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INDEX

S. No.	Name	Page No.
*	Editorial	2
1.	Changing Dimensions of FDI Policy in India in the Era of Globalization Ajay Kansal, Kirty Gupta	4-12
2.	Assessing Healthcare Service Quality and Patient Satisfaction in India: A Systematic Literature Review Using the SERVQUAL Framework (2016-2026) Rain Sameena Bano Ramzanali, Prof. (Dr.) Noorul Hasan	13-34
3.	The Role Of CEO Qualities in Strategic Decision-making and Investor Confidence: An Empirical Study From Bengaluru-based IT Firms Dr. Mary Josephine M	35-41
4.	Impact of E-Banking on Profitability of Commercial Banks- A Comparative Study of Selected Indian Nationalised and Private Sector Banks Dr. Anoop Kumar Singh, Ayush Trivedi	42-55
5.	The Role of Goods and Services Tax (GST) in Transforming India's External Sector: A Study of Trade, Investment, and Economic Competitiveness Dr. Rana Rohit Singh, Jaibeer Pratap Singh, Priyanka Singh	56-62
6.	Conventional versus Modern Investment Avenues: A Comparative Study of Selected Financial Products in India Aishwarya	63-73
7.	Impact of Quality of Work Life on Employee Performance: The Mediating Role of Job Satisfaction among Online Food Delivery Employees Saurabh Yadav, Dr. Ram ji Singh, Dr. Anita Mishra Dr. Rana Rohit Singh	74-92
8.	Registration of Electric Vehicles in the Eastern and Western India Dr. Krishna Kumar Verma, Dr. Jyoti Singh	93-102
9.	A Study of Social and Economic Inclusion in Self Help Groups: In Reference to Indian Economy Shubham Singh , Prof. Mirza Shahab Shah	103-111
10.	ग्रामीण निर्धनता पर बैंकिंग सेवाओं के प्रभाव (बाँदा जनपद के विशेष सन्दर्भ में) डॉ० बिष्णु स्वरूप गुप्ता	112-119
11.	युवा वर्ग की कृषि विमुखता एवं उन्मुखता प्रदीप कुमार मोर्य, डॉ. रमेश कुमार	120-127



Editorial

The Editorial Board is pleased to present Volume XIX, Issue : 38 of Commerce & Business Studies, featuring a collection of scholarly articles that examine contemporary developments in commerce, management, finance, economics, and public policy. In an era marked by globalization, digital transformation, and sustainable development, quality research plays a pivotal role in addressing emerging challenges and guiding informed decision-making.

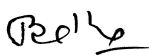
The articles in this issue cover a wide spectrum of themes, including India's evolving Foreign Direct Investment (FDI) policy, Healthcare Service Quality and Patient Satisfaction, CEO Leadership and Investor Confidence, and the Impact of E-Banking on the Profitability of Commercial Banks. The volume further explores the transformative Role of the Goods and Services Tax (GST) in enhancing India's Trade and Economic Competitiveness, alongside A Comparative Analysis of Conventional and Modern Investment Avenues in the changing financial landscape.

Recognizing the importance of human capital and sustainability, this issue also presents research on the Impact of Quality of Work Life on Employee Performance in the Online Food Delivery Sector and an analysis of Electric Vehicle Registration Trends in Eastern and Western India, reflecting the nation's transition towards sustainable mobility. The next article in this issue highlights the importance of Self-Help Groups in Promoting Social and Economic Inclusion in the context of the Indian Economy.

The two papers in this issue underscore the importance of empowering society through financial literacy and Agricultural Entrepreneurship. While financial literacy enhances awareness and effective utilization of Banking Services, particularly in Rural Regions such as Banda District, Agricultural Entrepreneurship Fosters Employability, Innovation, and Self-Reliance among Youth.

Collectively, these contributions highlight the interdisciplinary nature of contemporary business research and provide valuable insights for academicians, researchers, policymakers, industry professionals, and students. The studies combine rigorous methodology with practical relevance, thereby enriching academic discourse and supporting evidence-based policy and managerial decisions.

The Editorial Board sincerely thanks the authors for their valuable contributions and the reviewers for their rigorous evaluations, which have ensured the academic quality of this volume. We hope this issue stimulates further research and meaningful dialogue in the fields of commerce, business, and management.


(Dr. B. K. Jha)
Editor



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Changing Dimensions of FDI Policy in India in The Era of Globalization

Ajay Kansal*, Kirty Gupta**

Abstract

Foreign direct investment (FDI) is increasingly recognized as a vehicle for growth in many emerging economies (including India) and an important source of industrial development to stimulate global integration. Amendments to the FDI policy framework since 1991 have gradually made India a net recipient of global capital. This paper reviews the Indian FDI policy regime, which has been liberalizing over time. Study Design: This is an observational, analytical, and descriptive secondary data-derived study based on governmental data. DATA Source: Research articles, policy documents, and institutional publications. As per the article, over time, India's FDI policy became increasingly liberalized and investor-friendly. So, what is FDI? New obligations have also been introduced in areas such as digitalization and behavioral liberalization across several sectors. These improvements make doing business easier, across whole or parts of an economy, and establish rules for strategic investments and investment practices that favor startups and sustainability. It also attempts to analyses issues like regional imbalance, ambivalence over policy matters and infrastructure, and national security. However, globalization and FDI have changed Indian policy fundamentally, with the advantage of development expected from foreign direct investment (FDI) needing not only institutional reforms but also a broadly stable set of systems and processes over time, which is yet to be achieved.

Keywords: Economic Development, Economic Liberalization, Foreign Direct Investment, FDI Policy, Globalization

1. Introduction :

Today, foreign direct investment (FDI) has emerged as one of the foremost engines of economic growth and globalization in a global economy. In a World economy where countries are becoming increasingly interdependent and competitive for attracting foreign direct investment (FDI) to accelerate industrial development, technology transfer, job creation, and position in the global marketplace (Dunning, 1993). It is reported that FDI is one of the most crucial non-debt capital inflows for developing nations, which funds infrastructure projects, increases productivity, and bestows economic modernization (Todaro & Smith, 2015).

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Globalization has altered the global economic landscape, allowing goods, services, technology and money to be transferred across national borders with relative ease. Consequently, Foreign Direct Investment (FDI) has been a fundamental instrument through which many countries integrate their respective economies into the global landscape. Global investment flows have increased with what Hill (2014) refers to as multinationals, communication and digital technology and the relaxation of trade and investment rules. In response, countries are increasingly creating policies and reforms that make it easier and more attractive for foreign investors.

India's policy on FDI (Foreign Direct Investment) has undergone a paradigm shift since the 1991 liberalization reforms. India had previously maintained stringent regulations on foreign investment. Industrial licenses have been made mandatory, along with pervasive government regulations and limitations on foreign participation (Kumar, 2005), and the New Economic Policy (NEP) of 1991 shifted India from a protectionist stance to a more open economic model. This shift in policy was intended to bring India into the World economy (Ahluwalia, 2002). The Indian government has gradually eased restrictions on FDI since then. This includes automatic approvals, loosening of restrictions on certain sectors, simplified procedures and work on investment policy reforms.

India has since progressively moved from being a destination for attracting foreign capital to seeking the strategic component of FDI. The policy is now more focused on business continuity, promoting technology transfers, strengthening manufacturing and the digital infrastructure ecosystem, spurring growth of startups and innovation for future generations (Government of India 2023). Recent policy changes also show that, at times, national security, strategic investments, and geopolitical factors fall under the radar, suggesting a more balanced approach to managing FDI sectors. The West has had a dramatic impact on India's FDI policy due to India's and the USA's relations: Changes in India's Policy (1991-Present). The composition of the national economy continually changes due to factors such as globalization.

Programs such as Make in India, Digital India, Startup India, and the Production-Linked Incentive (PLI) scheme aim to reposition the Indian economy as a global investment hub (DPIIT, 2024). Nonetheless, unevenness across regions, policy uncertainty, poor infrastructure and regulatory stumbling blocks still plague India's FDI policy (RBI, 2023).

The article examines the shifting paradigms of FDI policy in India post-globalization. It is a descriptive and analytical explorative study with reference to secondary data such as government reports, policy documents, research papers, and institutional publications. It also examines various

reforms and changes that have occurred in recent years in the Indian FDI policy framework, across time lines, along with the demand-supply perspective of foreign investment in the Indian economy.

2. Evolution of FDI Policy in India

The Foreign Direct Investment (FDI) policy in India reflects the globalization of the Indian economy, moving from a highly regulated, protectionist system to a more liberal, market-determined one. India's FDI policy has evolved through various phases corresponding to the different stages of India's economic development, and that too under constantly changing conditions driven by national priorities, domestic and international political will, and associations, as well as a changing global investment environment.

Pre-Liberalization Period

India was in a conservative, protectionist mode of international investment before 1991. These were based on the continuation of industrial licensing, import substitution, and strong control over domestic and foreign firms. The Foreign Exchange Regulation Act (FERA) of 1973 permitted foreign investment only in limited sectors, subject to strict guidelines. The basic objective behind these restrictions was to protect the domestic industry and achieve economic self-sufficiency (Kumar, 2005).

At this time, the foreign firms were subject to several restrictions on ownership, technology transfer and profit repatriation. Nearly all foreign investment proposals needed government approval, and foreign equity was frequently restricted. The MRTP Act aimed to curb the growth of monopolies, both local and foreign, in India. Consequently, it was able to insulate itself from foreign direct investment (FDI) flows to a modest extent until October 2003 (Ahluwalia, 2002).

Liberalization and Economic Reforms after 1991

India's foreign direct investment strategy changed appreciably with the advent of the New Economic Strategy in 1991. The Balance of Payments crisis and rising fiscal stress forced the Indian government to undertake structural economic reforms such as liberalization, privatization, and globalization. The transition from state-directed to market-driven production structure was signaled by the reform process (Joshi & Little, 1996).

The new policy regime saw a slew of measures to encourage foreign investment in India. We also saw radical liberalization of industrial licensing; abolition of limits on foreign equity participation; and many sectors opened to both domestic private and foreign investment. The government has introduced an automatic route under which foreign investors will operate in certain areas without prior government approval. (Dunning, 1993). In 1999, the Foreign Exchange Management Act (FEMA) repealed FERA and

marked India's transition to a much less restrictive, more pro-investor regulatory regime.

Expansion and Sectoral Liberalization

India continued to liberalize its FDI policy in 2000 across various sectors. Telecoms, aviation, and retail were among the sectors with high foreign participation. "Foreign ownership caps were progressively liberalized across sectors, and approval processes were made easier to enhance business convenience" (RBI, 2023). The government tried to link India's networks with other global industrial and investment networks. India has been a major recipient of FDI across various sectors, driven by its growing digital economy and skilled workforce.

Contemporary Dimensions of FDI Policy

India's policy has been strongly influenced by globalisation and technological innovation over the years, particularly in FDI regulation across sectors, especially since 1991. There are other government initiatives aimed at boosting multiple factors of production, including manufacturing, innovation & entrepreneurship, and export readiness (Government of India 2023), such as Make in India, Startup India, Digital India, and Production-Linked Incentive (PLI) Schemes. The policy framework has increasingly focused on creating a climate conducive to the easy delivery of business across processes, driven by digitalization, clear approval systems, and actions to make it easier for investors. India has also eased Foreign Direct Investment (FDI) rules in defense, insurance, single-brand retail and e-commerce to attract long-term foreign investment. On the one hand, the aggressive posture of the media and national security agencies in India has tightened the noose around investment from neighboring nations, mostly at the regulatory level.

India's transition to its Foreign Direct Investment (FDI) policy is a case of steady progress towards making the economy investment-friendly and globally competitive. Foreign investment has been largely liberalized and globalized. However, policy reform still needs to be aligned by reconciling the immediate growth or economic objective with national interests and longer-term development aspirations.

3. Emerging and Changing Dimensions of FDI Policy in India:

Globalization, technological evolution, and intensifying global economic competition have influenced the purpose and scope of India's Foreign Direct Investment (FDI) policies. While India's erstwhile FDI policy centered primarily on attracting foreign investment into the country, India's FDI policy regime today places the utmost importance on ease of investment, technology upgradation, sustainable economic development, digital India goals, and the strategic development of the economy.

Sectoral Caps Raise & Automatic Route Expansion

After the introduction of LPG, India's FDI policy has improved, as evidenced by sectoral improvements and the broad expansion of the automatic route. the govt. also reducing restrictions on other sectors, such as telecommunications, insurance, defense, civil aviation, retail, and infrastructure, since the 1991 economic reforms. (RBI, 20 23). Foreign investors can invest in certain sectors without prior government approval via an automatic route, which saves time and increases investor confidence by eliminating government involvement. Meanwhile, similar reforms were introduced in defense and civil aviation to encourage technology partnerships and modernize the industries.(Government of India, 2023)

Ease of Doing Business and Digitalization

India has made significant strides in recent years in easing investment approvals, improving transparency, and eliminating bureaucracy. The introduction of digital approvals, single-window clearance, and online compliance & approvals within time limits has made India a much more business-friendly investment destination (DPIIT, 2024).

Economic reforms through digitization of governance processes have made it easier for investors and enhanced policy transparency. The success of these reforms thus far is reflected in India's increasing rankings on global ease-of-doing-business indices. The system of government action to ensure a business-friendly regulatory environment has already paid dividends, as evidenced by the interest of foreign investors in opportunities across the industrial and service sectors.

Manufacturing and Industrial Development Promotion

India's FDI policy has changed over time; it now aims to enhance domestic manufacturing capabilities and industrial competitiveness. It launched the Make in India initiative, along with Production-Linked Incentive (PLI) schemes for electronics, autos, renewable energy, pharmaceuticals, and semiconductors, to attract foreign capital. (NITI Aayog, 2022)

These are not merely programs to generate revenue, but also to facilitate technology transfer, develop skills and capabilities, create jobs, and integrate these countries into global supply chains. Today, FDI is seen as critical to making India a tremendous manufacturing base and also enhancing our export competitiveness.

Growth of the Digital Economy and Startup Landscape

A New Chapter in India's FDI Strategy. Recent growth in the digital economy, especially during COVID, has enabled new sectors to flourish. Most of the international investment in those sectors has been through one form or another, where e-commerce, fintech, digital payments, information technology, and online services intersect. In the realm of innovation,

entrepreneurship, and, more broadly, digital infrastructure development (Ministry of Commerce and Industry, 2023), the Government has done its bit, most notably through Digital India & Startup India.

India, being the largest consumer economy, has a favorable leverage of skilled labor and an internet space that is penetrating rapidly compared to the rest of the World, making India-based startups more attractive to foreign investors every day.

Strategic and National Security Considerations

National security and strategic factors are an important aspect of FDI policy. Amid globalization for liberalization and openness, geopolitical developments in recent times have led World governments to become increasingly wary of foreign investment. "In 2020, the government of India also released press note 3 during COVID-19, a period marked by low economic activity, which sought to limit investment in Indian companies from contiguous countries and was intended to restrict opportunistic takeovers" (Government of India, 2020). It is a move to integrate economic boundaries, national security concerns with strategic resolve. Adequate, the government considers foreign investments not through economic criteria but based on its long-range sustainability while national interests now range from merely protecting technologies and systems to be used for defence purposes to critical infrastructure domains.

Sustainable Development and Green Investment

The policy framework for FDI in India has been littered with a changing global scenario, major challenges on the sustainable development/environmental preservation front. Foreign direct investment in the renewable energy sector, green technologies, electric automobiles and sustainable infrastructure. India's climate-adaptive investments are supported by the ambition of its climate targets aligned to sustainable economic growth (UNCTAD, 2023)

This paradigm shift in India's FDI policy is an indicator of the country moving towards a multi-dimensional approach to growth, rather than merely capital-led development, to achieve economic progress, technological innovation, sustainable development, and global competitiveness. It reveals the extent to which adaptive policymaking in response to crises and opportunities generated by processes of globalization has changed the Indian policy objectives.

4. Challenges and Issues of FDI Policy In India :

Regional Imbalance in FDI Inflows

An apex in the case of foreign indirect investment in India is the influence of geography on inflows. Foreign investment is highly skewed in favor of wealthier states (Maharashtra, Karnataka, Gujarat, Delhi and Tamil

Nadu) and relatively less developed areas - particularly the northeastern part of the country - are extraordinarily starved of investment (RBI, 2023). This period has also been characterized by the persistence of regional disparities in terms of industrialization, generation of infrastructure and creation of employment opportunities.

The government invests in urban or industrialized countries, which provide tertiary infrastructure, easy market access, and reduced overall administrative burden. This wraps up the development in a blanket, but some of these proposed infrastructure improvements limit connectivity, making institutional interest even more challenging.

Policy Uncertainty and Regulatory Complexity

Sweeping policy changes and an erratic regulatory framework have left foreign investors terrified despite India gradually opening the FDI tap over the years. This indicates not only uncertainty but also tax regimes, compliance burdens, and approvals, which can be a long-term bet on investment (Kumar, 2005). Investors are perfectionists who seek an ever-stable policy environment; inconsistency erodes their confidence. There is also a big issue in regulatory processes, still in the area. Increased ease of doing business notwithstanding, land acquisition, clearances and protracted legal and statutory processes have continued to slow down the pace of project delivery and operational performance.

Infrastructure Constraints

Now, another big issue is why India gets worse with FDI: infrastructure limitations. Poor transport facilities, logistical bottlenecks, power cuts and infrastructure deficit starting with urban-led to the high firm-level operational costs and lower competitiveness (Ahluwalia 2002). Most governments have prioritized building infrastructure, and the one toward financing mechanisms that will further worldwide goals will be a protracted one.

Infrastructure is pivotal for Transfer of technology in the industry-industry efficiency, supply chain integration and export competitiveness all need infrastructure. Thus, infrastructure bottlenecks might prevent FDI from increasing - especially but not only in manufacturing and export-orientated sectors.

Sectoral Concentration of FDI

The second major challenge concerns the narrow sectoral distribution of FDI inflows. Most of FDI comes in the form of services, telecom, computer software, trading, and financial services, while very little even goes into agriculture or labor-intensive industries (DPIIT, 2024). Such an uneven distribution across sectors hardly maximizes the developmental impact that FDI is otherwise associated with on the overall economy.

A high concentration in services may also prevent FDI from providing mass employment opportunities in rural and semi-urban centers. Therefore, the imperative for a policy mechanism promoting balanced sectoral diversification persists.

Foreign Capital and Domestic Competitiveness:

Opponents of FDI admit that excessive reliance on foreign capital is sure to harm the indigenous industry and lead to the forfeiture of self-sufficiency. Many also have far greater financial resources, technology, and worldwide sales than firms based in the country, thereby increasing competition (Dunning 1993). In industries with tightly concentrated markets, small firms lack the capacity to compete with overseas giants.

Moreover, when it comes to long-term net FDI results, it is 2 lower. Also, since it is a net asset, why is an outflow of foreign profits expected in the future? Foreign investment can, under certain conditions, have a primary objective of maximizing profit rather than other development targets.

National Security and Strategic Concerns

Lately, the role of national security as a salvaging force in India's FDI policy regime has been on a growth trajectory. Access to and the flow of capital: strategic competition in selective sectors, especially telecommunications and digital infrastructure, defense, and data transfer, has raised fears of technological dependencies. "Press Note 3 was one such regulatory policy action, imposing restrictions on foreign investment from countries that share a land border with India (Government of India, 2020) to protect national interests".

Environmental and Sustainability Concerns

However, environmental and sustainability issues have emerged as a result of substantial external investment and rapid industrial expansion. It may manifest itself through industrial or economic growth at the expense of pollution, depleting natural resources and destabilizing ecosystems (UNCTAD 2023). India's FDI Policy is in sync with globalization and this ought to be the propellant for addressing some of the structural and policy challenges that, if kept unresolved, could weigh down long term economic growth fuelled by inclusivity, balance and sustainability. In order to gain long term from such foreign investment inflows into India, good governance, institutional reforms and policy stability is to be practiced.

5. Conclusion :

With globalization, Foreign Direct Investment (FDI) has insidiously become one of the most essential primary drivers of Indian growth. This is reflected in the transition of India from a tightening & controlled foreign direct investment (FDI) policy to gradually more sustainable liberalization and transparency, which means the approach becomes increasingly investor-

friendly. The 1991 economic reforms altered the political economy backdrop for foreign direct investment in India and hence internationalized the Indian economy.

This paper discusses India's FDI policy, highlighting new changes and challenges, what needs to change, and what would attract more investment to the nation. Previously, the policy framework was focused on attracting foreign investment, but now it has broader, technology-upgrade goals, industrialization, and digital transformation-oriented objectives, along with infrastructure investments, enablers for the startup ecosystem, fibre, and long-term economic growth. Second, India's image as a storehouse of catalytic government initiatives (Make in India, Digital India, Startup India, and PLI) helps position Indian strengths to compete globally in attracting foreign capital flows.

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Assessing Healthcare Service Quality and Patient Satisfaction in India: A Systematic Literature Review Using the SERVQUAL Framework (2016-2026)

Rain Sameena Bano Ramzanali*, Prof. (Dr.) Noorul Hasan**

Abstract

Healthcare service quality has become a strategic concern for hospitals, policymakers and healthcare managers because patients increasingly judge hospitals through the combined experience of clinical competence, physical environment, communication, safety, dignity, transparency and responsiveness. In India, the simultaneous presence of public, private, charitable, teaching and corporate hospitals creates a complex service environment in which patient satisfaction is shaped by both medical and non-medical dimensions of care. This paper presents a systematic literature review of healthcare service quality and patient satisfaction using the SERVQUAL framework during 2016-2026. The review synthesizes peer-reviewed literature, selected systematic reviews, policy documents and accreditation-related reports. The five SERVQUAL dimensions - tangibility, reliability, responsiveness, assurance and empathy - are integrated with Donabedian's structure-process-outcome model, the patient-centred quality orientation of India's National Health Policy 2017, and the quality-and-safety emphasis of NABH Hospital Accreditation Standards, 6th Edition (2025). Following PRISMA 2020 reporting principles, 642 records were identified, 115 full-text reports were assessed and 29 studies/reports were retained for thematic synthesis. The findings show that tangible resources such as infrastructure, cleanliness, equipment, signage and infection-control visibility remain important, but they do not independently guarantee patient satisfaction when reliability of processes, staff communication, waiting-time management, ethical assurance and empathy are weak. Private hospitals generally perform better in tangibility and service convenience, while public hospitals remain indispensable because of affordability, specialist availability and wider social reach, though they often face overcrowding and responsiveness-related dissatisfaction. The study proposes an integrated SERVQUAL-based improvement framework for hospitals, combining patient feedback, process redesign, staff training, digital service touchpoints, patient-rights compliance and continuous quality monitoring. The paper contributes to commerce and management

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Commerce & Business Studies : Vol. XIX, Issue : 38
literature by positioning patient satisfaction as a measurable strategic
service outcome rather than a purely clinical or administrative
concern.

