ષ 2011-12 માં ખરીફ કઠોળ પાકો હેઠળ નો વિસ્તાર 6205 હેક્ટર હતો જે વર્ષ 2021-22 માં ઘટીને 5158 હેક્ટર થયો છે. તેવી જ રીતે ખરીફ કઠોળના પાકોનું ઉત્પાદન વર્ષ 2011-12 માં 4515 મેટ્રિક ટન હતું, જે વર્ષ 2021-22 માં ઘટીને 4290 મેટ્રિક ટન થયું છે. અને વર્ષ 2011-12 માં ખરીફ કઠોળ પાકોની હેક્ટરદીઠ ઉત્પાદન 728 હતી, જેમાં 2021-22 માં નોંધપાત્ર વધારો થયો અને તે વધીને 832 કિ.ગ્રા. થઈ છે.

**કોષ્ટક નં.1.2: ગુજરાતમાં સ્વી (શિયાળું) ખાદ્ય પાકો અને કઠોળનાં પાકો હેઠળનો વાવેતર વિસ્તાર, ઉત્પાદન અને ઉપજ (2011-12 થી 2021-22)**

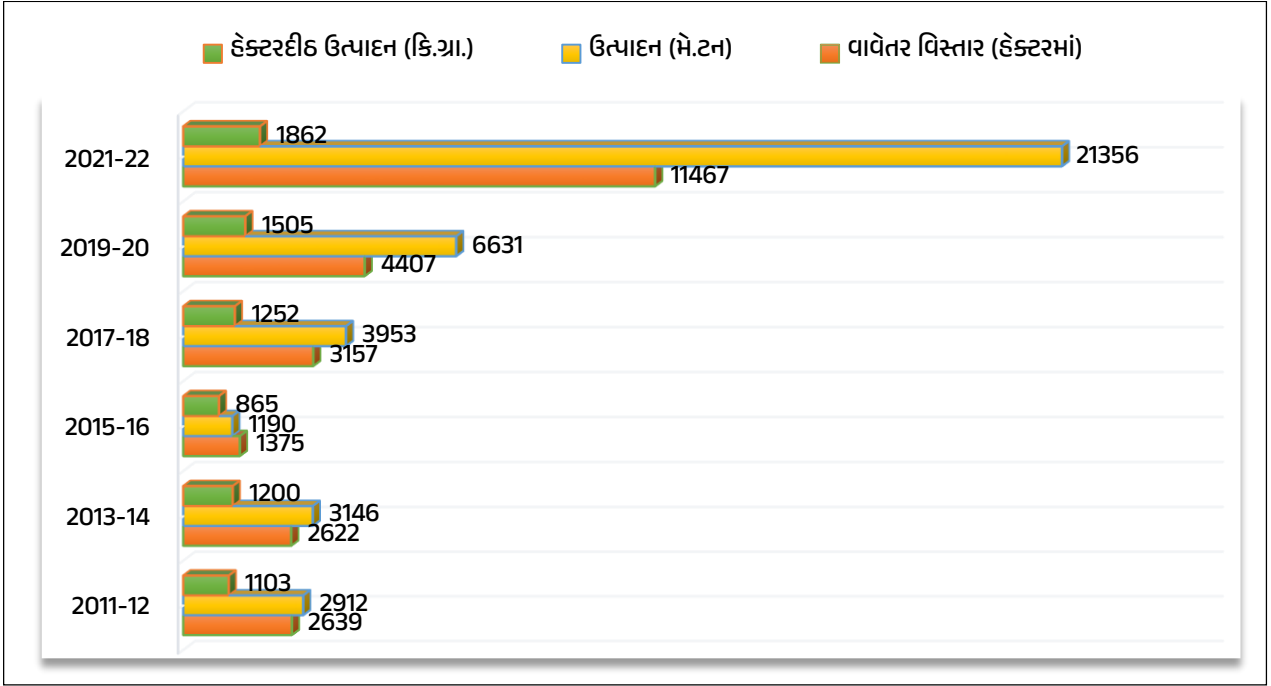
ખાદ્ય પાકો	વિગત	2011-12	2013-14	2015-16	2017-18	2019-20	2021-22
ઘઉં	વિસ્તાર (હેક્ટરમાં)	13506	14423	8577	10588	13935	12538
	ઉત્પાદન (મે.ટન)	40721	46080	23158	31010	45537	40185
	હેક્ટરદીઠ ઉત્પાદન (કિ.ગ્રા.)	3015	3195	2700	2929	3268	3205
જુવાર	વિસ્તાર (હેક્ટરમાં)	558	376	244	242	203	147
	ઉત્પાદન (મે.ટન)	594	562	290	320	236	173
	હેક્ટરદીઠ ઉત્પાદન (કિ.ગ્રા.)	1065	1494	1191	1321	1165	1178
મકાઈ	વિસ્તાર (હેક્ટરમાં)	1061	927	883	926	1323	906
	ઉત્પાદન (મે.ટન)	1999	1969	2018	2353	3336	2293
	હેક્ટરદીઠ ઉત્પાદન (કિ.ગ્રા.)	1884	2123	2285	2543	2521	2530
અન્ય	વિસ્તાર (હેક્ટરમાં)	533	222	146	101	82	93
	ઉત્પાદન (મે.ટન)	536	249	187	173	136	160
	હેક્ટરદીઠ ઉત્પાદન (કિ.ગ્રા.)	1006	1123	1285	1715	1657	1710
કુલ ખાદ્ય પાકો	વિસ્તાર (હેક્ટરમાં)	15658	15948	9850	11856	15543	13685
	ઉત્પાદન (મે.ટન)	43850	48860	25654	33857	49244	42811
	હેક્ટરદીઠ ઉત્પાદન (કિ.ગ્રા.)	2800	3064	2605	2856	3168	3128
કુલ કઠોળ પાકો	વિસ્તાર (હેક્ટરમાં)	2639	2622	1375	3157	4407	11467
	ઉત્પાદન (મે.ટન)	2912	3146	1190	3953	6631	21356
	હેક્ટરદીઠ ઉત્પાદન (કિ.ગ્રા.)	1103	1200	865	1252	1505	1862

**આલેખ નં.1.3 ગુજરાતમાં સ્વી ખાદ્ય પાકો હેઠળનો વાવેતર વિસ્તાર,ઉત્પાદન અને ઉપજ (2011-12 થી 2021-22)**



ઉપરોક્ત કોષ્ટક નંબર 1.2 અને આલેખ નંબર 1.3 પરથી ખ્યાલ આવે છે કે, વર્ષ 2011-12 માં રવી ખાદ્ય પાકો હેઠળનો વિસ્તાર 15658 હેક્ટર હતો, જે વર્ષ 2021-22 માં ઘટીને 13685 થયો છે. તેવી જ રીતે વર્ષ 2011-12 માં રવી ખાદ્ય પાકોનું ઉત્પાદન 43850 મેટ્રિક ટન હતું જે વર્ષ 2021-22 માં ઘટીને 42811 મેટ્રિક ટન થયું છે. અને રવી ખાદ્ય પાકોની હેક્ટરદીઠ ઉત્પાદન વર્ષ 2011-12 માં 2800 કિ.ગ્રા. હતી જે 2021-22 માં વધીને 3138 કિ.ગ્રા. થઈ છે.

**આલેખ નં.1.4 ગુજરાતમાં રવી કઠોળનાં પાકો હેઠળ નો વાવેતર વિસ્તાર,ઉત્પાદન અને ઉપજ (2011-12 થી 2021-22)**



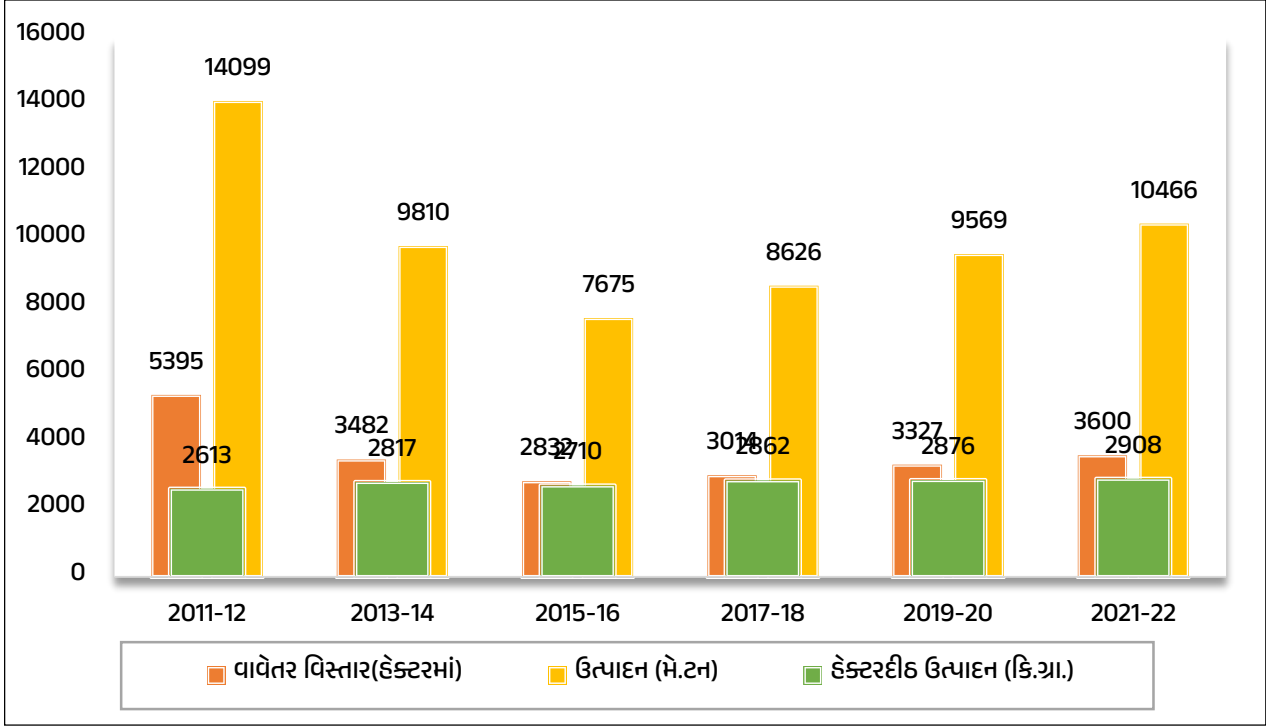
ઉપરોક્ત કોષ્ટક નંબર 1.2 અને આલેખ નંબર 1.4 પરથી ખ્યાલ આવે છે કે, વર્ષ 2011-12 માં રવી કઠોળનાં પાકનો વિસ્તાર 2039 હેક્ટર હતો, જે વર્ષ 2021-22 માં વધીને 11467 થયો છે. તેવી જ રીતે રવી કઠોળ પાકો નું ઉત્પાદન વર્ષ 2011-12 માં 2912 મેટ્રિક ટન હતું જે વર્ષ 2021-22 માં વધીને 21356 મેટ્રિક ટન થયું છે. અને રવી કઠોળ પાકોની હેક્ટરદીઠ ઉત્પાદન 2011-12 માં 1103 કિ.ગ્રા. હતી જે 2021-22 માં વધીને 1862 કિ.ગ્રા. થઈ છે.

**કોષ્ટક નં.1.3 ગુજરાતમાં જાયદ (ઉનાળું) ખાદ્ય પાકો અને કઠોળનાં પાકો હેઠળ નો વાવેતર વિસ્તાર,ઉત્પાદન અને ઉપજ (2011-12 થી 2021-22)**

ખાદ્ય પાકો	વિગત	2011-12	2013-14	2015-16	2017-18	2019-20	2021-22
બાજરી	વિસ્તાર (હેક્ટરમાં)	4325	3086	2440	2441	2725	2809
	ઉત્પાદન (મે.ટન)	10947	8621	6471	7126	7827	8182
	હેક્ટરદીઠ ઉત્પાદન (કિ.ગ્રા.)	2531	2794	2652	2919	2873	2913
ચોખા	વિસ્તાર (હેક્ટરમાં)	842	331	331	526	548	739
	ઉત્પાદન (મે.ટન)	2679	1055	1075	1402	1615	2161
	હેક્ટરદીઠ ઉત્પાદન (કિ.ગ્રા.)	3182	3188	3244	2664	2950	2924
મકાઈ	વિસ્તાર (હેક્ટરમાં)	228	65	60	46	55	52
	ઉત્પાદન (મે.ટન)	473	134	129	98	127	123
	હેક્ટરદીઠ ઉત્પાદન (કિ.ગ્રા.)	2075	2045	2138	2124	2298	2368
કુલ ખાદ્ય પાકો	વિસ્તાર (હેક્ટરમાં)	5395	3482	2832	3014	3327	3600
	ઉત્પાદન (મે.ટન)	14099	9810	7675	8626	9569	10466
	હેક્ટરદીઠ ઉત્પાદન (કિ.ગ્રા.)	2613	2817	2710	2862	2876	2908
	વિસ્તાર (હેક્ટરમાં)	725	328	281	346	569	958

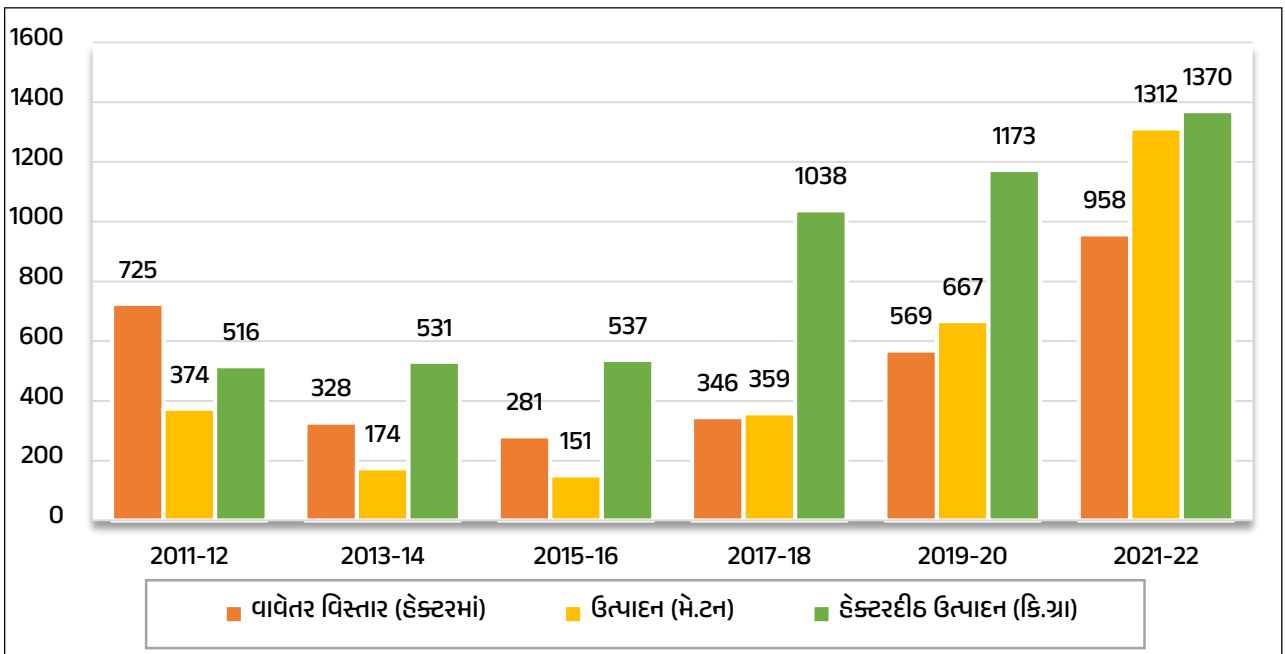
કુલ કઠોળ પાકો	ઉત્પાદન (મે.ટન)	374	174	151	359	667	1312
	હેક્ટરદીઠ ઉત્પાદન (કિ.ગ્રા.)	516	531	537	1038	1173	1370

**આલેખ નં.1.5 ગુજરાતમાં જાયદ ખાદ્ય પાકો હેઠળ નો વાવેતર વિસ્તાર,ઉત્પાદન અને ઉપજ (2011-12 થી 2021-22)**



ઉપરોક્ત કોષ્ટક નંબર 1.3 અને આલેખ નંબર 1.5 પરથી ખ્યાલ આવે છે કે, વર્ષ 2011-12 માં જાયદ ખાદ્ય પાકો હેઠળ નો વિસ્તાર 5395 હતો, જે વર્ષ 2021-22 માં ઘટીને 3600 હેક્ટર થયો છે. તેવી જ રીતે જાયદ ખાદ્ય પાકોનું ઉત્પાદન વર્ષ 2011-12 માં 14099 મેટ્રિક ટન હતું, જે વર્ષ 2021-22માં ઘટીને 10466 મેટ્રિક ટન થયું છે. અને જાયદ ખાદ્ય પાકોની હેક્ટરદીઠ ઉત્પાદન વર્ષ 2011-12 માં 2613 કિ.ગ્રા. હતી જે વર્ષ 2021-22 માં વધીને 2908 કિ.ગ્રા. થઈ છે.

**આલેખ નં.1.6 ગુજરાતમાં જાયદ કઠોળનાં પાકો હેઠળ નો વાવેતર વિસ્તાર,ઉત્પાદન અને ઉપજ (2011-12 થી 2021-22)**



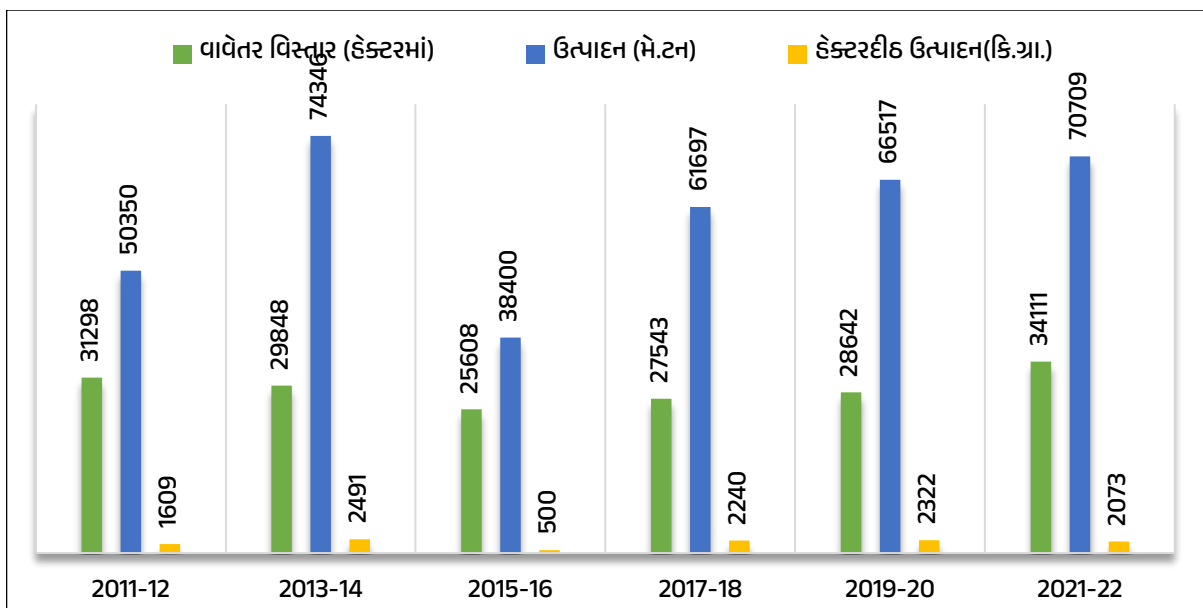


ઉપરોક્ત કોષ્ટક નંબર 1.3 અને આલેખ નંબર 1.6 પરથી ખ્યાલ આવે છે કે, વર્ષ 2011-12 માં જાયદ કઠોળ પાકો હેક્ટરનો વાવેતર વિસ્તાર 725 હેક્ટર હતો જે વર્ષ 2021-22 માં વધીને 958 હેક્ટર થયો છે. તેવી જ રીતે જાયદ કઠોળના પાકોનું ઉત્પાદન વર્ષ 2011-12 માં 374 મેટ્રિક ટન હતું જે 2021-22 માં વધીને 1370 મેટ્રિક ટન થયું છે. અને વર્ષ 2011-12 માં જાયદ કઠોળ પાકોની હેક્ટરદીઠ ઉત્પાદન 516 કિ.ગ્રા. હતી જે વર્ષ 2021-22 માં વધીને 1370 કિ.ગ્રા. થઈ છે.

**કોષ્ટક નં.1.4 ગુજરાતમાં મુખ્ય તેલીબિયાં પાકો હેક્ટરનો વાવેતર વિસ્તાર,ઉત્પાદન અને ઉપજ (2011-12 થી 2021-22)**

તેલીબિયાં પાકો	વિગત	2011-12	2013-14	2015-16	2017-18	2019-20	2021-22
મગફળી	વિસ્તાર (હેક્ટરમાં)	16863	18301	14132	16788	16887	19875
	ઉત્પાદન (મે.ટન)	27168	54350	20311	40658	46459	44905
	હેક્ટરદીઠ ઉત્પાદન (કિ.ગ્રા.)	1611	2970	1437	2422	2751	2259
તલ	વિસ્તાર (હેક્ટરમાં)	2465	1875	1633	1230	1657	2086
	ઉત્પાદન (મે.ટન)	1160	963	605	792	1075	1339
	હેક્ટરદીઠ ઉત્પાદન (કિ.ગ્રા.)	471	513	371	644	649	642
રેપસીડ અને સરસવ	વિસ્તાર (હેક્ટરમાં)	2076	2770	1902	2213	1726	3402
	ઉત્પાદન (મે.ટન)	3273	4884	2762	4001	3335	6789
	હેક્ટરદીઠ ઉત્પાદન (કિ.ગ્રા.)	1577	1763	1453	1808	1932	1996
એરંડા	વિસ્તાર (હેક્ટરમાં)	8777	6302	7138	5852	7366	6503
	ઉત્પાદન (મે.ટન)	18034	13671	14103	14873	14321	14016
	હેક્ટરદીઠ ઉત્પાદન (કિ.ગ્રા.)	2055	2169	1976	2541	1944	2155
સોયાબન	વિસ્તાર (હેક્ટરમાં)	421	600	804	1460	1006	2245
	ઉત્પાદન (મે.ટન)	334	477	618	1373	1327	3660
	હેક્ટરદીઠ ઉત્પાદન (કિ.ગ્રા.)	793	796	769	941	1318	1631
કુલ	વિસ્તાર (હેક્ટરમાં)	31298	29848	25608	27543	28642	34111
	ઉત્પાદન (મે.ટન)	50350	74346	38400	61697	66517	70709
	હેક્ટરદીઠ ઉત્પાદન (કિ.ગ્રા.)	1609	2491	500	2240	2322	2073

**આલેખ નં.1.7 ગુજરાતમાં મુખ્ય તેલીબિયાં પાકો હેક્ટર નો વાવેતર વિસ્તાર,ઉત્પાદન અને ઉપજ (2011-12 થી 2021-22)**



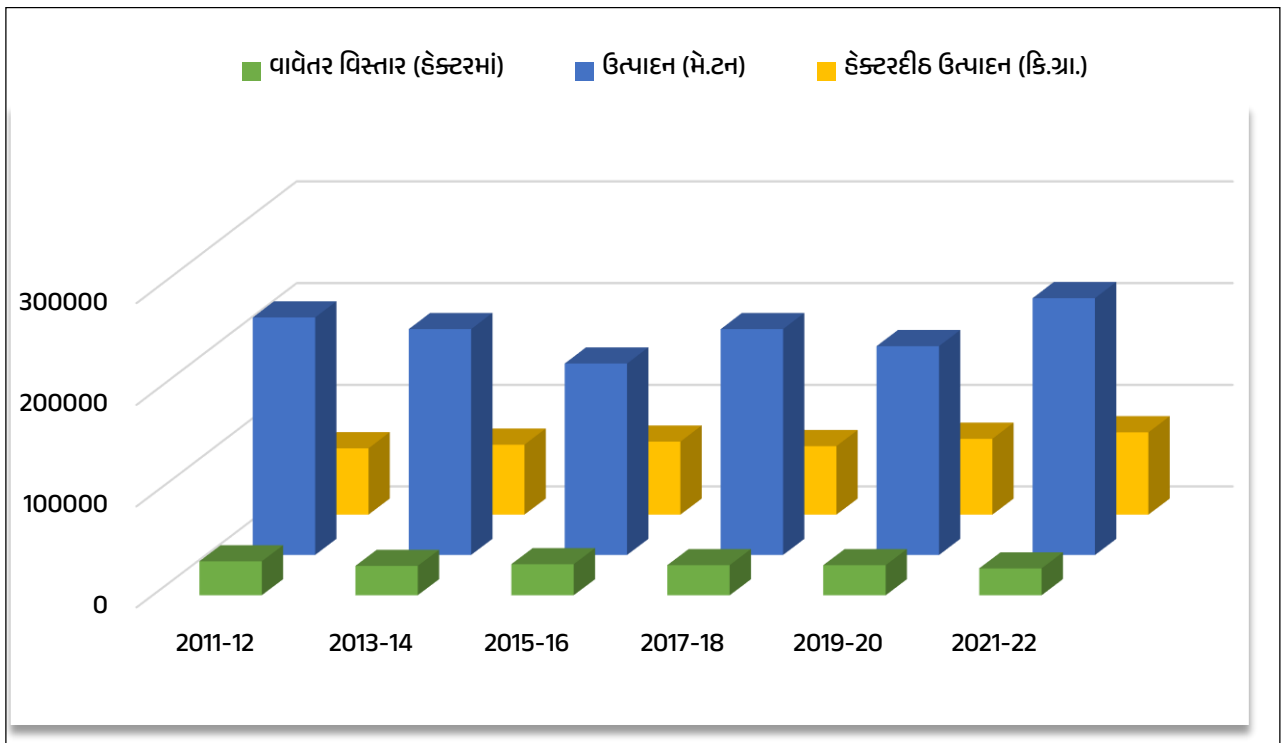
ઉપરોક્ત કોષ્ટક નંબર 1.4 અને આલેખ નંબર 1.7 પરથી ખ્યાલ આવે છે કે,વર્ષ 2011-12 માં તેલીબિયાં પાકો હેઠળનો વાવેતર વિસ્તાર 31293 હેક્ટર હતો, જે વર્ષ 2021-22 માં વધીને 34111 હેક્ટર થયો છે.તેવી જ રીતે તેલીબિયાં પાકોનું ઉત્પાદન વર્ષ 2011-12 માં 50350 મેટ્રિક ટન હતું, જે વર્ષ 2021-22 માં વધીને 70709 મેટ્રિક ટન થયું છે. અને તેલીબિયાં પાકોનું હેક્ટરદીઠ ઉત્પાદન વર્ષ 2011-12 માં 1609 કિ.ગ્રા. હતું, જે વર્ષ 2021-22 માં વધીને 2073 કિ.ગ્રા. થયું છે.