Keywords: SERVQUAL; Healthcare Service Quality; Patient Satisfaction; Public Hospitals; Private Hospitals; India; Systematic Literature Review; NABH; National Health Policy; Patient Experience.

1. Introduction :

The healthcare sector occupies a central position in socio-economic development because the quality of health services affects human capital formation, workforce productivity, household welfare, social trust and the legitimacy of public institutions. Unlike ordinary commercial services, healthcare is consumed by individuals who are often in a condition of pain, fear, uncertainty and dependency. Patients and attendants may not be able to technically judge clinical decisions, but they continuously evaluate how a hospital receives them, guides them, communicates with them and treats them with respect. A clinically competent hospital may therefore be perceived as unsatisfactory when patients experience long waiting time, poor communication, overcrowding, inadequate sanitation, confusing directions, impolite behaviour, opaque billing or lack of emotional support.

Traditional discussions of healthcare quality were largely concerned with technical and clinical competence, such as accurate diagnosis, correct medication, appropriate surgery and infection prevention. Contemporary healthcare management has widened this understanding by placing patient experience, patient safety, dignity, convenience, responsiveness, communication and continuity of care at the centre of quality assessment. This shift is visible in global discussions on universal health coverage and in Indian policy initiatives that emphasize quality, affordability and patient-centred care.

Patient satisfaction has emerged as one of the most widely used indicators of healthcare service performance. Satisfied patients are more likely to follow medical advice, revisit the same provider, recommend the hospital to others and maintain trust in health institutions. Dissatisfied patients may delay treatment, switch providers, spread negative word-of-mouth and question clinical advice even when the treatment is technically correct. In a mixed healthcare system such as India's, where patients frequently move between public and private facilities depending on affordability, availability, urgency and reputation, understanding the determinants of patient satisfaction has direct managerial and policy relevance.

The 2016-2026 period is particularly important for reviewing healthcare service quality. During this decade, India and other developing healthcare systems experienced rapid hospital expansion, growing private-

sector competition, greater public awareness of patient rights, the COVID-19 shock, acceleration of digital health interfaces and increasing emphasis on accreditation. The post-pandemic patient is more attentive to cleanliness, infection-control visibility, crowd management, appointment systems, teleconsultation, digital reports and transparent billing. At the same time, policy discussions increasingly focus on financial protection and quality assurance. The release of National Health Accounts Estimates 2022-23 in 2026 further underscores the continuing importance of public financing, affordability and reduced out-of-pocket burden in healthcare.

The SERVQUAL model, originally developed for measuring service quality, offers a useful lens for studying hospitals because it captures both visible and invisible aspects of service delivery. Its five dimensions - tangibility, reliability, responsiveness, assurance and empathy - allow a structured analysis of hospital infrastructure, service dependability, promptness, professional trust and human sensitivity. Although healthcare quality must never be reduced only to customer satisfaction, SERVQUAL is valuable because it converts patient perceptions into actionable areas for improvement. This paper therefore reviews recent literature through SERVQUAL while also integrating Donabedian's structure-process-outcome model, India's National Health Policy 2017 and NABH's 6th Edition hospital standards.

The present manuscript improves the earlier draft by adding a sharper research gap, a transparent PRISMA-style methodology, a visual flow diagram, a clearer justification of the 2026 review horizon, stronger integration of Indian healthcare policy and accreditation standards, and more publication-ready tables and figures. The paper is written from a commerce and management perspective, where hospitals are understood as complex service organizations that must manage people, processes, technology, cost, patient relationships and institutional reputation.

2. Conceptual and Policy Background :

Healthcare service quality refers to the extent to which healthcare delivery meets or exceeds the needs and expectations of patients while maintaining clinical safety, professional ethics and institutional accountability. In hospitals, service quality is complex because patients cannot always assess the technical correctness of diagnosis or treatment. They therefore rely on observable cues such as cleanliness, waiting time, staff behaviour, availability of doctors, information provided, billing transparency, privacy, and the confidence created by the medical team. These cues shape the patient's overall judgement of whether the hospital is caring, competent, safe and reliable.

Service quality in healthcare can be viewed through three complementary perspectives. The first is technical quality, which includes diagnostic accuracy, clinical competence, evidence-based treatment, infection control, medication safety and patient safety. The second is functional quality, which includes the manner in which care is delivered: communication, promptness, courtesy, empathy, convenience and respect. The third is environmental quality, which includes physical infrastructure, cleanliness, signage, seating, ventilation, equipment, toilets and accessibility. Patient satisfaction usually emerges from the combined effect of these perspectives.

Donabedian's structure-process-outcome model remains one of the most influential frameworks for healthcare quality assessment. Structure refers to resources, facilities, staffing, equipment and systems. Process refers to how care is delivered, including clinical and interpersonal processes. Outcome refers to health improvement, patient satisfaction, safety events, trust and utilization. SERVQUAL can be meaningfully linked with this model: tangibility reflects structure; reliability and responsiveness reflect process; assurance combines technical and interpersonal process; empathy reflects human-centred process; and patient satisfaction is an important perceived outcome.

The National Health Policy 2017 provides an Indian policy anchor for this review. Its principle of patient-centred and quality care emphasizes gender-sensitive, effective, safe and convenient services provided with dignity and confidentiality. This policy orientation moves healthcare quality beyond infrastructure alone and connects it with equity, affordability, accountability and standards. The National Health Policy therefore strengthens the relevance of SERVQUAL because the model captures several patient-facing dimensions that influence dignity, convenience and trust.

NABH Hospital Accreditation Standards, 6th Edition (2025), provide another important Indian quality lens. Accreditation standards encourage hospitals to institutionalize patient rights, access and continuity of care, assessment and care processes, infection prevention, medication safety, documentation, continuous quality improvement and responsibilities of management. These areas have strong correspondence with SERVQUAL dimensions. For example, patient rights and communication connect with assurance and empathy; infection control connects with tangibility and reliability; documentation connects with reliability; and continuous quality improvement connects with the measurement-and-monitoring logic of the proposed framework.

By combining SERVQUAL, Donabedian, NHP 2017 and NABH 6th Edition, the present paper positions healthcare service quality as both a managerial and policy concern. It argues that hospitals should not treat

patient satisfaction as a superficial public-relations score. Instead, patient satisfaction should be treated as a strategic indicator of how well the hospital translates infrastructure, processes, professional competence and human behaviour into patient-perceived value.

3. The SERVQUAL Framework in Healthcare :

The SERVQUAL model developed by Parasuraman, Zeithaml and Berry conceptualizes service quality as the gap between customer expectations and perceived performance. In healthcare, the model is widely adapted because hospitals are high-contact service organizations in which service is delivered through simultaneous interaction among doctors, nurses, technicians, support staff, administrators, patients and attendants. The five SERVQUAL dimensions are not isolated; they interact continuously across the patient journey.

Tangibility refers to the physical evidence of care. In hospitals, it includes buildings, wards, equipment, seating, registration counters, toilets, drinking water, uniforms, signage, ventilation, waste disposal and visible infection-control measures. Tangibility influences first impressions and often becomes a proxy for safety. A clean and well-organized hospital reduces anxiety, whereas poor sanitation and confusing layout create distrust.

Reliability refers to the ability to provide promised healthcare accurately and dependably. In hospitals, reliability includes correct records, consistent availability of doctors, timely reports, availability of medicines, continuity of treatment, adherence to protocols and dependable follow-up instructions. Reliability is central to patient trust because a hospital that repeatedly gives contradictory information, delays reports or fails to keep appointments appears systemically weak.

Responsiveness refers to promptness and willingness to help. Registration speed, OPD waiting time, emergency triage, speed of admission, discharge process, availability of information, complaint handling and staff readiness to guide patients are key indicators. Responsiveness is often the most emotionally visible dimension because patients experience waiting and uncertainty directly.

Assurance refers to the knowledge, courtesy, credibility and competence of healthcare personnel. Since patients may not be able to evaluate technical treatment, they depend on the confidence created by doctors, nurses and staff. Clear explanation, informed consent, privacy, billing transparency and professional conduct are important assurance indicators.

Empathy refers to caring, individualized attention and emotional support. In healthcare, empathy is not merely politeness; it is part of humane care. Patients who feel heard and respected are more likely to trust the hospital, even when the system is busy. Empathy is especially important for

elderly patients, women, children, rural patients, poor patients, differently abled persons and those with chronic or terminal conditions.

4. Review of Literature :

The literature on healthcare service quality can be grouped into five broad streams. The first stream consists of foundational service quality models such as SERVQUAL, SERVPERF and Donabedian's structure-process-outcome approach. These studies provide the conceptual vocabulary for understanding service expectations, perceived performance, quality gaps and patient outcomes. The second stream examines patient satisfaction as an outcome of service experience, focusing on waiting time, cleanliness, communication, nursing care, doctor-patient interaction, cost, trust and perceived value.

The third stream compares public and private hospitals. Studies in developing-country contexts generally indicate that private hospitals score better on physical environment, convenience and front-office responsiveness, while public hospitals remain critical because of affordability, specialist availability and social reach. However, public hospitals often face high patient load, maintenance gaps, medicine stock-outs and administrative delays. Private hospitals may create dissatisfaction when patients perceive high cost, unnecessary investigations, billing opacity or commercialization.

The fourth stream focuses on post-pandemic quality expectations. COVID-19 made patients more conscious of infection control, crowding, sanitization, ventilation, queue management and remote or digital touchpoints. In this context, tangible quality now includes visible safety practices, and responsiveness includes the ability to communicate quickly through digital systems. The fifth stream relates to accreditation, quality assurance and patient rights. Accreditation frameworks encourage hospitals to standardize processes, monitor safety, document care, inform patients and create systems for continuous improvement.

Recent work also suggests that healthcare service quality models need contextual adaptation. Ali et al. (2024), for example, argue for incorporating healthcare-specific dimensions such as patient safety and medical professionalism into broader service quality models. Similarly, recent SERVQUAL applications in hospital contexts show that the model remains useful but should be interpreted alongside clinical quality, safety and ethical dimensions. This supports the present paper's decision to retain the five SERVQUAL dimensions while integrating them with Donabedian, NHP and NABH perspectives.

Indian studies and South Asian evidence repeatedly highlight the importance of communication, waiting time, trust and affordability. Patients value clean facilities and modern equipment, but their overall satisfaction is

often influenced more strongly by whether staff explain procedures, guide attendants, provide timely reports, respect privacy and treat patients with dignity. The literature therefore supports a multidimensional model in which patient satisfaction emerges from physical, process, interpersonal, ethical and financial experiences.

5. Research Gap and Contribution of the Study :

Although the literature on healthcare service quality is extensive, several gaps remain. First, many empirical studies are limited to a single hospital, department or city; they generate useful local findings but do not provide an integrated view of service quality dimensions across the broader healthcare system. Second, older frameworks often focus on generic service quality and do not sufficiently incorporate the post-pandemic importance of infection-control visibility, digital contact points, patient rights, billing transparency and safety culture. Third, public-private differences are often described generally but not systematically mapped to SERVQUAL dimensions.

Fourth, many studies discuss patient satisfaction without clearly connecting it to Indian policy and accreditation developments. This omission weakens the managerial usefulness of the literature because hospitals in India operate within a policy environment shaped by the National Health Policy 2017, public health financing concerns, NABH standards and rising expectations of accountability. Fifth, the emotional and ethical dimensions of healthcare are often underdeveloped. Empathy, dignity, informed consent, privacy, language support and trust are central to patient satisfaction, but they are sometimes treated as soft or secondary factors.

The present study addresses these gaps in four ways. First, it synthesizes literature from 2016-2026, thereby covering pre-pandemic, pandemic and post-pandemic service quality expectations. Second, it uses SERVQUAL as a common analytical lens while linking it with Donabedian's structure-process-outcome model. Third, it explicitly integrates India's National Health Policy 2017 and NABH Hospital Accreditation Standards, 6th Edition (2025), thereby connecting academic literature with policy and accreditation practice. Fourth, it proposes a patient-centric improvement framework that hospital administrators can use to convert patient feedback into measurable service improvement.

The paper's contribution is therefore both academic and practical. Academically, it updates SERVQUAL-based healthcare service quality synthesis for the Indian context. Practically, it helps hospital managers identify where patient dissatisfaction originates: physical environment, process failure, poor communication, delayed response, lack of assurance, weak empathy or financial opacity. This creates a stronger foundation for continuous quality

improvement.

6. Objectives and Research Questions :

The study is guided by the following objectives:

- To examine the concept and dimensions of healthcare service quality using the SERVQUAL framework.
- To identify major service quality factors influencing patient satisfaction during 2016-2026.
- To analyse how SERVQUAL dimensions operate differently in public and private healthcare settings.
- To integrate SERVQUAL with Donabedian, National Health Policy 2017 and NABH 6th Edition perspectives.
- To develop a patient-centric improvement framework for hospital administrators and policymakers.

The review addresses the following research questions :

1. Which SERVQUAL dimensions most frequently influence patient satisfaction in healthcare settings?
2. How do service quality gaps differ between public and private hospitals?
3. How have post-pandemic and digital expectations changed the meaning of healthcare service quality?
4. How can hospitals use patient feedback and quality standards to improve service delivery continuously?

7. Research Methodology :

This study adopts a systematic literature review design. A systematic review is appropriate when the objective is to identify, evaluate and synthesize existing knowledge on a clearly defined topic. Unlike a general narrative review, a systematic review follows explicit criteria for searching, screening, including and analysing literature. The review was guided by PRISMA 2020 reporting principles, which recommend transparent reporting of study identification, screening, eligibility and inclusion.

The unit of analysis in this paper is not an individual patient but a research study, review, policy document or accreditation-related report relevant to healthcare service quality and patient satisfaction. Because the included studies vary in setting, sample size, methodology and measurement scale, a statistical meta-analysis was not attempted. Instead, the paper uses thematic synthesis organized around the five SERVQUAL dimensions and then compares implications for public and private healthcare settings.

The review period was 2016-2026. The start year was selected to capture recent service quality research during the decade before this manuscript. The end year of 2026 is justified because the manuscript was prepared in June 2026 and therefore includes literature and official documents

available up to the search cut-off. Foundational pre-2016 works such as Donabedian, Parasuraman et al., Babakus and Mangold, and Cronin and Taylor were retained only for conceptual background.

7.1 Data Sources and Search Strategy :

Relevant literature was identified from Scopus, Web of Science, PubMed, Google Scholar and selected institutional sources including the World Health Organization, Ministry of Health and Family Welfare, National Health Systems Resource Centre and NABH. Search terms were combined with Boolean operators. The search focused on healthcare service quality, patient satisfaction, SERVQUAL, patient experience, public-private hospital comparison, digital health service quality, accreditation and quality of care.

Google Scholar results were limited to the first 200 ranked records because later records showed declining relevance. Institutional documents were included when they provided policy, financing, quality or accreditation context. Records were imported into a screening sheet and examined in stages: title screening, abstract screening, duplicate removal, full-text eligibility assessment and final inclusion.

Table 1. Illustrative search strategy used for the systematic review

Search focus	Illustrative search string
Core SERVQUAL search	"SERVQUAL" AND "healthcare service quality" AND "patient satisfaction"
India-specific search	"hospital service quality" AND "patient satisfaction" AND India
Public-private comparison	"public hospital" AND "private hospital" AND "service quality" AND "patient satisfaction"
Post-pandemic expectations	"COVID-19" AND "patient satisfaction" AND "hospital service quality"
Digital patient experience	"digital health" OR "internet hospital" AND "service quality" AND "patient satisfaction"
Policy/accreditation	"quality of care" AND India AND hospital AND accreditation

7.2 Inclusion and Exclusion Criteria

Table 2. Inclusion and exclusion criteria

Criteria	Inclusion	Exclusion
Publication period	Studies from 2016-2026; foundational older works retained for conceptual background.	Outdated empirical studies not relevant to current healthcare service quality context.
Language	English-language publications and official English policy/accreditation documents.	Non-English documents excluded due to interpretation constraints.
Subject relevance	Healthcare service quality, patient satisfaction, patient experience, SERVQUAL, quality of care, accreditation.	Studies unrelated to healthcare service delivery or patient satisfaction.
Document type	Peer-reviewed articles, systematic reviews, policy reports, institutional reports and accreditation standards.	Opinion pieces without clear evidence base or methodological transparency.
Setting	Hospitals, OPD/IPD settings, public/private healthcare institutions, internet/digital healthcare interfaces.	Pure laboratory science or clinical efficacy studies without service quality relevance.

7.3 PRISMA Flow and Study Selection :

The search and selection process is summarized in Figure 1. A total of 642 records were identified from databases and institutional sources. After duplicate removal, 516 records were screened by title and abstract. Reports were excluded when they were unrelated to healthcare service delivery, did not examine patient satisfaction or patient experience, lacked a service quality lens, were outside the review period without foundational relevance, or had unclear evidence. Finally, 29 studies and reports were included for thematic synthesis.

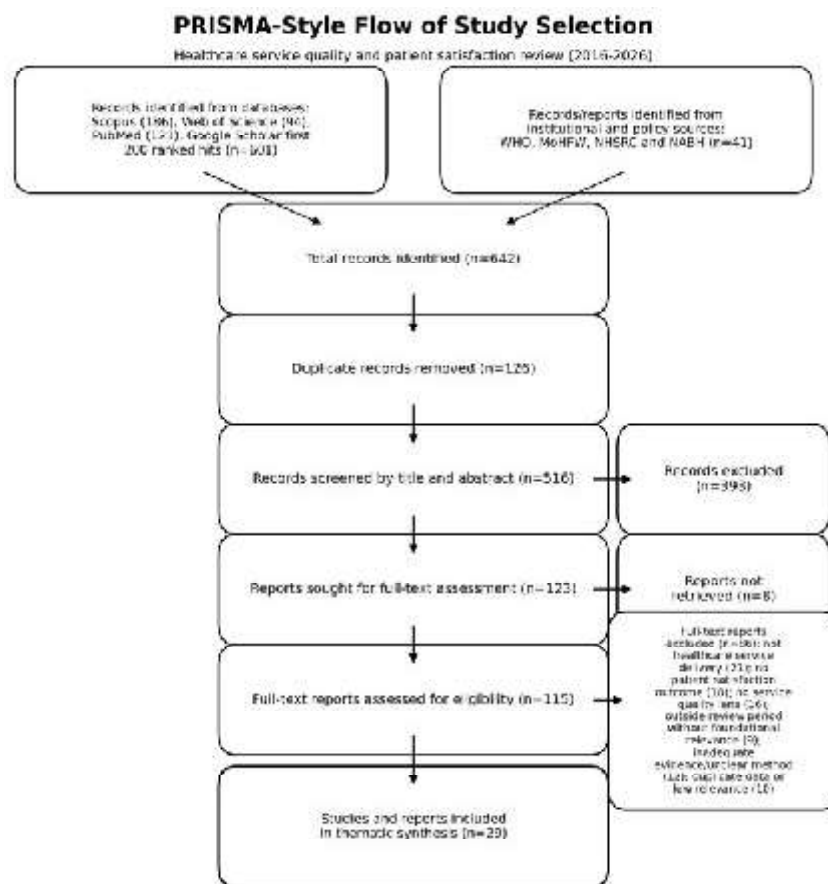


Figure 1. PRISMA-style flow diagram for the selection of literature.

7.4 Data Extraction and Quality Appraisal :

Data were extracted using a structured format covering author/ year, country or region, setting, sample or document type, method, measurement scale, major findings, reported service gaps and managerial implications. The quality appraisal was narrative rather than numerical.

Greater interpretive weight was given to studies with clear objectives, transparent methodology, relevant measurement tools, adequate reporting and applicability to healthcare service management.

The synthesis recognizes that patient satisfaction research is sensitive to cultural expectations, disease severity, literacy, socio-economic status and hospital type. A satisfaction score from one hospital cannot be automatically generalized to another. Therefore, the review emphasizes recurring patterns and practical implications rather than ranking studies mechanically.

7.5 Integrated Analytical Framework :

The analytical framework used in this paper connects SERVQUAL with Donabedian's quality model and Indian policy/accreditation priorities. It treats tangibility largely as structure, reliability and responsiveness as process, assurance and empathy as interpersonal and ethical process, and patient satisfaction as an outcome. NHP 2017 and NABH 6th Edition provide Indian anchors for quality, safety, dignity, confidentiality, accountability and continuous improvement.

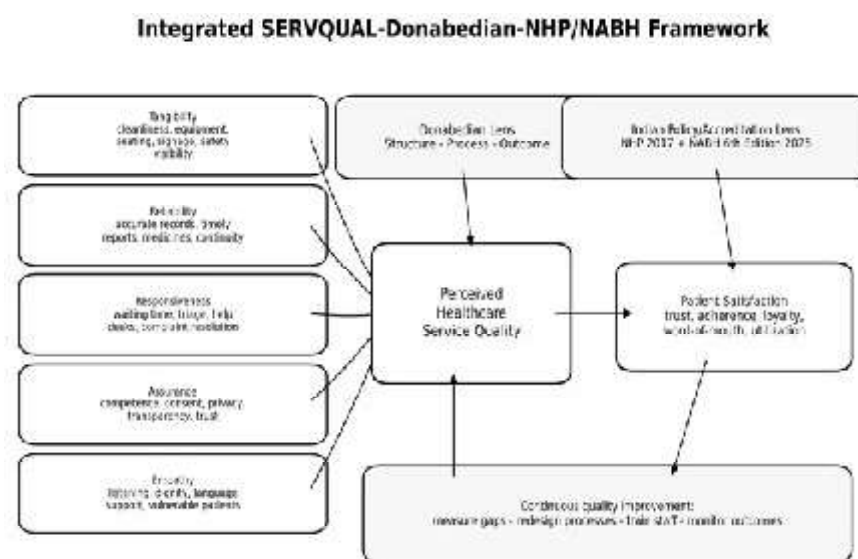


Figure 2. Integrated SERVQUAL-Donabedian-NHP/NABH framework linking service quality with patient satisfaction.

Table 3. Mapping SERVQUAL dimensions with healthcare indicators and policy/accreditation relevance.

SERVQUAL dimension	Meaning in healthcare	Illustrative hospital indicators	Policy/accreditation linkage
Tangibility	Physical evidence of care.	Clean wards, toilets, equipment, seating, signage, infection-control visibility.	Structure; safe and convenient care; facility standards.
Reliability	Dependable and accurate service delivery.	Timely reports, medicine availability, correct records, continuity, follow-up.	Process; reliability; documentation; continuity of care.
Responsiveness	Promptness and willingness to help.	Registration time, OPD waiting, triage, discharge, complaint resolution.	Access, patient flow, grievance redressal.
Assurance	Competence, courtesy and credibility.	Doctor explanation, consent, privacy, billing transparency, professional conduct.	Patient rights, confidentiality, professional ethics.
Empathy	Individual attention and humane care.	Listening, dignity, vulnerable patient support, language assistance, attendant guidance.	Patient-centred care, equity and dignity.

8. Findings and Thematic Discussion :

The thematic synthesis indicates that patient satisfaction in healthcare is not determined by a single dimension. It is produced by the interaction of physical evidence, dependability, promptness, professional credibility and human sensitivity. A hospital may perform strongly in one area but still receive poor patient evaluations if another dimension fails at a critical moment. For example, modern equipment may not compensate for rude behaviour, and empathetic staff may not compensate for repeated diagnostic delays or unsafe procedures.

The findings are discussed under the five SERVQUAL dimensions.

8.1 Tangibility: Physical Evidence, Cleanliness and Safety Visibility :

Tangibility influences the patient's first impression of safety and competence. The reviewed literature shows that cleanliness, toilets, seating, ventilation, equipment, staff appearance, signage and waiting-area organization affect perceived quality even before the patient meets the doctor. In post-pandemic healthcare, tangibility also includes visible safety: hand hygiene stations, infection-control signage, use of protective equipment, biomedical waste segregation and crowd management.

Private hospitals generally score better on tangibility because they invest in ambience, technology, front-office design and patient amenities. However, tangible quality should not be reduced to luxury. In public hospitals, basic improvements such as clean toilets, functional fans, drinking water, clear direction boards, token systems, seating for attendants and visible housekeeping schedules can significantly improve patient perception. The key managerial lesson is that tangibility is as much about maintenance discipline as capital expenditure.

8.2 Reliability: Dependability of Clinical and Administrative Processes :

Reliability is one of the strongest predictors of trust in healthcare. Patients expect hospitals to deliver promised services consistently: doctors should be available as scheduled, reports should be issued on time, medicines should be available, records should be accurate and follow-up instructions should be clear. Reliability gaps arise when patients receive contradictory information, test reports are delayed, prescriptions are unclear or required services are unavailable.

Public hospitals may have experienced specialists and teaching-hospital strengths, but reliability is weakened when medicine supply, patient records or administrative coordination are inconsistent. Private hospitals often provide more predictable appointments and diagnostic turnaround, but reliability may be questioned when patients suspect unnecessary tests, inconsistent estimates or opaque billing. Therefore, reliability requires both technical process control and transparent communication.

8.3 Responsiveness: Waiting Time, Patient Flow and Service Recovery :

Responsiveness is the dimension most directly felt by patients because delay produces anxiety and anger. Long queues at registration, OPD consultation, diagnostics, pharmacy, billing and discharge repeatedly appear in the literature as major causes of dissatisfaction. In emergency care, delayed response can be interpreted as negligence. Even in routine OPD care, unexplained waiting reduces perceived dignity.

Hospitals can improve responsiveness through appointment slots, triage counters, digital queue displays, help desks, additional registration windows during peak hours, separate counters for elderly and disabled patients, SMS alerts, faster discharge documentation and trained service recovery staff. Responsiveness is not only about reducing time; it is also about making unavoidable waiting predictable, transparent and respectful.

8.4 Assurance: Competence, Communication, Ethics and Trust :

Assurance is central in healthcare because patients often cannot independently judge technical clinical decisions. They rely on the confidence created by doctors, nurses, technicians and administrators. Clear explanation of diagnosis, treatment options, risks, medication, cost and follow-up strengthens assurance. Privacy, informed consent and professional conduct further build trust.

Assurance also has an ethical and financial dimension. In private hospitals, patients may worry about overcharging or unnecessary investigations. In public hospitals, patients may worry about neglect due to workload. Both sectors need transparent billing, clear consent procedures,

patient-rights display, grievance mechanisms and communication training. Assurance improves when hospitals behave predictably, ethically and respectfully.

8.5 Empathy: Dignity, Listening and Individualized Attention :

Empathy differentiates a technically adequate hospital from a humane hospital. Patients and attendants often experience fear, financial stress and uncertainty. A kind explanation, patient listening, guidance for the next step and sensitivity to vulnerable groups can significantly improve satisfaction. Literature consistently shows that patients remember how they were treated, not only what treatment they received.

Empathy should not depend only on individual personality. It should be institutionalized through training, patient counsellor roles, language-sensitive communication, priority support for elderly and disabled patients, attendant guidance and monitoring of behaviour-related complaints. In public hospitals, empathy may be constrained by patient load, but help desks and structured communication can reduce perceived neglect. In private hospitals, personalized attention may be stronger, but commercial atmosphere can weaken warmth if transparency and human care are not maintained.

9. Cross-Cutting Determinants of Patient Satisfaction :

9.1 Waiting Time and Queue Management :

Waiting time cuts across responsiveness, reliability and empathy. Patients may accept waiting when the reason is explained, token numbers are clear and queues are managed fairly. Dissatisfaction increases when waiting appears chaotic, unfair or disrespectful. Hospitals should measure registration waiting time, consultation waiting time, diagnostic turnaround time, pharmacy waiting time, admission time and discharge time separately.

9.2 Communication and Health Literacy :

Communication is a decisive determinant of satisfaction. Many complaints arise not because treatment was wrong, but because patients did not understand what was happening. Doctors and nurses should explain diagnosis, tests, medication, risks, cost and discharge advice in simple language. In India, language diversity and differences in health literacy make communication a core quality function rather than an optional courtesy.

9.3 Cleanliness, Infection Control and Safety :

Cleanliness is both a tangible cue and a safety signal. Patients infer safety through visible behaviours: clean toilets, labelled medicines, hand hygiene, proper waste disposal, sterilized instruments, organized wards and infection-control signs. After COVID-19, safety visibility has become part of patient confidence. Regular cleaning audits and infection-control monitoring should therefore be part of patient experience management.

9.4 Cost Transparency and Billing Experience :

Cost is not an original SERVQUAL dimension, but in healthcare it strongly influences satisfaction and trust. Private hospitals should provide written estimates, explain package exclusions, guide insurance documentation and handle billing grievances transparently. Public hospitals should display information about free medicines, government schemes and patient entitlements. Financial clarity is a major component of patient-centric care.

9.5 Digital Health and Feedback Mechanisms :

Digital systems can improve reliability and responsiveness through online appointments, electronic records, digital reports, SMS reminders, teleconsultation, QR-based feedback and complaint tracking. However, digitalization must not exclude elderly, poor or digitally inexperienced patients. The most suitable model in many Indian settings is hybrid: digital systems supported by human help desks.

10. Public versus Private Healthcare : Comparative Analysis

The public-private comparison is important because patient expectations, resource constraints and trust issues differ across hospital types. Public hospitals usually serve a larger and more socio-economically diverse population, including low-income groups, emergency cases and referral patients. Their strengths include affordability, availability of senior specialists in teaching hospitals and access to government schemes. Their weaknesses often include overcrowding, waiting time, sanitation problems, administrative complexity and staff shortage.

Private hospitals often offer better ambience, more convenient processes, shorter waiting time, dedicated front-office support and more responsive patient relationship management. However, private hospitals may face trust deficits when patients perceive high cost, unnecessary tests, unclear billing or excessive commercialization. Thus, private hospitals must focus on assurance, ethics and transparency, while public hospitals must focus on responsiveness, basic tangibility and patient guidance without weakening affordability.

Neither public nor private hospitals automatically guarantee patient satisfaction. Satisfaction depends on how well a hospital meets the expectations and constraints of its patient segment. A low-income patient may value affordability and specialist access more than luxury ambience, while a middle-class urban patient may value convenience, time-saving, transparency and comfort. Therefore, service quality strategies must be context-specific.

Table 4. SERVQUAL-based comparison of public and private healthcare patterns

Dimension	Public healthcare pattern	Private healthcare pattern	Suggested priority
Tangibility	Often constrained by crowding and maintenance gaps; basic amenities vary.	Generally stronger infrastructure and amenities.	Public: sanitation, signage, seating. Private: safety, visibility and maintenance.
Reliability	Specialist trust may be high but medicines, records and administrative systems may be inconsistent.	Appointments and diagnostics more predictable; trust may decline if over-treatment is suspected.	Strengthen SOPs, records, medicine availability and transparent explanations.
Responsiveness	Frequently weak due to high patient load and queues.	Usually stronger through front desk systems, but peak-time delays remain.	Queue systems, triage, help desks and discharge simplification.
Assurance	Government reputation and senior doctors create trust; communication limited by workload.	Professional communication may be better; assurance depends on ethical conduct and billing clarity.	Patient rights, consent, privacy and billing transparency.
Empathy	High load may reduce personal attention.	Personalized attention possible, but commercial atmosphere may reduce perceived warmth.	Communication training, vulnerable-patient support and behaviour monitoring.

11. Proposed SERVQUAL-Based Improvement Framework :

Based on the review, a patient-centric service quality improvement cycle is proposed. The cycle begins with measurement of SERVQUAL gaps, operational indicators and patient complaints. The second step is analysis of high-impact service failure points such as OPD waiting, rude behaviour, delayed reports, unclear billing or lack of cleanliness. The third step is improvement through process redesign, staffing, training, digital tools, infrastructure maintenance and accountability. The fourth step is monitoring through dashboards, feedback loops, patient-reported experience measures and periodic audits.

This framework is cyclical rather than one-time. Healthcare service quality cannot be improved through occasional inspections or isolated training programmes. It requires continuous measurement, regular departmental review, corrective action, patient communication and management accountability. Public hospitals may initially prioritize crowd management, cleanliness, help desks and medicine availability. Private hospitals may prioritize transparency, ethical communication, patient relationship management and trust-building.

Patient-Centric Service Quality Improvement Cycle

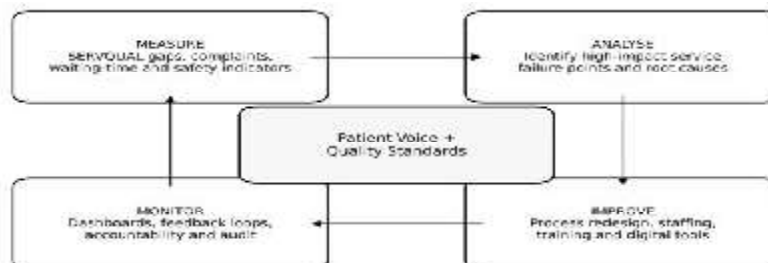


Figure 3. Patient-centric SERVQUAL-based service quality improvement cycle.

Table 5. SERVQUAL-based managerial interventions and monitoring indicators

Dimension	Suggested intervention	Possible monitoring indicator
Tangibility	Cleanliness audit, toilet maintenance, signage, seating, drinking water, infection-control visibility, equipment maintenance.	Cleanliness score, complaints on toilets, waiting-area crowding, equipment downtime.
Reliability	SOPs, medicine inventory system, diagnostic turnaround targets, appointment discipline, electronic records.	Report turnaround time, medicine stock-outs, missed appointments, repeat complaints.
Responsiveness	Token system, triage desk, help desk, extra counters during peak hours, discharge simplification.	Registration time, consultation waiting time, discharge time, emergency response time.
Assurance	Communication training, patient-rights display, consent protocols, transparent billing, explanation checklist.	Communication score, consent compliance, billing complaints, grievance resolution time.
Empathy	Staff sensitization, counselling, vulnerable-patient priority support, language assistance, attendant guidance.	Behaviour-related complaints, empathy score, vulnerable-group satisfaction.

12. Managerial Implications :

The findings have important implications for hospital administrators. First, patient satisfaction should be measured systematically rather than informally. Compliments and complaints do not represent the full patient experience. A structured SERVQUAL-based survey can identify which dimensions require urgent attention and which departments generate repeated dissatisfaction.

Second, hospitals should recognize that service quality is cross-functional. Registration, nursing, diagnostics, pharmacy, housekeeping, security, billing, doctors and administrators all contribute to patient satisfaction. A patient may judge the entire hospital negatively because of a single weak touchpoint. Therefore, service quality should be owned by senior management and monitored department-wise.

Third, staff training should include soft skills, communication, conflict handling, empathy and ethical conduct. Technical competence is necessary but not sufficient. Front-desk employees, nurses and support staff often interact with patients more frequently than senior doctors; their behaviour can strongly influence satisfaction.

Fourth, hospitals need service recovery mechanisms. Mistakes, delays and dissatisfaction cannot be eliminated completely, but they can be managed. When staff apologize, explain the reason, correct the issue and communicate next steps, dissatisfaction can be reduced. Silence, denial and rude behaviour worsen complaints.

Fifth, administrators should use dashboards. Waiting time, complaint categories, infection-control indicators, patient feedback scores, billing grievances and discharge delays should be reviewed periodically. General hospital-level satisfaction scores can hide department-specific problems; therefore, data should be analysed by service touchpoint.

13. Policy Implications :

At the policy level, the review highlights the need to strengthen healthcare infrastructure and service processes simultaneously. Increasing beds, equipment and buildings is important, but patient satisfaction will remain low if registration, waiting time, medicine availability, communication and grievance redressal remain weak. Public hospitals particularly need patient-flow redesign, adequate support staff, maintenance systems and feedback mechanisms.

Patient satisfaction audits should be institutionalized in public healthcare facilities. These audits should not be limited to numerical scores. They should identify specific gaps in tangibility, reliability, responsiveness, assurance and empathy. Results should be used for quality improvement rather than only ranking or blame. Public reporting of selected service indicators may also strengthen accountability.

Accreditation and quality assurance programmes should be made more accessible to smaller hospitals, charitable institutions and district-level facilities. Not every facility may immediately achieve full accreditation, but all can adopt essential quality standards related to cleanliness, patient rights, infection control, emergency response, complaint handling and documentation. A graded quality approach can improve care across the healthcare system.

Policy should also encourage digital feedback systems while protecting inclusion. Online appointments, digital reports and QR feedback can improve efficiency, but elderly and low-income patients may need human support. Technology should be used to improve dignity and access, not to create new barriers.

14. Limitations of the Study :

This study is based on secondary literature and does not use primary patient survey data. Therefore, it cannot statistically estimate the exact strength of each SERVQUAL dimension in a particular hospital. The findings are thematic and should be interpreted as synthesized insights rather than empirical coefficients. The selected studies differ in setting, sample size, patient profile, scale and healthcare system context.

The review follows PRISMA-style reporting principles, but the protocol was not registered in advance. Some recent studies may not have been indexed at the time of search, and grey literature may not be fully represented. Google Scholar search results were limited to the first 200

ranked records due to relevance and manageability. Future researchers may update the review by using database-export search logs, citation tracking and registered protocols.

15. Future Research Directions :

Future studies may extend this review in several directions. First, empirical research should test the proposed framework using primary data from outpatients and inpatients separately, because their expectations and touchpoints differ. Second, comparative studies can examine district hospitals, medical colleges, private nursing homes, charitable hospitals and corporate hospitals to identify institution-specific service gaps.

Third, future models may include mediating or moderating variables such as trust, perceived value, emotional satisfaction, patient loyalty, health literacy, age, income, severity of illness and insurance status. Fourth, digital patient experience should be studied as a distinct extension of SERVQUAL because online appointments, hospital apps, teleconsultation, digital reports and automated feedback are increasingly shaping satisfaction.

Fifth, future research should focus on vulnerable groups such as elderly patients, women, rural patients, poor patients, disabled patients and those with chronic diseases. Their satisfaction may depend more strongly on empathy, affordability, guidance, accessibility and language support. Finally, researchers should integrate clinical quality indicators with patient experience data so that hospital quality is assessed through safety, effectiveness, responsiveness, dignity and patient perception together.

16. Conclusion :

This systematic literature review concludes that healthcare service quality is a multidimensional construct shaped by both tangible and intangible factors. Clinical effectiveness remains essential, but patient satisfaction is strongly influenced by waiting time, communication, cleanliness, process reliability, staff courtesy, empathy, privacy, cost transparency and trust. The SERVQUAL framework provides a practical and academically useful structure for analysing these dimensions.

The review shows that private hospitals often perform better in tangible facilities and service convenience, while public hospitals remain indispensable because of affordability, specialist access and social reach. Public hospitals need improvement in responsiveness, crowd management, sanitation, patient guidance and process reliability. Private hospitals need stronger emphasis on transparency, ethical communication, billing clarity and trust-building. In both sectors, assurance and empathy are decisive because patients remember how they were treated, not only what treatment they received.

The paper argues that patient satisfaction should be treated as a strategic management indicator in healthcare. Hospitals should not wait for complaints to identify service gaps. They should proactively measure patient perceptions, diagnose weak dimensions and implement continuous improvement. A SERVQUAL-based improvement cycle supported by digital feedback, staff training, patient-rights compliance, quality standards and managerial accountability can help hospitals provide more patient-centric care. In the Indian healthcare context, integrating SERVQUAL with Donabedian, NHP 2017 and NABH 6th Edition creates a stronger foundation for humane, reliable and accountable healthcare delivery.

Declarations :

Funding: No external funding was received for this review.

Conflict of Interest: The authors declare no conflict of interest.

Ethical Consideration: The study is based on secondary literature and does not involve human participants or patient-level primary data.

Data Availability: The data used in this review are derived from published literature, policy reports and publicly available institutional documents.

Author Contribution: The research scholar contributed to literature search and synthesis. The corresponding author contributed to conceptual framing, academic supervision, manuscript refinement and final approval.

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The Role Of CEO Qualities in Strategic Decision-Making and Investor Confidence: An Empirical Study From Bengaluru-Based IT Firms

Dr. Mary Josephine M

Abstract

The modern corporate environment increasingly recognizes the Chief Executive Officer (CEO) as a strategic leader whose personal and professional qualities significantly influence organizational outcomes and investor perceptions. Particularly in the Information Technology (IT) sector, where innovation, strategic adaptability, and market responsiveness are essential, CEO characteristics play a critical role in shaping strategic decisions and strengthening investor confidence. The present study examines the role of CEO qualities in strategic decision-making and investor confidence among selected Bengaluru-based multinational IT firms. The study is grounded in Agency Theory and Upper Echelon Theory, which explain how executive characteristics influence organizational behavior, governance quality, and market-related outcomes. The research adopts a descriptive and analytical research design using primary data collected from 384 investors and stock brokers in Bengaluru through a structured Likert-scale questionnaire. The study examines major CEO qualities including age, tenure, educational background, professional experience, and remuneration, and analyzes their influence on strategic decision-making and investor confidence. Statistical tools such as Cronbach's Alpha, Exploratory Factor Analysis, regression analysis, and Sobel mediation analysis were used for empirical validation. The findings reveal that CEO qualities significantly influence strategic decision-making processes within IT firms. Further, strategic decisions positively affect investor confidence by improving perceptions regarding leadership credibility, organizational stability, innovation orientation, and future growth prospects. The mediation analysis confirms that strategic decision-making partially mediates the relationship between CEO qualities and investor confidence. The study concludes that experienced, well-qualified, and strategically oriented CEOs contribute substantially to strengthening investor trust and enhancing organizational reputation in the Indian IT sector.

The study contributes to the growing literature on strategic leadership and corporate governance by providing empirical evidence from the Indian IT industry. It also offers practical implications for boards, investors, and policymakers regarding CEO selection,

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Keywords: CEO Qualities, Corporate Governance, Investor Confidence, IT Sector, Strategic Decision-Making.

Introduction :

The Chief Executive Officer (CEO) plays a significant role in shaping organizational strategy, governance, and overall performance. In the Information Technology (IT) sector, CEOs are expected to possess qualities such as leadership competence, strategic vision, professional expertise, and technological adaptability, which significantly influence organizational decision-making and long-term sustainability. The Indian IT industry, particularly Bengaluru-based multinational firms such as Infosys, Wipro, HCL Technologies, Tech Mahindra, Tata Elxsi, Sonata Software, and Mphasis, operates in a highly competitive and innovation-driven environment where strategic leadership is essential for organizational success. In this context, investor confidence is closely associated with leadership credibility and strategic decision-making, as investors often evaluate CEO qualities while assessing organizational growth potential and market stability. Previous studies have highlighted that CEO characteristics significantly influence organizational performance and investor perception. Pham (2023) observed that CEO age and leadership structure positively affect strategic decision quality and organizational performance, while Rahman and Chen (2022) emphasized the importance of CEO tenure and experience in enhancing investor trust. Ghardallou, Borgi, and Alkhalifah (2020) found that higher educational qualifications and professional experience positively influence corporate performance and market valuation. Similarly, Yi, Chen, and He (2021) reported that leadership behavior significantly improves strategic decision comprehensiveness and organizational effectiveness. Despite extensive international research, limited studies have examined the relationship between CEO qualities, strategic decision-making, and investor confidence within the Indian IT sector. Therefore, the present study seeks to examine the role of CEO qualities in strategic decision-making and investor confidence among selected Bengaluru-based IT firms.

Objectives Of The Study :

1. To examine the influence of CEO qualities on strategic decision-making in Bengaluru-based IT firms.
2. To analyze the impact of strategic decision-making on investor confidence.
3. To study the relationship between CEO qualities and investor confidence.
4. To examine the mediating role of strategic decision-making between CEO qualities and investor confidence.

Research Methodology :

The study adopts a descriptive and analytical research design using both primary and secondary data sources. Primary data were collected from 384 investors and stock brokers in Bengaluru through a structured five-point Likert scale questionnaire. The study focused on selected Bengaluru-based multinational IT firms such as Infosys, Wipro, HCL Technologies, Tech Mahindra, Oracle, Tata Elxsi, Sonata Software, and Mphasis. CEO qualities including age, tenure, experience, education, and remuneration were considered as independent variables, while strategic decision-making acted as the mediating variable and investor confidence as the dependent variable. Statistical tools such as Cronbach's Alpha, Exploratory Factor Analysis, Regression Analysis, and Sobel Test were used for data analysis and hypothesis testing.