**કોષ્ટક નં.1.5 ગુજરાતમાં મુખ્ય શેકડીયા પાકો હેઠળ નો વાવેતર વિસ્તાર,ઉત્પાદન અને ઉપજ (2011-12 થી 2021-22)**

શેકડીયા પાકો	વિગત	2011-12	2013-14	2015-16	2017-18	2019-20	2021-22
કપાસ	વિસ્તાર (હેક્ટરમાં)	30031	26084	27216	26265	26546	22458
	ઉત્પાદન (મે.ટન)	103746	105116	75424	101127	86243	73881
	હેક્ટરદીઠ ઉત્પાદન (કિ.ગ્રા.)	587	685	471	655	552	559
તમાકું	વિસ્તાર (હેક્ટરમાં)	1580	1231	1968	1739	1623	1916
	ઉત્પાદન (મે.ટન)	2784	2289	3818	5192	3877	4521
	હેક્ટરદીઠ ઉત્પાદન (કિ.ગ્રા.)	1762	1859	1939	2986	2389	2359
શેરડી	વિસ્તાર (હેક્ટરમાં)	2019	1731	1571	1817	1609	2230
	ઉત્પાદન (મે.ટન)	127489	115138	109471	116226	115699	174593
	હેક્ટરદીઠ ઉત્પાદન (કિ.ગ્રા.)	63145	66529	69669	63966	71890	78307
કુલ	વિસ્તાર (હેક્ટરમાં)	33630	29046	30755	29821	29778	26604
	ઉત્પાદન (મે.ટન)	234019	222543	188713	222545	205819	252995
	હેક્ટરદીઠ ઉત્પાદન (કિ.ગ્રા.)	65494	69073	72079	67607	74831	81225

\* કપાસનાં ઉત્પાદનમાં ૧ ગાંસડી ૧૭૦ કિગ્રાની છે.

**આલેખ નં.1.8 ગુજરાતમાં મુખ્ય શેકડીયા પાકો હેઠળ નો વાવેતર વિસ્તાર,ઉત્પાદન અને ઉપજ (2011-12 થી 2021-22)**



ઉપરોક્ત કોષ્ટક નંબર 1.5 અને આલેખ નંબર 1.8 પરથી ખ્યાલ આવે છે કે, વર્ષ 2011-12 માં રોકડિયા પાકો હેઠળનો વાવેતર વિસ્તાર 33630 હેક્ટર હતો, જે 2021-22 માં ઘટીને 26604 હેક્ટર થયો છે. તેવી જ રીતે રોકડિયા પાકોનું ઉત્પાદન વર્ષ 2011-12 માં 234019 મેટ્રિક ટન હતું, જે 2021-22 માં વધીને 252995 મેટ્રિક ટન થયું છે. અને રોકડિયા પાકોનું હેક્ટરદીઠ ઉત્પાદન વર્ષ 2011-12 માં 65494 કિ.ગ્રા. હતું, જે વર્ષ 2021-22માં વધીને 81225 કિ.ગ્રા. થયું છે.

### કોષ્ટક નં.1.6 ગુજરાતમાં મુખ્ય શાકભાજી, મસાલા અને અન્ય પાકો હેઠળનો વાવેતર વિસ્તાર, ઉત્પાદન અને ઉપજ (2011-12 થી 2021-22)

મુખ્ય પાકો	વિગત	2011-12	2013-14	2015-16	2017-18	2019-20	2021-22
બટાટા	વિસ્તાર (હેક્ટરમાં)	778	793	1092	1304	1184	1278
	ઉત્પાદન (મે.ટન)	17923	21062	27731	37528	35782	39501
	હેક્ટરદીઠ ઉત્પાદન (કિ.ગ્રા.)	23037	26559	25397	28780	30234	30904
વરીયળી	વિસ્તાર (હેક્ટરમાં)	367	224	454	367	432	368
	ઉત્પાદન (મે.ટન)	597	327	682	623	758	654
	હેક્ટરદીઠ ઉત્પાદન (કિ.ગ્રા.)	1627	1464	1503	1697	1753	1778
જીરું	વિસ્તાર (હેક્ટરમાં)	3706	4294	2887	3747	4819	3072
	ઉત્પાદન (મે.ટન)	2595	3295	1997	2969	3754	2215
	હેક્ટરદીઠ ઉત્પાદન (કિ.ગ્રા.)	700	767	692	792	779	721
મરચાં	વિસ્તાર (હેક્ટરમાં)	80	63	59	56	14	-
	ઉત્પાદન (મે.ટન)	74	65	62	53	44	-
	હેક્ટરદીઠ ઉત્પાદન (કિ.ગ્રા.)	925	1034	1043	950	3125	-
ઇસબગુલ	વિસ્તાર (હેક્ટરમાં)	196	82	98	249	95	133
	ઉત્પાદન (મે.ટન)	137	63	67	183	79	108
	હેક્ટરદીઠ ઉત્પાદન (કિ.ગ્રા.)	699	770	682	736	825	807
ડુંગરી	વિસ્તાર (હેક્ટરમાં)	728	797	630	545	486	995
	ઉત્પાદન (મે.ટન)	21191	24085	17106	15418	14163	27386
	હેક્ટરદીઠ ઉત્પાદન (કિ.ગ્રા.)	29109	30220	27162	28307	29152	27518
લસણ	વિસ્તાર (હેક્ટરમાં)	418	381	76	194	113	266
	ઉત્પાદન (મે.ટન)	2614	2350	423	1350	812	1925
	હેક્ટરદીઠ ઉત્પાદન (કિ.ગ્રા.)	6254	6170	5571	6955	7181	7240
ગુવાર બીજ	વિસ્તાર (હેક્ટરમાં)	1283	4428	3134	1995	1448	1144
	ઉત્પાદન (મે.ટન)	745	3498	1915	1327	1057	749
	હેક્ટરદીઠ ઉત્પાદન (કિ.ગ્રા.)	581	790	611	665	730	655
કેળાં	વિસ્તાર (હેક્ટરમાં)	286	267	244	296	302	393
	ઉત્પાદન (મે.ટન)	20541	19446	17682	21255	22553	29776
	હેક્ટરદીઠ ઉત્પાદન (કિ.ગ્રા.)	71856	72776	72350	71734	74616	75719

ઉપરોક્ત કોષ્ટક નંબર 1.6 માં વર્ષ 2011-12 થી વર્ષ 2021-22 નાં સમયગાળા દરમિયાન જુદાં જુદાં પાકો જેમ કે, શાકભાજી, મસાલા અને અન્ય પાકોનો વાવેતર વિસ્તાર, ઉત્પાદન અને ઉપજમાં થયેલાં પરિવર્તનો દર્શાવવામાં આવ્યા છે.

- વર્ષ 2011-12 માં બટાટાનાં પાક હેઠળનો વાવેતર વિસ્તાર 778 હેક્ટર, ઉત્પાદન 17923 મેટ્રિક ટન અને હેક્ટરદીઠ ઉત્પાદન 23037 કિ.ગ્રા. હતી. જે વર્ષ 2021-22 માં વધીને વાવેતર વિસ્તાર 1278 હેક્ટર, ઉત્પાદન 39501 મેટ્રિક ટન અને હેક્ટરદીઠ ઉત્પાદન 30904 કિ.ગ્રા. થઈ છે.

- વર્ષ 2011-12 માં વરીયાળીના પાક હેઠળ નો વાવેતર વિસ્તાર 367 હેક્ટર, ઉત્પાદન 597 મેટ્રિક ટન અને હેક્ટરથી ઉત્પાદન 1627 કિ.ગ્રા. હતી. જે વર્ષ 2021-22 માં વધીને વાવેતર વિસ્તાર 368 હેક્ટર, ઉત્પાદન 654 મેટ્રિક ટન અને ઉત્પાદન 1778 કિ.ગ્રા. થઈ છે.
- વર્ષ 2011-12 માં જીરાના પાક હેઠળ નો વાવેતર વિસ્તાર 3706 હેક્ટર, ઉત્પાદન 2595 મેટ્રિક ટન અને હેક્ટરથી ઉત્પાદન 700 કિ.ગ્રા. હતી. પરંતુ 2021-22 માં વાવેતર વિસ્તાર અને ઉત્પાદનમાં ઘટાડો નોંધાયો છે જે અનુક્રમે 3072 હેક્ટર અને 2215 મેટ્રિક ટન થયું છે જ્યારે હેક્ટરથી ઉત્પાદન માં વધારો નોંધાયો છે અને જે વધીને 721 કિ.ગ્રા. થઈ છે.
- વર્ષ 2011-12 માં મરચાંનાં પાક હેઠળનો વાવેતર વિસ્તાર 80 હેક્ટર, ઉત્પાદન 74 મેટ્રિક ટન અને હેક્ટરથી ઉત્પાદન 925 કિ.ગ્રા. હતી. પરંતુ વર્ષ 2019-20 સુધીમાં વાવેતર વિસ્તાર અને ઉત્પાદનમાં ઉત્તરોત્તર ઘટાડો નોંધાયો છે અને જે અનુક્રમે ઘટીને વાવેતર વિસ્તાર 14 હેક્ટર અને ઉત્પાદન 44 મેટ્રિક ટન થયું છે. જ્યારે હેક્ટરથી ઉત્પાદનમાં ઉત્તરોત્તર વધારો નોંધાયો છે જે વધીને 3125 કિ.ગ્રા. થઈ છે.
- વર્ષ 2011-12 માં ઇસબગુલ પાક હેઠળનો વાવેતર વિસ્તાર 196 હેક્ટર, ઉત્પાદન 137 મેટ્રિક ટન અને હેક્ટરથી ઉત્પાદન 699 કિ.ગ્રા. હતી. જ્યારે વર્ષ 2021-22 માં વાવેતર વિસ્તાર અને ઉત્પાદનમાં ઘટાડો નોંધાયો છે જે અનુક્રમે 133 હેક્ટર અને 108 મેટ્રિક ટન થયું છે, અને હેક્ટરથી ઉત્પાદન વધીને 807 કિ.ગ્રા. થઈ છે.
- વર્ષ 2011-12 માં ડુંગળીનાં પાક હેઠળ નો વાવેતર વિસ્તાર 728 હેક્ટર, ઉત્પાદન 21191 મેટ્રિક ટન અને હેક્ટરથી ઉત્પાદન 29109 કિ.ગ્રા. હતી. જેમાં વર્ષ 2021-22 સુધીમાં વાવેતર વિસ્તાર અને ઉત્પાદનમાં વધારો નોંધાયો છે જે અનુક્રમે 995 હેક્ટર અને 27386 મેટ્રિક ટન થયું છે જ્યારે, હેક્ટરથી ઉત્પાદન ઘટીને 27518 કિ.ગ્રા. થઈ છે.
- વર્ષ 2011-12 માં લસણનાં પાક હેઠળ નો વાવેતર વિસ્તાર 418 હેક્ટર, ઉત્પાદન 2614 મેટ્રિક ટન અને હેક્ટરથી ઉત્પાદન 6254 કિ.ગ્રા. હતી. પરંતુ વર્ષ 2021-22 માં વાવેતર વિસ્તાર અને ઉત્પાદનમાં ઘટાડો નોંધાયો છે જે અનુક્રમે 266 હેક્ટર અને 1925 મેટ્રિક ટન થયું છે જ્યારે હેક્ટરથી ઉત્પાદન વધીને 7240 કિ.ગ્રા. થઈ છે.
- વર્ષ 2011-12 માં ગુવારબીજ પાક હેઠળનો વાવેતર વિસ્તારની 1283 હેક્ટર, ઉત્પાદન 745 મેટ્રિક ટન અને હેક્ટરથી ઉત્પાદન 581 કિ.ગ્રા. હતી. પરંતુ વર્ષ 2021-22 માં વાવેતર વિસ્તાર ઘટીને 1144 હેક્ટર થયો છે, જ્યારે ઉત્પાદન અને હેક્ટરથી ઉત્પાદન માં નોંધપાત્ર વધારો થયો છે જે અનુક્રમે 749 મેટ્રિક ટન અને 655 કિ.ગ્રા. થઈ છે.
- વર્ષ 2011-12 માં કેળાંનાં પાક હેઠળનો વાવેતર વિસ્તાર 286 હેક્ટર, ઉત્પાદન 20541 મેટ્રિક ટન અને હેક્ટરથી ઉત્પાદન 71856 કિ.ગ્રા. હતી. જે વર્ષ 2021-22 માં વધીને વાવેતર વિસ્તાર 393 હેક્ટર, ઉત્પાદન 29776 મેટ્રિક ટન અને હેક્ટરથી ઉત્પાદન 75719 કિ.ગ્રા. થઈ છે.

આમ, ઉપરોક્ત પાકોનાં વાવેતર વિસ્તાર, ઉત્પાદન અને ઉત્પાદન ના અભ્યાસ પરથી ખ્યાલ આવે છે કે જીરું, મરચાં, ઇસબગુલ, લસણ વગેરે પાકોના વાવેતર વિસ્તારમાં ઘટાડો નોંધાયો હોવા છતાં તેના ઉત્પાદન અને હેક્ટરથી ઉત્પાદનમાં ઉત્તરોત્તર વધારો જોવા મળ્યો છે. જે માટે આધુનિક ખેત પદ્ધતિ, ખેડૂતોને ખેતી વિષયક બાબતોની સજાગતા અને સાનુકૂળ કુદરતી પરિબલો મુખ્ય છે.

## 5 | અભ્યાસનાં તારણો

પ્રસ્તુત અભ્યાસ ગુજરાતનાં મુખ્ય પાકો હેઠળનો વિસ્તાર, ઉત્પાદન અને ઉપજમાં થયેલા પરિવર્તનો નો અભ્યાસ વર્ષ 2011-12 થી વર્ષ 2021-22 ના સંદર્ભમાં કરવામાં આવેલ છે. અભ્યાસમાં દસ વર્ષનાં સમયગાળા દરમિયાન ગુજરાતનાં મુખ્ય પાકો હેઠળનો વિસ્તાર, ઉત્પાદન અને ઉપજમાં થયેલા ફેરફારોના અભ્યાસ પરથી નીચે મુજબના મુખ્ય તારણો તારવી શકાય છે.

- ખાદ્ય પાકોના અનુસંધાનમાં વાત કરીએ તો ખરીફ ખાદ્ય પાકોના વાવેતર વિસ્તાર સિવાય ખાદ્ય પાકોનો વાવેતર વિસ્તાર અને ઉત્પાદનમાં નોંધપાત્ર ઘટાડો થયો છે. જ્યારે આ પાકોનાં હેક્ટરથી ઉત્પાદન માં વધારો નોંધાયો છે. અહીં વિસ્તાર અને ઉત્પાદનમાં ઘટાડો થયો છે કારણ કે ખેડૂતો રોકડિયા પાકોનું ઉત્પાદન કરતા થયા છે અને હેક્ટરથી ઉપજ માં વધારો નોંધાયો છે કારણ કે ખેડૂતો આધુનિક ખેત પદ્ધતિથી સજાગ થયા છે અને મહદંશે કુદરતી પરિબલોની સાનુકૂળતા છે.
- કઠોળ પાકોના અનુસંધાનમાં વાત કરીએ તો રવી કઠોળ પાકોના વિસ્તાર અને ઉત્પાદનમાં નોંધપાત્ર ઘટાડા સિવાય કુલ કઠોળ પાકો નો વિસ્તાર, ઉત્પાદન અને હેક્ટરથી ઉપજ માં ઉત્તરોત્તર વધારો નોંધાયો છે.

- વર્ષ 2011-12 થી 2021-22 ના સમયગાળા દરમિયાન તેલીબિયાં પાકોનો વાવેતર વિસ્તાર, ઉત્પાદન અને હેક્ટરદીઠ ઉપજમાં વધારો થયો છે કારણ કે મોટાભાગના તેલીબિયાં પાકોનો રોકડ પાક તરીકે ઉપયોગ થાય છે. જેમકે મગફળી, તલ, એરંડા વગેરે કારણ કે રોકડ પાક અને આવક વચ્ચે સીધો સંબંધ છે.
- રોકાયા પાકોના અનુસંધાનમાં વાત કરીએ તો દસ વર્ષનાં સમયગાળા દરમિયાન આ પાકો હેઠળ નો વિસ્તાર ઘટ્યો હોવા છતાં તેનાં ઉત્પાદન અને હેક્ટરદીઠ ઉપજમાં વિશેષ વધારો નોંધાયો છે. કારણ કે રોકડ પાકો જ એવા પાકો છે જે ખેડૂતોની આવક પર સીધી અસર કરે છે. જેથી આ પાકોનું ઉત્પાદન અને હેક્ટરદીઠ ઉપજમાં વધારો થયો છે જે ખેડૂતોની સારી આર્થિક પરિસ્થિતિ નિર્દેશ કરે છે.
- શાકભાજી, મસાલા અને અન્ય પાકોનાં અનુસંધાનમાં વાત કરીએ તો, ખાસ એવા પાકો કે જેનો રોકડ પાક તરીકે ઉપયોગ થાય છે જે પાકો હેઠળનો વિસ્તાર, ઉત્પાદન અને હેક્ટરદીઠ ઉપજમાં વિશેષ વધારો નોંધાયો છે કારણ કે અભ્યાસમાં પાકોની જાતો પ્રમાણે વર્ગીકરણ કરવામાં આવ્યું છે પરંતુ ખાદ્ય પાકો સિવાયનાં મોટાભાગનાં પાકોનું રોકડ પાક તરીકે ઉપયોગ થાય છે. જેમ કે કપાસ, શેરડી, તમાકુ, ડુંગરી, બટાટા, મગફળી, એરંડા, જીરું, વરિયાળી, ઇસબગુલ વગેરે.

## 6 | અભ્યાસનાં સૂચનો

આમ, ગુજરાતનાં મુખ્ય પાકોનું વિશ્લેષણ કરતાં કહી શકાય છે કે, મોટાભાગનાં પાકોનાં વિસ્તાર કરતાં ઉત્પાદન અને હેક્ટરદીઠ ઉપજમાં સારો વધારો નોંધાયો છે. અને આમ વધારામાં ઉત્તરોત્તર વૃદ્ધિ થતી રહે તે માટે કેટલાક સૂચનો અહીં દર્શાવી શકાય:

1. ખેડૂતોને આધુનિક ખેત પદ્ધતિથી અવગત કરવા
2. ખેડૂતોને ખેતી વિષયક યોજનાનાં લાભો તેમજ ખેતી ક્ષેત્રે થતા અવાર-નવાર પરિવર્તનોથી માહિતગાર કરવા
3. સિંચાઈના વિવિધ સ્ત્રોતોનો વિકાસ કરવો જેથી વધારાનો વાવેતર વિસ્તાર સિંચાઈ હેઠળ લઈ શકા અને પાકોના ઉત્પાદન તેમજ હેક્ટરદીઠ ઉપજમાં વધારો કરી શકાય
4. ખેડૂતોને ભૂમિ પરીક્ષણની યોગ્ય સમજ પૂરી પાડવી
5. ખેડૂતોને પાકોના વેચાણ માટેના જરૂરી બજાર ચાર્જ ઉપલબ્ધ કરાવવાં, જેથી પાકોની યોગ્ય કિંમત મેળવી શકે.

આમ, ઉપરોક્ત સૂચનો પરથી કહી શકાય કે ખેડૂતોને તમામ બાબતોથી અવગત કરવામાં આવે તો તેના શિક્ષણના સ્તરમાં પણ વધારો થશે અને ખેત ઉત્પાદનની સાથે સાથે માનવ મૂડીનો પણ વિકાસ થશે.

## 7 | સમાપન

આમ, પ્રસ્તુત અભ્યાસમાં 2011-12 થી 2021-22નાં સમયગાળા દરમિયાન ગુજરાતમાં મુખ્ય પાકો હેઠળના વિસ્તારમાં ખાસ વધારો નોંધાયો ન હોવા છતાં તેના ઉત્પાદન અને ઉપજમાં વિશેષ વધારો જોવા મળ્યો છે. જે સારી કૃષિનીતિ નું પ્રતિબિંબ છે. આમ, ખેડૂતોને ખેતીલક્ષી યોગ્ય માર્ગદર્શન મળી રહે તે માટે ગુજરાત રાજ્ય દ્વારા કૃષિ-લક્ષી વિવિધ કાર્યક્રમોનું આયોજન કરી આધુનિક કૃષિતંત્ર અંગે ખેડૂતોને માર્ગદર્શન આપવામાં આવી રહ્યું છે. અને શિક્ષણના પ્રમાણ માં સુધારાનાં કારણે ખેડૂતો ખેતી ક્ષેત્રે જાગૃત બન્યાં છે. જેથી વિવિધ પાકો હેઠળનાં વિસ્તારમાં ઉત્પાદન અને હેક્ટરદીઠ ઉપજમાં વિશેષ વધારો નોંધાયો છે.

## સંદર્ભસૂચી

- પટેલ, મનસુખભાઈ કે. (2013). કૃષિક્ષેત્રે પાક તરાહ તથા ઉત્પાદકતામાં આવેલા ફેરફારો: એક અભ્યાસ ભાવનગર જિલ્લાનાં સંદર્ભે. મહારાજા કૃષ્ણકુમારસિંહજી ભાવનગર યુનિવર્સિટી
- ભાટ્ટ, પી. (૨૦૧૫). કૃષિ ક્ષેત્રમાં ટેકનોલોજીકલ પરિવર્તનો દ્વારા ખેડૂતોની આવક, રોજગારી અને પાકોની તરાહમાં થયેલા ફેરફારોની અસરનો એક આર્થિક અભ્યાસ. રાજકોટ: સૌરાષ્ટ્ર યુનિવર્સિટી
- હઠીલા, મિનેષ વી. (૨૦૧૭). “કૃષિ ક્ષેત્રે પાકની તરાહ અને ઉત્પાદનમાં આવેલાં પરિવર્તનો” (દાહો જિલ્લાના સંદર્ભમાં અભ્યાસ). પાટણ: હેમચંદ્રાચાર્ય ઉત્તર ગુજરાત યુનિવર્સિટી
- ઝાલા, અજીતસિંહ એ. (૨૦૨૪). ગુજરાતના કૃષિક્ષેત્રનો અભ્યાસ. અમદાવાદ: ગુજરાત યુનિવર્સિટી
- ગુજરાત રાજ્યમાં મહત્વનાં ખાદ્ય અને બિન-ખાદ્ય પાકોનું ક્ષેત્રફળ, ઉત્પાદન અને ઉપજ 2011-12 થી 2021-22, કૃષિ નિયામક, ગુજરાત રાજ્ય, ગાંધીનગર

- વાંસિયા, યોગેશ.એન., મહેતા, એસ.એન.(2022). "ગુજરાતનું અર્થતંત્ર" ન્યુ પોપ્યુલર પ્રકાશન, સુરત.
- NARAIN, PREM., SHARMA, S.D., RAI, S.C. AND BHATIA, V.K. (2001). REGIONAL DIMENSIONS OF DISPARITIES IN CROP PRODUCTIVITY IN UTTAR PRADESH. INDIAN SOCIETY OF AGRICULTURAL STATISTICS, NEW DELHI-12. VOL.54(1), PP.62-79.
- ASMATODDIN, M., JAWALE, S.V., PERKE, D.S. (2009). AN ECONOMIC ANALYSIS OF COTTON AND SUGARCANE AND PROFITABILITY ON MEDIUM FARM IN MARATHWAD REGION (M.S.). JOURNAL ARTICLE, VOL. 2, NO.1, PP. 45-47, INTERNATIONAL JOURNAL OF COMMERCE AND BUSINESS MANAGEMENT.
- KUMAR SANJAY, TRENDS IN PRODUCTION OF COTTON IN HARYANA (1966-2012) 23 JULY, 2015. INTERNATIONAL JOURNAL OF ADVANCED RESEARCH IN MANAGEMENT AND SOCIAL SCIENCES, VOL 4, PP.58-68.
- NAIKPATT, SHAH ITISHREE, AMITA, TRENDS AND DECOMPOSITION OF AGRICULTURAL GROWTH AND CROP OUTPUT IN GUJARAT: RECENT EVIDENCE (2015). INDIAN JOURNAL OF AGRICULTURAL ECONOMICS, VOL 70, PP.182-197(16 PAGES)
- SREENIVASA REDDY B., VENKATA NAIDU G., NARAYANA REDDY M., TRENDS IN FOOD CROPS AND NON-FOOD CROPS IN INDIA (28 NOVEMBER, 2015). INTERNATIONAL JOURNAL OF CURRENT INNOVATION RESEARCH, VOL.1, PP. 207-212
- PAWAR VANDANA K., KALAMKAR S.S., AGRICULTURAL GROWTH AND CROP DIVERSIFICATION IN INDIA WITH FOCUS ON GUJARAT (27 AUGUST, 2020). INDIAN JOURNAL OF ECONOMICS AND DEVELOPMENT, VOL.16, PP. 95-103.
- <https://gu.vikaspedia.in>
- <https://dug.gujarat.gov.in>

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# The Impact of Blockchain on Supply Chain Efficiency and Business Expansion

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**Abstract:** Blockchain technology has emerged as a transformative force across various sectors, with supply chain management being one of the most promising domains. This paper explores how blockchain enhances supply chain efficiency and fosters business expansion. Through detailed analysis and case studies, it highlights the technology's potential in improving transparency, reducing costs, mitigating fraud, and enabling new business models. The findings suggest that blockchain adoption not only optimizes existing supply chain operations but also opens up avenues for global market expansion and innovation.