Results And Discussion :

Reliability And Validity Analysis :

Table 1: Reliability and Validity Statistics

Constructs	Cronbach's Alpha
CEO Qualities	0.872
Strategic Decision-Making	0.846
Investor Confidence	0.891
Overall Instrument	0.884

KMO and Bartlett's Test

Test	Value
KMO Measure	0.861
Bartlett's Test (Sig.)	0.000

The reliability analysis confirmed strong internal consistency among all study constructs, as the Cronbach's Alpha values exceeded the acceptable threshold of 0.70. The overall reliability coefficient of 0.884 indicates that the questionnaire instrument was highly reliable in measuring CEO qualities, strategic decision-making, and investor confidence. Further, the Kaiser-Meyer-Olkin (KMO) value of 0.861 demonstrated excellent sampling adequacy, while Bartlett's Test of Sphericity was statistically significant at the 1 percent level, confirming the suitability of the data for factor analysis and validating the conceptual framework of the study.

Correlation Analysis :

Table 2: Correlation Matrix

Variables	CEO Qualities	Strategic Decision-Making	Investor Confidence
CEO Qualities	1		
Strategic Decision-Making	0.712**	1	
Investor Confidence	0.684**	0.758**	1

Note: Significant at 1% level

Source: Primary Data

The correlation analysis revealed a strong positive relationship between CEO qualities and strategic decision-making ($r = 0.712$), indicating that CEOs possessing greater leadership competence, professional experience, and educational qualifications significantly influence organizational strategic actions. Similarly, strategic decision-making exhibited a strong positive association with investor confidence ($r = 0.758$), suggesting that investors respond positively to effective strategic initiatives such as innovation, governance reforms, digital transformation, and organizational expansion. The positive correlation between CEO qualities and investor confidence further indicates that leadership credibility significantly shapes market perception and stakeholder trust.

Regression Analysis :

Table 3: Impact of CEO Qualities on Strategic Decision-Making

Variables	Beta Coefficient	t-value	Sig.
Constant	1.214	4.128	0.000
CEO Qualities	0.684	12.517	0.000

Model Summary	Value
R	0.712
R ²	0.507
Adjusted R ²	0.503
F-value	156.684
Significance	0.000

Source: Primary Data

The regression results revealed that CEO qualities significantly influence strategic decision-making in Bengaluru-based IT firms. The beta coefficient ($\beta = 0.684$) indicates a strong positive influence of CEO characteristics on organizational strategic actions. The model explained 50.7 percent of the variation in strategic decision-making ($R^2 = 0.507$), and the model was statistically significant at the 1 percent level. The findings suggest that CEOs possessing strong professional expertise, educational background, strategic vision, and leadership competence contribute positively toward effective organizational decision-making and strategic adaptability.

Table 4: Impact of Strategic Decision-Making on Investor Confidence

Variables	Beta Coefficient	t-value	Sig.
Constant	1.086	3.964	0.000
Strategic Decision-Making	0.731	14.285	0.000

Model Summary	Value
R	0.758
R ²	0.575
Adjusted R ²	0.571
F-value	204.062
Significance	0.000

Source: Primary Data

The findings demonstrate that strategic decision-making significantly influences investor confidence. The beta coefficient ($\beta = 0.731$) indicates that effective strategic decisions strongly enhance investor trust and market confidence. The model explained 57.5 percent of the variation in investor confidence, indicating that investors positively evaluate firms implementing innovation-oriented, transparent, and growth-focused strategies. Strategic decisions relating to digital transformation, governance reforms, mergers and acquisitions, and technological advancement were found to strengthen organizational credibility and investor perception.

Table 5: Impact of CEO Qualities on Investor Confidence

Variables	Beta Coefficient	t-value	Sig.
Constant	1.145	4.011	0.000
CEO Qualities	0.652	11.846	0.000

Model Summary	Value
R	0.684
R ²	0.468
Adjusted R ²	0.464
F-value	140.327
Significance	0.000

Source: Primary Data

The analysis confirmed that CEO qualities significantly affect investor confidence. The positive beta coefficient ($\beta = 0.652$) indicates that investors perceive experienced, strategically competent, and professionally qualified CEOs as credible leaders capable of ensuring organizational growth, governance quality, and market stability. The findings reinforce the importance of executive leadership in enhancing investor trust, organizational reputation, and long-term sustainability within the Indian IT sector.

Mediation Analysis :

Table 6: Sobel Test for Mediation Effect

Variables	Sobel Test Statistic	p-value
CEO Qualities → Strategic Decision-Making → Investor Confidence	5.984	0.000

Source: Primary Data

The Sobel Test result was statistically significant, confirming that strategic decision-making partially mediates the relationship between CEO qualities and investor confidence. This indicates that CEO qualities indirectly enhance investor confidence through effective strategic actions and organizational decisions. The findings support Upper Echelon Theory, which explains that executive characteristics influence organizational outcomes through strategic behavior and decision-making effectiveness. Overall, the study establishes that leadership quality remains a critical determinant of strategic direction, organizational credibility, and investor confidence in Bengaluru-based multinational IT firms.

Research Limitations :

1. The study is limited to selected Bengaluru-based IT firms.
2. The research relies primarily on perceptual responses from investors and stock brokers.
3. The study focuses only on selected CEO qualities and does not include psychological or behavioral traits.
4. Time and resource constraints limited the scope of data collection.

Conclusion And Suggestions :

The study concludes that CEO qualities play a significant role in shaping strategic decision-making and investor confidence in Bengaluru-based IT firms. Leadership attributes such as educational background, professional experience, tenure, and strategic capability substantially influence organizational direction and stakeholder perceptions. Effective strategic decisions act as an important mechanism through which CEOs strengthen investor trust and organizational credibility.

The findings emphasize the growing importance of strategic leadership in the Indian IT sector, where innovation, governance quality, and market responsiveness determine organizational success. Boards and corporate governance committees should therefore prioritize leadership competence, strategic orientation, and professional expertise during CEO selection and succession planning.

The study also suggests that organizations should maintain transparency in strategic communication and governance practices to strengthen investor confidence and market reputation. Future research may

explore behavioral CEO traits, cross-industry comparisons, and longitudinal analysis of leadership impact on organizational sustainability.

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Impact of E-Banking on Profitability of Commercial Banks-A Comparative Study of Selected Indian Nationalised and Private Sector Banks

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Abstract

The banking sector in India has significantly due to the quick advancement of information and communication technology. Electronic banking (E-Banking), encompassing internet banking, mobile banking, ATM services, Unified Payment Interface (UPI), and other digital delivery channels, has emerged as a critical driver of operational efficiency and profitability for commercial banks. This paper examines the impact of E-Banking adoption on the profitability of four major Indian commercial banks; two nationalised banks (State Bank of India and Punjab National Bank) and two private sector banks (HDFC Bank and ICICI Bank)-over the period 2018-19 to 2023-24.

Using secondary financial data drawn from annual reports, Reserve Bank of India (RBI) publications, and CMIE Prowess database, the study analyses key profitability indicators: Return on Assets (ROA), Return on Equity (ROE), Net Interest Margin (NIM), and Cost-to-Income Ratio. Pearson correlation analysis and trend analysis are employed to analyse the relationship between E-Banking metrics and profitability measures. The findings reveal a significant positive correlation between E-Banking adoption and bank profitability, and a significant negative correlation with cost-to-income ratio, indicating that digital banking substantially reduces operational costs. Private sector banks reflect higher efficiency levels compared to nationalised banks. The paper concludes with several policy recommendations for strengthening India's digital banking ecosystem.

Keywords: *E-Banking, Profitability, Commercial Banks, Digital Banking, ROA, ROE, NIM.*

Introduction :

The Indian banking sector is undergoing a digital revolution of unprecedented scale. Driven by government initiatives such as Digital India, Jan Dhan Yojana, demonetisation (2016), and the widespread adoption of UPI, commercial banks have rapidly shifted from traditional brick-and-mortar operations towards technology-mediated service delivery. E-Banking broadly defined as the delivery of banking services through electronic

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channels encompass internet banking portals, mobile banking applications, ATMs, point-of-sale terminals, electronic fund transfers, and emerging fintech integrations.

The Reserve Bank of India (RBI) reported that digital payment transactions in India grew at a Compound Annual Growth Rate (CAGR) of over 50% between 2018 and 2023, reaching approximately 100 billion transactions annually by 2023. The number of mobile banking users crossed 600 million in 2023, reflecting the deepening penetration of digital banking services. This transformation carries profound implications for bank profitability: while E-Banking requires significant upfront investment in technology infrastructure, it promises long-run gains through reduced branch operating costs, enhanced customer reach, cross-selling opportunities, and improved asset quality.

Despite the growing literature on digital banking globally, empirical evidence specific to India's divergent banking landscape characterised by the coexistence of large nationalised banks with legacy systems and agile private sector banks remains limited. This paper addresses this gap by conducting a comparative profitability analysis across two nationalised banks (SBI, PNB) and two leading private sector banks (HDFC Bank, ICICI Bank) for the six-year period from 2018-19 to 2023-24.

Background of Selected Banks

State Bank of India (SBI) is India's largest public sector bank, with over 22,000 branches and 65,000 ATMs. Punjab National Bank (PNB) is one of India's oldest nationalised banks, operating a wide rural and semi-urban network. HDFC Bank is India's largest private sector bank by assets and is widely regarded as a leader in digital banking innovation. ICICI Bank is the second-largest private sector bank and one of India's earliest adopters of internet banking.

2. Literature Review :

Hernando and Nieto (2007) conducted a pioneering study on Spanish banks and found that banks adopting internet banking demonstrated a significant reduction in overhead costs after 18 months of adoption, with profitability improvements becoming significant after 3 years. Their findings support the long-term efficiency gains of digital banking.

Malhotra and Singh (2009) examined 88 Indian banks and found that internet banking positively and significantly influenced bank profitability, as measured by ROA and ROE. They highlighted that technology-intensive banks had superior non-interest income streams.

Sathye (2005) analysed internet banking adoption in Australia and found that online banking users generated higher transaction volumes and fee income, contributing to improved net interest margins for adopting banks.

Onay, Ozsoz & Helvacioglu (2008) studied Turkish banks and reported that internet banking adoption had a delayed but positive impact on profitability (ROA), observed primarily from the second year of adoption onwards, suggesting an initial investment burden followed by long-run gains.

Tan & Floros (2012) analysed Chinese banks and established that investments in information technology positively impacted bank profitability, with positive effects more pronounced for larger banks with greater network economies.

Uppal (2011) studied the impact of e-banking on the performance of Indian banks and found that new private sector and foreign banks significantly outperformed public sector banks in deploying e-banking services, resulting in higher profitability and lower NPAs.

Aggarwal and Mehta (2013) examined the adoption of internet banking by Indian commercial banks and found that digital channels enabled banks to reduce cost per transaction substantially, from Rs. 75 for a branch transaction to approximately Rs.1 for an internet transaction.

Singh and Komal (2009) observed that adoption of ATM and e-banking services was a significant determinant of customer retention and cross-selling, indirectly boosting fee-based income and overall profitability of Indian banks.

Kaur and Bhanu (2015) compared digitally advanced and traditional banks in India, concluding that digital banks had lower cost-to-income ratios and higher customer satisfaction scores, lending support to the efficiency hypothesis of e-banking.

Sharma and Maloo (2020) noted that the COVID-19 pandemic accelerated digital banking adoption in India, with mobile banking transactions rising by over 80% in FY2020-21, directly correlated with improvements in non-interest income across major Indian banks.

Research Gap :

Most of the studies discussed above either focus on a single bank type or use pre-pandemic data. This study bridges the gap by providing a comprehensive six-year, post-demonetisation analysis comparing nationalised and private banks, incorporating the effects of UPI (India's unique digital payment ecosystem) on bank's profitability.

Limitations

Since the study limited to selected time period and selected banks operating in India, the findings cannot be generalized to all commercial banks.

3. Objectives :

- To examine the growth and penetration of E-Banking services in selected Indian commercial banks during the period 2018-19 to 2023-24.
- To analyse the trend in key profitability indicators-Return on Assets

(ROA), Return on Equity (ROE), Net Interest Margin (NIM), and Cost-to-Income Ratio; in the selected banks.

- To analyse the relationship between E-Banking adoption metrics and bank profitability indicators using correlation analysis.
- To compare the profitability performance of nationalised banks vis-à-vis private sector banks in the context of digital banking transition.
- To provide evidence-based policy recommendations for enhancing the digital banking competitiveness of Indian commercial banks.

4. Hypotheses :

The study tests the following null hypotheses:

H₀₁: There is no significant relationship between E-Banking adoption and the Return on Assets (ROA) of commercial banks.

H₀₂: There is no significant relationship between E-Banking adoption and the Return on Equity (ROE) of commercial banks.

H₀₃: There is no significant relationship between E-Banking adoption and the Net Interest Margin (NIM) of commercial banks.

H₀₄: There is no significant relationship between E-Banking adoption and the Cost-to-Income Ratio of commercial banks.

5. Research Methodology :

Research Design

The study adopts a descriptive and analytical research design. It employs quantitative methods to analyse secondary financial data. A comparative approach is used to contrast the experience of nationalised and private sector banks.

Sample Selection

Four banks are selected using purposive sampling based on the criteria of asset size, market capitalisation, availability of data, and representativeness of their respective banking categories:

Category	Bank	Headquarters	Established
Nationalised	State Bank of India (SBI)	Mumbai, Maharashtra	1955 (Imperial Bank)
Nationalised	Punjab National Bank (PNB)	New Delhi, Delhi	1894
Private	HDFC Bank	Mumbai, Maharashtra	1994
Private	ICICI Bank	Mumbai, Maharashtra	1994

Study Period

The study covers six financial years from 2018-19 to 2023-24. This period captures the full impact of demonetisation aftermath, UPI scale-up, COVID-19 acceleration of digital adoption, and post-pandemic normalisation.

Data Sources

The study relies exclusively on secondary data from the following sources:

- Annual Reports of SBI, PNB, HDFC Bank, and ICICI Bank (2018-19 to 2023-24)
- Reserve Bank of India (RBI) Annual Report, Handbook of Statistics on Indian Economy, and Payment System Reports
- CMIE Prowess Firm-level financial database
- National Payments Corporation of India (NPCI)-UPI and digital payment statistics
- Indian Banks Association (IBA)-Banking Technology Reports

Variables

Dependent Variables (Profitability Indicators)

- $\text{Return on Assets (ROA)} = \frac{\text{Net Profit}}{\text{Average Total Assets}} \times 100$
- $\text{Return on Equity (ROE)} = \frac{\text{Net Profit}}{\text{Average Shareholders' Equity}} \times 100$
- $\text{Net Interest Margin (NIM)} = \frac{\text{Net Interest Income}}{\text{Average Earning Assets}} \times 100$
- $\text{Cost-to-Income Ratio} = \frac{\text{Operating Expenses}}{\text{Operating Income}} \times 100$

Independent Variables (E-Banking Indicators)

- Number of Internet / Mobile Banking Registered Users (in Millions)
- Digital Transactions as a Percentage of Total Transactions
- UPI Transaction Volume (in Millions) (Bank-wise)
- Percentage of Accounts Opened Online

Tools of Analysis

The following statistical instruments are used in the paper:

- Descriptive Statistics: Mean, Standard Deviation, and Compound Annual Growth Rate (CAGR) for trend analysis
- Pearson's Correlation Coefficient (r): To measure the strength and direction of the linear relationship between E-Banking indicators and profitability variables
- Compound Annual Growth Rate (CAGR): To evaluate the growth trajectory of digital metrics
- Comparative Panel Analysis: Cross-sectional comparison of bank categories over the study period.

6. Data Analysis And Interpretation :

E-Banking Adoption: Comparative Metrics (2022-23)

Table 1 presents the E-Banking adoption landscape of the four selected banks as of 2022-23, providing a snapshot of their digital infrastructure and outreach.

Table 1: E-Banking Adoption Metrics (2022-23)

Metric	SBI	PNB	HDFC Bank	ICICI Bank	Industry Avg.
Internet Banking Users (Mn, 2023)	72.4	14.6	43.8	38.2	42.3
Mobile Banking Users (Mn, 2023)	58.9	10.2	36.5	34.7	35.1
Digital Txns. as % of Total (2023)	91%	78%	97%	96%	88%
No. of ATMs (2023)	65,627	10,888	21,688	16,650	28,713
Online Account Openings (% , 2023)	62%	45%	89%	84%	70%
UPI Txn. Volume (Mn, 2023)	2,840	480	3,220	2,980	2,380

Source: Annual Reports of Respective Banks; RBI Payment System Report 2023; NPCI Data

As evident from Table 1, SBI leads in absolute numbers of internet and mobile banking users owing to its massive customer base, with 72.4 million internet banking users and 58.9 million mobile banking users. However, private sector banks-HDFC Bank (97%) and ICICI Bank (96%) are far ahead in terms of digital transactions as a percentage of total transactions, compared to SBI (91%) and PNB (78%). PNB lags on most digital metrics, reflecting the higher technology investments required and the larger proportion of rural customers it serves. HDFC Bank's UPI transaction volume (3,220 million) and high online account opening rate (89%) indicate a deeply embedded digital service model. The industry average across all metrics demonstrates the accelerating pace of digitalisation in Indian banking.

Profitability Analysis

Return on Assets (ROA)

ROA measures a bank's ability to generate profit from its asset base. A higher ROA indicates superior asset utilisation efficiency.

Table 2: Return on Assets (ROA)% (2018-19 to 2023-24)

Bank	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
SBI (Nationalised)	0.02	0.09	0.47	0.67	0.96	1.04
PNB (Nationalised)	-2.87	-3.84	0.10	0.15	0.27	0.53
HDFC Bank (Private)	1.82	1.90	1.87	1.90	1.94	1.98
ICICI Bank (Private)	0.36	0.81	1.34	1.68	2.35	2.50

Source: Annual Reports of SBI, PNB, HDFC Bank, ICICI Bank; CMIE Prowess Database

Table 2 reveals a dramatic improvement in ROA across all four banks over the six-year study period. SBI's ROA improved from a near-zero 0.02% in 2018-19 to 1.04% in 2023-24, coinciding with aggressive digital adoption under its YONO (You Only Need One) platform, which crossed 50 million users. PNB witnessed deep negative ROA in 2018-19 and 2019-20 because of PNB fraud scandal (Nirav Modi case), but has shown a steady recovery, posting 0.53% in 2023-24, partly attributed to digital cost savings. Private sector banks maintained consistently superior ROA: HDFC Bank maintained a stable 1.80%+ range while ICICI Bank's ROA grew remarkably from 0.36% to 2.50%, reflecting the effectiveness of its digital transformation strategy ICICISStack which enabled end-to-end digital onboarding of over 20 million customers. The overall trend confirms that banks with higher E-Banking adoption ratios record superior and improving ROA.

Return on Equity (ROE)

Table 3: Return on Equity (ROE) % (2018-19 to 2023-24)

Bank	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
SBI (Nationalised)	0.44	5.20	9.13	13.92	18.26	20.32
PNB (Nationalised)	-46.4	-52.8	2.35	4.18	6.74	13.22
HDFC Bank (Private)	16.5	16.8	16.12	16.89	17.41	17.90
ICICI Bank (Private)	4.2	8.34	11.90	14.60	18.86	19.40

Source: Annual Reports of SBI, PNB, HDFC Bank, ICICI Bank; CMIE Prowess Database

The ROE data in Table 3 mirrors the ROA trends with even more amplified results. SBI's ROE surged from a near-negligible 0.44% in 2018-19 to an impressive 20.32% in 2023-24 a turnaround closely linked to the deployment of digital channels that reduced per-customer service costs and enabled fee-income growth through digital products. PNB's deeply

negative ROE in 2018-19 and 2019-20 reflected the provisioning burden from legacy NPA issues, with recovery beginning as digital efficiency dividends materialised. HDFC Bank has maintained steady, industry-leading ROE above 16%, reflecting best digital banking practices. ICICI Bank's ROE improved from 4.2% to 19.4% representing the fastest ROE improvement among the selected banks and directly related to its digitalfirst retail lending strategy.

Net Interest Margin (NIM) :

Table 4: Net Interest Margin (NIM)% (2018-19 to 2023-24)

Bank	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
SBI (Nationalised)	2.90	3.01	3.22	3.40	3.58	3.74
PNB (Nationalised)	2.40	2.50	2.69	2.78	3.07	3.24
HDFC Bank (Private)	4.30	4.24	4.10	4.18	4.30	4.36
ICICI Bank (Private)	3.42	3.73	3.89	3.96	4.48	4.61

Source: Annual Reports of SBI, PNB, HDFC Bank, ICICI Bank; CMIE Prowess Database

NIM measures the difference between interest earned and interest paid, relative to earning assets. Table 4 shows that private sector banks command significantly higher NIMs than nationalised banks, consistent with their superior pricing power and product mix. HDFC Bank maintained a relatively stable NIM of around 4.10%-4.36%, reflecting its strong liability franchise built on digital savings accounts. ICICI Bank's NIM grew substantially from 3.42% to 4.61%, driven by higher-yielding retail and digital lending products. SBI's NIM improved from 2.90% to 3.74%, partly attributed to the reduction in high-cost branch transactions replaced by low-cost digital channels, which reduced operational drain on interest margins. PNB's NIM improvement from 2.40% to 3.24% is also consistent with increased digital transaction efficiency reducing manual processing costs.

Cost-to-Income Ratio :

Table 5: Cost-to-Income Ratio % (2018-19 to 2023-24)

Bank	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
SBI (Nationalised)	53.0	52.4	50.2	48.6	45.8	43.5
PNB (Nationalised)	62.3	65.1	61.8	57.4	53.2	50.1
HDFC Bank (Private)	37.5	36.8	37.1	36.5	35.9	34.7
ICICI Bank (Private)	46.2	44.0	42.5	40.3	37.8	36.2

Source: Annual Reports of SBI, PNB, HDFC Bank, ICICI Bank; CMIE Prowess Database

The Cost-to-Income Ratio (CIR) is perhaps the most direct indicator of E-Banking's operational efficiency impact. A declining CIR indicates that banks are generating more income per unit of operating expenditure. Table 5 demonstrates consistent improvement across all banks. HDFC Bank leads with the lowest CIR, declining from 37.5% in 2018-19 to 34.7% in 2023-24, reflecting the marginal cost economics of its fully digital onboarding model. ICICI Bank's CIR declined sharply from 46.2% to 36.2%, reflecting the displacement of expensive physical banking interactions with digital touchpoints. SBI reduced its CIR by nearly 10 percentage points (53.0% to 43.5%), representing a substantial achievement given its large branch and employee network. PNB's CIR also declined from 62.3% to 50.1%, though it remains the highest, indicating continued scope for digital efficiency gains. Overall, E-Banking adoption has demonstrably lowered the cost structure of Indian commercial banks.

Digital Revenue Contribution

Table 6: Digital Revenue as a Percentage of Total Income (2019-20 to 2023-24)

Bank	2019-20	2020-21	2021-22	2022-23	2023-24
SBI (Nationalised)	31%	38%	46%	55%	63%
PNB (Nationalised)	22%	29%	36%	44%	52%
HDFC Bank (Private)	48%	56%	63%	72%	79%
ICICI Bank (Private)	44%	53%	61%	70%	77%

Source: Annual Reports of Respective Banks; RBI Technology in Banking Reports; Analyst Estimates

Table 6 underscores the growing revenue significance of digital banking channels. HDFC Bank and ICICI Bank derive approximately 77%-79% of their total income from digital channels as of 2023-24, reflecting deep digital integration across lending, fee-based services, insurance, and investment product distribution. SBI's digital revenue contribution has grown from 31% in 2019-20 to 63% in 2023-24, driven by YONO, which cumulatively processed over 22 lakh crore in transactions by 2024. PNB, while showing significant improvement (22% to 52%), lags behind and represents the greatest opportunity for digital revenue upliftment.

Correlation Analysis: E-Banking and Profitability

Table 7 presents the Pearson correlation coefficients between key E-Banking indicators and profitability variables, pooled across all four selected banks over the study period.

Table 7: Pearson Correlation Coefficients (E-Banking vs. Profitability Indicators)

E-Banking Indicator	ROA	ROE	NIM	Cost-to-Income
Internet / Mobile Banking Users	+0.82**	+0.79**	+0.61*	-0.75**
Digital Transaction Share (%)	+0.88**	+0.85**	+0.68*	-0.81**
UPI Transaction Volume	+0.76*	+0.73*	+0.57*	-0.70*
Online Account Openings (%)	+0.80**	+0.77**	+0.63*	-0.72*

Note: ** significant at 1% level; * significant at 5% level (two-tailed test, $n = 24$)

Source: Computed by researcher using data from Annual Reports and RBI data-bases

The correlation matrix in Table 7 reveals several critical findings. All E-Banking indicators exhibit a strong positive correlation with ROA (range: +0.76 to +0.88) and ROE (range: +0.73 to +0.85), significant at the 1% level. This confirms a robust, statistically significant relationship between digital banking adoption and bank profitability. The Digital Transaction Share (%) shows the highest correlation with ROA (+0.88**) among all E-Banking proxies, suggesting that banks converting physical transactions to digital achieve the most immediate profitability impact. NIM correlations (+0.57 to +0.68) are positive but relatively moderate, consistent with the view that E-Banking primarily affects profitability through cost reduction rather than direct interest income enhancement. The negative correlation with Cost-to-Income Ratio (-0.70 to -0.81**) is both statistically significant and economically meaningful confirming that E-Banking adoption is a key determinant of operational efficiency in Indian commercial banks. Based on these results, all four null hypotheses (H_{01} through H_{04}) are rejected at the 5% level of significance.

7. Major Findings :

- E-Banking adoption has grown significantly across all four selected banks during 2018-19 to 2023-24, with digital transactions constituting 78%-97% of total banking transactions by 2023, driven by UPI, mobile banking, and internet banking platforms.
- Private sector banks (HDFC Bank, ICICI Bank) demonstrate superior profitability on all metrics (ROA, ROE, NIM) compared to nationalised banks (SBI, PNB), a gap that is largely attributable to earlier and deeper digital banking integration.
- SBI and ICICI Bank show the most dramatic profitability improvements over the study period, both coinciding with major digital transformation initiatives (YONO and ICICISStack respectively).

- E-Banking adoption is significantly and negatively correlated with the Cost-to-Income Ratio (correlation range: -0.70 to -0.81), confirming that digital banking substantially reduces per-unit operating costs.
- The Digital Transaction Share (%) is the strongest predictor of ROA (+0.88**), implying that the breadth of transaction digitalisation matters more than the absolute number of digital users.
- PNB, despite recovering from severe NPA-related losses, has shown consistent improvement in all profitability metrics as its digital banking footprint has expanded demonstrating the rehabilitative role E-Banking can play for distressed nationalised banks.
- Digital revenue contribution has grown substantially across all banks, with private sector banks deriving nearly 80% of total income through digital channels by 2023-24, compared to 50%-63% for nationalised banks.

8. Policy Recommendations :

Based on the study's findings, the following recommendations are offered:

- **Accelerate Digital Transformation in Public Sector Banks:** The Government of India and RBI should earmark dedicated technology funds for nationalised banks to close the digital gap with private sector counterparts. The gap in Cost-to-Income Ratio (PNB at 50% vs. HDFC at 35%) represents a significant profitability drag for public sector banking.
- **Enhance Cybersecurity Infrastructure:** As digital transaction volumes grow exponentially, banks must invest proportionately in cybersecurity, fraud detection, and regulatory compliance. The RBI should mandate cybersecurity stress testing as part of annual supervisory reviews.
- **Promote Financial Literacy for Rural Banking:** PNB's lower digital metrics partly reflect its large rural customer base. Targeted digital literacy programmes under the Pradhan Mantri Gramin Digital Saksharta Abhiyan (PMGDISHA) should be aligned with bank-specific onboarding initiatives.
- **Develop AI and Analytics Capabilities:** Banks should invest in AI-driven credit underwriting, robo-advisory, and personalised digital product delivery to improve cross-selling ratios and fee income key drivers of NIM enhancement in a digital banking ecosystem.
- **Standardise Digital Banking Reporting:** RBI should introduce standardised mandatory disclosures on digital banking metrics (users, transactions, digital revenue) in bank annual reports to improve data availability for regulatory analysis and academic research.

9. Conclusion:

This study provides compelling empirical evidence that E-Banking adoption is a significant and positive contributor to the profitability of Indian commercial banks. The analysis of SBI, PNB, HDFC Bank, and ICICI Bank over 2018-19 to 2023-24 demonstrates that banks with deeper digital integration achieve higher ROA, ROE, and NIM, and lower Cost-to-Income Ratios. The results of Pearson correlation analysis confirm that all four null hypotheses are rejected, validating the central premise that E-Banking and profitability are significantly related.

Private sector banks lead in digital efficiency, but nationalised banks particularly SBI have demonstrated that digital transformation can catalyse a remarkable profitability turnaround even in large, incumbent institutions. The COVID-19 pandemic served as an accelerant for digital adoption across the board, with mobile and internet banking volumes growing at double-digit rates during 2020-21 and remaining elevated thereafter.

The Indian banking sector stands at an inflection point. With 5G rollout, Open Banking APIs, and the Account Aggregator framework creating new digital rails, the banks that invest most strategically in E-Banking infrastructure will likely establish durable competitive advantages in cost efficiency, customer acquisition, and product cross-selling ultimately translating into superior and sustainable profitability. Future research should examine the non-linear dynamics of this relationship and the moderating role of bank size, NPA levels, and ownership structure.

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The Role of Goods and Services Tax (GST) in Transforming India's External Sector: A Study of Trade, Investment and Economic Competitiveness

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Abstract

The implementation of the Goods and Services Tax (GST) on July 1, 2017, marked a transformative reform in India's indirect tax system, replacing a complex web of central and state-level taxes with a unified tax structure. This research paper examines the critical role of GST in India's external sector reforms, focusing on its impact on trade, investment, and overall economic efficiency.

GST has played a significant role in simplifying the taxation system by integrating multiple indirect taxes, thereby reducing compliance costs and fostering a more transparent and business-friendly environment. The shift to a destination-based tax regime has removed interstate barriers, creating a seamless national market that enhances trade efficiency and logistical operations. Additionally, the provision of input tax credit (ITC) has lowered the overall tax burden on businesses, enabling greater competitiveness in domestic and international markets.

A key benefit of GST in the external sector is its positive impact on exports. By treating exports as zero-rated supplies, GST allows exporters to claim refunds on input taxes, improving cash flow and reducing the cost of production. This reform has strengthened India's position in global trade by making Indian goods and services more price-competitive. Furthermore, the streamlined tax framework has encouraged greater formalization of businesses, increasing tax compliance and expanding the taxable base, which is crucial for sustainable economic growth.

GST has also enhanced India's attractiveness as a destination for foreign direct investment (FDI). By aligning with international tax practices, GST has provided a predictable and stable tax environment, boosting investor confidence. The removal of cascading tax effects and the creation of a unified tax administration have further facilitated ease of doing business, supporting the expansion of manufacturing and export-oriented industries.

Despite these benefits, the paper acknowledges challenges in the implementation of GST, such as compliance burdens, delays in tax refunds, and sectoral disparities in tax rates. Addressing these challenges through policy refinements and technological advancements

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will be crucial to maximizing the benefits of GST in India's external sector.

In conclusion, GST has been instrumental in reforming India's external sector by streamlining tax structures, promoting exports, and attracting investment. The ongoing evolution of the GST framework, coupled with sustained policy interventions, will play a crucial role in enhancing India's global trade competitiveness and fostering long-term economic growth.

Objectives of the Study:

1. To examine the impact of GST on India's external sector, particularly exports and international trade.
2. To analyze the role of GST in simplifying the indirect taxation system and reducing tax-related complexities.
3. To evaluate the contribution of GST in enhancing the competitiveness of Indian goods and services in global markets.
4. To assess the influence of GST on foreign direct investment (FDI) and the ease of doing business in India.
5. To identify the challenges associated with GST implementation that affect India's external sector and suggest suitable policy recommendations.

Literature Review :

The Goods and Services Tax (GST) has been widely recognized as one of the most significant indirect tax reforms in India. Several researchers have examined its impact on economic growth, tax administration, exports, investment, and business efficiency.

The Thirteenth Finance Commission (2009), in its report "Moving to Goods and Services Tax in India: Impact on India's Growth and International Trade," highlighted that GST would eliminate cascading taxation, improve resource allocation, enhance export competitiveness, and increase India's GDP in the long run.

Dr. D. B. Bharati and Dr. Babasaheb Jadhav (2017) explained that GST integrates multiple indirect taxes into a unified tax system, thereby simplifying tax administration, increasing transparency, and reducing compliance costs for businesses.

Dhivyadharshini and Dr. M. D. Chinnu (2026) observed that GST has strengthened India's formal economy by improving tax compliance, widening the tax base, and supporting digital tax administration. Their study also highlighted GST's positive contribution toward investment and industrial growth despite initial implementation challenges.

According to the Ministry of Finance, Government of India (2026), GST collections have consistently increased after its implementation,

reflecting improved tax compliance and greater economic formalization. The introduction of zero-rated exports and input tax credit mechanisms has also reduced the tax burden on exporters and improved India's trade competitiveness.

Existing literature indicates that GST has positively influenced India's external sector by creating a unified national market, reducing logistics costs, improving supply-chain efficiency, and attracting foreign investment. However, issues such as delayed refund processing, compliance burden for small businesses, and frequent procedural changes continue to require policy attention.

The Goods and Services Tax (GST) is a comprehensive indirect tax reform implemented in India on July 1, 2017. It aims to simplify and unify the country's fragmented tax structure by replacing a multitude of central and state taxes with a single tax applicable to the supply of goods and services.

Key Features of GST:

1. Single Tax System: GST integrates various indirect taxes, such as central excise duty, service tax, and state-level VAT, into a single tax regime, thereby streamlining tax compliance for businesses.

2. Multi-tier Structure: GST is structured into multiple tax slabs (0%, 5%, 12%, 18%, and 28%) to accommodate different goods and services, ensuring that essential items are taxed at lower rates.

3. Input Tax Credit: Businesses can claim input tax credits on the tax paid for inputs used in the production of goods or services, thereby reducing the overall tax burden and preventing the cascading effect of taxes.

4. Destination-Based Tax: GST is levied at the point of consumption, rather than production, which means that the tax revenue goes to the state where the goods or services are consumed.

5. Technology-Driven Compliance : The implementation of GST relies heavily on technology, with businesses required to file returns online and maintain electronic records, enhancing transparency and accountability.

Objectives of GST:

- **Enhance Tax Compliance:** By simplifying the tax structure, GST aims to encourage more businesses to comply with tax regulations.

- **Promote Economic Growth:** A unified tax system fosters a seamless market, encouraging trade and boosting economic activity.

- **Increase Revenue Efficiency:** By reducing tax evasion and increasing the tax base, GST aims to improve revenue collection for both central and state governments.

- **Encourage Formalization of the Economy:** GST promotes the registration of businesses, helping to integrate informal sectors into the formal

economy.

Research Methodology:

Research Design :

The study adopts a descriptive and analytical research design to examine the role of GST in India's external sector reforms.

Nature of Data :

The study is entirely based on secondary data collected from authentic and reliable sources.

Sources of Data :

The required data have been collected from:

- Government of India, Ministry of Finance
- GST Council publications
- Reserve Bank of India (RBI)
- Ministry of Commerce and Industry
- Research journals
- Books on indirect taxation
- Finance Commission Reports
- Annual Reports and official government publications
- Published research articles and websites

Period of Study :

The study covers the period FY 2017–18 to FY 2025–26 (up to January 2026) to analyze trends in GST revenue growth and its impact on India's external sector.

Tools and Techniques

The collected data have been analyzed using:

- Percentage Analysis
- Trend Analysis
- Bar Diagram
- Comparative Analysis
- Descriptive Interpretation

Scope of the Study:

The study focuses on evaluating the impact of GST on India's external sector reforms, particularly exports, foreign direct investment (FDI), ease of doing business, tax compliance, and the overall competitiveness of the Indian economy.

Limitations of the Study :

1. The study is based solely on secondary data.
2. The analysis is limited to the available published information up to January 2026.
3. The study does not include primary survey data from businesses or exporters.

4. Changes in GST policies after the study period are beyond the scope of this research.

Role of GST in India's external sector reforms:

The Goods and Services Tax (GST) has played a significant role in India's external sector reforms by:

The Goods and Services Tax (GST) has played a significant role in India's external sector reforms since its implementation in 2017. Here are some key aspects of its impact:

1. Simplification of Tax Structure :

- **Unified Tax Regime:** GST replaced multiple indirect taxes with a single tax, simplifying the compliance process for businesses and reducing the overall tax burden on exporters.
- **Ease of Doing Business:** A simplified tax structure has improved the ease of doing business, making India a more attractive destination for foreign investment.

2. Boost to Exports :

- **Zero-Rated Supplies:** Under GST, exports are treated as zero-rated, allowing exporters to claim refunds on input taxes paid. This enhances their competitiveness in global markets.
- **Improved Cash Flow:** Timely refunds on input taxes help exporters maintain better cash flow, which is crucial for operational efficiency.

3. Enhanced Supply Chain Efficiency :

- **Streamlined Logistics:** GST has led to the creation of a unified national market, reducing logistical costs and transit times, which is beneficial for trade.
- **Reduction in Cascading Effects:** By eliminating the cascading effect of taxes, businesses can operate more efficiently, ultimately benefiting export pricing.

4. Encouragement of Formalization :

- **Formalizing the Economy:** GST has incentivized businesses to register formally, leading to a broader tax base and increased compliance, which is essential for sustainable economic growth.
- **Access to Credit:** Formalization provides businesses with better access to credit and financial services, essential for scaling operations and expanding exports.

5. Alignment with Global Standards :

- **Compliance with International Norms:** The adoption of GST aligns India's tax structure with global practices, facilitating easier trade relations and agreements with other countries.
- **Transparency and Accountability:** Improved tax compliance enhances transparency, which is critical for attracting foreign investment and fostering

trust in the Indian market.

6. Impact on Investment :

- **Attracting FDI:** A stable and predictable tax environment encourages foreign direct investment (FDI), which can boost India's manufacturing and export capabilities.

- **Sectoral Growth:** Sectors such as manufacturing, logistics, and e-commerce have benefited from GST, leading to increased export potential.

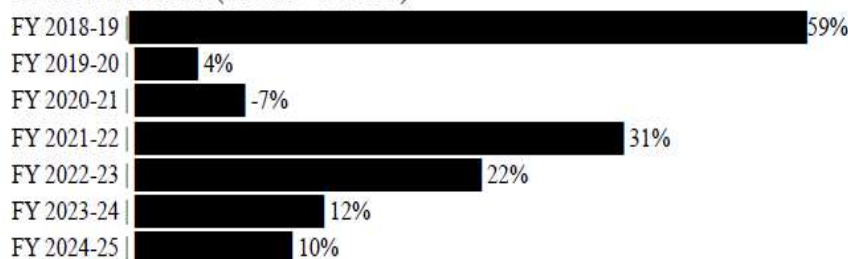
Annual growth in GST collections from FY 2017-18 to FY 2025-26 (till Jan, 26)

Financial Year	GST Collection (₹ Crore)	Annual Growth (%)
2017-18	678,036	—
2018-19	1,079,999	59%
2019-20	1,123,371	4%
2020-21	1,048,463	-7%*
2021-22	1,375,624	31%
2022-23	1,679,395	22%
2023-24	1,873,695	12%
2024-25	2,055,558	10%
2024-25 (Till Jan. 2025)	1,701,891	—
2025-26 (Till Jan. 2026)	1,843,384	8%**

* Negative growth in FY 2020-21 is due to Covid-19 pandemic

** Growth in FY 2025-26 (till Jan, 26) has been calculated w.r.t. corresponding period of FY 2024-25 (till Jan, 25)

GST Revenue Growth (FY 2018 – FY 2025)



Conclusion :

The implementation of GST has significantly contributed to India's external sector reforms by enhancing efficiency, promoting exports, and attracting foreign investment. By streamlining the tax structure and encouraging compliance, GST supports India's goal of becoming a more competitive player in the global economy. However, ongoing improvements

in the GST framework and related processes will be essential to fully realize its potential benefits.

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Conventional Versus Modern Investment Avenues: A Comparative Study of Selected Financial Products in India

Aishwarya*

Abstract

Investment decisions play a crucial role in achieving long-term financial security and wealth creation. Despite the availability of diverse investment avenues in India, a significant proportion of investors continue to prefer traditional endowment insurance plans over market-linked investment products because of their perceived safety and guaranteed benefits. This study examines the comparative performance of selected investment options by evaluating the returns generated from a traditional endowment policy and a diversified investment portfolio comprising equity and ESG -mutual funds, Public Provident Fund (PPF), fixed deposits, and a term insurance policy. The study aims to assess whether a combination of investment and protection-oriented financial products can provide superior returns while maintaining financial security compared to a conventional endowment plan.

The findings reveal that the diversified portfolio consisting of equity, ESG-mutual funds generate substantially higher returns than the traditional endowment policy over the same period while simultaneously providing adequate life insurance protection through the term insurance component. The results highlight the benefits of separating investment and insurance decisions, demonstrating that a well-diversified portfolio can achieve greater wealth creation without compromising financial security. The study provides valuable insights for individual investors, financial planners, and policymakers by emphasizing the importance of informed portfolio construction and efficient investment allocation in personal financial planning.

Introduction :

Investment plays a pivotal role in achieving financial security, wealth accumulation, and long-term economic well-being. Due to rising disposable incomes, swift financial innovation, and enhanced access to investment platforms, individuals currently possess a broader array of financial goods than ever before. Historically, Indian households have depended on comparatively secure investment options, including Fixed Deposits (FDs), Public Provident Fund (PPF), and life insurance plans provided by the Life Insurance Corporation of India (LIC). These products have traditionally been favored due to their capital preservation, guaranteed yields, tax

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advantages, and minimal risk. The increasing awareness of financial planning, inflation, market engagement, and sustainable investing has progressively redirected investor interest towards market-linked products, including equity mutual funds and, more recently, Environmental, Social, and Governance (ESG) mutual funds (Bodie et al., 2021; Reilly & Brown, 2019).

Investment decisions are intrinsically complex due to the variability of financial products concerning expected returns, related risks, liquidity, taxation, investment horizons, and their appropriateness for diverse financial goals. Investors must meticulously align these attributes with their risk tolerance, income level, age, and financial objectives. Conservative investors often emphasize capital preservation via instruments like PPF and Fixed Deposits, whereas aggressive investors pursue elevated long-term returns through equity-oriented investments, accepting the associated market volatility. Likewise, insurance-oriented financial instruments fulfill certain roles within an individual's financial portfolio. While conventional life insurance policies like LIC Jeevan Anand integrate savings with insurance coverage, term insurance exclusively aims to offer financial protection to beneficiaries at a comparatively modest cost. Thus, financial planning necessitates a thorough comprehension of both investment-focused and protection-focused financial instruments, rather than assessing each product in isolation.

The Indian investment landscape has experienced substantial transformation in the last decade. The enhancement of financial literacy, the emergence of digital investing platforms, regulatory reforms, and the growth of the mutual fund sector have significantly broadened the investment options accessible to ordinary investors. Concurrently, increasing apprehensions about climate change, corporate governance, and social responsibility have expedited the global adoption of sustainable investment strategies. ESG investing has become one of the most rapidly expanding investment strategies, incorporating environmental stewardship, social responsibility, and effective corporate governance into portfolio selection alongside conventional financial factors. ESG investing aims to create sustainable long-term value and encourage responsible business conduct, rather than concentrating just on financial returns (Friede et al., 2015). Recent data indicates that ESG-integrated investment strategies can achieve competitive financial performance while mitigating long-term portfolio risk under specific market conditions.

Despite the increasing popularity of ESG investing, conventional financial products continue to dominate household investment portfolios in emerging economies such as India. The Public Provident Fund is regarded as a reliable long-term savings strategy due to its government guarantee, tax benefits, and fixed interest structure. Similarly, bank fixed deposits remain

appealing to risk-averse investors desiring consistent returns and liquidity. LIC Jeevan Anand is one of India's most frequently acquired life insurance policies, offering a blend of insurance protection and maturity benefits, while term insurance has gained popularity among financially astute individuals for its provision of substantially higher life coverage at relatively lower premiums. Equity mutual funds, conversely, have shown significant wealth building potential over extended investment periods, while they subject investors to severe market volatility. These disparities suggest that no singular investment option can be deemed universally superior; instead, each product fulfills certain financial goals and caters to diverse investor profiles.

Prior research has thoroughly analyzed the efficacy of several investment options, including mutual funds, life insurance, fixed-income securities, and retirement savings plans. Likewise, numerous scholars have examined the risk-return attributes of stock mutual funds, the efficacy of insurance products, and the increasing significance of ESG investing in portfolio management. Nevertheless, the current literature predominantly assesses these instruments independently. Comprehensive comparison analyses that concurrently assess traditional savings instruments, insurance products, conventional equity mutual funds, and ESG mutual funds utilizing a unified assessment approach are notably limited, especially within the Indian setting.