**Keywords:** Blockchain, Supply Chain Efficiency, Business Expansion, Transparency, Smart Contracts, Innovation

## 1 | INTRODUCTION

The growth of globalization and supply chain sophistication has brought about an array of issues for today's businesses, such as logistics inefficiencies, data siloes, non-transparency, and increased vulnerability to fraud and compliance issues (Saber et al., 2019). Such issues beg for an effective technological solution that can provide data integrity, real-time visibility, and stakeholder trust. Blockchain, which is defined as decentralized, immutable, and transparent, has evolved as an innovative solution that can solve these ongoing issues.

Originally created to facilitate cryptocurrency transactions, blockchain has become a flexible platform which has implications that stretch well beyond virtual currencies. Its capacity to revolutionize supply chain practices rests in its capacity to establish an immutable, distributed accounting book in which trades are recorded safely and simply verified. Supply chains, where stakeholders who reside in different locations need to coordinate and trust data which is not dependent on one central figure (Tapscott & Tapscott, 2016), benefit particularly from this feature.

The adoption of blockchain in supply chain management (SCM) has the potential of not only optimizing operation efficiency—in terms of automation, smart contracts, and tracing—but also of facilitating business growth by promoting novel business models, ensuring regulatory compliance, and opening up markets globally. Yet, while it contains great potential, adoption is not without issues. They comprise high cost of adoption, scalability, uncertainty in regulation, and technical intricateness.

The paper is designed to analyze the twofold influence of blockchain (a) to make supply chains more efficient, and (b) to facilitate business growth. Based on theory and examples of real businesses, the research evaluates both theoretically and practically blockchain's role to address inefficiencies, enhance stakeholder trust, and open up possibilities of innovation and development. Solutions to issues of implementing blockchain, as well as strategic implications for companies wishing to utilize blockchain in supply chain functions, also feature in the analysis.

## 2 | OBJECTIVES OF THE STUDY

The primary objectives of this study are as follows:

1. To analyze how blockchain technology enhances the efficiency of supply chain operations.
2. To explore the role of blockchain in improving transparency, traceability, and cost reduction.

3. To investigate the impact of blockchain adoption on business expansion and market access.
4. To identify the challenges and limitations in implementing blockchain in supply chains.
5. To examine real-world case studies that demonstrate the practical applications and benefits of blockchain in supply chain and business contexts.

### 3 | CLARIFICATION OF OBJECTIVES

1. **To analyse how blockchain technology enhances the efficiency of supply chain operations:** This objective involves studying how blockchain can streamline various processes such as logistics, warehousing, inventory control, and shipment tracking. The paper investigates how real-time data sharing and smart contracts minimize delays, reduce manual errors, and automate key functions within the supply chain.
2. **To explore the role of blockchain in improving transparency, traceability, and cost reduction:** This entails a thorough evaluation of blockchain's ability to provide immutable records that enable the accurate tracing of goods throughout their lifecycle. The study also examines how enhanced visibility leads to reduced fraud, improved accountability, and cost savings through reduced intermediaries and paperwork.
3. **To investigate the impact of blockchain adoption on business expansion and market access:** The paper explores how blockchain supports businesses in entering new markets by simplifying compliance, improving trust with consumers and partners, and enabling innovative services. It further discusses how blockchain aids SMEs in establishing credibility and improving operational capacity for international expansion.
4. **To identify the challenges and limitations in implementing blockchain in supply chains:** This objective focuses on understanding the barriers such as scalability issues, integration difficulties, high initial investment, lack of standardization, and regulatory concerns. The study highlights these challenges and discusses strategies to mitigate them.
5. **To examine real-world case studies that demonstrate the practical applications and benefits of blockchain in supply chain and business contexts:** The study includes detailed case studies from companies like Walmart, De Beers, Maersk, and Ever ledger. These examples illustrate how blockchain is being successfully integrated into real supply chains and the measurable benefits it delivers in terms of efficiency, security, and business growth.

### 4 | UNDERSTANDING BLOCKCHAIN TECHNOLOGY

Blockchain is a distributed ledger technology (DLT) that allows data to be recorded in a secure, transparent, and tamper-proof manner. Each transaction is verified by network participants and added to a chain of previous transactions, ensuring data integrity and trust without the need for intermediaries. Key features include:

- **Decentralization:** No single point of control.
- **Immutability:** Data cannot be altered once recorded.
- **Transparency:** All participants can view transactions.
- **Smart Contracts:** Automated contracts that execute when conditions are met.

### 5 | SUPPLY CHAIN CHALLENGES AND THE ROLE OF BLOCKCHAIN

**Traditional supply chains often suffer from:**

- Lack of visibility across the supply chain.
- Delays in documentation and payments.
- Fraud and counterfeiting.
- Inefficient inventory and logistics management.

**Blockchain addresses these challenges by providing:**

- Real-time tracking and traceability.
- Streamlined documentation through smart contracts.
- Authentication of products.
- Enhanced coordination among supply chain partners.

## 6 | ENHANCING SUPPLY CHAIN EFFICIENCY WITH BLOCKCHAIN

- **Improved Transparency and Traceability:** Blockchain enables end-to-end visibility of the supply chain. For example, in the food industry, platforms like IBM Food Trust allow consumers and businesses to trace the origin of food products, enhancing food safety and quality.
- **Real-time Data and Inventory Management:** Integrating IoT devices with blockchain allows for real-time tracking of goods. This reduces inventory carrying costs and improves demand forecasting.
- **Automation with Smart Contracts:** Smart contracts automate processes such as payment releases and shipment verification, reducing delays and human errors.
- **Fraud Prevention and Compliance:** Blockchain provides an immutable record of transactions, making it easier to detect fraud and ensure regulatory compliance. This is particularly valuable in industries like pharmaceuticals and luxury goods.
- **Cost Reduction:** By eliminating intermediaries and reducing paperwork, blockchain lowers operational costs. It also minimizes reconciliation and dispute resolution expenses.

## 7 | FACILITATING BUSINESS EXPANSION

- **Access to Global Markets:** Blockchain simplifies cross-border transactions by providing a common platform for data sharing and verification, reducing the barriers to international trade.
- **Building Trust and Brand Loyalty:** Transparency enabled by blockchain builds consumer trust, which can be leveraged for market differentiation and brand loyalty.
- **Innovative Financing Solutions:** Blockchain facilitates supply chain financing by enabling transparent and verifiable credit histories. Platforms like Provenance and TradeIX are examples of how blockchain supports trade finance.
- **New Business Models and Services:** Blockchain supports the development of decentralized marketplaces and circular economy models. It also enables product-as-a-service offerings by tracking asset usage and maintenance.
- **Partner and Supplier Management:** Blockchain allows companies to assess and verify the performance of suppliers, leading to better sourcing decisions and collaboration.

## 8 | CASE STUDIES

### 8.1 Walmart and IBM Food Trust

Walmart, one of the largest retailers in the world executed a Food Trust blockchain in partnership with IBM to bring food safety and transparency to the company and its supply chain. Walmart has historically taken up to seven days to trace back food products in its supply chain making way for contamination possibilities and failed recalls (IBM Food Trust, n.d.). With Food Trust blockchain, Walmart can track the source of the produce in about 2.2 seconds, which means that Walmart could quickly identify and resolve food contamination issues expediently, and remove the products from their stores. This identified traceability through the blockchain helps promote food safety and reduce food waste through accurate plans. Of the most importance, because the immutable information associated to the source, handling and transportation of the produce, immediately available through the Food Trust blockchain, information phylogeny can now be used by all stakeholders of the food product.

Also when Walmart adopted blockchain, they also not only streamlined their operations, but also improved consumer trust, while complying with regulations as well. The level of transparency they can demonstrate with blockchain will allow them to authenticate organic claims, and sustainability certifications that has become increasingly valued in today's society. They can expand their operations in new ways allowing them to ultimately, differentiate themselves from any other supplier in an increasingly competitive marketplace focused on food safety and quality.

### 8.2 De Beers and Diamond Tracking

A leading diamond company is executing plans to adopt blockchain to convey the provenance and authenticity of their diamonds to the public perspective. Their Tracr platform will also ameliorate every transaction that moves the diamonds from the mine to the retailers in a record straight to immutable blockchain (De Beers, 2019). This level of visibility can powerfully demonstrate an absence of distributed connected diamonds, or fraud, while protecting brand reputation/product credibility with a consumer. Allowing for records of all progressive histories of the diamond through the Tracr platform, first and foremost lets consumers have the clarity on how the diamonds are sourced and production ethically, but also assures accountability on any ethical standards. This can help proof security in a secured supply chain, and expand into new markets with the ethical sourced regulations. The recordkeeping provided by blockchains allows for De Beers to create a better compliance with their accountability and working with governmental agencies and others in the industry to eliminate illicit trading.

### 8.3 Maersk and Trade Lens

The world's largest container shipping firm, Maersk, together with IBM, developed Trade Lens, which is a blockchain-based system aimed at digitizing global trade logistics and making them less complicated (Maersk and IBM, 2018). International shipping involves multiple stakeholders such as shippers, ports, customs offices, and freight forwarders who typically use paper-based documentation, leading to delays and errors (Maersk and IBM, 2018). Trade Lens digitizes shipping documentation and transactional history onto a common blockchain ledger that is available for use by authorized stakeholders. Real-time visibility into shipping status eliminates administrative bottlenecks, expedites customs clearance, and minimizes fraud and cargo theft risk. By enhancing supply chain coordination and eliminating paperwork, Trade Lens has greatly reduced cost and transit times. Trade Lens promotes business growth through smoothing out global trade procedures, enabling small and medium-sized enterprises (SMEs) that were previously hindered by complex processes. The platform aids regulatory compliance through auditable, tamper-evident records, assisting stakeholders in coping with changing trade policies.

### 8.4 Ever ledger

Every ledger is a technology firm that utilizes blockchain technology to develop a digital ledger for tracing high-value assets like diamonds, art, and wine (Every ledger, n.d.). Ever ledger records provenance information onto the blockchain, which enables insurers, buyers, and sellers to confirm genuine ownership history and authenticity of high-value items, preventing fraud and theft.

The improved traceability reinforces confidence in secondary markets and gives asset holders access to liquidity and business opportunities. For instance, wine manufacturers can verify authenticity for vintage wines and access premium markets. The system aids circular economy processes in resale and reuse, backed by verified history. Every ledger's blockchain solution illustrates how open supply chain information can lead to trust and innovation beyond conventional product movement and invite new business models founded upon asset provenance and lifecycle management.

## 9 | ENVIRONMENTAL AND ENERGY IMPLICATIONS OF BLOCKCHAIN

While blockchain technology offers substantial benefits in enhancing supply chain transparency, efficiency, and trust, it also presents environmental challenges that cannot be overlooked. One of the most frequently cited concerns is the high energy consumption associated with certain consensus mechanisms, particularly Proof of Work (PoW). Originally designed to secure decentralized networks like Bitcoin, PoW requires vast computational power, resulting in significant energy usage and carbon emissions (Sedlmeir et al., 2020).

This issue becomes critical when blockchain is applied across global supply chains that demand high transaction throughput. For example, public blockchains using PoW may become unsustainable for high-volume, real-time supply

chain operations. Consequently, the industry is witnessing a gradual transition toward more energy-efficient consensus mechanisms such as Proof of Stake (PoS) or Delegated Proof of Stake (DPoS), which reduce energy requirements while maintaining security and performance (Zheng et al., 2018).

Moreover, enterprises are increasingly adopting private or permissioned blockchain networks—such as Hyperledger Fabric or Corda—which do not rely on energy-intensive mining processes. These networks limit participation to trusted nodes and often use more sustainable consensus algorithms like Practical Byzantine Fault Tolerance (PBFT). As a result, they are more environmentally friendly and better suited for enterprise-level supply chain applications (Xu et al., 2019).

In addition to the shift in consensus mechanisms, blockchain can also support environmental sustainability in supply chains. By providing immutable records of product origin, manufacturing practices, and logistics data, blockchain enables companies to verify and certify sustainable sourcing practices. For example, platforms are now being used to track carbon emissions, ethical labour standards, and environmental compliance across supply chains (Saberri et al., 2019).

Nevertheless, the environmental footprint of blockchain technologies remains an area that requires ongoing innovation and regulatory oversight. Future developments should prioritize scalable, low-energy consensus protocols and promote the use of green energy in blockchain infrastructure to align technological progress with global sustainability goals.

#### Future Outlook

As technology matures, we can expect greater interoperability, lower costs, and more regulatory clarity. The convergence of blockchain with other technologies like AI and IoT will further enhance its impact on supply chains.

## 10 | CONCLUSION

Blockchain technology holds transformative potential for supply chain management and business expansion. By enhancing transparency, traceability, and efficiency, it addresses many traditional supply chain challenges. Furthermore, it paves the way for global trade, innovative financing, and new business models. While challenges remain, the long-term benefits of blockchain adoption in supply chains are substantial.

## REFERENCES

- Tapscott, D., & Tapscott, A. (2016). *Blockchain Revolution*. Penguin.
- Saberri, S., Kouhizadeh, M., Sarkis, J., & Shen, L. (2019). Blockchain technology and its relationships to sustainable supply chain management. *International Journal of Production Research*, 57(7), 2117–2135. <https://doi.org/10.1080/00207543.2018.1533261>
- IBM Food Trust. (n.d.). Retrieved from <https://www.ibm.com/blockchain/solutions/food-trust>
- Maersk and IBM. (2018). *TradeLens: Accelerating global trade*. Retrieved from <https://www.tradelens.com/>
- Everledger. (n.d.). Retrieved from <https://www.everledger.io/>
- World Economic Forum. (2020). *Inclusive Deployment of Blockchain for Supply Chains: Part 6 – A Framework for Blockchain Interoperability*. Retrieved from <https://www.weforum.org/>
- Sedlmeir, J., Buhl, H. U., Fridgen, G., & Keller, R. (2020). The energy consumption of blockchain technology: Beyond myth. *Business & Information Systems Engineering*, 62(6), 599–608. <https://doi.org/10.1007/s12599-020-00656-x>
- Zheng, Z., Xie, S., Dai, H., Chen, X., & Wang, H. (2018). An overview of blockchain technology: Architecture, consensus, and future trends. In *Proceedings of the 2017 IEEE International Congress on Big Data* (pp. 557–564). IEEE. <https://doi.org/10.1109/BigDataCongress.2017.85>
- Xu, X., Weber, I., & Staples, M. (2019). *Architecture for Blockchain Applications*. Springer.

- De Beers. (2019). Tracr: Blockchain platform for diamonds. Retrieved from <https://www.debeersgroup.com/>
- IBM Food Trust. (n.d.). Food safety and traceability with blockchain. Retrieved from <https://www.ibm.com/blockchain/solutions/food-trust>
- Maersk and IBM. (2018). TradeLens: Accelerating global trade. Retrieved from <https://www.tradelens.com/>
- Everledger. (n.d.). Blockchain for asset provenance and fraud prevention. Retrieved from <https://www.everledger.io/>

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# Clean Power, Clean Future: The Promise of Renewable Energy

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**Abstract:** The global transition to renewable energy is critical to mitigating climate change, ensuring long-term energy security, and achieving environmental sustainability. This paper explores the role of renewable energy in shaping a cleaner, more resilient future. It examines the current status of renewable energy technologies, their environmental and economic benefits, global policy frameworks, and the challenges that hinder widespread adoption. The paper concludes by highlighting strategies and innovations necessary to accelerate the renewable transition.

**Keywords:** Renewable Energy, Sustainability, Clean Power, Energy Transition, Climate Change, Policy, Green Technology

## 1 | INTRODUCTION

In the face of mounting environmental crises and growing energy demands, the transition to renewable energy sources has emerged as a pressing global priority. Fossil fuel dependency, once a driver of industrial growth, now threatens planetary health due to greenhouse gas emissions and resource depletion. Renewable energy offers a viable and sustainable alternative. It not only addresses the environmental costs of conventional energy production but also fosters economic growth, energy independence, and social equity.

This research paper investigates the potential of renewable energy to foster a clean and sustainable future. It assesses current trends, key technologies, benefits, policy dynamics, and barriers, aiming to present a holistic view of renewable energy's promise and the roadmap toward a cleaner world. (Olabi et al., 2023)

## 2 | UNDERSTANDING RENEWABLE ENERGY

### 2.1 Definition and Types

Renewable energy refers to energy derived from naturally replenishing resources that are virtually inexhaustible on a human time scale. Key types include:

- **Solar Energy** – harnessing sunlight through photovoltaic (PV) cells or solar thermal systems.
- **Wind Energy** – using wind turbines to generate electricity.
- **Hydropower** – utilizing flowing water to spin turbines and generate power.
- **Biomass** – converting organic material into heat, electricity, or biofuels.
- **Geothermal Energy** – tapping into the Earth's internal heat for electricity or direct heating. (Olabi et al., 2023)

### 2.2 Global Renewable Energy Status

According to the International Renewable Energy Agency (IRENA), renewables accounted for 30% of global electricity generation in 2023, with solar and wind power leading the growth. Investment in renewables reached a record \$495 billion globally in the same year, with Asia, particularly China and India, taking significant strides. (Olabi et al., 2023)

## 3 | ENVIRONMENTAL AND ECONOMIC BENEFITS

### 3.1 Reduction of Greenhouse Gas Emissions

The combustion of fossil fuels is responsible for over 70% of global CO<sub>2</sub> emissions. Renewables, in contrast, emit little to no greenhouse gases during operation. Transitioning to renewable sources is essential to meet the Paris Agreement goal of limiting global warming to 1.5°C.(Olabi et al., 2023)

### **3.2 Air and Water Pollution Reduction**

Fossil fuel extraction and combustion result in air pollutants such as sulfur dioxide, nitrogen oxides, and particulate matter, contributing to respiratory illnesses and premature deaths. Renewable sources drastically reduce these pollutants and use less water, alleviating stress on freshwater resources.(Olabi et al., 2023)

### **3.3 Economic Development and Job Creation**

The renewable energy sector is labor-intensive and creates more jobs per unit of electricity generated compared to fossil fuels. In 2023, IRENA estimated over 13 million people were employed in the renewable energy sector worldwide. Jobs span installation, maintenance, manufacturing, and research roles.(Olabi et al., 2023)

### **3.4 Energy Security and Independence**

Renewable sources reduce dependence on imported fuels and buffer economies from fossil fuel price volatility. Decentralized energy systems powered by renewables enhance resilience in the face of natural disasters or geopolitical disruptions.(Olabi et al., 2023)

## **4 | TECHNOLOGICAL DEVELOPMENTS IN RENEWABLE ENERGY**

### **4.1 Solar Power Innovations**

Technological advances have led to increased efficiency and decreased costs of solar panels. Perovskite solar cells, floating solar farms, and building-integrated photovoltaics are emerging frontiers. Battery storage solutions have also improved, making solar power viable even when the sun isn't shining.(Lobo et al., 2025)

### **4.2 Wind Energy Progress**

Modern wind turbines have increased in size and efficiency, with offshore wind farms becoming more common. Floating turbines expand access to deeper waters, where wind speeds are stronger and more consistent.(Cocker, 2025)

### **4.3 Smart Grids and Energy Storage**

Smart grids use digital technology to manage electricity flow efficiently. Combined with battery storage systems, smart grids stabilize supply and demand, making renewable energy more reliable.(Cocker, 2025)

### **4.4 Hydrogen and Green Fuels**

Green hydrogen, produced using renewable electricity, is emerging as a solution for decarbonizing hard-to-electrify sectors like aviation and heavy industry. Bioenergy technologies are also evolving to convert waste into clean fuels.(Cocker, 2025)

## **5 | POLICY AND REGULATORY FRAMEWORKS**

### **5.1 International Agreements**

Global frameworks such as the Paris Agreement and the UN Sustainable Development Goals (SDGs) provide a foundation for renewable energy development. SDG 7 specifically targets access to affordable, reliable, sustainable, and modern energy for all by 2030.(Howlett & Rayner, 2007)

### **5.2 National and Regional Policies**

Countries have adopted diverse policy tools to support renewables, including:

- **Feed-in tariffs** – guaranteed payments for renewable energy producers.

- **Renewable Portfolio Standards (RPS)** – mandates for utilities to source a certain percentage of energy from renewables.
- **Subsidies and tax incentives** – financial support for installation and R&D.

The European Union's Green Deal, India's National Solar Mission, and the U.S. Inflation Reduction Act are examples of large-scale policy interventions.(Howlett & Rayner, 2007)

## 6 | CHALLENGES TO RENEWABLE ENERGY ADOPTION

### 6.1 Intermittency and Reliability

Solar and wind power depend on weather conditions, which introduces variability. Without adequate storage or backup systems, grid stability can be compromised.(Jacobson et al., 2017)

### 6.2 Infrastructure and Grid Limitations

Existing electricity grids were designed for centralized fossil fuel systems. Integrating decentralized renewable energy requires substantial upgrades, especially in developing countries.(Jacobson et al., 2017)

### 6.3 Land Use and Environmental Impact

Large-scale renewable installations can conflict with agriculture, wildlife habitats, and indigenous land rights. Hydropower dams, in particular, can alter river ecosystems.(Jacobson et al., 2017)

### 6.4 Financial and Market Barriers

While the cost of renewables has fallen, upfront capital requirements remain high. Developing nations often lack access to affordable financing. Market structures may also favor fossil fuels due to legacy subsidies.(Jacobson et al., 2017)

## 7 | STRATEGIES TO ACCELERATE RENEWABLE ENERGY TRANSITION

### 7.1 Investment in Research and Development

Continued innovation is key to improving efficiency, storage, and cost-effectiveness. Public and private sector investment in clean energy R&D must be prioritized.(Jacobson & Delucchi, 2011)

### 7.2 Integrated Energy Planning

Governments should adopt long-term, integrated planning that aligns energy policies with climate, economic, and social goals. Multi-stakeholder involvement is essential for equitable transitions.(Jacobson & Delucchi, 2011)

### 7.3 Grid Modernization

Upgrading transmission networks, deploying smart grids, and integrating energy storage are critical to managing the variable nature of renewables.(Jacobson & Delucchi, 2011)

### 7.4 Public Awareness and Education

Behavioral change and community support are vital. Public campaigns and education initiatives can promote energy conservation and participation in renewable initiatives.(Jacobson & Delucchi, 2011)

### 7.5 International Cooperation and Climate Finance

Wealthier nations must support developing countries through technology transfer and climate finance, especially for infrastructure and capacity building.(Jacobson & Delucchi, 2011)

## 8 | CASE STUDIES

### 8.1 Germany's Energiewende

Germany's "Energiewende" (energy transition) is a leading example of a policy-driven shift toward renewable energy. By 2024, over 50% of its electricity came from renewables. Despite challenges such as high costs and grid integration, Germany remains committed to phasing out coal and nuclear power. (Mills, 2019)

### 8.2 India's Solar Expansion

India has rapidly scaled up solar capacity under the National Solar Mission, aiming for 280 GW by 2030. Solar parks, rural electrification programs, and partnerships with international donors have driven this growth. (Mills, 2019)

### 8.3 Kenya's Geothermal Success

Kenya leads Africa in geothermal energy production, leveraging its location along the East African Rift. Nearly half of the country's electricity comes from renewables, providing a model for sustainable energy in the Global South. (Kiplagat et al., 2011)

## FUTURE OUTLOOK

The renewable energy sector is poised for significant expansion, driven by technological innovation, policy commitments, and rising public demand for climate action. The International Energy Agency (IEA) projects that renewables will account for 60% of global electricity generation by 2030 under a net-zero scenario.

Artificial intelligence, blockchain, and the Internet of Things (IoT) will play growing roles in optimizing renewable energy systems. Moreover, the convergence of renewable energy with sustainable mobility (e.g., electric vehicles) and smart cities represents a transformative opportunity for global sustainability. (Geels et al., 2017)

## 9 | CONCLUSION

The promise of renewable energy lies not just in clean power but in the broader vision of a sustainable, equitable, and resilient future. It offers solutions to climate change, energy poverty, environmental degradation, and economic inequality. While significant challenges remain, coordinated action by governments, businesses, and communities can accelerate the transition. The time to act is now. A clean future is not only possible—it is essential.