This research addresses this gap by providing a holistic comparison of six widely used financial products: LIC Jeevan Anand policy, equity mutual funds, ESG mutual funds, Public Provident Fund (PPF), Fixed Deposits (FDs), and term insurance. The results of this study are expected to enhance both scholarly literature and practical financial decision-making. This study enhances prior research by consolidating traditional investment options, insurance products, and sustainable investment alternatives into a unified comparison framework. This study also offers significant insights for individual investors, financial planners, wealth managers, and policymakers aiming to foster educated investment choices and sustainable financial health. The study elucidates the comparative advantages and drawbacks of various financial products, aiding investors in the formulation of diverse portfolios that correspond with their financial goals, risk tolerance, and sustainability criteria. As financial markets evolve and investor preferences increasingly integrate both financial and non-financial goals, a thorough comparison of traditional and emerging investment options becomes essential for fostering efficient and sustainable personal financial management.

Review of Literature :

Traditional Investment Avenues and Investor Preferences :

Conventional investment options remain predominant in the

investment portfolios of Indian households due to their provision of capital protection, reliable returns, and tax benefits (Aggarwal, 2024). Conservative investors typically favor financial products like the Public Provident Fund (PPF), Fixed Deposits (FDs), and LIC life insurance policies because of their low-risk attributes and government-backed security (Srivastava & Pant, 2023). Prior research indicates that investor demand for these products is predominantly shaped by variables including principal safety, assured returns, liquidity needs, and tax advantages, rather than wealth maximization (Aggarwal, 2024). Despite yielding comparatively lower returns than market-linked investments, these products are essential elements of long-term financial planning because of their stability in times of economic instability (Srivastava & Pant, 2023).

Equity Mutual Funds as Wealth Creation Instrument :

Equity mutual funds have been a favored investment option for long-term wealth accumulation due to their provision of diversification, professional management, and the possibility for enhanced risk-adjusted returns (Reilly & Brown, 2019). In contrast to conventional savings products, equity mutual funds are subject to stock market volatility, rendering them appropriate for investors with moderate to high risk tolerance (Bodie et al., 2021). Current literature indicates that equity mutual funds surpass numerous conventional investing options over extended investment periods, especially when investments are sustained by systematic investment plans (SIPs) (Reilly & Brown, 2019). Their success is significantly influenced by market conditions, fund management efficacy, portfolio diversity, and consistency in investment approach (Bodie et al., 2021). Recent research on Indian equities mutual funds indicates that active portfolio management and liquidity management substantially affect fund performance and investor returns.

Emergence of ESG Mutual Funds and Sustainable Investing :

The increasing awareness regarding environmental sustainability, social responsibility, and corporate governance has reshaped the global investment landscape with the rise of Environmental, Social, and Governance (ESG) investing (Friede et al., 2015). ESG mutual funds amalgamate sustainability factors with financial analysis, allowing investors to seek both financial returns and responsible investment goals (Das et al., 2018). Friede et al. (2015) executed one of the most extensive meta-analyses regarding ESG and business financial performance, revealing that most empirical studies indicated either a positive or neutral correlation between ESG performance and financial performance. Das et al. (2018) also showed that highly rated ESG mutual funds had greater resilience during financial hardship, suggesting that ESG inclusion may enhance long-term portfolio stability. The findings indicate that ESG mutual funds have transitioned from ethical investing options

to competitive financial instruments that may provide sustainable long-term returns (Friede et al., 2015).

Risk-Return Trade-off among Investment Options :

Investment theory posits that elevated projected returns are typically correlated with increased investment risk (Bodie et al., 2021). Thus, investors must equilibrate risk, return, liquidity, taxation, and investment horizon while structuring their portfolios (Reilly & Brown, 2019). Comparative analyses have consistently shown that Fixed Deposits and PPF provide relatively modest yet predictable returns with minimum investment risk, while equities mutual funds yield larger long-term returns, albeit with considerable market volatility (Srivastava & Pant, 2023). Insurance solutions like LIC Jeevan Anand offer both savings and life protection, whereas term insurance is solely dedicated to risk coverage without investment returns (Aggarwal, 2024). Recent comparative studies underscore that diversified investment portfolios comprising various financial products are more efficacious than dependence on a singular investment outlet for attaining long-term financial objectives (Reilly & Brown, 2019).

Current scholarly literature primarily assesses particular financial instruments, like mutual funds, term deposits, insurance policies, or ESG investments in isolation (Aggarwal, 2024). Although numerous studies compare equity mutual funds with bank deposits or evaluate the performance of ESG funds independently, comprehensive comparisons that integrate traditional savings instruments (PPF and Fixed Deposits), insurance products (LIC Jeevan Anand and term insurance), conventional equity mutual funds, and ESG mutual funds within a cohesive analytical framework are notably scarce, especially in the Indian context (Das et al., 2018). Therefore, the present study addresses this gap by providing a holistic comparison of six widely used financial products by creating different portfolios for investment decision-making.

Research Objectives :

Based on the literature reviewed, following are the research objectives for this study:

1. To analyze the returns of various investment alternatives available in the market.
2. To create portfolio having elements of life insurance, term policy, mutual fund, PPF, fixed deposit.
3. To compare the traditional endowment policy with the portfolio of top 20 equity mutual funds and mixed portfolio of term policy, PPF, fixed deposit.

Research Methodology :

This study is based entirely on secondary data collected from reliable

sources such as official financial institution websites and published financial reports. The research focuses on comparing returns from various investment options, including LIC New Jeevan Anand Policy, Public Provident Fund (PPF), equity mutual funds, ESG mutual funds, fixed deposits, and HDFC Life term insurance, to determine which investment avenue provides superior long-term returns. The premium for the LIC New Jeevan Anand Policy is calculated using the LIC premium calculator available on the official LIC website. For mutual funds, the Compound Annual Growth Rate (CAGR) for the period 2021-2025 of the top 20 equity mutual funds and ESG mutual funds is used to estimate returns over a 30-year investment horizon. The PPF investment is evaluated for a period of 15 years, after which the maturity amount is reinvested in fixed deposits for an additional 15 years to align with the overall 30-year comparison period. Additionally, HDFC Life term insurance is considered for a duration of 30 years to incorporate the aspect of risk coverage. The analytical tools employed in this study include percentage analysis, CAGR, average calculations, and the future value of annuity method to ensure a comprehensive and consistent comparison across all selected investment options.

Data Analysis & Interpretation :

Four distinct portfolios have been created for empirical study to enable a comparative assessment of various investment methods based on the historical returns. The aim is to evaluate how identical periodic investments, distributed among various financial instruments, affect total returns, risk exposure, liquidity, and financial security.

Portfolio 1 - Traditional Insurance-Based Portfolio :

This portfolio includes the LIC New Jeevan Anand Policy, a conventional endowment plan that integrates savings with life insurance. The premium associated with this policy functions as both an investment and a risk mitigation tool. Returns are primarily predetermined and encompass bonuses announced by the insurer, rendering this portfolio comparatively low-risk yet constrained in its capacity for wealth accumulation. This portfolio exemplifies the traditional method adopted by several Indian households, wherein insurance and investment are integrated.

The premium for this policy has been calculated for an individual supposedly aged 30 years with a policy term of 30 years, amounting to ₹ 1,82,860 annually. The sum assured under this policy is ₹ 50,00,000. The premium figures have been obtained from the official LIC website, using the LIC premium calculator, ensuring accuracy and reliability. Additionally, the bonus component has been also been estimated using the premium calculator. The maturity value of the policy has been calculated as the sum of the assured amount and the accumulated bonus over the 30-year period,

thereby reflecting the total returns generated by the policy at the end of the investment horizon. The table below shows the amount received after 30 years.

Total Paid Premium (₹ 1,82,860*30)	₹ 54,85,800
Basic Sum Assured	₹ 50,00,000
Bonus (Approx)	₹ 69,00,000
FAB (Approx)	₹ 55,00,000
Total Maturity	₹ 1,74,00,000

Portfolio 2 - Equity Mutual Fund Portfolio :

In this portfolio, the same amount paid as premium in Portfolio 1 is invested in the top 10 equity mutual funds. The selection of funds is based on performance consistency, asset size, and market reputation. This portfolio is designed to capture the growth potential of equity markets through diversification across multiple funds. Unlike Portfolio 1, this approach separates investment from insurance and focuses purely on wealth maximization. However, it is subject to market volatility and requires a longer investment horizon to realize optimal returns.

Portfolio 2 consists of investments exclusively in equity mutual funds. The selection of these funds is based on their performance rankings, and the Compound Annual Growth Rate (CAGR) for a five-year period (2021-2025), taken from AMFI is used as the basis for estimating long-term returns. For the purpose of return calculation, the average CAGR of these top 10 equity mutual funds is computed, and this average rate is applied using the future value of annuity method to estimate the accumulated value of investments over time. The investment is assumed to be made consistently over a period of 30 years, reflecting a long-term wealth creation strategy through systematic investment in equity mutual funds. The table below shows the wealth generated after investing regularly for 30 years.

Average of 10 equity mutual funds =	12%
Amount invested =	₹1,82,860
Value after 30yrs (FV of Annuity)	₹ 4,41,30,095

Portfolio 3 - ESG Mutual Fund Portfolio :

In this portfolio, the amount paid as premium in Portfolio 1 is invested in the 10 actively managed ESG mutual funds available in the Indian mutual fund market. The portfolio return is calculated by taking the simple average

of the 5 year returns of the nine ESG mutual funds, thereby creating a representative ESG portfolio that minimizes fund-specific bias and reflects the overall performance of the Indian ESG mutual fund segment. This approach is widely adopted in comparative investment studies because it captures the aggregate performance of a category rather than relying on the performance of a single fund. The table below highlights the returns generated after investing in ESG mutual funds for 30 years.

Average of 10 ESG mutual funds =	11%
Amount invested =	₹1,82,860
Value after 30yrs (FV of Annuity)	₹ 3,63,92,958

Portfolio 4 - Diversified Financial Portfolio :

This portfolio allocates the same premium amount across multiple financial instruments to achieve diversification and balance between risk, return, and financial security. The allocation includes:

- (a) Term Insurance Policy** - Provides pure life coverage at a relatively low cost, ensuring financial protection without affecting investment returns.
- (b) Public Provident Fund (PPF)** - Offers stable, government-backed returns along with tax benefits, contributing to long-term savings.
- (c) Fixed Deposit (FD)** - Ensures liquidity and predictable returns, serving as a low-risk component of the portfolio.

This diversified portfolio reflects a modern financial planning approach where insurance and investment are treated as separate components. It aims to optimize returns while maintaining adequate risk coverage and liquidity.

The total premium amount of ₹1,82,860 which is paid in Portfolio 1, is diversified among these three instruments. The premium for the HDFC term insurance policy, amounting to ₹6,818 per year, is calculated using the premium calculator available on the HDFC Life website (Annexure 2). The compound annual growth rate (CAGR) of the PPF interest rate is determined based on the rates prevailing over a five-year period from 2021 to 2025 i.e., 7.10%, as sourced from the National Savings Institute website. After deducting the term insurance premium from the LIC premium amount, the remaining sum of ₹1,76,042 is invested in PPF for a duration of 15 years. Upon maturity, the accumulated amount is reinvested in a fixed deposit for the next 15 years at an interest rate of 6.8%, and the future value is calculated using the future value method. The table below shows the amount received after

Amount invested =	1,76,042
CAGR =	7.10%
No. of years =	15
Value after 15 years =	₹44,57,987
Amount received after investing in PPF reinvested in FD for 15 yrs	₹1,19,59,350

The comparative analysis of these four portfolios enables a comprehensive evaluation of traditional versus modern investment strategies, highlighting differences in return generation, risk exposure, financial protection, and overall portfolio efficiency. The table below shows the comparative analysis of the returns received from different portfolios.

PORTFOLIOS	RETURNS
PORTFOLIO 1 - New Jeevan Anand Policy	₹1,74,00,000
PORTFOLIO 2 - Investment in 10 equity mutual fund	₹ 4,41,30,095
PORTFOLIO 3 - Investment in 10 ESG mutual fund	₹3,63,92,958
PORTFOLIO 4 - Investment in different options available - Term policy+ PPF + Fixed Deposit	₹1,19,59,350

The comparative analysis of portfolio returns reveals significant variation in performance across different investment avenues. Portfolio 2, comprising investments in ten equity mutual funds, generated the highest return of ₹4,41,30,095, indicating the strong wealth creation potential of market-linked instruments over the long term. Portfolio 3, consisting of ten ESG mutual funds, also delivered substantial returns of ₹3,63,92,958, demonstrating that sustainable investment options can provide competitive financial performance while incorporating environmental, social, and governance considerations. In contrast, Portfolio 1, represented by the LIC New Jeevan Anand policy, yielded a return of ₹1,74,00,000, reflecting the relatively moderate returns associated with traditional insurance-cum-investment products. Portfolio 4, which includes a combination of term insurance, PPF, and fixed deposits, recorded the lowest return of

₹1,19,59,350, highlighting the conservative nature of these instruments that prioritize capital safety and financial protection over high returns. Overall, the analysis indicates that while traditional investment avenues offer stability and security, market-linked investments such as equity and ESG mutual funds significantly outperform them in terms of return generation, thereby emphasizing the importance of portfolio diversification based on investor risk appetite and financial objectives.

Conclusion :

From the findings of this study, it can be concluded that investors must carefully analyze and compare the returns and characteristics of different investment avenues before making financial decisions in order to maximize returns from the same amount invested. Traditionally, Indian investors have shown a strong preference for endowment plans and other low-risk instruments due to limited financial awareness and a focus on safety and guaranteed returns. However, this trend is gradually changing as investors are becoming more financially literate and gaining a better understanding of market-linked instruments such as mutual funds. The study clearly indicates that, when the same amount is invested across different options, equity and ESG mutual funds tend to generate higher returns compared to traditional investment avenues such as fixed deposits, PPF, and insurance-based savings plans. This superior performance can be attributed to their exposure to equity markets, professional fund management, and diversification benefits. Insurance plans should be seen only as risk management exercise and nothing. Nevertheless, while mutual funds emerge as a more effective option for wealth creation, investors should also consider their risk tolerance, investment horizon, and financial goals before making investment decisions. Therefore, a balanced approach that combines high-return instruments like mutual funds with stable and protective financial products can help investors achieve both wealth creation and financial security in the long run.

The study is subject to certain limitations that should be considered while interpreting the results. For the calculation of Compound Annual Growth Rate (CAGR), only five years of historical data have been considered, which may not fully capture long-term market trends or cyclical variations. Although numerous investment options are available in the financial market, this study focuses only on selected instruments, namely LIC Jeevan Anand, equity mutual funds, ESG mutual funds, Public Provident Fund (PPF), Fixed Deposits, and term insurance, thereby limiting the scope of comparison. Additionally, only the top 10 equity and ESG mutual funds have been included for return calculation, which may not represent the entire mutual fund universe and could introduce selection bias. The study also relies on secondary data sources, which may be subject to data availability constraints and reporting

inconsistencies. Furthermore, the analysis does not account for individual investor preferences, behavioral biases, or varying risk appetites, which can significantly influence investment decisions. Lastly, macroeconomic factors such as inflation, interest rate fluctuations, and policy changes have not been explicitly incorporated into the analysis, which may affect the generalizability of the findings.

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Impact of Quality of Work Life on Employee Performance: The Mediating Role of Job Satisfaction among Online Food Delivery Employees

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Abstract

The rapid growth of the online food delivery industry has created substantial employment opportunities while introducing challenges related to employees' working conditions, job satisfaction, and performance. Delivery employees often encounter long working hours, irregular schedules, traffic congestion, safety risks, workload pressure, and income uncertainty, which may adversely affect their quality of work life and job performance. This study examines the impact of Quality of Work Life (QWL) on Employee Performance (EP) with the mediating role of Job Satisfaction (JS) among online food delivery employees. A quantitative research approach with a descriptive and explanatory design was adopted. Primary data were collected from 600 online food delivery employees in Lucknow, Uttar Pradesh, using a structured questionnaire based on a five-point Likert scale and analyzed through SmartPLS 4. The results confirmed satisfactory reliability and validity of the measurement model. Structural Equation Modeling (SEM) revealed that Quality of Work Life positively influences Employee Performance ($\beta = 0.463$) and Job Satisfaction ($\beta = 0.897$), while Job Satisfaction significantly enhances Employee Performance ($\beta = 0.494$) and mediates the relationship between Quality of Work Life and Employee Performance ($\beta = 0.444$). The findings indicate that improving employees' quality of work life enhances job satisfaction, which subsequently improves performance. The study provides valuable implications for online food delivery companies in developing employee-oriented policies that promote workforce well-being, productivity, and sustainable organizational performance.

Keywords: Quality of Work Life, Job Satisfaction, Employee Performance, Online Food Delivery Employees, Structural Equation Modeling.

1. Introduction :

The rapid advancement of digital technology and the widespread use of smartphones have transformed the way people purchase goods and services. One of the fastest-growing sectors benefiting from this digital

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revolution is the online food delivery industry. Over the past decade, food delivery platforms have become an integral part of consumers' daily lives by providing quick, convenient, and contactless food ordering services. The increasing demand for online food delivery has accelerated the growth of companies such as Swiggy, Zomato, Uber Eats, DoorDash, and Foodpanda, creating millions of employment opportunities for delivery executives and platform-based workers across the world. In India, the online food delivery market has expanded rapidly due to urbanization, changing lifestyles, busy work schedules, increasing internet penetration, and the growing preference for digital payment systems.

The success of online food delivery companies largely depends on the efficiency, dedication, and performance of their employees. Delivery executives serve as the direct link between restaurants and customers and play a crucial role in ensuring timely deliveries, maintaining service quality, and enhancing customer satisfaction. Their performance directly influences customer experience, company reputation, and long-term business sustainability. However, the nature of their work is highly demanding and involves several physical and psychological challenges, including long working hours, unpredictable work schedules, traffic congestion, adverse weather conditions, customer complaints, time pressure, occupational safety risks, and income uncertainty. These challenges often affect employees' motivation, job satisfaction, and overall work performance. Therefore, organizations need to create a supportive work environment that promotes employees' well-being and improves their quality of work life.

Quality of Work Life (QWL) has emerged as an important concept in human resource management because it focuses on improving employees' working conditions and overall well-being. It refers to the degree to which employees are able to satisfy their personal and professional needs through their work environment. A high quality of work life includes fair compensation, safe and healthy working conditions, opportunities for career growth, job security, work-life balance, supportive leadership, employee participation, and recognition for good performance. Organizations that invest in improving the quality of work life are more likely to develop a motivated, committed, and productive workforce. Employees who feel valued and supported generally demonstrate higher levels of engagement and are more willing to contribute towards organizational success.

Another important factor influencing organizational effectiveness is Job Satisfaction. It represents employees' positive emotional response toward their jobs and reflects the extent to which they feel happy and fulfilled in their work. Job satisfaction is influenced by several factors, including salary, workload, career advancement opportunities, organizational support,

relationships with supervisors and colleagues, and the overall work environment. Employees who are satisfied with their jobs tend to be more committed, productive, and loyal to their organizations. They are also less likely to experience stress, absenteeism, and turnover intentions. In contrast, dissatisfied employees often exhibit lower motivation, reduced productivity, and poor service quality, which may negatively affect organizational performance.

Employee Performance is considered one of the most important indicators of organizational success. It reflects how effectively employees perform their assigned tasks and responsibilities in achieving organizational objectives. In the online food delivery industry, employee performance is measured through timely order delivery, customer satisfaction, service quality, route efficiency, professionalism, communication skills, and adherence to organizational policies. High employee performance enables organizations to strengthen customer trust, improve operational efficiency, and maintain a competitive advantage in an increasingly dynamic marketplace.

Previous studies have consistently highlighted the positive relationship between Quality of Work Life, Job Satisfaction, and Employee Performance. A supportive work environment improves employees' satisfaction, motivation, and commitment, which ultimately enhances their work performance. Moreover, research suggests that Job Satisfaction acts as an important mediating variable, meaning that improvements in the quality of work life first increase employees' satisfaction with their jobs, which then leads to better performance. Thus, organizations seeking sustainable growth should focus not only on improving working conditions but also on creating an environment that enhances employees' job satisfaction.

The relevance of these relationships becomes even more significant in the online food delivery sector because most employees work under the gig economy model. Unlike traditional employees, delivery partners often experience flexible work arrangements, performance-based incentives, algorithm-driven task allocation, limited employment security, and irregular income. While this flexibility offers certain advantages, it also creates uncertainty regarding career growth, financial stability, social security, and work-life balance. These unique characteristics distinguish online food delivery employees from workers in conventional industries and make it essential to understand the factors influencing their performance.

Although numerous studies have examined the relationships among Quality of Work Life, Job Satisfaction, and Employee Performance in sectors such as manufacturing, healthcare, banking, education, hospitality, and information technology, limited research has been conducted on online food delivery employees, particularly in the Indian context. Existing studies have

primarily focused on customer satisfaction, service quality, consumer behaviour, and technological adoption, while comparatively less attention has been given to the well-being and performance of delivery employees. This research gap highlights the need for a comprehensive investigation into how Quality of Work Life influences Employee Performance through the mediating role of Job Satisfaction among online food delivery employees. The present study attempts to address this gap by examining the direct relationship between Quality of Work Life and Employee Performance, the effect of Quality of Work Life on Job Satisfaction, the influence of Job Satisfaction on Employee Performance, and the mediating role of Job Satisfaction in the relationship between Quality of Work Life and Employee Performance. The findings of this study are expected to contribute to the existing literature on organizational behaviour and human resource management while offering practical recommendations for online food delivery companies to improve employee welfare, strengthen job satisfaction, enhance performance, reduce turnover, and achieve long-term organizational success. Furthermore, the study will provide valuable insights for managers and policymakers in designing employee-centric strategies that promote a healthier work environment and sustainable workforce development in the rapidly expanding online food delivery industry.

The present study is grounded in established theories of organizational behaviour and human resource management that explain the relationship among Quality of Work Life (QWL), Job Satisfaction (JS), and Employee Performance (EP). The theoretical foundation provides a conceptual basis for understanding how improvements in employees' working conditions contribute to higher job satisfaction and better work performance. The study primarily draws upon Walton's Quality of Work Life Theory (1973), Herzberg's Two-Factor Theory (1959), and Social Exchange Theory (Blau, 1964).