## REFERENCES

- Cocker, F. G. (2025). Mixes of Policy Instruments for the Full Decarbonisation of Energy Systems: A Review. *Energies* 2025, Vol. 18, Page 148, 18(1), 148. <https://doi.org/10.3390/EN18010148>
- Geels, F. W., Sovacool, B. K., Schwanen, T., & Sorrell, S. (2017). Sociotechnical transitions for deep decarbonization. *Science.OrgFW Geels, BK Sovacool, T Schwanen, S SorrellScience, 2017•science.Org, 357(6357), 1242–1244.* <https://doi.org/10.1126/SCIENCE.AAO3760>
- Howlett, M., & Rayner, J. (2007). Design Principles for Policy Mixes: Cohesion and Coherence in 'New Governance Arrangements.' *Policy and Society, 26(4), 1–18.* [https://doi.org/10.1016/S1449-4035\(07\)70118-2](https://doi.org/10.1016/S1449-4035(07)70118-2)
- Jacobson, M. Z., & Delucchi, M. A. (2011). Providing all global energy with wind, water, and solar power, Part I: Technologies, energy resources, quantities and areas of infrastructure, and materials. *Energy Policy, 39(3), 1154–1169.* <https://doi.org/10.1016/J.ENPOL.2010.11.040>
- Jacobson, M. Z., Delucchi, M. A., Bauer, Z. A. F., Goodman, S. C., Chapman, W. E., Cameron, M. A., Bozonnat, C., Chobadi, L., Clonts, H. A., Enevoldsen, P., Erwin, J. R., Fobi, S. N., Goldstrom, O. K., Hennessy, E. M., Liu, J., Lo, J., Meyer, C. B., Morris, S. B., Moy, K. R., ... Yachanin, A. S. (2017). 100% Clean and Renewable Wind, Water, and Sunlight All-Sector Energy Roadmaps for 139 Countries of the World. *Joule, 1(1), 108–121.* <https://doi.org/10.1016/j.joule.2017.07.005>
- Kiplagat, J. K., Wang, R. Z., & Li, T. X. (2011). Renewable energy in Kenya: Resource potential and status of exploitation. *Renewable and Sustainable Energy Reviews, 15(6), 2960–2973.* <https://doi.org/10.1016/J.RSER.2011.03.023>
- Lobo, J. R. A., Szejka, A. L., & Canciglieri Junior, O. (2025). Towards a Cognitive New Product Development Framework Based on Collaborative Engineering and Digital Technologies. *Lecture Notes in Production Engineering, Part F566, 77–86.* [https://doi.org/10.1007/978-3-031-77723-3\\_7](https://doi.org/10.1007/978-3-031-77723-3_7)



- Mills, T. (2019). India's Renewable Energy Resources. Encyclopedia of Mineral and Energy Policy, 1–14. [https://doi.org/10.1007/978-3-642-40871-7\\_168-1](https://doi.org/10.1007/978-3-642-40871-7_168-1)
- Olabi, A. G., Elsaid, K., Obaideen, K., Abdelkareem, M. A., Rezk, H., Wilberforce, T., Maghrabie, H. M., & Sayed, E. T. (2023). Renewable energy systems: Comparisons, challenges and barriers, sustainability indicators, and the contribution to UN sustainable development goals. International Journal of Thermofluids, 20. <https://doi.org/10.1016/j.ijft.2023.100498>

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# A study on Shareholders' Wealth Maximization of top 3 IT Companies in India

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**Abstract:** The main objective of a company is to maximize its shareholders' wealth. Traditional measures of evaluating shareholders' wealth are not so reliable and considered inappropriate because it ignores firm's cost of capital and exclusively based on financial statements. So, to overcome this limitation of traditional measures we use more effective measures to evaluate wealth creation. This research was conducted on "Shareholders Wealth Maximization of top 3 IT companies in India." The study encompasses analysis of wealth created by IT companies for their shareholders in five years (FY2019-20 to FY2023-24) by utilizing Economic Value Added and Market Value Added measures. Value based measures have high level of correlation between profitability and market return and so measures yielding positive values lead to generation of economic profits which in-return create and maximize shareholders wealth. On the other hand, Negative value indicates the destruction of shareholders wealth. Value added analysis is a measure of true economic performance of a company and a strategy for creating shareholders wealth. Under this study I tried to evaluate that top 3 Indian IT companies are creating value for their shareholders. I provided suggestions for investment decisions in companies under study. I also provided recommendations to company, that how can they maximize their shareholders wealth. The secondary data were collected from annual reports of company and selected and related websites.

**Keywords:** Wealth, IT, Information Technology

## 1 | INTRODUCTION

Nowadays, the primary objective of each and every organization is to maximize their profit and by maximizing their profit they want to maximize the wealth of shareholders as well. Therefore, Shareholders Value Creation (SVC) has become integral part of every annual general meeting and every annual report. In the increasing competitive environment and competition in global arena, companies are focusing on their efforts on creating shareholders wealth in order to survive the intense competition. In that respect, it is becoming important for companies to measure the value they create for their shareholders. Keeping track of value created from the years enables companies to evaluate past decisions and make new decisions that will improve shareholder value. If any company doesn't pay attention to shareholders value creation, it will affect company's prosperity and growth. All the domestic and international companies are striving hard to accomplish this goal. After the globalization and liberalization of trade and commerce with cross border flow of fund and technology, this theory has gained momentum. Day to day the expectations of shareholders are increasing in relation to value creation, and they got more concerned about it. They are also concerned about company's performance and position which is published by corporate. So, companies should be aware of such challenges faced by it in course of value creation process. By knowing these will enable the companies to define their strategies to improve their profit margins and also capitalize on their individual strengths to enhance shareholder value creation.

Shareholders wealth maximization clearly means maximizing the Net Present Value (NPV) of a course of action to shareholders. NPV means difference between the present value of its benefits and the present value of its cost. A financial action that has a positive NPV creates wealth for shareholders therefore it is desirable. A financial action that has a negative NPV should be rejected since it would destroy shareholders' wealth. Between mutually exclusive projects that one projects would be selected which has the highest NPV. The objective of shareholders wealth maximization takes care of the limitation of profit maximization. It is important to emphasis that benefits are measured in terms of cashflows. In investment and financing decisions, it is the flow of cash that is important not the accounting profit. The objective of shareholders wealth maximization is an appropriate and operationally feasible criterion to

choose among the alternative financial actions. It provides a clear picture of what financial management should seek to maximize in making investment and financial decisions on behalf of shareholders. Maximizing the shareholders economic welfare is equivalent to maximizing the utility of their consumption over time. From shareholders point of view, the wealth created by the company through its action is reflected in the market value of the company's share price. Therefore, the wealth maximization principle implies that the fundamental objective of a firm is to maximize the market value of its shares. The value of the company's share is represented by their market price which in turn, is a reflection of shareholders perception about quality of the firm's financial decisions. The market price serves as the firm's performance indicator.

## **2 | THE INFORMATION TECHNOLOGY (IT) INDUSTRY: AN OVERVIEW**

India's software industry is a significant global player, driven by outsourcing, a large pool of skilled IT professionals, and growing domestic demand for digital solutions, contributing significantly to India's GDP and employment. The Indian IT industry is a vital part of the country's economy, having a range of services and activities. It comprises IT services, business process outsourcing, engineering research and development, software products, and e-commerce.

The IT sector has experienced significant growth in revenue over the past 15-20 years. It has become a key contributor to the country's economy, with substantial revenue and technology exports. A noteworthy instance- FY2022 showed the highest YoY growth rate – 15.5% as against 2.3% in FY21, with revenue reaching up to \$227 billion.

Top 3 key players in the Indian IT services market include,

1. Tata Consultancy Services (TCS)
2. Infosys
3. HCL Technologies (HCL Tech)

## **3 | LITRETURE REVIEW**

Dr. Kaushal Bhatt and Kinjal Bhatt (2022), "Shareholder's Value Creation: an empirical study of selected Indian IT companies listed on NSE" had empirically measures the Shareholder's Value Creation and also analyzed the impact of the accounting which was based on measures of the shareholder's value creation and also the impact of Economic Based. Which mainly identified the interrelation between the accounting and the economic bases for this study totally five top Indian IT companies were selected which are listed on the NSE and for data collection method data's are secondary which are sourced from the annual reports published in the company's websites and other related sources like reports, journals and the online database which are analyzed by the statistical tools, thus the study concluded that the shareholder value maximization has become the predominant goal for the corporations in India and the world over.

Motilal Oswal (2014) conducted the study on "19th Annual Wealth Creation Study", this study shows the wealth creation of companies and have listed in the top 100 countries in the descending order which created more wealth to its shareholders with the help of the company's stock prices by comparing the benchmark (BSE Sensex). The result arrived was TCS was the biggest creator, Eicher is the fastest creator and Kotak Mahindra Bank is the consistent wealth for the shareholders.

Dr J Murthy (2013), "Shareholders value creation in IT segment in India – A comparative study between Tata Consultancy Solutions (TCS) and Infosys". The profitability performance of TCS and Infosys with regard to shareholders wealth maximization was measure. The techniques used was DuPont analysis. It was found that TCS have shown a good performance with regards to the shareholders wealth maximization since the operating profit ratio has been in increasing trend.

## **4 | RESEARCH METHODOLOGY**

### **Significance of the study**

1. The significance of the study is to encourage the investors to make use of valuation of securities for shareholder wealth creation.
2. This study is an attempt to analyze the value created by the IT companies of their shareholders.

3. Wealth creation of shareholders has great significance to interest of investors, fund manager, policy maker, market regulator, government and researcher and also to the general public.
4. The present study is important for those investors who believe that accounting philosophy base measure of value creation are poor indicators.
5. Many companies traditionally used accounting variables such as sales, earning, and earning ratio on sales, but in recent years new techniques have been implemented for measuring wealth creation of shareholders and this study implements such new techniques viz. Economic Value Added (EVA) and Market Value Added (MVA).

### Objectives of the study

The study proposes to examine the process of wealth maximization over a period of five years by the selected top three IT sector companies. Trying to find out the wealth created by the companies for their shareholders over the 5 years period. Specific objectives are stated below:

1. To know the growth and development of top 3 IT companies over last five years.
2. To find out financial performance of selected companies.
3. To investigate the growth of shareholders' value in IT industry in terms of Economic value added.
4. To evaluate the growth of shareholders' value in IT industry in terms of Market Value Added.
5. To analyse that companies really created any value for their shareholders.
6. To give suggestions for the enhancement of shareholder wealth creation.

### Type of Research Design

**Descriptive research design:** Descriptive research is a research method that describes the characteristics of a population or phenomenon. More simply put, descriptive research is all about describing characteristics of population. Under this study, I selected a sample of three companies from the population and analyze the sample by using both qualitative and quantitative methods.

**Data collection method:** There are majorly two types of data collection methods: (1) Primary Data Collection and (2) Secondary Data Collection.

- This study pertaining to financial year of 2019-20 to 2023-24.
- The criteria for study: Sample of top 3 IT companies in India.
- For this study purpose, the sample data is collected from secondary source.
- The secondary data can be collected through existing data and also from online tracking (websites).

**Data Collection Technique:** Data collection techniques encompass various methods for gathering information, including primary methods like surveys, interviews, and observations, as well as secondary methods utilizing existing data. Here, I used secondary data collection methods as we gather data from Annual reports of the company.

**Data analysis methods:** In research, data analysis methods encompass both quantitative and qualitative approaches, including techniques like regression, factor analysis, time series analysis, and qualitative methods like content analysis and grounded theory, each suited to different research goals and data types. Here, I use mixed technique of data analysis and particularly graphical interpretation for value base measures.

Data analysis methods play a crucial role in extracting valuable insights from raw data. These techniques enable organizations to make data driven decisions, enhancing operational efficiency and identifying growth opportunities. By understanding and applying various data analysis methods, businesses can navigate the complexities of data and leverage it for strategic advantage.

With data analysis methods, you'll streamline operations, identify growth opportunities, and gain a comprehensive edge in a data-saturated world. Data analysis methods are specific procedures that transform raw data into valuable insights. Each method is suitable for different types of problems and data structures.

**Tools and Techniques:** For the enhancement of this research work, the following tools were used for study. The tools were selected on basis of study needs.

### Value drivers:

- i. Operating profit
- ii. Total shareholders' funds

- iii. Book value per shares
- iv. Earnings per share
- v. Operating profit margin
- vi. Market price per share
- vii. Fixed assets turnover ratio
- viii. Cost of capital

## 5 | VALUE - BASED MEASURES

### Economic value added

$EVA = NOPAT - (WACC * INVESTED CAPITAL)$

Where,

NOPAT = Net operating profit after tax

WACC = Weighted average cost of capital

### Market value added

$MVA = \text{Market capitalization} - \text{Net worth}$

### Value driver formula:

#### Operating Profit

$OP = \text{Operating Profit} / \text{Sales} \times 100$

$\text{Operating Profit} = \text{Gross Profit} - \text{Operating expenses}$

$\text{Operating expenses} = \text{Gross Profit} - \text{Net Profit}$

#### Total Shareholders' Funds

$= \text{Total Assets} - \text{Total Liabilities}$

### Book Value per Share

$= \text{Shareholders fund} / \text{No. of equity shares}$

### Earning per share

$= \text{PAT} - \text{Preferred Dividend} / \text{No. of outstanding shares}$

### Operating profit margin

$= \text{Earnings before interest on Tax} / \text{Sales}$

$EBIT = \text{Revenue} - \text{Operating expenses} + \text{Non-Operating Income}$

$\text{Operating Income} = \text{Revenue} - \text{Operating expenses}$

$\text{Non-Operating Income} = \text{Profit or loss}$

### Market price per Share

$= \text{Market capitalization} / \text{No. of outstanding shares}$

### Fixed Assets Turnover Ratio

$= \text{Net Sales} \text{ or } \text{COGS} / \text{Net Fixed Assets}$

### Cost of Capital

$= \text{Dividend per share} / \text{Net Proceeds}$

## 6 | SCOPE OF THE STUDY

1. The shareholder wealth maximization goal states that management should endeavour to maximize the net present value of the future expected cash flows to the shareholder of the firm.
2. Net present Value refers to the discounted value of future cash flows at the expected rate of return.
3. Wealth maximization can be achieved only with the most efficient use of society's economic resource.
4. Wealth maximization is also one of the major objectives which can be achieved with the maximum use of Society's economic resources.
5. Wealth maximization has taken a new shape in the recent years and is now largely dependent on investment decisions of the business.
6. Companies have nowadays been measuring the Wealth maximization through a new concept called Economic Value added and Market Value Added.
7. EVA and MVA are useful Measure in this regard and has been found to be very useful for a number of companies that have given good returns to their Shareholders.
8. EVA and MVA are closely analogous to the concept of residual income which is both widely practiced and well established in literature as a measure of divisional Performance.
9. EVA and MVA can be used as an effective performance measure because of its ability to measure results periodically.
10. Moreover, the analysis of EVA and MVA measures performance in terms of value, it should be the cornerstone of any financial management system used to set corporate strategy, or to evaluate potential capital investment decisions, corporate acquisitions or takeovers etc.
11. Many studies had been carried out on measuring and analysing shareholder value creation in Indian context. Majority of them used EVA as tool to measure shareholder value creation and examined its superiority against other traditional measures.

## 7 | LIMITATIONS OF THE STUDY

1. The data for the study were derived from the financial statements published by the companies, which are historical and based on accounting and personal judgements.
2. Financial statement shows the book value and sometimes not properly matched. Sometimes these might have been window dressed or manipulated.
3. This study pertaining to only selected top 3 IT companies of India and so it will not be proper to make any generalization of universal applications.
4. The period of study is limited to financial year of 2019-20 to 2023-24.
5. MVA doesn't take into account the opportunity costs of the invested capital.
6. MVA doesn't take into account the interim cash returns to shareholders.

## 8 | DATA ANALYSIS AND INTERPRETATION

Data analysis is the process of examining data to identify patterns, trends, and relationship. Data analysis and interpretation involve using data to draw conclusions, identify patterns, and make predictions, often employing statistical and analytical techniques to understand data and its implications. It helps researchers, businesses, and other organizations to understand data, make informed decisions, and solve problems.

Analysis of data is a general way involves a number of closely related operations, which are performed, with the purpose of summarizing the collected data, organizing these in such a manner that they answer the research problems. This chapter will present a critical study on the various financial ratio (value drivers), Economic Value added and Market Value added of the selected top 3 companies of IT industry. The following pages exhibits the detailed analysis, by using of suitable tools and make a relevant interpretation accordingly.

### Financial Analysis of Tata Consultancy Services Ltd.

Attributes	Company (Rs. In Crores)				
	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Value Drivers</b>					
Net Sales (In Crore)	1,56,949	1,64,177	1,91,754	2,25,458	2,40,893
Operating Profit	42,109	46,546	53,057	59,259	64,296
Total Shareholders' Fund	84,750	87,108	89,846	91,206	91,319
Total Assets	1,20,899	1,30,759	1,41,514	1,43,651	1,46,449
Total Debt	36,150	43,651	51,668	52,445	55,130
Book Value (In Rs.)	198.31	202.15	210.86	203.66	199.23
Earnings Per Share (In Rs.)	86.19	86.71	103.62	115.19	125.88
No. of Shares (In Crore)	375	370	366	366	365
Market Price (In Rs.)	2951.90	3177.85	3651.20	3205.90	3876.30
Operating Profit Margin (%)	27	28	28	26	27
Cost of Capital	10.23%	9.03%	9.75%	11.12%	13.10%
Fixed Assets Turnover Ratio (Times)	7.50	7.81	9.00	10.99	12.29

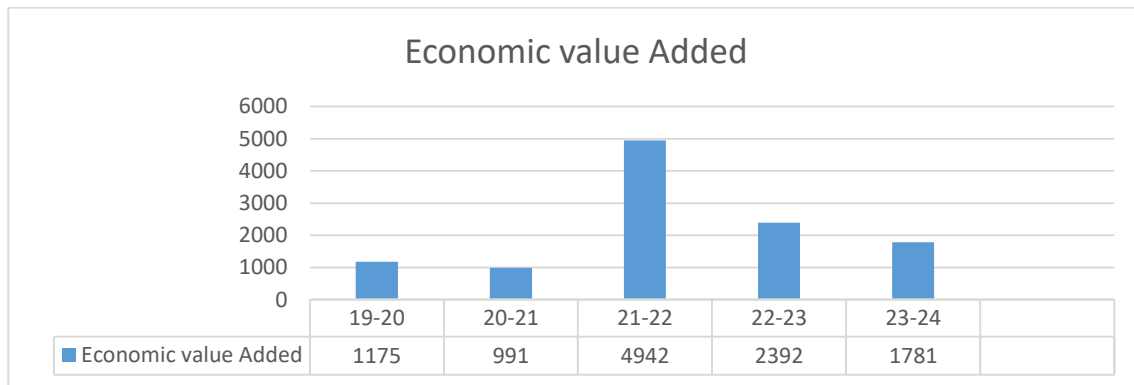
Source: Secondary Data

### Value Based Measures of Tata Consultancy Services Ltd.

Attributes	Company (Rs. In Crores)				
	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Value Drivers</b>					
Economic Value Added	1175	991	4942	2392	1781
Market Value Added	-91,189	4,88,659	1,57,797	-1,64,340	2,41,377

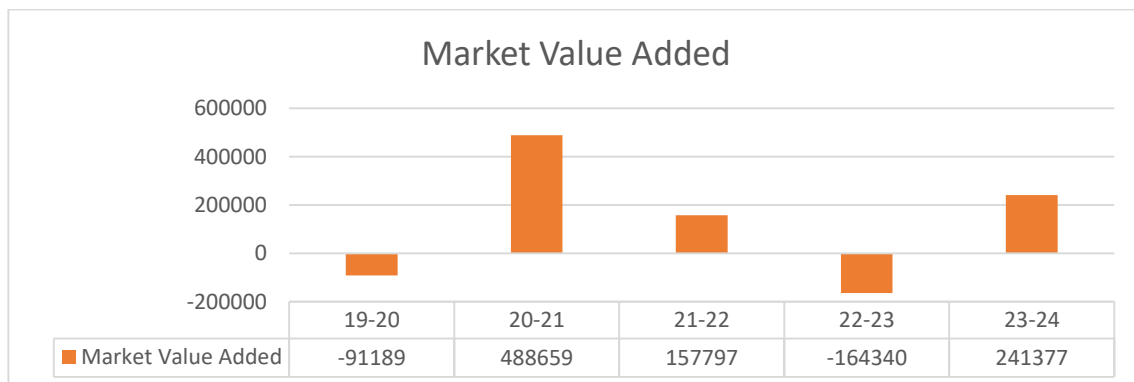
Source: Secondary Data

**Economic Value Added of Tata Consultancy Services Ltd.**



As per Table, it concludes that the Economic value added of Tata Consultancy Services Ltd. In last five years shows positive trend so that we can say that company creates wealth for their shareholders. The reason for the value addition is constant increase in net operating profit after tax. The Economic profit is also increasing except the year 2020-21 but it doesn't affect economic value added adversely as the net operating profit is also increasing with it. In this company's case, cost of capital is increasing in last few years which adversely affect shareholders but company generates operating profits at growing rate so that doesn't affect the economic value added.

**Market Value Added of Tata Consultancy Services Ltd.**



Market value added representations of value created by the actions and investments of a company's management. A high market value added is evidence that the value of management's actions and investments is greater than the value of the capital contributed by shareholders, whereas a low market value added means just the opposite. Table reflects that in the year 2019-20 and 2022-23, the MVA is negative and in the rest of the years it is positive. The reason behind negative MVA is reduction in number of shares. Buy-back of shares can be a reason for reduction of shares. The increase in market price of shares results in positive MVA. So, there can be fluctuations the MVA of the company.

**Financial Analysis of Infosys Ltd.**

Attributes	Company				
	(Rs. In Crores)				
Value Drivers	2019-20	2020-21	2021-22	2022-23	2023-24
Net Sales (In Crore)	90,791	1,00,472	1,21,641	1,46,767	1,53,670
Operating Profit	22,267	27,889	31,491	35,130	36,425
Total Shareholders' Fund	65,450	76,351	75,348	75,407	88,116
Total Assets	91,800	1,07,511	1,16,729	1,24,596	1,36,020
Total Debt	26,350	31,160	41,379	49,189	47,904
Book Value (In Rs.)	180	180	180	182	213
Earnings Per Share (In Rs.)	38.96	45.42	52.56	58.08	63.20
No. of Shares (In Crore)	426	425	421	418	413

Market Price (In Rs.)	641.50	1368.5	1906.85	1427.95	1570.65
Operating Profit Margin (%)	25%	28%	26%	24%	24%
Cost of Capital	9.04%	9.77%	10.61%	13.13%	12%
Fixed Assets Turnover Ratio	3.81	3.94	4.71	5.02	5.56

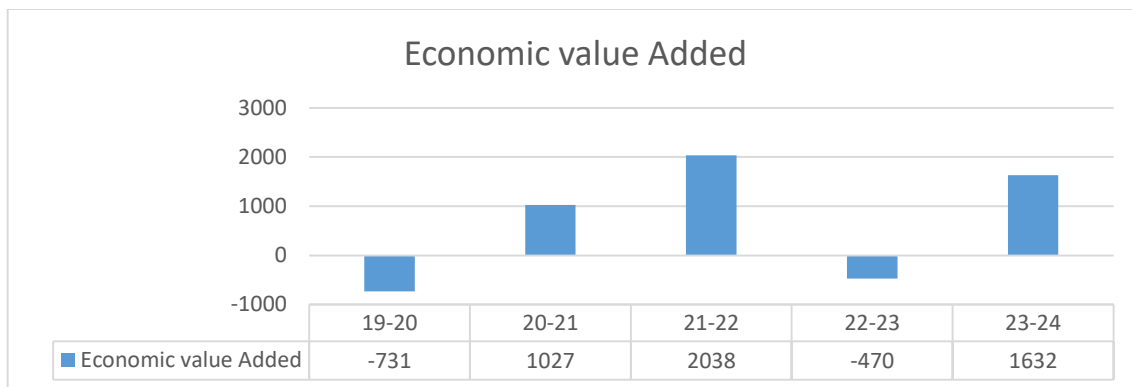
Source: Secondary Data

**Value Based Measures of Infosys Ltd.**

Attributes	Company (Rs. In Crores)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Value Drivers					
Economic Value Added	-731	1027	2038	-470	1632
Market Value Added	-42,122	2,97,433	2,22,174	-2,05,960	39,086

Source: Secondary Data

**Economic Value Added of Infosys Ltd.**



As per Table, the Economic Value Added of the Infosys Ltd. is negative in the year 2019-20 and 2022-23 and positive in rest of the years which shows changes in Economic Value Added of the said company. The reason for increase in EVA is constant increase in net operating profit after tax and reduce in Economic Profit. Economic profit is reduced due to less cost of capital. Decrease in EVA in the year 2022-23 is due to maximum cost of capital. It implies that high Economic Profit reduces the impact of operating profit. In the year 2019-20, there is a sudden increase in cost of capital, it results in reduction in EVA.

**Market Value Added of Infosys Ltd.**

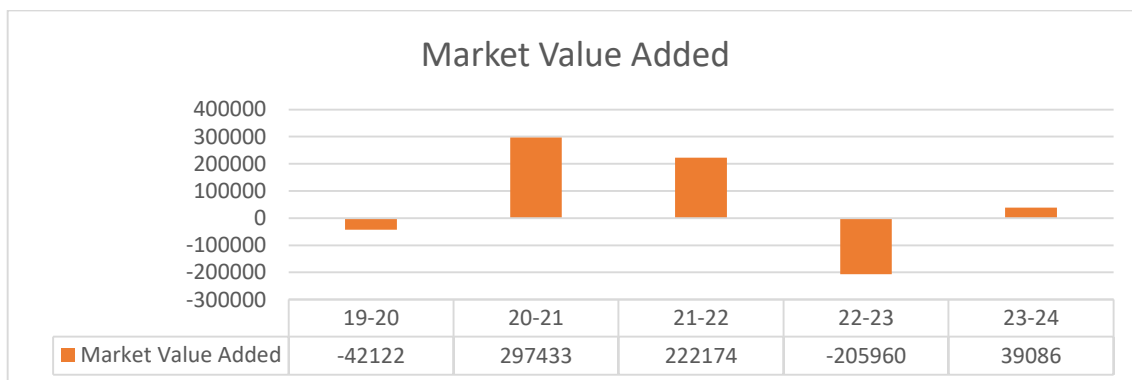


Table reflects that in the year 2019-20 and 2022-23, the MVA is negative and in the rest of the years it is positive. The reason behind negative MVA is reduction in number of shares and also reduction in market price of shares in particular year. Buy-back of shares can be a reason for reduction of shares. The increase in market capitalization directs the MVA in positive manner. There in increase in net worth also but it doesn't affect the MVA adversely.

**Financial Analysis of HCL Technologies Ltd.**

Attributes	Company				
	(Rs. In Crores)				
Value Drivers	2019-20	2020-21	2021-22	2022-23	2023-24
Net Sales (In Crore)	70,676	75,379	85,651	1,01,456	1,09,913
Operating Profit	17,316	20,048	20,529	22,628	24,198
Total Shareholders' Fund	51,267	59,913	61,914	65,405	68,263
Total Assets	82,819	86,047	88,921	93,250	99,006
Total Debt	31552	26,134	27,007	27,845	30,743
Book Value (In Rs.)	188.83	220.67	227.74	239.47	249.08
Earnings Per Share (In Rs.)	40.75	41.07	49.74	54.73	57.86
No. of Shares (In Crore)	271	271	271	271	271
Market Price (In Rs.)	436.40	982.65	1163.75	1085.25	1543.55
Operating Profit Margin (%)	24%	27%	24%	22%	22%
Cost of Capital	10.12%	10.99%	12.36%	13.12%	12.35%
Fixed Assets Turnover Ratio	1.88	2.03	2.44	2.93	3.13

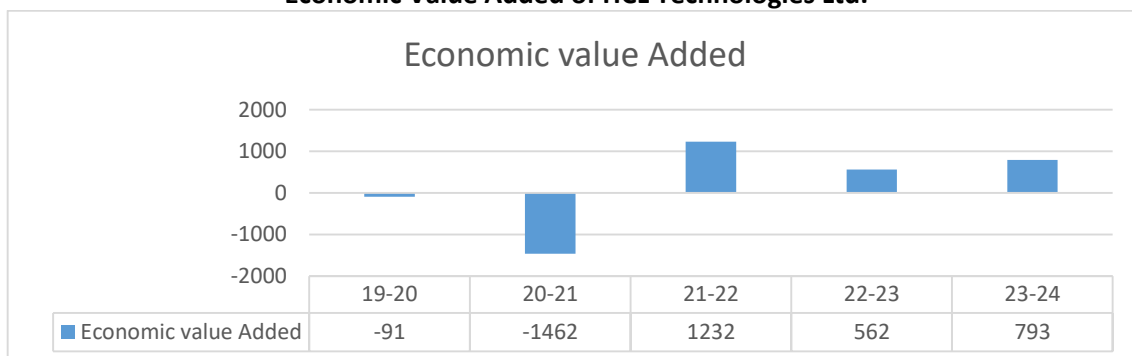
Source: Secondary Data

**Value Based Measures of HCL Technologies Ltd.**

Attributes	Company				
	(Rs. In Crores)				
Value Drivers	2019-20	2020-21	2021-22	2022-23	2023-24
Economic Value Added	-91	-1462	1232	562	793
Market Value Added	34,971	1,39,388	47,077	-24,765	1,21,341

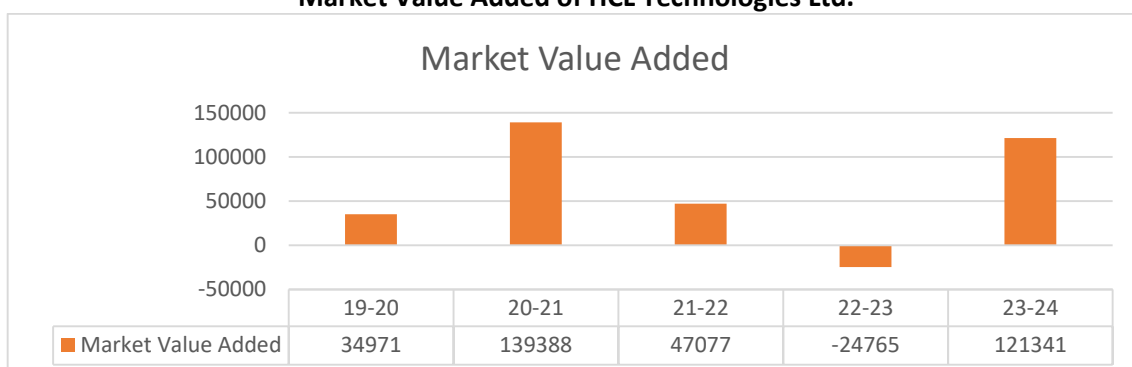
Source: Secondary Data

**Economic Value Added of HCL Technologies Ltd.**



As per Table, the Economic Value Added of the HCL Technologies Ltd. is negative in the year 2019-20 and 2020-21 and positive in rest of the years which shows changes in Economic Value Added of the said company. The reason for increase in EVA is constant increase in net operating profit after tax and there is increase in Economic Profit but proportion of increase in operating profit is higher than proportion of increase in economic profit. Decrease in EVA in the year 2020-21 is due to increase in cost of capital. It implies that high Economic Profit reduces the impact of operating profit.

**Market Value Added of HCL Technologies Ltd.**



The MVA affected by two factors market capital and net worth of the company. Market Capitalization is affected by two measures number of shareholders and market price of the companies. Table reflects that in the year 2022-23, the MVA is negative and in the rest of the years it is positive. The reason behind negative MVA is reduction in the market price of the company in a particular year. The increase in the MVA is because of increase in market price of the company and number of shareholders remains same for each five years. There is increase in net worth also but it doesn't affect the MVA adversely.

## 9 | FINDINGS, CONCLUSIONS AND RECOMMENDATION

The wealth maximization criterion is based on the concept of cash flows generated by the decisions. The wealth maximization criterion considers both the quantity and quality dimension of benefits. Many companies boost the market price of the shares through various direct and indirect measures, which in turn increases the shareholders wealth. Hence it becomes necessary for the investors to find out a performance indicator which reflects both the changes in market value and the fundamentals of the company. Keeping this in mind, the present study was undertaken to examine the process of wealth maximization by the top 3 IT companies.

### Findings:

1. Tata consultancy Services Ltd., Operating profit is rising every year at good rate which positively affect the EPS of the company as well. The market capitalization is increasing in most of the years under study. In overall, the cost of capital of the company is increased and it is related with the economic profit that is why the economic profit is also increasing. At the same time, the net operating profit is also increasing which nullify the effect of increasing economic profit and EVA of the company is rising. In bird eye view, the MVA is also positive except some years.
2. Infosys Ltd., Operating profit is going upwards with effective rise in every year. Constant increase in EPS is mostly affected by operating profit. Company's EVA is positive because of increase in net operating profit is greater than increase in economic profit, except some years because of high cost of capital. The increase in market capitalization affects the MVA positively in initial years under study.
3. HCL Technologies Ltd., EVA is rising which is because of rise in net operating profit but in initial years EVA is negative due to higher proportion of economic profit compare to net operating profit. Market price of the share is constantly increase which rise the market capital and hence MVA is generally positive. EPS also shows increasing trend but the number of shareholders remains constant.
4. As the study shows companies like Tata Consultancy Services Ltd., Infosys Ltd., and HCL Technologies Ltd. created wealth for their shareholders in the years under study.

### Conclusion:

It can be concluded that shareholders wealth maximization is the primary objective of the business organization and it should keep in mind that the change is the only constant in nature and we should welcome the change for our betterment. The managers should take decisions rationally so that the capital is optimally utilized and result in shareholders wealth maximization. As the value measures of shareholders wealth like EVA and MVA are commonly utilized in present scenario. The calculation of EVA and MVA is not mandatory by law but stakeholders and potential investors have keen interest in computation of it for better investment decision. It believes that it should create higher accountability for managerial decisions, facilitates them in aligning their performance with that of the shareholders' expectations, and also aids them in preparation of performance reports. This study will helpful to the investors to diversify their risk. In IT industry, the emphasis is given to innovations and also on the IT professionals. If company satisfy that parameters then it will definitely create wealth for their shareholder.

### Suggestions:

1. Investors can invest in the companies like Tata Consultancy Services Ltd., Infosys Ltd., and HCL Technologies Ltd. because they are making profit and creating the wealth for shareholders.
2. All the companies should try to minimize their cost so that profit can be maximized ultimately wealth of shareholders can also be maximized.
3. MVA should not be considered as a reliable indication of management performance during strong bull market when stock prices rise in general.
4. EVA relies heavily on invested capital and is best used for asset-rich companies, where companies with intangible assets, such as technology businesses, may not be good indicator.

5. EVA is more reliable measure as compare to MVA because MVA considers market price of shares of the company which can be altered by the company by different ways such as window dressing of profits.
6. A company can improve its EVA and MVA as under:
  - a. Companies should sell its unprofitable assets to give greater returns.
  - b. More capital should invest in business whose rate of return is more than the cost of capital.
  - c. With the same capital structure, rate of return can be increased.
  - d. Companies should try to minimize the cost of capital.

## REFERENCES

- Financial Management – 11th Edition, A book by I. M. Pandey
- Pradeep Kumar K, a thesis on “A study on Wealth Maximization in Indian Software Industry”, 2017
- Dr. Kaushal Bhatt and Kinjal Bhatt, a thesis on “Shareholder’s value creation: an empirical study of selected Indian IT companies listed on NSE”, 2022.
- Motilal Oswal, a study “19th Annual Wealth creation study”, 2014.
- A study on ULIP - Investors perception towards wealth maximization in Insurance industry by Anitha N, 2023.
- An article on “Maximization of shareholders wealth: A study on Indian Automobile companies” by Ayan Chakraborty, 2020.
- <https://www.tcs.com>
- <https://www.infosys.com>
- <https://www.hcltech.com>
- <https://www.screener.in>
- <https://www.moneycontrol.com>
- <https://www.gurufocus.com>

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# Sustainability Reporting Practices in India: An Analysis of Compliance Level of Sustainability of Reliance Industries Ltd.

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**Abstract:** This paper examines the compliance level of Reliance Industries Limited (RIL) with India's evolving sustainability-reporting requirements and global reporting norms. Using a content analysis of RIL's latest integrated and BRSR (Business Responsibility & Sustainability Report) disclosures, and mapping those disclosures to SEBI's BRSR mandatory indicators and the Global Reporting Initiative (GRI) Standards, the study measures completeness, transparency, and alignment across environmental, social and governance (ESG) dimensions. The paper identifies strengths, disclosure gaps, and practical recommendations for improving comparability and investor-usefulness of RIL's sustainability reporting.

**Keywords:** Reliance Industries, Sustainability Reporting, Compliance Level.

## 1 | INTRODUCTION

BRSR stands for Business Responsibility and Sustainability Report. It is a reporting framework introduced by SEBI (Securities and Exchange Board of India) that requires listed companies to disclose their Environmental, Social, and Governance (ESG) performance in a standardized way. BRSR is like a progress report card for companies, but instead of only financial performance, it shows how responsibly and sustainably the company is running its business covering things like:

- (1) How organizations treat the environment (pollution, emissions, renewable energy use).
- (2) How organizations treat people (employees, customers, community, suppliers).
- (3) How organizations are governed (ethics, transparency, compliance).

### Why BRSR is introduced?

- To encourage companies to go beyond profits and focus on people, planet, and prosperity.
- To help investors compare companies on sustainability performance.
- To make Indian businesses align with global ESG reporting standards.

### Overview & Origin

- BRSR replaced the earlier BRR framework, introduced by SEBI in 2021 to strengthen ESG disclosures across nine principles aligned with the National Guidelines on Responsible Business Conduct (NGRBC).
- It became mandatory for the top 1,000 listed companies from FY 2022-23 onwards.
- A simplified "BRSR Lite" format also exists to encourage MSMEs and unlisted firms to participate with fewer reporting burdens.

### Regulatory Enhancements & Future Path

- Phased rollout of BRSR Core:
  - FY 2023-24: top 150 companies;
  - FY 2024-25: top 250;
  - FY 2025-26: top 500;
  - FY 2026-27: full top 1000.
- Value-chain disclosures:
  - Voluntary from FY 2025-26 for top 250 companies;
  - Mandatory with assurance from FY 2026-27.

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- Green Credits reporting: under Principle 6, mandatory from FY 2024-25 to highlight environmental efforts.
- ICAI’s Sustainability Reporting Maturity Model (SRMM) :
  - A self-assessment tool helping companies benchmark themselves from “Formative” to “Leading by Example.”

### Structural Layout

The framework is divided into three segments:

- (1) General Disclosures – Basic company details, operations, workforce, etc.
- (2) Management & Process Disclosures – Governance mechanisms, sustainability embedding.
- (3) Principle-wise Performance – Detailed reporting on nine ESG principles.

From July 2023, BRSR Core was introduced as a focused KPI-based subset requiring assurance by independent third parties, beginning with top companies.

## 2 | IMPORTANCE OF BRSR

### (1) Strengthening Corporate Responsibility

- Indian companies have large social, environmental, and economic footprints.
- BRSR ensures businesses go beyond profits and disclose how responsibly they treat employees, communities, customers, and the environment.

### (2) Global Investor Expectations

- Global investors increasingly look at ESG (Environmental, Social, Governance) factors before funding companies.
- Without transparent ESG reporting, Indian companies risk losing access to foreign capital.
- BRSR aligns Indian reporting with international frameworks like GRI, SASB, TCFD, making companies more attractive to investors

### (3) Climate & Sustainability Goals

- India has committed to Net Zero by 2070 and other climate pledges under the Paris Agreement.
- BRSR provides a structured way for companies to disclose energy use, emissions, waste, water usage, etc.— helping track progress toward these national goals.

### (4) Improving Transparency & Accountability

- Earlier, CSR and sustainability reports were voluntary, inconsistent, and hard to compare.
- BRSR standardizes disclosures across 9 principles of responsible business, so stakeholders can benchmark companies on ESG performance.

### (5) Mitigating Risks (Reputation & Legal)

- With rising concerns on greenwashing, labour rights, pollution, and governance failures, companies face reputational and compliance risks.
- BRSR disclosures act as risk-management tools by compelling companies to reveal policies, actions, and performance metrics.

### (6) Supporting Policy & Regulatory Push

- Government and regulators (like SEBI) want to align business practices with Sustainable Development Goals (SDGs) and National Guidelines on Responsible Business Conduct (NGRBC).
- BRSR ensures that corporate reporting feeds into national sustainability priorities.

### (7) Encouraging Long-Term Value Creation

- By focusing on social and environmental impact, BRSR helps companies:
  - build stronger stakeholder trust,
  - reduce operational risks (e.g., climate-related),
  - attract talent and customers,
  - and achieve sustainable profitability.

## 3 | PRINCIPLES OF BRSR

The nine core principles of BRSR (Business Responsibility and Sustainability Reporting) guide companies to operate with integrity, respect human rights and well-being, and foster sustainable and inclusive growth. These principles cover ethical conduct, employee and stakeholder well-being, human rights, environmental responsibility, responsible policy

advocacy, consumer value, and promoting economic development, ensuring comprehensive ESG (Environmental, Social, and Governance) reporting.

- (1) **Ethical and Transparent Conduct:** Businesses should operate ethically, transparently, and be accountable for their actions and impacts.
- (2) **Sustainable Products and Services:** Companies must ensure their goods and services are safe and sustainable throughout their life cycle.
- (3) **Employee Well-being:** Businesses should respect and promote the well-being of all their employees, including those within their value chains.
- (4) **Stakeholder Responsiveness:** Companies need to respect the interests of and be responsive to all their stakeholders.
- (5) **Human Rights:** Businesses are expected to respect and promote human rights.
- (6) **Environmental Protection:** Companies should respect, protect, and make efforts to restore the environment.
- (7) **Responsible Policy Advocacy:** When influencing public and regulatory policy, businesses should do so responsibly and transparently.
- (8) **Inclusive Growth and Equitable Development:** Companies should promote inclusive growth and equitable development.
- (9) **Consumer Value:** Businesses should provide value to their customers and consumers in a responsible manner.

#### 4 | BENEFITS OF BRSR THE INDIAN CONTEXT

##### (1) For Companies

- Investor Confidence: Transparent ESG data attracts global & domestic investors.
- Reputation & Trust: Builds credibility with customers, employees, regulators, and communities.
- Risk Management: Identifies climate, social, and governance risks early.
- Competitive Advantage: Companies seen as sustainable often get better market valuation.
- Operational Efficiency: Tracking energy, water, and waste helps reduce costs.

##### (2) For Investors & Markets

- Standardized Data: Easier to compare companies across industries.
- Reduced Greenwashing: More reliable disclosures (especially with BRSR Core assurance).
- Better Decision-Making: Helps investors identify long-term sustainable companies.

##### (3) For Government & Policy

- Alignment with SDGs & Net Zero 2070: BRSR tracks company progress on climate & sustainability targets.
- Regulatory Oversight: SEBI & ministries get structured ESG data for policy planning.
- Boost to Green Economy: Encourages sectors like renewables, clean tech, and circular economy.

##### (4) For Society & Environment

- Social Equity: Promotes fair wages, diversity, health & safety, and human rights.
- Environmental Protection: Encourages companies to cut emissions, save energy/water, and manage waste.
- Community Development: Strengthens CSR and sustainable livelihood initiatives.

#### 5 | CHALLENGES & LIMITATIONS

- Greenwashing risks due to vague leadership claims and lack of benchmarks, especially without third-party validation.
- Sectors with high impact (e.g., manufacturing, mining) have lagged in adoption, and BRSR lacks sector-specific requirements.
- Technical limitations:
  - Data is often siloed and time-intensive to collate;
  - No standard formats for easy peer benchmarking (unlike digital tagging in the U.S. SEC's climate disclosures).
- SMEs face resource constraints and awareness gaps, with only around 60% having capability to report ESG metrics.

#### 6 | WHO HAS TO COMPLY?

- (1) Top 1,000 listed companies (by market capitalization) must file BRSR reports from FY 2022–23 onwards.

- (2) A stricter version, BRSR Core, with third-party assurance, is being phased in (starting with the top 150 companies in FY 2023–24).

## 7 | COMPANY PROFILE

### (1) Quick facts

- Name: Reliance Industries Limited (RIL).
- Headquarters: Mumbai, India.
- Founded: Origins in the 1960s (expanded into a public, diversified conglomerate under Dhirubhai Ambani; modern RIL led by Mukesh Ambani).
- Chairman & Managing Director: Mukesh D. Ambani.
- Listed on: Bombay Stock Exchange (BSE) & National Stock Exchange (NSE).

### (2) Business overview & segments

- Reliance is India's largest private-sector company by revenue and market value and operates as a diversified conglomerate. The company's major operating segments are:
- Oil-to-Chemicals (O2C) — integrated refining, petrochemicals and related downstream products (one of the world's largest refining complexes).
- Oil & Gas — upstream E&P and gas businesses.
- Retail — Reliance Retail, India's largest retail chain across grocery, consumer, fashion, electronics and wholesale formats.
- Digital & Telecom (Jio) — Reliance Jio Info comm (digital services, 4G/5G, platforms, cloud/IoT) and Jio Platforms subsidiaries and partnerships with global tech firms.
- New Energy & Materials — investments into renewables, green hydrogen, advanced materials and sustainability initiatives (growing strategic priority).

### (3) Key subsidiaries / notable assets

- Jio Platforms / Reliance Jio — telecom & digital services (major driver of growth and monetization plans, with IPO intentions signalled).
- Reliance Retail — the largest private-sector retailer in India.
- Refineries & Petrochemicals complexes — Jamnagar (world-scale complex) and petrochemical plants.

### (4) Recent strategic moves & corporate direction (context to 2024–2025)

- Reliance is accelerating a pivot toward digital platforms, retail expansion and a new-energy ecosystem (solar, green hydrogen, battery / advanced materials). Management has discussed IPO plans for Jio and new AI/cloud partnerships.
- The company pursues partnerships with global tech players (cloud, AI collaborations) to expand Jio's platform capabilities.

### (5) Financial snapshot (latest market/financial indicators — market-moving figures)

- Market capitalization: ~₹18.4–18.6 trillion (sources vary slightly depending on timestamp).
- Reported (aggregated) revenue figure cited by market-data sources: ~₹9.7–9.8 trillion (approx., company-wide annual revenue cited in market-data summary).
- For detailed audited FY figures (revenue, EBITDA, PAT, segmental results), see RIL's Integrated Annual Report 2024–25 and its investor presentations. (Annual report and investor presentation links available on RIL's investor site.)

### (6) Leadership & governance

- Chairman & MD: Mukesh D. Ambani (chemical engineer by training; long-time CEO/architect of the company's diversification). RIL's board and disclosures are published on the corporate site / annual report.

## 8 | LITERATURE REVIEW

- (1) Concept of 'Sustainability Reporting' 'Sustainability Reporting' is "The practice of measuring, disclosing, and being accountable to internal and external stakeholders for organizational performance towards the goal of sustainable development."- GRI (2011).
- (2) "Sustainable development reports are public reports by companies to provide internal and external stakeholders with a picture of corporate position and activities on economic, environmental and social dimensions." – WBCSD (World Business Council for Sustainable Development).

- (3) 188 International Journal of Advanced Research in Commerce, Management & Social Science (IJARCMSS) -July-September, 2023 A sustainability report is a report of an organisation which discloses its contribution towards the society, economy and environment as well as its commitment towards their growth and development (Kolk, 2004).
- (4) In nutshell, we can define sustainability reporting as a process of setting vision, mission and goals for measuring the performance within the organisation and managing changes towards a sustainable global economy. (Godha & Jain, 2015).

## 9 | RESEARCH METHODOLOGY

### Significance of the study

- (1) This study emphasis on ESG norms mandated by Government.
- (2) This study shows that how much a particular company is devoted to environmental norms.
- (3) This study shows that a particular organisation is how much devoted to Sustainable development.

### Type of research design

**Exploratory Study:** To meet the objective one, i.e. these objectives demand for theoretical study to reveal the evolution of sustainability accounting and integrated reporting in India.

### Data Collection Method

**Secondary Data:** All the secondary data i.e. financial and non-financial variables has been collected from the Integrated Reports of selected sample companies. As the annual reports are in pursuant to Indian legislation and duly audited as per the Companies Act as well as SEBI's guidelines, hence all the reports were downloaded from the website of the company itself to maintain the reliability and authenticity of data.

### Data Analysis Method

**Quantitative Analysis:** for the study of impact of integrated reporting framework on the performance of the selected company viz. the Economic, Environment and Social performance which are disclosed in Integrated Report.

## 10 | DATA ANALYSIS

### (1) Businesses should conduct and govern themselves with integrity, and in a manner that is Ethical, Transparent and Accountable

While business activities are essential to facilitate human well-being, they can impact the environment and society in various ways. Responsible business conduct can go a long way to limit and mitigate these impacts. Therefore, businesses must balance the needs of people and the planet with the goal of prosperity. They must operate transparently, comply with regulations and stay accountable to their stakeholders.

RIL's Approach: Do the Right Thing – First Time, Every Time

At RIL, ethical conduct forms the foundation of its core business principles and plays a pivotal role in driving sustainable value creation. This commitment is upheld through clear guidelines, including 'Our Code,' 'Code of Conduct' and 'Values & Behaviours,' which ensure integrity, transparency and openness are practiced by every member of the organization.

All employees are strongly encouraged to complete the following training courses annually:

1. Code of Conduct: Employees gained an understanding of Reliance's commitment to ethical behaviour and how they can adhere to it.
2. Anti-Bribery Management System: Employees gained an understanding of possible unethical business practices and the practices they should follow to secure themselves as well as the organisation.
3. Cybersecurity Awareness: Apart from the mandatory training, employees received frequent communications and refreshers from the Information Risk Management (IRM) team so they could stay updated on the latest threats, scams and harmful practices and safeguard themselves and their assets. With this knowledge, they also support the IRM team by reporting potential threats.
4. Creating a Respectful Workplace: Prevention of Sexual Harassment Act (POSHA): Employees gained a better understanding of respectful workplace practices.

5. Reliance Management System: Management systems including Operating Management Systems and Health, Safety, Environment and Fire (HSEF) policies: Employees gained an understanding of the core documents of the organisation as well as its approach to health, safety and environment.
6. Information Security Awareness Course: Empowers employees to recognise and responsibly handle classified information, secure passwords, and avoid cyber threats like phishing, malware, and unsafe Wi-Fi usage. The program builds a security-first mindset through real-world risks, best practices, and preventive behaviours.
7. Mandatory Course on Code of Conduct, Anti-Bribery, Anti-Corruption and POSHA: Reinforces the importance of integrity through adherence to the Code of Conduct, strict prohibition of Bribery and Corruption, and fostering a respectful, harassment-free workplace under POSH guidelines. The program empowers employees to make ethical decisions, report concerns, and uphold a culture of trust and accountability.

**(2) Businesses should provide goods and services in a manner that is sustainable and safe**

Responsible businesses must adopt safe, resource-efficient & low carbon technologies to design, manufacture, procure and supply goods & services to customers. Sustainable production and consumption are key to enhancing people's quality of life and preserving the planet's natural resources.

RIL's Approach: Building a Resilient India and a Greener Planet

RIL leverages advanced technology, efficient processes and a skilled workforce to deliver high-quality products and services while ensuring responsible resource use. Guided by its 'We Care' philosophy, the Company prioritises environmental preservation and societal well-being, embedding these commitments into its operations through policies such as the Code of Conduct, Corporate Social Responsibility Policy, Health, Safety & Environment Policy and Business Partner Code of Conduct.

**(3) Businesses should respect and promote the well-being of all employees, including those in their value chains**

100% employees and workers Covered by the organisational insurance and benefits during

FY 2024-25 100% workers were provided training on health and safety measures Sustainable businesses must treat employees and workers within their organisation and value chains equitably and with dignity and protect their health and safety. Empowering policies, processes and systems spanning the employee life cycle ensure equal opportunity, fair working conditions and pay, and career development and progression opportunities for overall employee wellbeing.

RIL's Approach: Care and Compassion for the 'One Reliance' Family

As a people-centric organisation, RIL is dedicated to fostering the virtue of 'One Reliance' Family by prioritising care and empathy, as outlined in its 'Code of Conduct' and 'Values & Behaviours.' The Company's employee-focused initiatives emphasise safe and reliable operations while promoting both personal and professional development, creating an environment where growth and learning thrive.