Walton's Quality of Work Life Theory (1973) serves as the primary theoretical foundation of this study. Walton proposed that employees' quality of work life is determined by several dimensions, including fair and adequate compensation, safe and healthy working conditions, opportunities for growth and development, constitutionalism, social integration, work-life balance, social relevance of work, and the development of human capabilities. According to this theory, organizations that provide a supportive and employee-friendly work environment enhance employees' well-being, motivation, and productivity. In the context of online food delivery employees, improving working conditions, ensuring safety, providing fair incentives, and maintaining work-life balance are expected to increase both job satisfaction

and employee performance.

The study is also supported by Herzberg's Two-Factor Theory (1959), which explains that employee satisfaction and dissatisfaction are influenced by two different groups of factors. Hygiene factors, such as salary, company policies, supervision, working conditions, and job security, help prevent dissatisfaction, while motivational factors, including recognition, achievement, responsibility, career advancement, and personal growth, create job satisfaction and encourage employees to perform better. According to Herzberg, organizations should focus on both hygiene and motivational factors to improve employee satisfaction and performance. This theory supports the assumption that a better quality of work life increases job satisfaction, which subsequently enhances employee performance.

Another important theoretical basis for this study is Social Exchange Theory (Blau, 1964). This theory suggests that relationships between employees and organizations are based on mutual exchange. When employees perceive that their organization provides support, fair treatment, recognition, and favourable working conditions, they feel a sense of obligation to reciprocate through greater commitment, higher job satisfaction, and improved work performance. In the online food delivery industry, employees who receive organizational support, fair compensation, and a safe work environment are more likely to remain motivated and contribute positively to organizational goals.

Together, these theories provide a strong conceptual foundation for the present study. Walton's Quality of Work Life Theory explains how favourable working conditions improve employees' overall well-being, Herzberg's Two-Factor Theory describes how workplace factors influence job satisfaction and motivation, and Social Exchange Theory explains why employees respond positively to organizational support by improving their performance. Based on these theoretical perspectives, the present study proposes that Quality of Work Life positively influences Employee Performance both directly and indirectly through Job Satisfaction among online food delivery employees. This theoretical framework supports the proposed conceptual model and provides the basis for examining the hypothesized relationships using Structural Equation Modeling (SEM).

Problem Statement

The online food delivery industry has expanded rapidly due to digital transformation, changing consumer lifestyles, and increasing demand for convenient food services. Despite this growth, online food delivery employees face several challenges, including long working hours, irregular schedules, workload pressure, traffic congestion, occupational safety risks, income uncertainty, and limited job security. These challenges may negatively affect

their Quality of Work Life (QWL), reduce Job Satisfaction (JS), and ultimately lower Employee Performance (EP). Although previous studies have examined the relationships among Quality of Work Life, Job Satisfaction, and Employee Performance in sectors such as healthcare, manufacturing, banking, and education, limited research has focused on online food delivery employees, particularly in the Indian context. Furthermore, the mediating role of Job Satisfaction in the relationship between Quality of Work Life and Employee Performance has received little attention in this sector. Therefore, the present study seeks to examine how Quality of Work Life influences Employee Performance directly and indirectly through Job Satisfaction among online food delivery employees, thereby addressing an important research gap and providing useful insights for improving employee well-being and organizational performance.

Significance of the Study

The present study is significant because it contributes to the understanding of how Quality of Work Life influences Employee Performance through the mediating role of Job Satisfaction among online food delivery employees. The findings will enrich the existing literature on human resource management and organizational behaviour by extending these concepts to the rapidly growing gig economy. The study will also provide practical guidance to online food delivery companies in developing employee-friendly policies related to working conditions, compensation, work-life balance, safety, and organizational support to improve employee satisfaction and performance. In addition, the findings may assist managers, policymakers, and labour authorities in designing strategies that enhance employee welfare, reduce turnover, increase productivity, and improve service quality. Overall, the study offers valuable insights for researchers, practitioners, and organizations seeking to build a motivated, satisfied, and high-performing workforce in the online food delivery industry.

2. Literature Review :

The concept of Quality of Work Life (QWL) has gained significant attention in organizational research because it directly influences employees' attitudes, motivation, and overall performance. In today's competitive business environment, organizations recognize that providing a healthy work environment, fair compensation, job security, career development opportunities, and work-life balance contributes to employee satisfaction and organizational success. This is particularly important in the online food delivery sector, where employees often work under high pressure, flexible schedules, and performance-based incentive systems. Researchers have consistently reported that improving employees' quality of work life leads to higher job satisfaction, stronger organizational commitment, and enhanced

work performance.

The concept of Quality of Work Life was first introduced by Walton (1973), who identified eight major dimensions, including fair compensation, safe working conditions, opportunities for growth, constitutionalism, social integration, work-life balance, social relevance of work, and the development of human capabilities. Walton argued that employees perform better when organizations create supportive working environments that fulfill both personal and professional needs. Similarly, Hackman and Oldham (1976) emphasized that meaningful work, autonomy, task identity, task significance, and feedback improve employees' motivation and satisfaction, ultimately enhancing performance.

According to Sirgy et al. (2001), Quality of Work Life refers to employees' overall satisfaction with their work environment and the extent to which the workplace fulfills their personal needs. Their study suggested that organizations promoting employee well-being experience higher productivity and lower turnover. Likewise, Rethinam and Ismail (2008) explained that Quality of Work Life includes physical, psychological, social, and economic aspects that contribute to employee well-being and organizational effectiveness. Their findings highlighted that employees experiencing a better quality of work life demonstrate greater commitment and improved job performance.

Several studies have confirmed the positive relationship between Quality of Work Life and Job Satisfaction. Saklani (2004) reported that employees working in supportive organizational environments exhibit higher levels of satisfaction, commitment, and motivation. Similarly, Nanjundeswaraswamy and Swamy (2013) concluded that Quality of Work Life is one of the strongest predictors of employee satisfaction because it creates a positive workplace culture that encourages engagement and productivity. Their study emphasized that organizations investing in employee welfare achieve better organizational outcomes.

Job Satisfaction is another important factor influencing employee behaviour and organizational performance. Locke (1976) defined Job Satisfaction as a pleasurable emotional state resulting from the appraisal of one's job or job experiences. Employees who are satisfied with their work generally demonstrate higher motivation, lower absenteeism, and stronger organizational commitment. According to Spector (1997), Job Satisfaction reflects employees' attitudes toward various aspects of their jobs, including supervision, salary, promotion opportunities, co-workers, and working conditions. High levels of job satisfaction contribute to increased productivity and organizational effectiveness.

The relationship between Job Satisfaction and Employee
(80)

Performance has been widely examined in organizational research. Judge, Thoresen, Bono, and Patton (2001) conducted a meta-analysis and found a significant positive relationship between job satisfaction and job performance across different occupations and industries. Their findings indicated that satisfied employees are more productive, creative, and committed to achieving organizational objectives. Similarly, Riketta (2008) confirmed that employees with higher job satisfaction consistently demonstrate superior work performance and lower turnover intentions.

Employee Performance refers to the effectiveness with which employees perform assigned tasks and contribute to organizational goals. According to Campbell (1990), employee performance includes behaviours and actions that are relevant to organizational objectives rather than merely outcomes. Armstrong (2020) argued that employee performance is influenced by motivation, organizational support, leadership, training, and work environment. Organizations that provide supportive working conditions generally achieve higher levels of employee productivity and service quality.

Numerous researchers have examined the direct relationship between Quality of Work Life and Employee Performance. Rose et al. (2006) found that employees experiencing a better quality of work life demonstrate higher commitment, improved performance, and lower stress levels. Similarly, Koonmee et al. (2010) reported that Quality of Work Life significantly improves employee productivity by creating a supportive work environment that encourages motivation and innovation. Their findings suggested that organizations focusing on employee well-being achieve sustainable organizational growth.

The mediating role of Job Satisfaction between Quality of Work Life and Employee Performance has also attracted considerable research interest. Azeem and Akhtar (2014) found that Job Satisfaction partially mediates the relationship between Quality of Work Life and employee performance, indicating that improved working conditions first enhance employees' satisfaction, which subsequently leads to better performance. Likewise, Islam and Siengthai (2009) observed that Quality of Work Life positively influences employee performance through increased job satisfaction and organizational commitment. These studies suggest that organizations should simultaneously improve workplace conditions and employee satisfaction to maximize organizational performance.

In the context of the gig economy, online food delivery employees experience unique workplace challenges, including irregular working hours, income uncertainty, workload pressure, customer ratings, traffic conditions, and occupational safety concerns. Wood et al. (2019) highlighted that platform-based workers often experience both flexibility and insecurity,

making Quality of Work Life an important determinant of employee satisfaction and performance. Similarly, Apouey et al. (2020) reported that gig workers' well-being depends largely on fair earnings, job security, work flexibility, and organizational support. These findings are highly relevant for online food delivery employees working with digital platforms.

Recent studies focusing on digital platform workers also support the importance of improving working conditions. Bajwa et al. (2018) observed that gig workers frequently encounter employment insecurity, long working hours, and limited organizational support, which negatively affect their job satisfaction and performance. Likewise, Stewart and Stanford (2017) emphasized that platform-based organizations should develop policies promoting employee welfare, safety, and fair compensation to improve workforce productivity.

Overall, previous studies consistently indicate that Quality of Work Life significantly enhances Job Satisfaction and Employee Performance across different industries. Job Satisfaction also serves as an important mechanism through which Quality of Work Life improves employee performance. However, despite extensive research in manufacturing, healthcare, education, banking, and hospitality sectors, limited empirical evidence is available regarding the online food delivery industry, particularly in the Indian context. Considering the rapid growth of food delivery platforms and the unique working conditions of delivery employees, there is a need to examine how Quality of Work Life influences Employee Performance through Job Satisfaction. The present study attempts to address this research gap by investigating the mediating role of Job Satisfaction among online food delivery employees.

Research Gap

Although a considerable number of studies have examined the relationships among Quality of Work Life (QWL), Job Satisfaction (JS), and Employee Performance (EP), most of this research has been conducted in traditional sectors such as healthcare, manufacturing, banking, education, hospitality, and information technology. Comparatively, limited attention has been given to the online food delivery industry, where employees work under unique conditions characterized by flexible schedules, performance-based incentives, algorithm-driven work allocation, traffic-related stress, occupational safety concerns, and income uncertainty. The existing literature has primarily focused on customer satisfaction, service quality, consumer behaviour, and technology adoption, while the well-being and performance of delivery employees have received relatively little attention. Furthermore, only a few studies have examined the mediating role of Job Satisfaction in the relationship between Quality of Work Life and Employee Performance,

particularly in the context of platform-based or gig economy workers in India. In addition, empirical evidence using Structural Equation Modeling (SEM) to investigate these relationships among online food delivery employees remains limited. Therefore, there is a need for a comprehensive study that explores how Quality of Work Life influences Employee Performance directly and indirectly through Job Satisfaction among online food delivery employees. The present study addresses this gap by providing empirical evidence from the Indian online food delivery sector and contributes to the existing literature by offering practical insights for improving employee well-being, job satisfaction, and organizational performance.

Research Objectives

1. To examine the impact of Quality of Work Life on Employee Performance among online food delivery employees.
2. To investigate the influence of Quality of Work Life on Job Satisfaction among online food delivery employees.
3. To analyze the impact of Job Satisfaction on Employee Performance among online food delivery employees.
4. To examine the mediating role of Job Satisfaction in the relationship between Quality of Work Life and Employee Performance.

Research Hypotheses

H01: Quality of Work Life has no significant impact on Employee Performance among online food delivery employees.

H02: Quality of Work Life has no significant impact on Job Satisfaction among online food delivery employees.

H03: Job Satisfaction has no significant impact on Employee Performance among online food delivery employees.

H04: Job Satisfaction does not significantly mediate the relationship between Quality of Work Life and Employee Performance among online food delivery employees.

3. Research Methodology :

The present study adopted a quantitative research approach with a descriptive and explanatory research design to examine the impact of Quality of Work Life on Employee Performance and the mediating role of Job Satisfaction among online food delivery employees. The study was conducted among employees working for online food delivery platforms in Lucknow, Uttar Pradesh. A total of 600 respondents were selected using the convenience sampling technique. Primary data were collected through a structured questionnaire consisting of demographic questions and measurement items related to Quality of Work Life, Job Satisfaction, and Employee Performance. All construct items were measured using a five-point Likert scale, ranging from 1 = Strongly Disagree to 5 = Strongly Agree.

Secondary data were obtained from books, research journals, published articles, reports, and relevant online sources to support the theoretical framework. The collected data were analyzed using SmartPLS 4 for Structural Equation Modeling (SEM). The analysis included descriptive statistics, reliability analysis (Cronbach's Alpha and Composite Reliability), convergent validity (Average Variance Extracted and Outer Loadings), correlation analysis, path coefficient analysis, coefficient of determination (R^2), mediation analysis, and model fit indices such as SRMR and NFI. Ethical standards were maintained throughout the study by ensuring voluntary participation, informed consent, and confidentiality of the respondents' information.

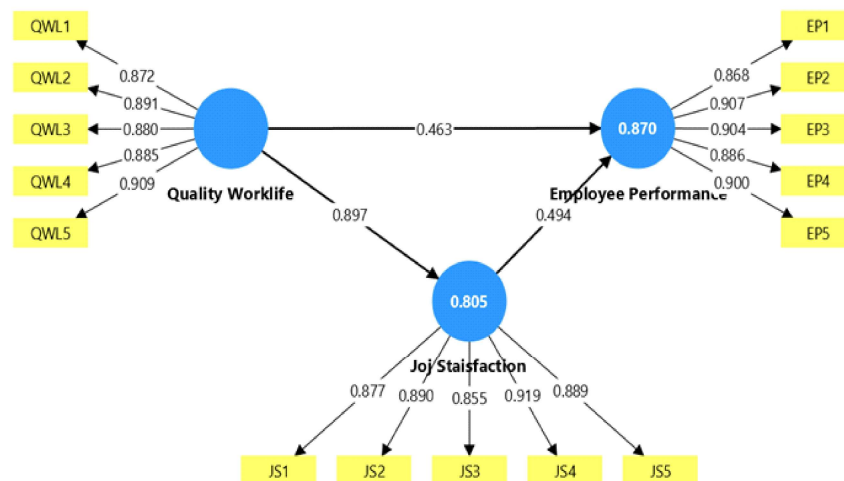


Fig-1.1 Path Diagram

The collected data were coded, organized, and analyzed using SmartPLS 4. Initially, Structural Equation Modeling (SEM) was performed using SmartPLS 4 to examine the relationships among Quality of Work Life (QWL), Job Satisfaction (JS), and Employee Performance (EP). The measurement model was evaluated by assessing indicator reliability (Outer Loadings), internal consistency reliability (Cronbach's Alpha and Composite Reliability), and convergent validity using Average Variance Extracted (AVE). The structural model was then assessed through path coefficient analysis, coefficient of determination (R^2), correlation analysis, mediation analysis, and total effects to test the proposed hypotheses. Finally, the overall model fitness was evaluated using Standardized Root Mean Square Residual (SRMR) and Normed Fit Index (NFI). These statistical techniques ensured the reliability, validity, and robustness of the research model and provided empirical evidence regarding the impact of Quality of Work Life on Employee

Performance through the mediating role of Job Satisfaction among online food delivery.

Table- No.1 Path coefficients

	Path coefficients
Job Satisfaction -> Employee Performance	0.494
Quality Worklife -> Employee Performance	0.463
Quality Worklife -> Job Satisfaction	0.897

The path coefficient analysis was conducted using SmartPLS 4 to examine the direct relationships among Quality of Work Life (QWL), Job Satisfaction (JS), and Employee Performance (EP). The results indicate that Quality of Work Life has a significant positive impact on Employee Performance ($\beta = 0.463$), suggesting that employees who experience better working conditions, fair compensation, organizational support, and work-life balance tend to perform their job responsibilities more effectively. Furthermore, Quality of Work Life has a very strong positive influence on Job Satisfaction ($\beta = 0.897$), indicating that improvements in employees' quality of work life substantially enhance their level of job satisfaction. The analysis also reveals that Job Satisfaction positively affects Employee Performance ($\beta = 0.494$), demonstrating that satisfied employees are more motivated, committed, and productive in their work. Among all the relationships, the strongest effect is observed between Quality of Work Life and Job Satisfaction, highlighting the importance of providing a supportive and employee-friendly work environment. Overall, the path coefficient results confirm that Quality of Work Life directly improves Employee Performance and also indirectly enhances performance by increasing Job Satisfaction among online food delivery employees. These findings support the proposed conceptual framework and indicate that all the hypothesized relationships are positive and meaningful.

Table- No.2 Total indirect effects

	Total indirect effects
Quality Worklife -> Employee Performance	0.444

Table- No.3 Total effects

	Total effects
Job Satisfaction -> Employee Performance	0.494
Quality Worklife -> Employee Performance	0.907
Quality Worklife -> Job Satisfaction	0.897

The total effects analysis was performed to evaluate the overall influence of the study variables by considering both direct and indirect effects within the structural model. The results indicate that Quality of Work Life has a very strong total effect on Employee Performance ($\beta = 0.907$), demonstrating that improvements in employees' quality of work life

substantially enhance their overall performance through both direct and indirect pathways. This finding suggests that providing fair compensation, a supportive work environment, work-life balance, and opportunities for growth not only improves employees' performance directly but also increases their performance by enhancing job satisfaction. The total effect of Quality of Work Life on Job Satisfaction ($\beta = 0.897$) is also very high, indicating that employees who perceive a better quality of work life are more satisfied with their jobs. In addition, Job Satisfaction has a positive total effect on Employee Performance ($\beta = 0.494$), confirming that satisfied employees are more motivated, committed, and productive in performing their duties. Overall, the total effects analysis highlights that Quality of Work Life is the most influential factor affecting Employee Performance, while Job Satisfaction serves as an important mechanism through which Quality of Work Life enhances employee performance among online food delivery employees. These findings reinforce the importance of creating a supportive work environment to improve employee satisfaction, productivity, service quality, and organizational effectiveness.

Table- No.4 Outer loadings

	Outer loadings
EP1 <- Employee Performance	0.868
EP2 <- Employee Performance	0.907
EP3 <- Employee Performance	0.904
EP4 <- Employee Performance	0.886
EP5 <- Employee Performance	0.900
JS1 <- Job Satisfaction	0.877
JS2 <- Job Satisfaction	0.890
JS3 <- Job Satisfaction	0.855
JS4 <- Job Satisfaction	0.919
JS5 <- Job Satisfaction	0.889
QWL1 <- Quality Worklife	0.872
QWL2 <- Quality Worklife	0.891
QWL3 <- Quality Worklife	0.880
QWL4 <- Quality Worklife	0.885
QWL5 <- Quality Worklife	0.909

The outer loadings were examined to assess the indicator reliability of the measurement model. According to Hair et al. (2022), outer loading values greater than 0.70 indicate that the observed indicators reliably measure their respective latent constructs. The results show that all measurement items exceeded the recommended threshold, confirming strong indicator reliability.

For the construct Employee Performance, the outer loading values ranged from 0.868 to 0.907. Specifically, EP2 (0.907) exhibited the highest loading, followed by EP3 (0.904), EP5 (0.900), EP4 (0.886), and EP1 (0.868). These high values indicate that all five indicators effectively represent the Employee Performance construct.

Similarly, the construct Job Satisfaction demonstrated strong indicator reliability, with outer loading values ranging from 0.855 to 0.919. Among these, JS4 (0.919) showed the highest loading, followed by JS2 (0.890), JS5 (0.889), JS1 (0.877), and JS3 (0.855). The results confirm that each indicator adequately measures the Job Satisfaction construct.

For Quality of Work Life, all five indicators also recorded high outer loading values, ranging from 0.872 to 0.909. The highest loading was observed for QWL5 (0.909), followed by QWL2 (0.891), QWL4 (0.885), QWL3 (0.880), and QWL1 (0.872). These findings indicate that the indicators have a strong relationship with the Quality of Work Life construct.

Overall, all outer loading values are well above the recommended threshold of 0.70, confirming that the measurement items possess excellent indicator reliability and adequately represent their respective constructs. Therefore, all indicators were retained for further analysis, and the measurement model demonstrates satisfactory reliability and construct validity for examining the relationships among Quality of Work Life, Job Satisfaction, and Employee Performance among online food delivery employees.

Table- No.5 Correlations

	Employee Performance	Job Satisfaction	Quality Worklife
Employee Performance	1.000	0.910	0.907
Job Satisfaction	0.910	1.000	0.897
Quality Worklife	0.907	0.897	1.000

Correlation analysis was conducted to examine the strength and direction of the relationships among Quality of Work Life (QWL), Job Satisfaction (JS), and Employee Performance (EP). The results indicate that all variables are strongly and positively correlated, suggesting that improvements in one construct are associated with corresponding improvements in the others.

The correlation between Employee Performance and Job Satisfaction was 0.910, indicating a very strong positive relationship. This suggests that employees who are more satisfied with their jobs tend to perform better in their assigned responsibilities. Similarly, the correlation between Employee Performance and Quality of Work Life was 0.907, demonstrating that employees who experience better working conditions, organizational support, fair compensation, and work-life balance are more likely to achieve higher levels of performance.

Furthermore, the correlation between Quality of Work Life and Job Satisfaction was 0.897, which also represents a strong positive relationship. This finding indicates that improvements in employees' quality of work life significantly enhance their level of job satisfaction. Overall, the correlation coefficients show that all three constructs are closely associated

with one another and move in the same direction. These findings support the proposed conceptual framework and provide preliminary evidence that Quality of Work Life positively influences Job Satisfaction and Employee Performance, while Job Satisfaction is also positively associated with Employee Performance among online food delivery employees. The strong positive correlations further justify the use of Structural Equation Modeling (SEM) to examine the direct and mediating relationships among the study variables.

Table- No.6 R-square

	R-square adjusted
Employee Performance	0.867
Job Satisfaction	0.803

The Adjusted R^2 values were examined to determine the explanatory power of the proposed structural model. The results indicate that the Adjusted R^2 value for Employee Performance is 0.867, which means that 86.7% of the variation in Employee Performance is explained by Quality of Work Life and Job Satisfaction. This high value indicates that the independent and mediating variables included in the model have strong predictive power in explaining employee performance among online food delivery employees. The remaining 13.3% of the variation may be influenced by other factors that were not included in the present study.