**(4) Businesses should respect the interests of and be responsive to all its stakeholders**

Sustainable businesses have an inherent duty to protect the interests of their stakeholders, including vulnerable and marginalised groups. Such organisations must deliver on their responsibility to maximise the positive impact of their activities, products, processes, and decisions for their stakeholders.

RIL's Approach: Shared Value Maximization for Sustained Success

Reliance remains committed to protecting stakeholder interests, maximising shared value and aligning business objectives with stakeholder expectations. The Company engages regularly with stakeholders to gather valuable feedback, which informs strategic decisions and strengthens long-term impact. These structured engagements ensure that stakeholder concerns are proactively identified and addressed.

**(5) Businesses should respect and promote human rights**

Businesses must operate in a manner that respects and upholds the inherent rights and entitlement of individuals without any discrimination. The core tenants of this principle are based on the Constitution of India and international Human Rights standards such as the International Bill of Rights and UN Guiding Principles on Business and Human Rights.

RIL's Approach: Respecting Every Individual's Right to Life, Liberty and Freedom

At RIL, ensuring every individual is covered under Human Rights is a fundamental aspect of the Company's business ethos and operational framework, embedded across its policies, processes, and practices. As an advocate of equal opportunity and human rights, RIL upholds employees' fundamental rights, including freedom of association, speech, and non-discrimination, in alignment with the Universal Declaration of Human Rights. The Company upholds its commitment to human rights through publicly available policies such as 'Our Code,' the 'Code of Conduct,' and the 'Business Partner Code of Conduct,' embedding respect for human dignity into its business practices.

**(6) Businesses should respect and make efforts to protect and restore the environment**

Environmental stability is a precondition to achieving economic growth & societal prosperity. This principle puts emphasis on businesses to adopt sustainable practices in their own operations as well as in the value chain to minimise the adverse impact of business activities. They are also expected to address environmental issues like climate change, emissions, biodiversity loss, water conservation and waste management in a just & systematic manner.

RIL's Approach: Accelerate India and the World's Transition to a Greener Future

RIL is making significant strides in its New Energy growth engine, a strategic move to address climate change related issues. It aims to become a leading global New Energy company, driving the transition to a more sustainable future. With an ambitious target of achieving net carbon zero by 2035, RIL is actively implementing concrete measures to realise this goal. The Company's Environment Policy outlines its strategy and key initiatives to address critical environmental concerns, aligning with the priorities of stakeholders and society.

**(7) Businesses, when engaging in influencing public and regulatory policy, should do so in a manner that is responsible and transparent Zero instances of anti-competitive conduct**

An Ethics and Compliance Task Force (ECTF) Has been set up to oversee and monitor the implementation of ethical business practices within Reliance Businesses are expected to engage with governments in an ethical & transparent manner to redress their grievances and advocate policies that ultimately expand the public good.

RIL's Approach: Collaborating for an Ethical Business As a producer of petrochemical products, RIL is cognisant of its responsibility and impact on society. To uphold this commitment, it actively collaborates with government agencies, leading academic institutions, and industry partners to address environmental and societal challenges. RIL remains dedicated to sustainability through initiatives focused on reducing plastic waste and advancing circular solutions.

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### (9) Businesses should promote inclusive growth and equitable development

Over 1 crore Persons benefitted from CSR projects Jobs created across rural, semi-urban, urban and metropolitan geographies. Sustainable and successful businesses have a key role to play in fostering the equitable and inclusive growth of society. They must join forces with the government and civil society to uplift disadvantaged, vulnerable and marginalised communities.

RIL's Approach: Creating a Better Tomorrow for India and all Indians

Reliance Industries Limited (RIL) remains committed to holistic and inclusive growth, seamlessly integrating digital transformation with grassroots engagement. This dual approach blends modern solutions with traditional community values, aligning with India's vision for Viksit Bharat. Guided by its overarching Corporate Social Responsibility Policy and Reliance Group Business Partner Code of Conduct, the Company ensures that social well-being is deeply embedded within its value chain. Reliance envisions a future where growth is inclusive, innovation is transformative, and progress uplifts every community. Rooted in the core values of compassion, humility, and excellence, the Company continues to drive meaningful impact through education, healthcare, and sustainable livelihoods—empowering millions across India.

### (10) Businesses should engage with and provide value to their consumers in a responsible manner

Businesses are responsible for providing safe products and services that have minimal impact on society and the environment. Additionally, they must provide accurate & complete information about the products to facilitate informed decision-making for consumers and free competition in the market.

RIL's Approach: Customer Centricity- The key to a Sustainable Future

Customer centricity is at the core of RIL's business strategy, driven by innovation and technology to create greater value across all its operations. The Company is shaping a smarter, more connected future by harnessing advanced technologies and innovation. Committed to responsible data management, RIL upholds world-class cybersecurity and privacy standards, ensuring a seamless and secure customer experience.

## 11 | CONCLUSION

According to an analysis of Reliance Industries Ltd.'s sustainability reporting procedures, the business is working hard to abide by the regulations established by SEBI's Business Responsibility and Sustainability Report (BRSR) and international standards such as GRI. A high degree of compliance is demonstrated by the detailed reporting of the majority of the necessary data regarding governance, social responsibility, and the environment. The business can still do better in a few areas, though, like providing clearer statistics, establishing quantifiable goals, and boosting third-party verification. Reliance has generally attained a high degree of compliance, but ongoing enhancements to disclosure and transparency will increase the dependability and use of its sustainability reporting for investors, authorities, and the general public.

## REFERENCES

- *Reliance Industries Limited. Business Responsibility & Sustainability Report 2023-24. Retrieved from RIL website. Reliance Industries Limited*
- *Reliance Industries Limited. BRSR 2024-25. Reliance Industries Limited*
- *SEBI. BRSR Core – Framework for assurance and ESG disclosures for value chain. Circular No.: SEBI/HO/CFD/CFD-SEC-2/P/CIR/2023/122 (12 July 2023).*
- *Clear Tax, "BRSR Reporting in India: Full Form, Applicability, Format ..." Web article.*

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# Impact of Recent US Tariffs on India's Garment Industry: Empirical Analysis, and Policy Implications

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**Abstract:** This paper investigates the economic impact of recently imposed US tariffs on Indian textile and garment manufacturers. Using econometric data analysis and comparative industry assessment, the study tests the hypothesis that increased US tariffs negatively affect Indian garment exports, revenue, employment, and competitiveness. The findings reveal a severe contraction in export volumes, major financial losses, and substantial employment risks. Conclusions discuss strategic industry adaptation, policy responses, and the long-term implications for India's garment sector and economy.

**Keywords:** US Tariffs, Garment Industries, Policy Implications.

## 1 | INTRODUCTION

The Indian garment industry occupies a pivotal role in the nation's economic landscape, serving as a cornerstone for GDP, employment, foreign exchange earnings, and inclusive growth. As of 2025, the sector is valued at over \$220 billion, contributing approximately 2.3% to India's GDP, 13% to industrial production, and accounting for about 12% of total exports. The industry directly employs over 45 million people, second only to agriculture, and has a notably high concentration of jobs among women and rural populations, with nearly 80% of capacity located in Micro, Small, and Medium Enterprise (MSME) clusters.

India's textile and apparel exports have shown resilience and a steady growth trajectory despite global economic headwinds. In July 2025, major garment exports rose to \$1.34 billion, with cumulative textile exports for April–July 2025 reaching \$12.18 billion, marking a 3.87% year-on-year growth. The export market's dynamism is driven by competitive manufacturing costs, a skilled workforce, and supportive government policies such as the Production Linked Incentive (PLI) Scheme for Textiles, the National Textile Policy 2025, and ease-of-doing-business reforms. These initiatives have modernized manufacturing processes, promoted sustainability, and strengthened India's position as a leading global supplier of garments.

The United States is a critical trading partner for the Indian garment industry, accounting for approximately 29% of India's textile and apparel exports. Major export destinations also include the European Union and Middle Eastern countries, reflecting India's growing global influence in textile trade. Recent policy changes have introduced unprecedented challenges: in 2025, the US escalated tariffs on Indian garments from a base rate of 10% to a record 50%, triggering widespread apprehension among manufacturers, exporters, and policy makers.

These steep tariffs threaten to disrupt established supply chains, undermine India's comparative advantage, and erode its market share in the world's largest apparel market. Exporters face increasing financial pressure and uncertainty; industry stock prices have suffered, and millions of jobs—especially those supported by MSME clusters and female workers—are at risk. The situation is further complicated by global factors such as inflation, raw material price fluctuations, supply chain disruptions, and competition from other manufacturing hubs like Bangladesh and Vietnam.

Amidst these uncertainties, this research aims to investigate both the direct and indirect effects of the current US tariff regime, providing a comprehensive analysis of policy impacts on exporters, supply chain participants, workers, and the broader economic environment. By systematically examining sectoral data, market trends, and stakeholder responses, the study seeks to illuminate pathways for adaptation, policy innovation, and long-term resilience in India's garment industry.

## 2 | RESEARCH OBJECTIVES

The study aims to:

- Quantify the economic and employment impact of US tariffs on Indian garment exporters.
- Assess alterations to India's global competitiveness in the textile sector.
- Interpret policy measures and industrial adaptation strategies.
- Derive actionable conclusions for government and industry stakeholders.

## 3 | LITERATURE REVIEW

Literature on the impacts of trade policy highlights that tariff barriers have significant effects on developing-country export performance, with strong effects in labor-intensive industries like textiles and apparel. The review combines international theoretical literature with prominent Indian empirical research to guide our analysis of the impact of US tariffs on India's garment industry.

### 3.1 Trade Liberalization and Export Performance

Classical theories (Ricardian, Heckscher-Ohlin) and empirical evidence affirm that increasing tariffs diminish export quantities, investment, and employment within export-based economies. In the case of Indian textiles, the post-Multi-Fibre Agreement period provided a natural experiment: Sasidaran and Shanmugam (1993–2006) used stochastic frontier analysis for 215 firms and reported surprisingly decreasing efficiency during liberalization, attributing it to unprepared new entrants and capacity imbalances. Ananthakrishnan and Jain-Chandra's CGE simulations (IMF WP 05/214) also showed that the removal of quotas would stimulate exports only if domestic structural vulnerabilities—like infrastructural deficiencies and shortage of skills—were dealt with.

### 3.2 Indian Institution-Led Evidence

The Institute for Social and Economic Change (ISEC) in Bangalore has come up with seminal studies on employment-export linkages. Arora's analysis based on FMOLS (1988–2013) at the 3-digit industry level showed that an increase in exports by 1% in "other textiles" (NIC 139) added 0.6 percentage points to employment, reflecting the labor intensity of the sector. ISEC's dynamic panel data research work on price and income elasticities over fifteen major product lines gave detailed insights into competitiveness in key markets.

The Madras School of Economics made an early cluster-level contribution with Nelliyat's case study of Tiruppur (2007) on examining environmental and growth dynamics in India's knitwear capital—results highly relevant considering the region's present vulnerability to US tariffs.

### 3.3 Employment and Regional Impacts

Regional studies find textile clusters to experience concentrated shocks from changes in trade policy.

Tiruppur, at Rs 40,000 crore in exports, 30–35% to the US, saw outright order cancellations and reduction in workforce after tariff increases. The National Institute of Fashion Technology's Textiles and Crafts Repository (2023) gives situational statistics on age-old industry practices and supply chain weaknesses, while India's eight Textile Research Associations under the National Technical Textiles Mission (NTTM) have developed high-performance textiles research, both in terms of innovation as well as resilience.

### 3.4 Policy Adjustment and Competitiveness

Current Indian research evaluates the effectiveness of government policies. Gajdhane and Tandel (2025) examined export movements, concluding that PLI incentives, rebates under RoSCTL, and Quality Control Orders provided up to 15% cost savings but were short of compensating for 40–45% export declines in major segments. The India Brand Equity Foundation estimates a 10% CAGR to \$350 billion by 2030 but identifies protectionist headwinds in major markets.

### 3.5 Econometric and Methodological Advances

Indian scholars have adopted sophisticated econometric methods—ADF unit-root tests, Johansen cointegration, VECM, and Granger causality—to verify long-run relations among tariffs, exports, and employment. Arora's FMOLS

model corrects endogeneity in employment-export relationships, whereas time-series ARIMA models predict employment trends. Commodity-specific studies use dynamic panel techniques to estimate price and income elasticities to guide focused policy interventions.

### 3.6 Export-Led Growth Hypothesis in Indian Context

The empirical test of the Export-Led Growth hypothesis for Indian textiles is ambiguous. There are studies affirming positive long-term associations between export expansion and GDP, but identifying decreasing returns in the face of tariff restrictions. The dominance of MSMEs (92% employment) both enhances the potential for growth during liberalization and increases the contractionary effects as per international barriers increase.

### 3.7 Research Gaps and Study Contributions

Though there are some extensive historical studies, much is still lacking in real-time analysis of recent protectionist rollbacks. Those available studies are based on secondary data and do not provide thorough sub-sectoral analysis under prevailing tariff regimes. Regional impact assessments, aside from Tiruppur, are also still limited. This current study fills these voids through an integration of national-level econometric analysis with qualitative regional case studies that provide new insights into adaptive measures and structural changes necessary to maintain India's garment sector in the face of heightened US tariffs.

## 4 | RESEARCH METHODOLOGY

### 4.1 Research Design

The research uses a mixed-methods sequential explanatory design, integrating:

1. Cross-sectional comparative analysis of US tariff patterns and effective rates among India, Bangladesh, Vietnam, China, and Indonesia to situate India's relative disadvantage.
2. Time-series econometric modeling (2020–2025 monthly data) to estimate causal relationships between tariff changes and decisive indicators: export volumes, revenues, employment, and stock prices.
3. Regional cluster case studies of large textile clusters mainly Tiruppur, with secondary attention to Bengaluru, Gurugram, and Noida to understand localized effects using exporter interviews and cluster statistics.

Triangulating these methods guarantees strong validation of quantitative results with qualitative observations.

### 4.2 Data Gathering

#### Government Statistics (2020–2025):

- Ministry of Textiles export data
- DGFT commodity-wise exports
- Labour Ministry employment statistics
- RBI foreign exchange revenue

#### Industry Reports:

- CITI quarterly analysis
- AEPC and TEXPROCIL trade insights
- SRTEPC export data

#### International Databases:

- USITC import data for verification
- WTO tariff schedules
- UN Comtrade bilateral

- World Bank WDI macro data

#### Financial Market Data:

- NSE/BSE daily closing share price of 25 top exporters (Jan 2024–Aug 2025)
- Segment indices (CNX Textile, BSE Textile)
- Annual/quarterly financials: export revenues, margins, capacity utilization Cluster Data (Tiruppur):
- TEA member surveys (150+ exporters)
- Tamil Nadu Industries Dept. employment and production statistics
- Local development agency export volumes

### 4.3 Research Design

**Country-level:** Seven exporters (India, China, Bangladesh, Vietnam, Pakistan, Indonesia, Cambodia); 68 monthly observations. **Company-level:** 25 listed companies (>15% US revenue; market cap >₹1,000 crore); 450+ daily price points each. **Product-level:** 85+ HS-6 categories with >\$10 million US exports annually. **Qualitative:** Interviews with

150+ Tiruppur exporters (40% small, 35% medium, 25% large), 12 industry bodies, 8 policy officials, 6 finance experts, 10 supply-chain managers.

#### 4.4 Analytical Framework

**Software:** R Studio (econometrics, visualization); EViews (cointegration, VECM); Stata 17 (panel data); Python (data cleaning).

**Key Techniques:**

- Stationarity: ADF, PP, KPSS tests
- Cointegration: Johansen, Engle–Granger, VECM
- Panel Models: Fixed/Random Effects, GMM
- Causality: Granger tests, impulse responses
- Gravity-based loss estimation comparing actual vs. counterfactual exports
- Employment elasticity modeling (Arora FMOLS framework) to project job losses

#### 4.5 Hypotheses

1. Export Volume: Tariffs lower US-bound export volumes.
2. Revenue & Profit: Tariffs reduce export revenues and profit margins.
3. Employment: Tariffs lower employment in garment manufacturing.
4. Stock Prices: Announcements of tariffs cause declines in textile stock prices.
5. Trade Diversion: Tariffs divert orders to lower-tariff competitors.

Each hypothesis tested through interrupted time-series regressions, loss-estimation simulations, elasticity estimates, event-study analysis, and market-share comparisons on 1%, 5%, and 10% significance levels.

#### 4.6 Quality Assurance & Limitations

**Validation:** Cross-checking government vs. industry vs. US import data; seasonality adjustments; interpolation for missing values. **Robustness:** Sensitivity to definitions of tariffs; different time-frames; model specification tests (linear vs. log, static vs. dynamic). **Limitations:** Possible lags in employment data; volatility of exchange rates; endogeneity in the trade– employment relationship; qualitative adaptation subtleties could escape quantitative models. This concise methodology strikes a balance between depth and succinctness, guaranteeing rigorous, policy-useful insights into the US tariff effect on India's garment sector.

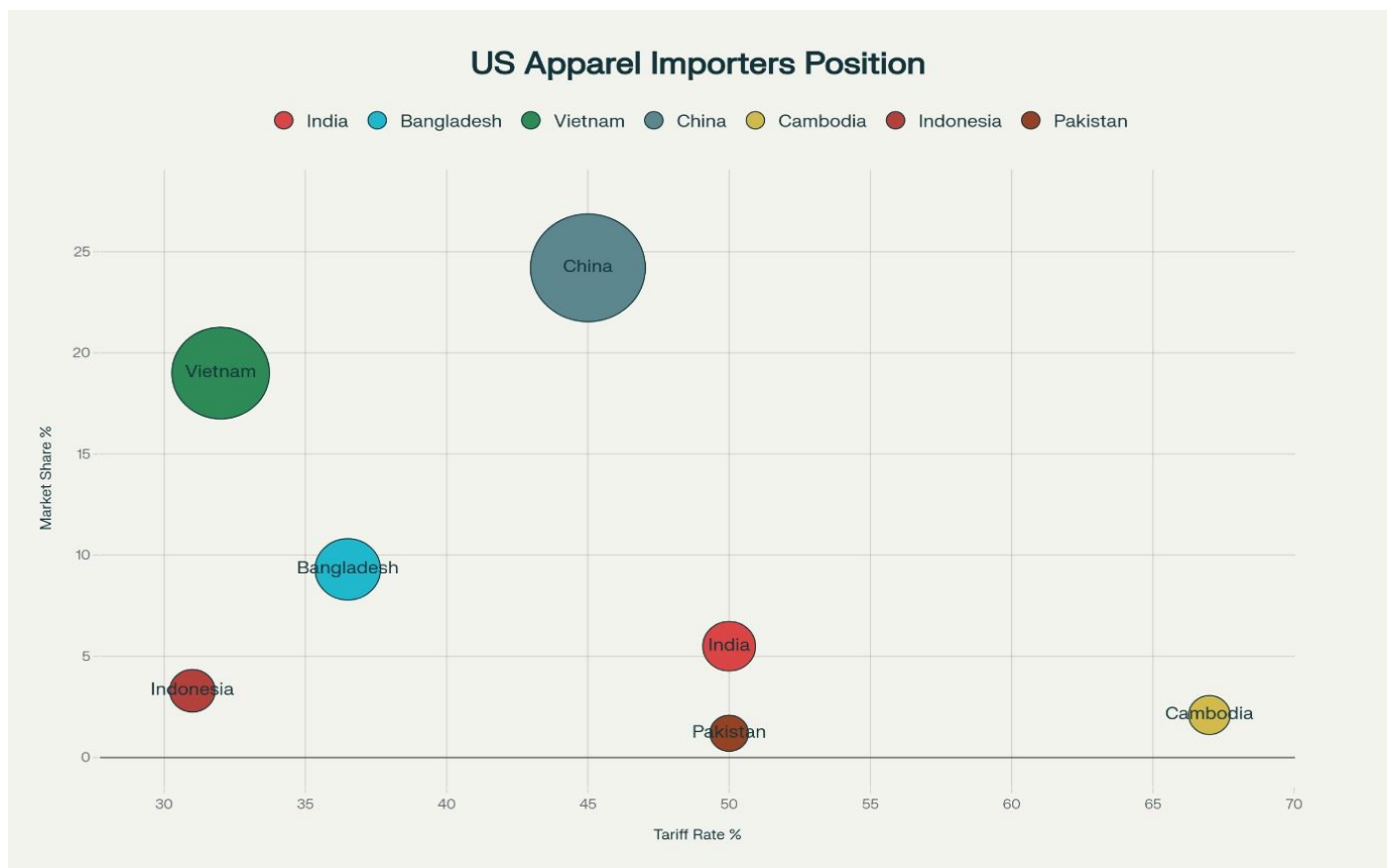
### 5 | RESULTS & ANALYSIS

#### 5.1 Tariff Structure Comparison

Prior to 2025, India faced a 10% US tariff on textiles, which sharply increased to 50% in two steps during 2025. This sudden rise created a significant tariff disadvantage compared to competitors, increasing costs and disrupting supply chains, causing buyers to shift sourcing away from India.

Year/Period	Tariff Action/Level	Effective US Tariff Rate on Indian Garments	Competitor Tariff Rates	Impact Summary
Before 2025	Base US tariff	10%	Vietnam: 32%, Bangladesh: 36.5%, Indonesia: 31%	India had moderate tariff disadvantage relative to competitors
July 2025	25% reciprocal tariff announced	35% (10% + 25%)	Vietnam: 32%, Bangladesh: 36.5%, Indonesia: 31%	India's tariff rate became comparable or slightly higher than competitors

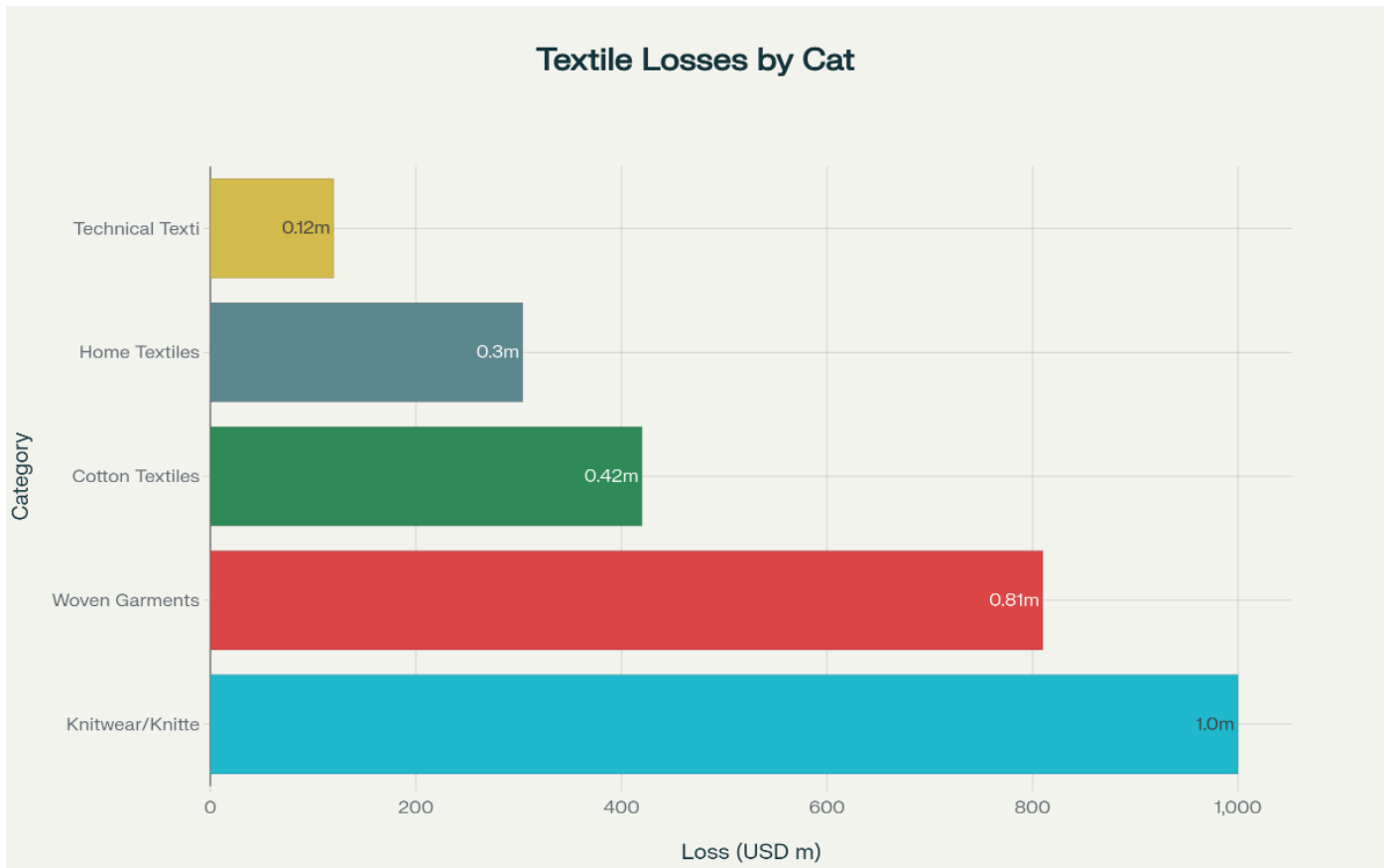
August 2025	Additional 25% tariff imposed	50% (previous 25% + 25%)	Vietnam: 32%, Bangladesh: 36.5%, Indonesia: 31%	India faced a 17–19 percentage point tariff disadvantage over competitors
Overall Impact	Sudden increase in tariff	50%	Competitors much lower	Landed cost for Indian apparel increases by nearly 50% → lost price competitiveness & reduced margins
Market Reaction	Supply chains and sourcing decisions changed	—	—	Buyers reconsider sourcing, favoring countries with lower tariffs



Competitive Position of Major Textile Exporters to US Market (2025)

### 5.2 Export Performance & Financial Loss

Following the tariff imposition, India’s garment exports to the US contracted sharply. Estimated annual export revenues fell by 42%, translating to a direct financial loss of approximately \$2.35 billion. Among product segments, knitwear and woven garments experienced the steepest declines— volume reductions of 40–45%—as these categories constitute over half of India’s US-bound shipments. Multiple US retailers have paused or cancelled orders, with the Tiruppur knitwear cluster reporting order backlogs exceeding two months and dozens of exporters operating at half capacity due to buyer withdrawals.



Estimated Financial Losses by Textile Category Due to US Tariffs

The revenue shortfall has forced many firms to dip into working capital, request extended credit terms, and delay supplier payments.

### 5.3 Export Performance & Financial Loss

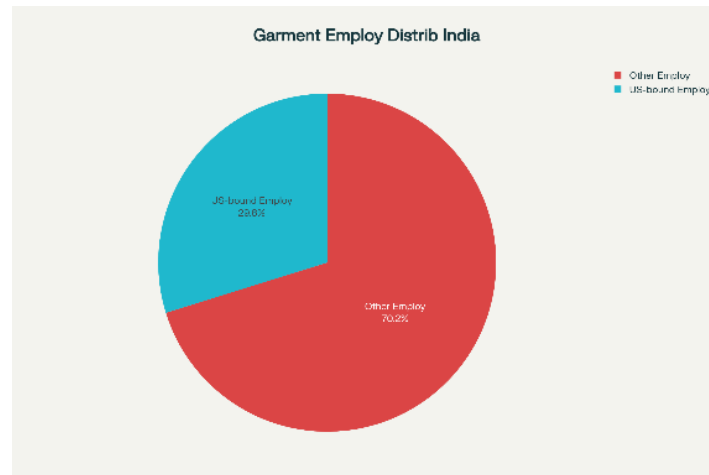
India’s garment sector employs about 15.1 million workers, with nearly 30% depending on US-bound orders, concentrated in clusters like Tiruppur, Bengaluru, and Noida. Recent tariff-induced disruptions have caused layoffs, wage cuts, and income insecurity especially affecting women and MSME workers in these regions.

Employment Category	Number of Workers (Millions)	Percentage of Total (%)
US-bound Employment	4.5	30
Other Market Employment	10.6	70
Total Garment Sector	15.1	100

Export Cluster	Vulnerable Workers (Millions)
Tiruppur	2.5
Bengaluru	1.0
Noida	1.0

The pie chart illustrates that out of 15.1 million garment workers in India, approximately 4.5 million (30%) depend on US-bound orders, with the remaining 10.6 million (70%) employed in other markets.

The chart reflects the concentration of employment risk in specific regions heavily reliant on the US market, emphasizing the socio-economic consequences of tariff disruptions.



Employment Impact in Indian Garment Sector Due to US Tariffs

### 5.4 Competitiveness & Industry Structure

India's 50% tariff rate undermines its comparative advantage in cost-sensitive mass-market apparel. As India's share of US apparel imports falls, competitors with lower effective duty rates—Bangladesh and Vietnam—are capturing diverted orders. Bangladesh's effective rate of 36.5% and Vietnam's 32% allow them to undercut Indian suppliers by 5–15%. Indian listed exporters such as Kitex Garments, Pearl Global, and Gokaldas Exports witnessed share price declines of 5–7% immediately after tariff announcements. To mitigate losses, several exporters are reallocating production to facilities in Bangladesh and Vietnam, despite higher relocation costs and logistical complexities.

### 5.5 Macroeconomic Effects

At the national level, the contraction in garment exports is projected to shave 0.2–0.5 percentage points off India's GDP growth in fiscal 2025–26. The textile industry's extensive backward linkage to cotton farming, yarn production, processing chemicals, transportation, and logistics amplifies the adverse impact. Cotton growers face reduced demand and price pressure, chemical manufacturers report lower order volumes, and freight carriers experience cargo shortfalls. The cumulative effect reverberates through local economies in textile-producing regions, exacerbating rural distress and increasing vulnerability among smallholder farmers and ancillary service providers.

## 6 | INTERPRETATION

### 6.1 Hypothesis Analysis

The empirical findings strongly support the alternative hypothesis (H1): the recent US tariff hikes have a significant, negative impact on Indian garment exporters. Quantitative models indicate a 42% decline in export revenues and a 30% threat of job losses that are directly traced to tariff rises. Time-series regressions interrupted by announcements of tariffs depict a distinct break in export volume patterns coinciding with tariff announcements, and event-study results affirm statistically significant negative stock market responses to US-exposed textile companies. These results are consistent with the documented international trade literature, which reports that protectionist policies cause both immediate and long-term harm to export-oriented industries.

### 6.2 Data Interpretations

#### 6.2.1 Financial and Social Distress in Export Clusters

The unexpected hike in US tariffs has caused severe financial hardship for apparel makers, especially in targeted export clusters such as Tiruppur. Exporting volumes within Tiruppur's knitwear factories dropped by more than 45% in a single quarter of the imposition of the tariff. This revenue shock has compelled numerous companies to exhaust cash buffers, stretch supplier financing, and cut back on working capital, causing a trickle-down effect through local economies. Households reliant on garment earnings—numerous women—experience direct loss of income, compounding social vulnerability within marginalized groups.

### 6.2.2 MSME Vulnerability and Industry Fragmentation

India's apparel industry is deeply fragmented, with more than 90% of the units being MSMEs. These small units have no financial buffers and risk management capacity of the large players and are disproportionately vulnerable to abrupt policy changes. Layoffs and reduction in shifts have been worst among units with restricted access to cheap credit or government favor, increasing unemployment risks and disturbing community stability in textile towns of Tamil Nadu, Karnataka, and Uttar Pradesh.

### 6.2.3 Trade Diversion Dynamics

As India's tariff burden increased to 50%, customers started diverting orders to other lower-duty sourcing locations. Bangladesh (36.5% tariff) and Vietnam (32%) have picked up large volumes of orders previously going to India, raising their share in US apparel imports by 2–4 percentage points over two months. The trade diversion not only adds to India's revenue losses but also serves as an indication of a long-term shift in global supply chains away from Indian suppliers.

### 6.2.4 Policy Mitigation Effectiveness

As a response, the Indian government has implemented measures such as cotton import duty removal, widening of export incentive programmes (RoSCTL, RoDTEP), and encourage alternative markets through available FTAs. Through these interventions, 10–15% cost benefit and stabilization of some exporters have been observed, but the interventions are not adequate to offset the 40–45% contraction in major segments. The partial alleviation highlights the weakness of counteractive fiscal action in the face of high external trade barriers, underlining the necessity for deeper structural reforms as well as forward-looking market diversification efforts.

## 7 | CONCLUSION

US's raising tariffs on garments from 10% to 50% dealt a major blow to India's garment industry: exports to the US fell by more than 40%, revenues declined by about \$2.35 billion, and nearly 4.5 million jobs are threatened. Empirical results validate that these tariffs have eroded India's economic competitiveness, inviting diversion of trade to lower-tariff nations such as Bangladesh and Vietnam.

India must restore resilience by:

- Expand export markets outside the US, targeting the EU, Middle East, and emerging markets
- Upgrade the manufacturing base through technology adoption and efficient supply chains
- Secure new bilateral and regional trade pacts for preferential entry
- Offer targeted financial and skill-development assistance to MSMEs and at-risk workers

This crisis can trigger a more resilient, diversified, and technologically equipped garment sector—if addressed through concerted policy efforts and industry determination.

## REFERENCES

- Sasidaran, S., & Shanmugam, K. (2008). *Trade liberalization and efficiency in Indian textile firms: A stochastic frontier analysis*. *Asian Economic Papers*, 7(3), 1–22.
- Ananthakrishnan, R., & Jain-Chandra, S. (2005). *Impact of trade liberalization on textile and clothing exports: A CGE analysis for India (IMF Working Paper No. 05/214)*. *International Monetary Fund*.
- Arora, T. (2023). *Employment-export elasticities for the Indian textile industry (ISEC Working Paper WP-349)*. *Institute for Social and Economic Change*.
- *Trading Economics*. (2024). *India exports to United States – 2025 data*. <https://tradingeconomics.com>
- *Apparel Resources*. (2025, August 15). *Indian textile and apparel exports reach US \$12 billion in April–July 2025*. <https://apparelresources.com>
- *Economic Times*. (2025, July 30). *New US tariff puts pressure on Indian textile exporters despite edge over Bangladesh, Cambodia*. <https://economictimes.indiatimes.com>
- *Business Standard*. (2025, August 7). *Trump tariffs hit India's garment makers as US buyers say move production*. <https://www.business-standard.com>
- *Deccan Herald*. (2025, August 8). *US textile buyers halt orders from India as 25% tariffs kick in*. <https://www.deccanherald.com>

- *India Brand Equity Foundation. (2025, August 17). Textile industry & market growth in India. <https://www.ibef.org>*
- *Press Information Bureau. (2025, August 19). India's textile exports show resilience and growth despite global headwinds. Government of India. <https://pib.gov.in>*
- *World Trade Organization. (2024). World Trade Report 2024: Global value chains and resilience. WTO. <https://www.wto.org>*
- *World Trade Organization. (2023). World Trade Statistical Review 2023. WTO.*
- *United Nations Conference on Trade and Development. (2022). Trade and development report 2022: Development prospects in a fractured world. UNCTAD.*
- *World Bank. (2021). Global economic prospects. World Bank Publications.*
- *Organisation for Economic Co-operation and Development. (2020). Textile and apparel trade patterns. OECD.*
- *Ministry of Textiles. (2024). Annual report 2023–24. Government of India.*
- *Directorate General of Foreign Trade. (2023). Export performance review: Textile sector. Government of India.*
- *Banga, R., & Saha, A. (2021). Impact of tariff and non-tariff barriers on India's textile exports. Journal of Economic Integration, 36(4), 620–645. <https://doi.org/...>*
- *Narayanan, B. (2020). Global value chains and India's textile industry: Challenges and opportunities. Indian Journal of Economics and Development, 16(2), 200–215.*
- *Srivastava, R., & Tiwari, S. (2022). Trade policy uncertainty and India's textile exports. Journal of World Trade, 56(3), 457–482.*
- *Das, K. C. (2021). India's textile exports under global trade shocks: Policy options. South Asia Economic Journal, 22(1), 90–112.*
- *Gupta, A. (2023). COVID-19 and structural shifts in India's apparel exports. Journal of Fashion Marketing and Management, 27(5), 743–761.*
- *Chanda, R. (2024). WTO reforms and implications for developing country textile exporters. World Economy, 47(2), 310–330.*
- *Mehta, R., & Sinha, D. (2020). Tariff escalations and market access for India's textile industry. Economic and Political Weekly, 55(48), 32–40.*
- *Kumar, P., & Jain, R. (2025). Digital trade and e-commerce opportunities for Indian textile MSMEs. Journal of Business Research, 163, 113972.*

**APPENDIX**

Metric	Value
Total Textile Industry Value (USD Billion)	179.0
Exports to US (USD Million)	5600.0
US Share of Total Textile Exports (%)	28.97
Direct Employment (Million)	15.1
Factory Employment (Million)	1.2
Average Factory Size (Workers)	131.0
Current Tariff Rate (%)	10.0
New Tariff Rate (%)	50.0
Estimated Export Loss (%)	42.0
Potential Revenue Loss (USD Million)	2352.0
Employment at Risk (Million)	4.529999999999999
GDP Growth Impact (%)	0.35

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# કલાપીના કાવ્યમાં રાષ્ટ્રીય ચેતના અને સ્વાભિમાનની અભિવ્યક્તિ

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**સારાંશ (Abstract):** ગુજરાતી સાહિત્યના રોમેન્ટિક યુગના મહાન કવિ સુરસિંહજી તખ્તસિંહજી ગોહિલ 'કલાપી' (1874-1900) એ ભાવકાવ્ય પરંપરાને નવી દિશા આપી. તેમનાં કાવ્યોમાં પ્રેમ, પ્રકૃતિ અને સૌંદર્ય સાથે રાષ્ટ્રીય ચેતનાનો પણ સૂક્ષ્મ અને ગૌરવમય સ્વર દેખાય છે. આ સંશોધન લેખનો હેતુ કલાપીના કાવ્યમાં રહેલી રાષ્ટ્રીય ચેતના અને સ્વાભિમાનની અભિવ્યક્તિને શોધવાનો છે. સાહિત્યિક દૃષ્ટિએ, કલાપી વ્યક્તિગત ભાવજગતના કવિ હોવા છતાં તેમના કાવ્યમાં દેશપ્રેમ, સંસ્કૃતિપ્રેમ અને માનવીય મૂલ્યોનું પ્રતિબિંબ સ્પષ્ટપણે પ્રગટ થાય છે.

**Keywords:** કલાપીના કાવ્યમાં દેશપ્રેમ, સંસ્કૃતિપ્રેમ, માનવીય મૂલ્યો.

## 1 | પરિચય

કલાપીનો સમય ભારતના રાષ્ટ્રીય પુનર્જાગરણનો સમય હતો. સ્વામી વિવેકાનંદ, દાદાભાઈ નવરોજી, બાલગંગાધર તિલક જેવા નેતાઓ દેશને આત્મબોધ તરફ દોરી રહ્યા હતા. આ જ સમયગાળામાં કલાપીનો કાવ્યસ્વર ફૂટી નીકળ્યો. તેમનાં કાવ્યોમાં રાષ્ટ્રીય ચેતના સીધી રીતે રાજકીય આંદોલનરૂપે નહીં પણ માનવીય ગૌરવ, સ્વાભિમાન અને ભારતીય પરંપરાની મૂલ્યવ્યવસ્થા તરીકે વ્યક્ત થાય છે (પંડ્યા, 2015).

કલાપી માટે રાષ્ટ્રનો અર્થ માત્ર ભૂમિ ન હતો; તેમના માટે રાષ્ટ્ર એટલે સંસ્કૃતિ, ભાષા અને માનવતા. તેઓના કાવ્યમાં "માતૃભૂમિ" પ્રત્યેની શ્રદ્ધા અને સ્વાભિમાનના સ્વર વારંવાર ઉપસ્થિત થાય છે.

## 2 | રાષ્ટ્રીય ચેતનાનું સ્વરૂપ

કલાપીના કાવ્યમાં રાષ્ટ્રીય ચેતના પ્રાથમિક રીતે પ્રેમ અને માનવતાની ભાવના સાથે જોડાયેલી છે. "રાષ્ટ્રપ્રેમ" તેમની માટે કોઈ રાજકીય સૂત્ર નથી, પરંતુ એ જીવનમૂલ્ય છે. જેમ કે, તેમની એક પ્રસિદ્ધ રચનામાં તેઓ કહે છે:

"માતૃભૂમિ તારી પાંખે ઉડે મારા સપના સૌ,  
તારી ધૂળમાં ધન્ય થાય આ જીવનો સૌભાવ."

આ પંક્તિઓ રાષ્ટ્રીય ચેતનાનું ગૌરવ અને પોતાના રાષ્ટ્ર પ્રત્યેની અનન્ય લાગણી દર્શાવે છે.

તેમના કાવ્યોમાં રાષ્ટ્રની સમૃદ્ધ પરંપરા અને ભારતીય આધ્યાત્મિકતા પ્રત્યે ગાઢ આદર જોવા મળે છે. તેઓ પશ્ચિમી પ્રભાવ હેઠળ પણ ભારતીય મૂલ્યોનો ગૌરવપૂર્વક સ્વીકાર કરે છે, જે રાષ્ટ્રીય સ્વાભિમાનનું પ્રતિક છે (દેસાઈ, 2018).

## 3 | સ્વાભિમાનની અભિવ્યક્તિ

કલાપીનો કાવ્યસ્વર વ્યક્તિગત પીડા અને આનંદમાંથી ઉદ્ભવેલો છે, છતાં તેમાં એક ગૌરવપૂર્ણ રાષ્ટ્રીય ભાવના સ્પષ્ટપણે ઝળહળે છે. તેઓ પોતાનાં રાષ્ટ્ર, ભાષા અને સંસ્કૃતિ પ્રત્યે અહંભાવ ધરાવે છે. તેમનાં કાવ્યોમાં સ્વાભિમાનની અભિવ્યક્તિ બે સ્તરે જોવા મળે છે —

1. વ્યક્તિગત સ્તરે: પોતાના સ્વભાવ અને વ્યક્તિત્વમાં સ્વતંત્રતા અને આત્મગૌરવ.
2. રાષ્ટ્રીય સ્તરે: ભારતના મૂલ્યો, સંસ્કૃતિ અને પરંપરાનો ગર્વ.

કલાપી માટે રાષ્ટ્રીય સ્વાભિમાનનું મુખ્ય તત્વ આત્મસન્માન અને આત્મવિશ્વાસ હતું. તેમનાં કાવ્યમાં પ્રકૃતિનું વર્ણન માત્ર સૌંદર્યચેતનાથી નહીં, પરંતુ ભારતના ભૂપ્રેમની અભિવ્યક્તિરૂપે પણ છે (મહેતા, 2020).

#### 4 | કલાપીના કાવ્યમાં સંસ્કૃતિપ્રેમ અને ભારતીય મૂલ્યો

કલાપીનું કાવ્ય રાષ્ટ્રીયતાને ધાર્મિક અથવા રાજકીય સ્વરૂપમાં નથી રજૂ કરતું, પરંતુ તે સંસ્કૃતિપ્રેમના સ્વરૂપમાં વ્યક્ત થાય છે. તેમના કાવ્યોમાં ભારતીય પરંપરા, નૈતિકતા અને આધ્યાત્મિકતા પ્રત્યેનો ગાઢ આદર જોવા મળે છે.

“સત્ય પર ચાલું સતત, ધર્મમાર્ગે લઉં શ્વાસ,  
એ જ મારું રાષ્ટ્રધર્મ, એ જ મારી આશ.”

આ પંક્તિઓ રાષ્ટ્રીયતાની આધ્યાત્મિક સમજ આપે છે. કલાપી માટે રાષ્ટ્ર એ એક આધ્યાત્મિક એકતા છે, જે સંસ્કૃતિ અને નૈતિકતાથી જોડાયેલી છે.

#### 5 | ભાષા અને રાષ્ટ્રીય સ્વાભિમાન

કલાપી ગુજરાતી ભાષાના પ્રેમી કવિ હતા. તેમના કાવ્યોમાં શુદ્ધ, સરળ અને મીઠી ગુજરાતીનો ઉપયોગ તેમની ભાષાપ્રેમની સાબિતી આપે છે. તે સમયે અંગ્રેજી ભાષાનો પ્રભાવ વધી રહ્યો હતો, પરંતુ કલાપીએ ગુજરાતી ભાષાની લોકમાધ્યમ શક્તિને જાળવી રાખી. આ જ તેમની ભાષા આધારિત રાષ્ટ્રીયતાની નિશાની છે (પટેલ, 2017). તેમની રચનાઓએ ગુજરાતી કાવ્યમાં આધુનિક અભિવ્યક્તિ સાથે સ્વદેશી ભાવને જીવંત રાખ્યો.

#### 6 | ચિંતન અને વિશ્લેષણ

કલાપીના કાવ્યોમાં રાષ્ટ્રીય ભાવના અને સ્વાભિમાનની અભિવ્યક્તિ સ્પષ્ટરૂપે પ્રેમલ કાવ્યોમાં પણ જોવા મળે છે. તેમણે વ્યક્ત કરેલી પ્રેમભાવના વ્યક્તિની સીમાથી બહાર જઈ રાષ્ટ્રપ્રેમની સર્વવ્યાપી લાગણીમાં પરિણમે છે. તેમની કાવ્યભાષામાં ગુજરાતી ભાષા પ્રત્યેનો અભિમાન અને સ્વભાવિક ગુજરાતી શબ્દસંપત્તિનો ઉપયોગ રાષ્ટ્રીય ગૌરવને વધુ ઉદાત્ત બનાવે છે (પટેલ, 2017).

કલાપીનું કાવ્ય રાષ્ટ્રપ્રેમનો ઉદ્દોષ નથી કરતું, પરંતુ રાષ્ટ્રની આત્માની અનુભૂતિ કરાવે છે. તેમનો આ આંતરિક ભાવ જ રાષ્ટ્રીય ચેતનાની મૂળભૂત અભિવ્યક્તિ છે.

#### 7 | ઉપસંહાર

કલાપીનો કાવ્યસ્વર વ્યક્તિગત લાગણીઓમાંથી ઉદ્ભવ્યો હોવા છતાં તેમાં રાષ્ટ્રપ્રેમ, સ્વાભિમાન અને માનવીય મૂલ્યોની ઉજ્જવળ કિરણરેખાઓ જોવા મળે છે. તેમણે પોતાના કાવ્યમાં ભારતીય સંસ્કૃતિની ગૌરવગાથા, ભાષા પ્રત્યેનું પ્રેમ અને માનવતાના આદર્શોને ઉચ્ચ સ્થાન આપ્યું છે. તેથી કહી શકાય કે કલાપીનું કાવ્ય માત્ર રોમેન્ટિક નહીં, પણ રાષ્ટ્રીય ચેતના અને સ્વાભિમાનનું પણ જીવંત પ્રતિબિંબ છે.

#### REFERENCES

- દેસાઈ, એચ. (2018). ગુજરાતી કાવ્ય પરંપરા અને કલાપીનો કાવ્યવિશ્વ. અમદાવાદ: સંસ્કાર પ્રકાશન.
- મહેતા, આર. (2020). કલાપીનું કાવ્ય અને રાષ્ટ્રીય ભાવના. રાજકોટ: યુનિવર્સિટી પ્રકાશન.
- પંડ્યા, પી. (2015). ઉનીસમી સદીનું ગુજરાતી સાહિત્ય અને રાષ્ટ્રીય ચેતના. વડોદરા: કાલિકા પબ્લિકેશન.
- પટેલ, એન. (2017). ગુજરાતી સાહિત્યમાં રાષ્ટ્રીય ભાવના: એક વિશ્લેષણાત્મક અભ્યાસ. સુરત: ગુજરાત સાહિત્ય અકાદમી.

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# Integrating Green Human Resource Management and Spiritual Practices from Ancient Indian Mythology for Sustainable Development

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**Abstract:** As the world faces the growing challenges of environmental degradation, sustainability has become a core focus of organizations worldwide. Green Human Resource Management (GHRM) has emerged as a transformative strategy to integrate environmental responsibility into organizational practices. This paper explores the integration of GHRM with the spiritual teachings found in ancient Indian mythology to enhance sustainable development. By examining the intersection of modern HRM strategies with the ancient wisdom of concepts like Dharma, Ahimsa, and Sattva, this paper presents a framework for organizations to foster both environmental sustainability and spiritual well-being. Drawing on texts like the Bhagavad Gita, the Upanishads, and the Vedas, it highlights how organizations can adopt holistic practices to promote eco-consciousness, responsible leadership, and a culture of sustainability. It also explores the potential challenges and opportunities for organizations seeking to adopt these practices. The paper proposes that by embracing both green HR practices and spiritual values, organizations can not only reduce their ecological footprint but also cultivate an enlightened workforce that leads towards sustainable growth and societal well-being.

**Keywords:** Green Human Resource Management (GHRM), Sustainable Development, Spiritual Human Resource Management, Ancient Indian Mythology, Environmental Sustainability, Dharma, Ahimsa, Sattva, Eco-conscious Leadership, Holistic HR Practices, Employee Well-being, Sustainable Organizational Culture

## 1 | INTRODUCTION

Sustainability has become a global priority in response to climate change, resource depletion, and environmental degradation. Businesses are increasingly called upon to adopt eco-friendly practices and promote environmental responsibility. Green Human Resource Management (GHRM) has emerged as a key framework to integrate environmental sustainability into HR practices, including recruitment, training, performance evaluation, and employee engagement. However, while GHRM focuses on the environment, the role of spirituality and ancient wisdom remains largely unexplored in the sustainability dialogue. This paper proposes integrating GHRM with spiritual principles from ancient Indian mythology to create a holistic approach to sustainable development.

### Green Human Resource Management: A Modern Imperative

Green Human Resource Management refers to the process of aligning HR policies with sustainability goals. The core objective of GHRM is to reduce an organization's ecological footprint while simultaneously promoting the well-being of employees. GHRM encompasses several practices:

- 1. Green Recruitment:** Hiring employees with a commitment to environmental values.
- 2. Green Training:** Educating employees on environmental practices.
- 3. Performance Management:** Evaluating employees based on their contributions to sustainability.
- 4. Employee Engagement:** Encouraging employees to actively participate in eco-friendly initiatives.

### Spirituality in Ancient Indian Mythology and Its Relevance to Sustainable Development

Ancient Indian mythology and philosophy offer profound insights into sustainability, harmony with nature, and responsible living. Texts like the Bhagavad Gita, Vedas, and Upanishads promote principles that align with ecological consciousness and can serve as a foundation for modern organizational practices.

1. **Dharma (Righteous Duty):** The concept of Dharma emphasizes that every individual has a duty toward the environment and society. In the context of organizations, it suggests that employees and leaders have an ethical obligation to promote sustainability in their professional roles.
2. **Ahimsa (Non-Violence):** Rooted in Indian philosophy, Ahimsa advocates for non-violence, which includes harm to the environment. GHRM practices can incorporate Ahimsa by encouraging organizations to adopt environmentally friendly practices and reduce harm to ecosystems.
3. **Sattva (Purity and Balance):** Sattva represents purity and balance, guiding individuals and organizations toward a harmonious existence. In an organizational context, it encourages practices that promote sustainability, balance between growth and environmental preservation, and employee well-being.
4. **Interconnectedness of Life:** Ancient Indian mythology emphasizes the interconnectedness of all life forms. The concept of unity with nature is relevant to modern sustainability practices, which focus on understanding the relationship between human actions and environmental impact.

Here are a few historical examples from India where spirituality and mythology directly influenced sustainable practices:

1. **Sacred Groves (Devrais or Vanrais):** Dating back to Vedic times (c. 1500–500 BCE), communities in regions like Kerala and Maharashtra protected forest patches as abodes of deities (e.g., linked to snake gods or local spirits).
2. **Bishnoi Community Practices (15th Century Onward):** Founded by Guru Jambheshwar in Rajasthan around 1485 CE, the Bishnois followed 29 spiritual rules (bis-noi meaning "twenty-nine") rooted in Vaishnava mythology and Ahimsa. They protected khejri trees and blackbucks as sacred, even sacrificing lives (e.g., the 1730 Khejarli massacre where 363 Bishnois died hugging trees to stop logging).
3. **Ancient Water Management Systems (Harappan Era to Mauryan Period):** Inspired by myths of rivers as purifying goddesses (e.g., Saraswati in Vedas), ancient Indians built stepwells (baolis), tanks, and rainwater harvesting structures from the Indus Valley Civilization (c. 2500 BCE) onward. Emperor Ashoka (3rd century BCE), influenced by Buddhist spirituality post-Kalinga war, promoted these in edicts for equitable water use, ensuring sustainability in agriculture and preventing famines. Structures like Gujarat's Rani ki Vav exemplify this blend of spiritual symbolism and eco-engineering.
4. **Agroforestry and Vrikshayurveda (Ancient Agricultural Texts):** From the Vedic period, texts like Vrikshayurveda (science of plant life, c. 400 BCE) drew from mythological views of plants as sentient beings with divine essence. This inspired integrated farming in ancient kingdoms, where trees were planted amid crops for soil fertility, shade, and pest control, as seen in practices under the Chola dynasty (9th–13th centuries CE). It reduced chemical dependency and enhanced resilience, mirroring today's permaculture.

## 2 | INTEGRATING GHRM AND SPIRITUAL PRACTICES

The integration of GHRM with spiritual practices from ancient Indian mythology can be a transformative approach to achieving sustainable development. By aligning modern HR strategies with time-honored spiritual principles, organizations can promote a culture of sustainability and responsible leadership. Below are ways to integrate these elements:

1. **Green Leadership:** Leaders should embody values such as Dharma and Ahimsa, demonstrating a commitment to sustainability both personally and professionally. By leading with integrity and ethical responsibility, they can inspire employees to follow suit.
2. **Holistic Employee Development:** Training programs can incorporate teachings from Indian philosophy, focusing not just on technical skills but also on creating environmentally conscious and spiritually aware employees. This holistic development fosters a sense of purpose and responsibility.
3. **Eco-Conscious Recruitment:** In line with the concept of Dharma, organizations can prioritize hiring individuals who are passionate about sustainability and share the organization's environmental values. By focusing on green values in recruitment, organizations cultivate a workforce aligned with their sustainability goals.
4. **Mindfulness in Performance Management:** Drawing from the spiritual practice of mindfulness, performance management systems can be designed to evaluate not only employees' work performance but also their contributions to environmental sustainability. This system encourages individuals to align their personal goals with organizational sustainability objectives.

### 3 | CHALLENGES IN INTEGRATING SPIRITUAL PRACTICES WITH GHRM

While the integration of GHRM and spirituality holds significant promise, there are challenges in implementation. These include:

1. **Resistance to Change:** Many organizations may resist the integration of spirituality into professional settings, viewing it as an untraditional approach.
2. **Lack of Awareness and Training:** Employees and leaders may lack knowledge of spiritual practices from ancient Indian mythology, hindering the integration of these principles into HRM practices.
3. **Resource Constraints:** Smaller organizations may face financial constraints in implementing extensive GHRM practices that integrate spiritual values.
4. **Cultural Differences:** Organizations in non-Indian contexts may find it difficult to understand or adopt concepts rooted in Indian spirituality.

### 4 | OPPORTUNITIES FOR SUSTAINABLE DEVELOPMENT THROUGH GHRM AND SPIRITUALITY

Despite these challenges, integrating GHRM with spiritual practices presents a wealth of opportunities:

1. **Creating a Sustainable Organizational Culture:** By promoting spiritual values of interconnectedness, non-violence, and righteous duty, organizations can cultivate a culture of sustainability that goes beyond profit maximization to focus on long-term environmental and societal well-being.
2. **Enhancing Employee Well-Being:** Spiritual values like mindfulness and balance can contribute to employee well-being, reducing stress and improving overall job satisfaction. A spiritually enriched workforce is more likely to adopt eco-friendly behaviors both at work and in their personal lives.
3. **Building Ethical Leadership:** Leaders who embody spiritual values can inspire their teams to engage in practices that are not only environmentally sustainable but also ethically sound, leading to responsible decision-making across the organization.
4. **Contributing to Global Sustainability Goals:** By aligning GHRM practices with ancient spiritual wisdom, organizations can contribute meaningfully to global sustainability efforts, addressing issues like climate change, resource conservation, and social equity.

### 5 | CONCLUSION

In conclusion, the integration of Green Human Resource Management with the spiritual practices found in ancient Indian mythology offers a unique and holistic approach to sustainable development. By aligning modern organizational practices with ancient wisdom, organizations can foster a culture of environmental responsibility, ethical leadership, and employee well-being. The fusion of GHRM and spirituality presents an innovative pathway to achieving sustainability goals, creating a more harmonious relationship between humans, organizations, and the environment. While challenges exist, the opportunities for sustainable growth and societal impact are significant, making this approach a valuable strategy for organizations committed to a better, greener future.

### REFERENCES

- Goel, S. (2019). Green Human Resource Management: An Approach to Sustainable Development. *International Journal of Business and Management*, 14(2), 95-106.
- Kumar, R. (2021). Dharma, Ahimsa, and Sattva: Ancient Indian Principles for Modern Leadership. *Journal of Business Ethics and Spirituality*, 3(4), 34-49.
- Sinha, S. & Gupta, A. (2020). The Role of Spirituality in Organizational Culture: Insights from Ancient Indian Mythology. *Journal of Sustainable Business Practices*, 6(1), 58-70.
- Sharma, P. (2018). Integrating Green HRM and Sustainability in Organizations: A Review of Contemporary Practices. *International Journal of Human Resource Management*, 28(5), 795-812.
- Upadhyaya, S. (2022). Spiritual Leadership and Its Relevance in Sustainable Development. *Asian Journal of Leadership and Sustainability*, 4(3), 45-63.

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# Dalit Literature: An Echo of Ideology and Philosophy of Dr. Ambedkar

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With the arrival of Dr. Ambedkar in the Indian political scenario, the oppressed untouchables had hoped for their better life. Dr. Ambedkar was highly qualified rational and missionary genius. But unfortunately, being a Dalit he himself had experienced the inhuman dealings based on untouchability. So he strongly protested against social evils. He was of opinion that the social evils had exploited untouchables—Dalits at social, political, economic, religious and educational levels. He had strongly condemned the Hindu scriptures which had created nothing but social divisions among Hindus. He found caste as the curse which was killing harmony of Indian humanity. So he had strongly presented evil aspects of the caste-system in his work Annihilation of Caste. Untouchability was worse issue than the racial issues of the Black and the White in Europe. So, he had strongly criticised the illogical, irrational, non-religious practices of orthodox Hindus. He had written evil aspects of castes in details in this book.

First, Jyoti Rao Fule then, Dr. Bhimrao Ambedkar had initiated the movement of equality in all fields-social, political, economical, educational, and religious for the Dalits. They had strongly appealed the fellow Dalits to get education. As an outcome, many educated Dalits started writing. They have become the part of the movement started by Phule and Ambedkar. 'Dr Ambedkar's life and philosophy are a source of inspiration to all Dalit writers.' (Dangle 243)

Philosophy and ideology of Dr. Ambedkar are effectively presented in their writings by the Dalit writers. In their writings, Dalit writers have presented authentically their community and themselves. These writings have a very bitter test for the non-Dalits. For it presents harsh reality of Dalits on one hand and on the other inhumane treatments of the non-Dalits. These writings have exposed the hidden face of Indian society. Which mock the pseudo-ideology of Indians i.e., unity in diversity. As an outcome, in the beginning, the non-Dalits could not accept 'Dalit literature'.

Dalit literature, the voice of oppressed humanity is a novel Indian literature. Readers welcome it because human being and humanity are at the centre in it. Dalit literature has provided a sound podium to the unheard oppressed voices of the oppressed Indians. It is because of such writings of the Dalit writers that the Dalits are proud of their traditions and culture. Dalit literature has established itself as the voices of the oppressed among the world literature. In this way, Dalit literature, though newly emerged form in the field of literature, it has made its present felt to the world.

From the mid of the first half of the 20th century onward, under the influence of Dr. Ambedkar, the Dalit movement had created a light of consciousness among the untouchables. They preferred to identify themselves as Dalits. And as a result, a good number of Dalit writers came forward with a mission to expose the Hindus' cruelties and atrocities committed on Dalits.

U. M. Solanki, a Dalit poet has presented his experiences of being Dalit into his poetic compositions. He wrote a gazal in Hindi language which is a praise of Dr. Ambedkar. He compels the Dalits to awake and arise to get their rights which were taken off from them since thousands of centuries. In the course of time, even Dalit's human identity has been removed. He compels Dalits to retrieve human identity. On the other hand, he admires Dr. Ambedkar and his extraordinary contributions to empower Dalits. His great contribution makes him the hero:

The victory bell of Untouchables

has been rung by the Hero Ambedkar in the world

"Get up, and give up idleness" that is taught to us by the brave Ambedkar. Untouchables . . . (1-2, Solanki 156)

Further the poet praised Dr. Ambedkar for his great mission of equality and identity in the poem. He honours Dr. Ambedkar by addressing him as the 'King of kings':

By winning the hearts of million oppressed, this dearer became the King of kings for Dalits

The victory flag of Dalits flutter so high by the brave Ambedkar. (15-16, Solanki 157)

Here, the poet urges to the Dalits that they have to fight for their human rights. And in this great task they have with them the great hero Dr. Ambedkar. The appearance of Dr. Ambedkar in the political scenario of India has provided a very powerful hope to Dalits that they can win the fight of their human rights and identity.

The psychological support that the Dalits are having in Dr. Ambedkar, is very effectively presented in the poem Pushpanjali by Swami Chetananand in Gujarati language. The poet has alerted the world that the Dalits' hero Dr. Ambedkar is there to remove all pains of theirs. Poet has presented optimism in the poem. The poet is of opinion that Dalits also have equal status. He warns the non-Dalits that Dalits are not afraid of the non-Dalits' atrocities and inhuman approaches. The poet praises the Dalit hero, Dr. Ambedkar:

Rose this God to spread the light to all worlds,

Dr. Ambedkar is there to remove our pains (1-2, Chetananand 174)

Swami Chetanananda, a famous Dalit poet in his poem praised Dr. Ambedkar's contributions to empower Dalits. The great hope of equality and human status was given to the people by Dr. Ambedkar that made him the greatest hero and champion of the Dalits. The poet clearly, loudly, and fearlessly sings on behalf of the Dalits that the torch given to the Dalits by Dr. Ambedkar must be reached to every part of the world.

Thus, Dalit writings are chiefly dominated by the Ambedkarite ideology, socio-cultural realities and Dalits' condition. The Dalit writers of the different regions of India have presented realities of the Dalit world authentically in their literary writings.

Pity is that the non-Dalits' attitudes remained same as it was earlier towards Dalits. Dr. Ambedkar had remarked on orthodox Indian society in the preface to the second edition of the text Annihilation of Caste about the inhuman dealings:

I do not care for the credit which every progressive society must give its rebels. I shall be satisfied if I make the Hindus realize that they are the sick men of India and that their sickness is causing danger to the health and happiness of other Indians. (Ambedkar 6)

The values and ideology spread by Phule and Dr. Ambedkar among Dalits are brought forward by the Dalit literary geniuses into their prose and poetry. The self respect taught to the Dalits by them is one of the themes of the Dalit literary writers. The untitled Marathi poem by the Dalit poet Waman Nimbalkar which is translated in English by Graham Smith is composed the same self awareness:

I stand today at the very end of the twentieth century.

All around me is in flame...

Taking in one hand the sun, in the other the moon,

I am conscious of my resolve,

the worth of the blood of Ekalavya's broken finger. (Nimbalkar 78)

After cultivating awareness of self, the Dalits are ready to undertake the new century in their hands to full fill the dreams of Phule and Dr. Ambedkar to reconstruct egalitarian India.

The unpleasant truth of the upper caste Hindus is that to deprive Dalits of their status and dignity of being human. This fact is very honestly and realistically unmasked by Bandhumadhav in his short story The Poisoned Bread. The Dalit characters Grandpa and Mhadeva, the grandson are looking for job in the fields of the shallow minded Hindus. The

Grandpa, in fact, wants to beg for the grandson. But he is insulted by the non-Dalit Bapu Patil. Here, fear of the orthodox Hindus is also formed by the story-teller that the world is changing and equality, if not today then tomorrow will be obtained by the Dalits. The author has depicted a very harsh reality of Dalits that since age-old time the Dalits are crushed in such a manner that even after being insulted they react generously and in slavish manner.

The orthodox Bapu Patil represents the age-old enemy of humanity. Mhadeva advocates ideology and philosophy of Ambedkar. He is educated. A conversation between the two makes readers aware a clash of the Dalit and non-Dalit. Unlike the non-Dalit Anand's Bakha, a fatalist, Bandhumadhav has made his character revolutionary against the orthodox Hindus, the age-old enemy. This is a basic different between the character portrayal of the non-Dalit and the Dalit writer. Mhadeva represents Ambedkarite ideology. He logically argues with Bapu Patil and makes him feel insulted:

'Patil, will you kindly tell me what you meant when you accused us of forgetting religion, abandoning our caste and of polluting the god? And if a religion can't tolerate one human being treating another simply as a human being, what's the use of such an inhumane religion? And if our mere touch pollutes the gods, why were the Mahars and Mangs created at all? And who, may I know, who indeed, created them? . . . ' (Bandhumadhav 148)

Listening these words form a young educated Dalit, Bapu gets angry; and sought that Dalits are not human beings but the footwear:

'Look here, boy! Simply because you've had a little education, don't think you can teach me. You should know that God intended to have a definite hierarchy. . . . Put every man in his proper place, as they wisely say. A chappal is never worshipped in place of God, is it?' (149)

But the educated soul of Mhadeva has exposed that because of education the untruth of the non-Dalits could not stand as truth. He raises his voice with a sense of awareness and answers:

'So you think you can treat us like your footwear! But are we really like that? Aren't we also made of the same flesh and blood as the rest of you? We too are born after nine months in our mother's womb. Isn't it logical then, 'I ended rhetorically, 'that basically there's hardly any difference between us? (149)

Unexpected answers from the Dalits make Bapu Patil furious. But before the condition gets worse, Grandpa handles the situation by pleading to Bapu not to get angry on Mhadeva as he is just a boy. Then, both Grandpa and Mhadeva works in the field but when it is time for getting reward of grain of whole day's work; Bapu Patil has not given 'even a few measures of jowar.' (151) The realistic picture of the exploitation of the Dalits is presented by the author. Then Grandpa is begging to Bapu Patil for crumbs which are turned green and foul. Further, flies are swarming over it:

Grandpa begged Bapu Patil for those crumbs. The oxen seemed to have refused to eat them. They were smeared with dung and urine. Grandpa collected them all with happy excitement and nearly put them into his sackcloth. And he left place but not before blessing the Patil. (151)

This inhuman and cold heartedness of the orthodox Bapu Patil could not be tolerated by the revolutionary Mhadeva. He even mocks at Grandpa for the acceptance of filthy pieces to eat:

'We'll gulp down the crumbs you collected. Haven't we got these rotten pieces as a reward for labouring all day long? A good exchange indeed! Are we any better than cats or dogs? Throw a few crumbs at us and we are happy,' I said mockingly. (151)

Mhadeva puts forward his thoughts of dignity and pride in front of Grandpa. After a little conversation on the topic of independent work to retrieve the dignity of human being and to forbid the land-right, Grandpa also agrees with grandson:

'You're right, my boy. I am convinced. You've touched my heart,' said Grandpa and threw a few crumbs from his sack to the dogs squatting opposite our house. (152)

During the last breathes of his life, Grandpa utters his last words to Mhadeva are – to live with dignity and pride being the Dalits and throw away age-old accepted conditions for life and livelihood. 'I can only say: never depend on the age-old bread associated with our caste. Get as much education as you can.' (153)

Thus, the Dalit writers can give words to the sufferings, pains, and trauma and not the orthodox non-Dalit authors. The best possible solutions according to the non-Dalits are to offer sympathies and a few minor changes in existed social conditions. But they could not ever dare to ask their orthodox Hindu brothers to change the society as a whole. Whereas the Dalit authors do not only expose the cruelties and atrocities of the orthodox Hindus but also willing to acquire Ambedkarite ideology i.e., equality in every aspect: social, economical and political.

In a long narrative Telugu poem The Roaring of the Dalit by Prattipati Malleswara Rao who is popularly known as Sambuka has presented how since ancient times to the modern time Dalits have been deprived of their rightful place in society. To remove the identity of Dalits being human, the orthodox Hindus have used religion, caste, custom, injustice, and atrocities as their weapons. Dr. Ambedkar has aptly remarked:

One caste enjoys singing a hymn of hate against another caste as much as the Germans did in singing the hymn of hate against the English during the last war. The literature of Hindus is full of caste genealogies in which an attempt is made to give a noble origin to one caste and an ignoble origin to other castes. (Ambedkar 50)

Even before the birth, the suffering of a Dalit begins right from the mother's womb:

Even before I fell into this world,  
When I was still in my mother's womb  
I grew as an untouchable. (1-3, Rao 158)

But the vision, given by Dr. Ambedkar of a new caste free society will be constructed by the Dalits and thus the Dalits become the first revolutionaries of the modern world:

But we will be the architects of  
a new socialist society that will drive away  
the dark kingdom of the exploiting high caste;  
we are the chariot drivers  
of the oppressed and suppressed caste  
We're the off spring of the pioneers of the Modern  
Revolution  
We're the builders of a caste free society. (137-44, Rao 161)

The poem's title is in itself gives clear indication that the Dalits are now fighting against all kinds of injustices and atrocities of the non-Dalits. The ugly construction of the existed society must be demolished. And a new caste free and society of equals must be reconstructed. This mammoth task has been under taken by the Dalits. Thus the new revolution of the Dalits will bring forth the Modern Age by offering the world an equal society. However, pity is that the non-Dalits' attitudes remained same as it was earlier towards Dalits.

Dr. Ambedkar's motto– to spread light of awareness of dignity, of self respect and of equality is very well carried by the modern Dalit writers. Dr. Ambedkar remains the major source for this type of writings. Dr. Ambedkar's motives are strictly and aptly followed and executed in their literary writings by the Dalit writers.

In a true sense, the struggle started by Mahatma Phule and Dr. Ambedkar for Dalit's identity is carried with extreme zeal and enthusiasm by the Dalit writers. Thus, Dalit literature echoes ideology and philosophy of Dr. Ambedkar.

## REFERENCES

- Ambedkar, Baba Saheb. *Annihilation of Caste: With a Reply to M. K. Gandhi*. New Delhi, Ind: Samyak Prakashan. 2003. Print.
- Bandhumadhav. *Poisoned Bread*. Trans. Ramesh Dnyate. *Poisoned Bread*. Arjun Dangle. Ed. 1992. Bombay, Ind: Orient Longman, 1994. 147-54. Print.
- Chetananand, Swami. *Pushpanjali. Gujarati Ambedkari Chalval no Itihas: 1920 to 1970 (History of Ambedkrite Movement in Gujarat: 1920 to 1970)*. P. G. Jyotirkar. Gandhinagar, Ind: Dr. Babasaheb Ambedkar Janmshatabdi Ujavni Samiti, Gujarat Rajya. 1991. Print.
- Dangle, Arjun. "Dalit Literature: Past, Present and Future." *Poisoned Bread*. Arjun Dangle. Ed. 1992. Bombay, Ind: Orient Longman, 1994. 234-266. Print.
- Nimbalkar, Waman. (Untitled Peom). Trans. Graham Smith. *Dalit Vision: Tracts for the Times/8*. Gail Omvedt. New Delhi, Ind: Orient Longman, 1995. Print.
- Rao, Prattipati Malleswar. *The Roaring of the Dalit*. Trans. P. Naga Jasmine. *A History of Telugu Dalit Literature*. Thummapudi Bharathi. Delhi, Ind: Kalpaz P., 2008. Print.
- Solanki, U. M. (Untitled Poem). *Gujarati Ambedkari Chalval no Itihas: 1920 to 1970 (History of Ambedkrite Movement in Gujarat: 1920 to 1970)*. P. G. Jyotirkar. Gandhinagar, Ind: Dr. Babasaheb Ambedkar Janmshatabdi Ujavni Samiti, Gujarat Rajya. 1991. Print.

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# The Future of Education in the Digital Age: A Psychological Perspective on Cognitive and Social-Emotional Development

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**Abstract:** The digital age is reshaping education in profound ways, influencing how learners think, interact, and develop both cognitively and emotionally. This paper explores the impact of technology on education from a psychological perspective, focusing on cognitive development and social-emotional learning (SEL). By examining existing research, theoretical frameworks, and technological innovations, this study highlights both opportunities and challenges in preparing learners for the future. It concludes by suggesting strategies for integrating technology into education while safeguarding mental well-being and promoting holistic development.

## 1 | INTRODUCTION

The 21st century has witnessed a rapid integration of digital technologies into educational systems worldwide. From artificial intelligence (AI) and adaptive learning platforms to online classrooms and global collaboration tools, technology has revolutionized how teaching and learning occur. While these innovations promise greater access, personalization, and efficiency, they also raise pressing psychological questions: How does digital learning affect cognitive processes such as memory, attention, and problem-solving? What implications does technology hold for social-emotional development in a world where interaction is increasingly mediated by screens? This paper examines these questions through the lens of educational psychology. It aims to provide a balanced view of the cognitive and social-emotional impacts of digital education and outline strategies for fostering healthy development in learners.

## 2 | LITERATURE REVIEW

Existing literature provides mixed perspectives on the psychological effects of digital education. - Cognitive Development: Mayer (2019) emphasizes the benefits of multimedia learning for retention and engagement, while Greenfield (2017) warns of cognitive overload from excessive digital exposure. Studies on multitasking highlight risks to attention and working memory. - Social-Emotional Learning (SEL): According to CASEL (2020), integrating SEL with technology can promote empathy and resilience. However, Rideout and Robb (2019) report increased stress and anxiety among adolescents due to social comparison on digital platforms. - Identity and Citizenship: Research suggests that digital spaces shape identity formation but expose learners to risks such as cyberbullying and misinformation (Livingstone, 2021). This review indicates the need for balanced, evidence-based strategies in digital education.

## 3 | METHODOLOGY

This paper adopts a qualitative research design in the form of a literature review and theoretical analysis. Secondary sources—including peer-reviewed journal articles, books, policy reports, and organizational publications—were analyzed to identify key psychological impacts of digital education. The focus was on studies addressing: 1. Cognitive development (attention, memory, problem-solving). 2. Social-emotional learning (communication, empathy, well-being, identity). 3. Opportunities and challenges in integrating technology into education. The findings are synthesized into thematic categories to inform discussion and recommendations.

## 4 | DISCUSSION

Cognitive Development in the Digital Age: - Enhanced Access to Information: Digital tools enable independent inquiry and critical thinking but risk information overload. - Attention and Memory: Constant multitasking fragments attention, yet adaptive learning systems enhance memory through personalized pacing. - Critical Thinking and

Problem-Solving: Gamification and simulations promote engagement but may reduce perseverance if overused. Social-Emotional Development in the Digital Age: - Communication and Collaboration: Virtual platforms promote global teamwork but may weaken face-to-face communication skills. - Emotional Regulation and Well-Being: Screen overexposure contributes to stress and anxiety, but mindfulness apps and SEL programs can enhance resilience. - Identity Formation and Digital Citizenship: Adolescents construct identities online, requiring digital citizenship education to ensure safety and responsibility. Opportunities: - Personalized learning through AI. - Greater access to education across socioeconomic boundaries. - Development of digital literacy and adaptability for future careers. Challenges: - Persistent digital divide. - Cognitive overload and reduced focus. - Mental health concerns from overuse and comparison culture.

## 5 | STRATEGIES FOR A BALANCED DIGITAL EDUCATION

1. Integrating SEL into Digital Learning: Embedding empathy, self-regulation, and collaboration skills into online platforms.
2. Teaching Digital Literacy: Equipping students with tools to critically evaluate online information.
3. Adopting Hybrid Learning Models: Combining digital innovation with traditional classroom interaction.
4. Strengthening Parental and Teacher Roles: Monitoring digital use and supporting students' emotional well-being.

## 6 | CONCLUSION

The future of education in the digital age holds immense potential to transform learning experiences. From a psychological perspective, technology can enhance cognitive skills and social-emotional competencies when used thoughtfully. However, risks such as digital overload, inequity, and mental health concerns require proactive strategies. The goal of digital education should extend beyond technological adoption to fostering holistic development—empowering learners to thrive cognitively, emotionally, and socially in an evolving world.

## REFERENCES

- CASEL. (2020). Social and Emotional Learning and Technology. Collaborative for Academic, Social, and Emotional Learning.
- Greenfield, P. M. (2017). Mind and Media: The Effects of Television, Video Games, and Computers. Routledge.
- Livingstone, S. (2021). Children and Media: Opportunities and Risks in a Digital Age. Polity Press.
- Mayer, R. E. (2019). Multimedia Learning. Cambridge University Press.
- Rideout, V., & Robb, M. B. (2019). The Common Sense Census: Media Use by Tweens and Teens. Common Sense Media.

\*\*\*\*\*