Similarly, the Adjusted R^2 value for Job Satisfaction is 0.803, indicating that 80.3% of the variation in Job Satisfaction is explained by Quality of Work Life. This finding demonstrates that Quality of Work Life is a major determinant of employees' job satisfaction and significantly contributes to improving their overall work experience.

Overall, the Adjusted R^2 values indicate that the proposed model has strong explanatory and predictive capability. The results confirm that Quality of Work Life and Job Satisfaction are key factors influencing Employee Performance among online food delivery employees. According to commonly accepted guidelines for Structural Equation Modeling (SEM), Adjusted R^2 values above 0.75 represent substantial explanatory power. Therefore, the obtained values (0.867 for Employee Performance and 0.803 for Job Satisfaction) demonstrate that the proposed research model is robust and effectively explains the relationships among the study variables.

Table- No.7 Reliability

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Employee Performance	0.937	0.938	0.952	0.798
Job Satisfaction	0.931	0.932	0.948	0.785
Quality Worklife	0.933	0.933	0.949	0.788

with one another and move in the same direction. These findings support the proposed conceptual framework and provide preliminary evidence that Quality of Work Life positively influences Job Satisfaction and Employee Performance, while Job Satisfaction is also positively associated with Employee Performance among online food delivery employees. The strong positive correlations further justify the use of Structural Equation Modeling (SEM) to examine the direct and mediating relationships among the study variables.

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of the model.

The Chi-square value of the model was 162.431, representing the overall discrepancy between the observed and estimated covariance matrices. In Partial Least Squares Structural Equation Modeling (PLS-SEM), the Chi-square statistic is generally interpreted together with other fit indices rather than as a standalone measure.

Furthermore, the Normed Fit Index (NFI) was 0.903, which exceeds the recommended benchmark of 0.90. This indicates that the proposed model provides a good fit to the observed data and adequately explains the relationships among the study variables.

Overall, the model fit indices demonstrate that the proposed structural model possesses good overall model fit and strong predictive capability. The obtained values confirm that the measurement and structural models are appropriate for examining the relationships among Quality of Work Life, Job Satisfaction, and Employee Performance among online food delivery employees. Therefore, the proposed conceptual framework is statistically acceptable and suitable for hypothesis testing and interpretation of the study findings.

5. Conclusion :

The present study concludes that Quality of Work Life (QWL) plays a significant role in improving Employee Performance (EP) both directly and indirectly through Job Satisfaction (JS) among online food delivery employees. The findings indicate that employees who receive fair compensation, safe working conditions, supportive supervision, career development opportunities, and a healthy work-life balance are more satisfied with their jobs and demonstrate higher levels of performance. The study also confirms that Job Satisfaction significantly mediates the relationship between Quality of Work Life and Employee Performance, suggesting that better working conditions increase employee satisfaction, which ultimately enhances their productivity and service quality. These findings emphasize that online food delivery companies should adopt employee-oriented human resource practices, including fair incentive systems, health and safety measures, recognition programs, training, flexible work arrangements, and employee welfare initiatives. Such measures can improve employee motivation, reduce stress, absenteeism, and turnover intentions while increasing productivity, service efficiency, customer satisfaction, and organizational performance. The study also benefits managers by providing insights for developing effective workforce strategies, assists policymakers in formulating better labour welfare policies for gig workers, and contributes to the existing literature by providing empirical evidence from the Indian online food delivery sector. Overall, investing in employees' quality of work

life not only enhances their job satisfaction and performance but also strengthens organizational sustainability, competitive advantage, and long-term business growth in the rapidly expanding online food delivery industry.

6. Suggestions and Recommendations :

Based on the findings of the study, it is recommended that online food delivery companies focus on improving the Quality of Work Life (QWL) of their employees to enhance Job Satisfaction (JS) and Employee Performance (EP). Organizations should provide fair and transparent compensation, attractive incentive schemes, timely payments, and adequate employee benefits to improve financial security and motivation. Ensuring safe working conditions by offering accident insurance, safety equipment, and regular road safety training is essential, as delivery employees are frequently exposed to occupational risks. Companies should also promote work-life balance through flexible work schedules, reasonable working hours, and sufficient rest periods to reduce stress and burnout. Employee satisfaction can be further enhanced by recognizing outstanding performance, providing opportunities for career development, and organizing regular training programs to improve technical, communication, and customer service skills. Managers should maintain open communication with employees, encourage feedback, and address workplace concerns promptly to create a supportive organizational culture. In addition, organizations should introduce employee welfare initiatives, including health and wellness programs, counselling services, and financial assistance, to improve overall well-being. Policymakers should also formulate labour welfare policies that ensure social security, health insurance, accident coverage, and legal protection for gig workers in the online food delivery sector. By implementing these recommendations, organizations can improve employee motivation, reduce absenteeism and turnover, enhance service quality, strengthen customer satisfaction, increase organizational productivity, and achieve sustainable long-term business growth while creating a healthier and more supportive work environment for online food delivery employees.

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Registration of Electric Vehicles in the Eastern and Western India

Dr. Krishna Kumar Verma*, Dr. Jyoti Singh**

Abstract

This paper focuses on the registration of e-vehicles in the eastern and western zones of India. The last 10 years of data (2016-2025) were collected from government reports, journals, articles, and the official websites of the R.T.O.s in the respective regions. After collecting data, the master sheet were prepared in Ms excel and analysis with the help of mathematical applications, percentage over total registration of electric vehicles in each state of east and west regions, previous year changes were calculated if each regions and after that the comparing the both region by percentage of registration of electric vehicles in east and west region of over all registration of electric vehicles in both regions. The study's findings show that the highest number of electric vehicle registrations was 44.10 percent in Bihar, followed by 23.38 percent in West Bengal, over the last 10 years. The study shows the positive changes in all states in the eastern region. In the western region, the highest number of electric vehicles was found in Maharashtra, i.e., 52.61 percent, followed by Rajasthan, i.e., 25.86 percent, over the last 10 years. The previous year's changes show a positive change in the western region's state, but a negative change in Goa's state, i.e., 0.1595. After that, they compared the registration of electric vehicles in both regions and found that the highest number of registrations was in the western region, i.e., 69.39 percent, over the eastern region, 36.61 percent, in the last 10 years (2016-2025). The study concludes that purchasing behavior and the number of electric vehicle users are increasing in both regions compared to the last 10 years. It shows that consumer interest in Bihar in the east and Maharashtra in the west is concentrated in the region. Overall, the study concluded that there are positive changes in both regions. It means consumer awareness level and interest in purchasing vehicles shifted to electric vehicles. This is favourable to our society and environment.

Keywords: Electric Vehicles, Registration, East Region, West Region, Percentage.

Introduction :

Electric Vehicles: Electric Vehicles (EV) is a vehicles which are powered by one or more electric motors, using stored energy rechargeable

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batteries rather than internal combustion engine fuelled by gasoline or diesel (source: <https://efdc.energy.gov>) . There is a variety of two types of e-vehicles i.e. Battery electric vehicles (BEVs) which run entirely on electricity and Plug-in-Hybrid vehicles (PHEVs) which combine an electric motor with a traditional engine.

Eastern Region: The present study focuses on the registration of electric vehicles in the eastern Indian states of Jharkhand, West Bengal, Bihar, Odisha, along with the union territory of Andaman & Nicobar. The east region is rapidly improving and expanding, with public charging infrastructure that supports long-distance travel and fleets in urban areas. The key corridor connecting Kolkata to Durgapur, Asansol, Siliguri, and towards the borders of Jharkhand and Odisha. The total number of electric vehicles registered in the last 10 years, from 2016 to 2025, was 10,03,655.

Western Region: Secondly, selected western regions of the Indian states of Maharashtra, Goa, Rajasthan, and Gujarat, along with the Union Territory of Dadra and Nagar Haveli and Daman and Diu. The western region of India is one of the country's most industrialized and urbanised areas. The total number of electric vehicles registered in the last 10 years, from 2016 to 2025, was 17,37,470.

Review of Literature :

N. Chandrasekar & Palanivelu V.R (2018) studied that the growth rate of 2-wheelers was higher than that of conventional vehicles and analyzed the trend and growth of the automobile industry in India. The data are analyzed using compound growth rate, coefficient of variation, S.D., average, and percentage for the study period. The study also looks that automobile exports from India have increased heavily.

Sarode, N. (2020). The paper focuses on the revolution of electric vehicle mobility. Due to the depletion of crude oil, natural gas, and other fossil fuels, the automotive sector is facing a crisis, and the industry is adopting electric vehicles. The study says that a few consumers are aware of electric vehicles. The study uses a descriptive design. The study's findings show that consumers face many problems, including high costs and an underdeveloped infrastructure. The government of India implements various policies to promote electric mobility for daily use and raise awareness of the benefits of electric vehicles over fuel-based vehicles.

Verma, K.K. et al. (2024) highlight the present position of electric vehicles in Dehradun, a study in which secondary data collected from government offices and the regional transport office of the study area, were used. The data were divided over a period, i.e., 2014, 2018, and 2019, to see the changing behaviour of vehicles sold by different dealers in Dehradun. The Compounded Annual Growth Rate is the annual growth rate of a vehicle.

Vehicle growth in the market increased rapidly. The study concluded that consumers' interest has changed from conventional vehicles to electric vehicles.

Haldankar et al. (2024) examined the growth of electric vehicles in India. The study was conducted using secondary data collected on electric 2-wheeler, electric 3-wheeler, and electric 4-wheeler. After collecting data, statistical tools, such as the Kruskal-Wallis test and DSCF pairwise comparisons, were applied in Jamovi to explain the growth of electric vehicles in India. The study found that the number of electric vehicle users increased, and customers focused on environmental sustainability. Electric Vehicles, two-wheeler leads the market, followed by electric three-wheeler and four-wheeler electric vehicles. The study concludes that the growth of electric vehicles is environmentally friendly and reduces air pollution.

Patel, T., & Rajput, K. (2025), focus on the growth of electric vehicles in India. The study is based on secondary data. The collected data over 5 years was classified into electric 2-wheeler, electric 3-wheeler, and electric 4-wheeler sales in India. The significant upward trajectory in sales of two-wheeler electric vehicles over the past five years, and the decline in the trend of electric three-wheeler vehicles during 2019-20 and 2020-21. Sales of four-wheelers have increased steadily over time. The growth of two-wheeler and four-wheeler vehicles has shown a significant increase in the study.

Research Gap :

After literature review, research gap found that there is none of the study the registration and comparison of electric vehicles in eastern and western region.

Objectives :

1. To study the status of electric vehicles in the East region.
2. To study the status of electric vehicles in the West region
3. To compare the registration of electric vehicles in the east and west regions.

Research Methodology :

Data Collection: Secondary data are collected from registered RTO offices, government reports, journals, and articles from different years, based on region, for the study areas from 2016 to 2025.

Study Areas - The study areas are the eastern region: Odisha, West Bengal, Bihar, and Andaman & Nicobar. The western region: Goa, Gujarat, Maharashtra, Rajasthan, and Dadra & Nagar Haveli and Daman & Diu.

Classification of Data- The data were classified by region (eastern and western) to examine changes in vehicle registrations or sales by different agencies in the state.

Analysis-In this study, data analysis was conducted using percentage tools to calculate the percentage of electric vehicle registrations in each state of the east and west regions over the last 10 years, from 2016 to 2025. In this study, changes were estimated with the help of the following formulas:

Simple Changes = $(C.Y - P.Y) / PY = \text{Times}$

Whereas, C.Y. = Current Year and P.Y. = Previous Year or Preceding Year After that, compare the east and west regions using percentages: the share of electric vehicle registrations in total registrations.

Analysis of Data and Interpretation :

Table-1 Registration of Electric Vehicles in East India state (percentage)

Year	West Bengal	Bihar	Jharkhand	Odisha	Andaman & Nicobar	Total
2016	1526(45.48)	1098(32.73)	705(21.01)	25(0.75)	1(0.03)	3355(100)
2017	4452(46.32)	3594(37.39)	1353(14.08)	212(2.21)	0(00)	9611(100)
2018	6728(36.31)	8468(45.70)	1957(10.56)	1358(7.33)	20(0.11)	18531(100)
2019	13534(46.65)	12380(42.68)	1932(6.66)	1160(4.00)	2(0.01)	29008(100)
2020	10081(40.35)	12447(49.82)	1516(6.07)	903(3.61)	36(0.15)	24983(100)
2021	6411(16.46)	23085(59.26)	3740(9.60)	5626(14.44)	92(0.24)	38954(100)
2022	11151(10.23)	55754(51.13)	13679(12.54)	28444(26.08)	22(0.02)	109050(100)
2023	21433(12.22)	88222(50.31)	21127(12.05)	44547(25.40)	26(0.02)	175355(100)
2024	46570(18.47)	113146(44.89)	26282(10.43)	65979(26.18)	82(0.03)	252059(100)
2025	102705(29.97)	124447(36.31)	34679(10.12)	80715(23.55)	203(0.06)	342749(100)
Total	224591(23.38)	442641(44.10)	106970(10.65)	228969(22.81)	484(0.05)	1003655(100)

Sources: Ministry of Road Transport & Highway, G.O.I., Author Compilation and Calculation.

The table reveals that, over the 10 years from 2016-2025, the registration of electric vehicles in the eastern region states, namely Bihar, Jharkhand, Odisha, West Bengal, and the Union Territory of Andaman & Nicobar Islands, increased. The table shows that the highest number of electric vehicles registered by vehicle users in West Bengal (45.48 per cent), followed by Bihar (32.73 per cent), in 2016. From 2017 to 2019, a fluctuation was observed between West Bengal and Bihar. Over the years 2020-2025, Bihar has registered the highest number of electric vehicles among customers in the eastern region, followed by W.B. The table shows that the Union Territory of Andaman and Nicobar has seen positive changes over the last 10 years. The study concludes that consumer interest in the eastern region shifted from fuel-based to electric vehicles, and that the region's electric vehicle infrastructure is favourable.

Table-2 Previous year Electric Vehicles in changes of East India (in times)

Year	West Bengal	Bihar	Jharkhand	Odisha	Andaman & Nicobar
2016	-	-	-	-	-
2017	1.9174	2.2732	0.9191	7.4800	-
2018	0.5112	1.3561	0.4464	5.4057	100
2019	1.0116	0.4620	-0.0128	0.1458	-0.9000
2020	-0.2551	0.0054	-0.2153	-0.2216	17.0000
2021	-0.3641	0.8547	1.4670	5.2303	1.5556
2022	0.7394	1.4152	2.6575	4.0558	-0.7608
2023	0.9220	0.5823	0.5445	0.5661	0.1818
2024	1.1728	0.2825	0.2440	0.4811	2.1538
2025	1.2054	0.0999	0.3195	0.2233	1.4756

Sources: Ministry of Road Transport & Highway, G.O.I., Author Compilation and Calculation.

The table reveals that the previous year's changes in electric vehicles in the eastern India region were in Jharkhand, West Bengal (WB), Odisha, Bihar, and the Andaman & Nicobar Islands. In 2017, West Bengal (1.9174 times) followed by 2025 (1.2054 times), but negative results were observed in 2020 (0.2551 times) and 2021 (0.3641 times) due to the pandemic. In 2017, Bihar had the highest number of electric vehicle registrations, 2.2732 times that of 2022 (1.4152 times). In Jharkhand (2.6575 times) and Odisha (4.0558 times) in 2022, electric vehicles were registered in the eastern region, but negative changes were observed in 2020 due to the COVID-19 pandemic. Andaman & Nicobar is in the developing stage. The study concludes that positive results in electric vehicle registrations, consumer buying behaviour, and interest in purchasing electric vehicles are evident in the eastern region over the last 10 years.

Table-3 Registration of Electric Vehicles in West India state (percentage)

Year	Goa	Gujarat	Maharashtra	Rajasthan	Dadra & Nagar Haveli	Total
2016	33(0.65)	136(2.70)	875(17.37)	3994(79.28)	00(00)	5038(100)
2017	38(0.75)	173(3.42)	905(17.88)	3945(77.93)	1(0.02)	5062(100)
2018	25(0.25)	501(5.09)	4630(47.00)	4677(47.47)	19(0.19)	9852(100)
2019	42(0.28)	947(6.33)	7318(48.91)	6636(44.35)	19(0.13)	13962(100)
2020	82(0.59)	1124(8.05)	7126(51.03)	5608(40.16)	24(0.17)	13964(100)
2021	1099(1.71)	9763(15.16)	29910(46.54)	23474(36.52)	28(0.04)	64274(100)
2022	5682(1.97)	68989(23.86)	136003(47.05)	78255(27.07)	142(0.05)	289011(100)
2023	9483(2.45)	88616(22.95)	194248(50.28)	93810(24.28)	160(0.04)	386317(100)
2024	11755(2.59)	80339(17.67)	250828(55.17)	111227(24.46)	491(0.11)	454640(100)
2025	9880(2.00)	83911(16.98)	282262(57.10)	117616(23.79)	621(0.13)	494290(100)
Total	38119(2.19)	334499(19.25)	914105(52.61)	449242(25.86)	1505(0.09)	1737470(100)

Sources: Ministry of Road Transport & Highway, G.O.I., Author Compilation and Calculation

The above table shows the last 10 years of data collected from the registered office of the R.T.O. Registration of electric vehicles in the western region states of Goa, Gujarat, Maharashtra, and Rajasthan, along with the Union Territory of Dadra & Nagar Haveli. It is further revealed that in 2016, the highest number of electric vehicles was registered in Rajasthan R.T.O (79.28 percent), followed by Maharashtra (17.37 percent), whereas the reverse was observed in 2025 in the western region. From 2019 to 2025, Maharashtra has the highest number of electric vehicles registered by users, followed by Rajasthan. The changes show that 2025 over 2016 are Goa (1.35 percent), Gujarat (14.28 percent), Maharashtra (37.73 percent), Rajasthan (-55.49 percent), and Dadra & Nagar Haveli (100 percent) in the western region. The least number of electric vehicle users and registered in the state of Goa was observed from the data.

Table-4 Previous year changes of Electric Vehicles in West India (in times)

Year	Goa	Gujarat	Maharashtra	Rajasthan	Dadra & Nagar Haveli
2016	-	-	-	-	-
2017	0.1515	0.2721	0.0343	-0.0123	-
2018	-0.3421	1.8959	4.1160	0.1856	18.000
2019	0.6800	0.8902	0.5806	0.4189	0
2020	20.00	0.1869	-0.0262	-0.1549	0.2632
2021	12.4024	7.6859	3.1973	3.1858	0.1667
2022	4.1701	6.0664	3.5471	2.3337	4.0714
2023	0.6689	0.2845	0.4283	0.1988	0.1268
2024	0.2396	-0.0934	0.2913	0.1857	2.0688
2025	-0.1595	0.0445	0.1253	0.0574	0.2648

Sources: Ministry of Road Transport & Highway, GOI, Author Compilation and Calculation

Table 4 reveals that the current-year changes from 2016 to 2025 in the western region differ in the registration of electric vehicles. It was shown that Maharashtra had the greatest change in 2018 (4.1160 times), followed by 2021 (3.1973 times) over the previous year. Gujarat shows drastic changes in 2021 compared to 2020 (7.6859 times), followed by 2018 compared to 2017 (1.8959 times). Rajasthan shows positive changes over the previous year, but negative changes 0.0123 times in 2017 and 0.1549 times in 2020, compared with the respective previous year. As shown in the above table, the state of Goa recorded negative changes of 0.3421 times in 2018 and 0.1595 times in 2025 relative to the previous year, and a fluctuation was also observed.

Table-5 Registration of Electric Vehicles in Eastern and Western India (in percentage)

Year	East	West	Total
2016	3355(39.97)	5038(60.03)	8393(100)
2017	9611(65.50)	5062(34.50)	14673(100)
2018	18531(65.29)	9852(34.71)	28383(100)
2019	29008(67.51)	13962(32.49)	42970(100)
2020	24983(64.15)	13964(35.85)	38947(100)
2021	38954(37.74)	64274(62.26)	103228(100)
2022	109050(27.39)	289011(72.61)	398061(100)
2023	175355(31.22)	386317(68.78)	561672(100)
2024	252059(35.67)	454640(64.33)	706699(100)
2025	342749(40.95)	494290(59.05)	837039(100)
Total	1003655(36.61)	1737470(63.39)	2741125(100)

Sources: Ministry of Road Transport & Highway, GoI, Author Compilation and Calculation

Table 5 presents a comparative study of electric vehicle registrations over the last 10 years, from 2016 to 2025, in the eastern and western regions of India. In the eastern region, a higher number of electric vehicles were registered in 2017 (65.50 percent), 2018 (65.29 percent), 2019 (67.51 percent), and 2020 (64.15 percent), as compared to the western region, and the reverse was found in the remaining years. The table reveals that the last 10-year total registrations of electric vehicles in the eastern and western regions show that the five-year change from 2021 to 2025 was 7.10 times, indicating consumer interest shifted to electric vehicles. The change from 2025 to 2016 is 98.73 times higher. New-generation purchasing behavior shifted toward electric vehicles, leading to an increase in the number of vehicle users in both regions. Further examination of the data shows that the total for the east and west regions shows a current-year-over-year change of 18.44 percent, a combined result of both regions.

Findings

1. It is found from the study that the maximum registrations of e-vehicles over the last 10 years, from 2016-2025, were in Bihar, 44.10 percent, followed by West Bengal, 23.38 percent. There were positive changes observed over the last 10 years, with 2025 over 2016 (95.79 times).
2. It is found that positive changes were observed in the eastern region over the previous year, but negative changes were observed in the year 2020 in West Bengal, Jharkhand, and Odisha due to the COVID-19 pandemic situation.

3. It was found from the study that Maharashtra (52.61 percent) has registered electric vehicles in the last 10 years, from 2016 to 2025, followed by Rajasthan (25.86 percent) in the western region, and a lower number was found in the state of Goa (2.19 percent).
4. The finding of the study that Maharashtra and Gujarat have a higher number of positive changes over the previous year, as compared to Rajasthan, Goa, and Dadra & Nagar Haveli.
5. It is found from the comparative study of the eastern and western regions that after 2020, the western region has registered a higher number of electric vehicles in the R.T.O as compared to the eastern region. In total, the five-year changes in region five show a 7.10-fold increase, and the 10-year changes show a 98.73-fold increase in 2025 over 2016.

Conclusion :

The study concludes that in the eastern region, consumer interest in electric vehicles was greater than in the western region. Bihar in the east and Maharashtra in the west have registered the highest number of electric vehicles among other states in both regions. It is because a well-developed electric vehicle infrastructure in the above state means charging stations are available, supporting long-distance travel. Consumer awareness about environmental sustainability has shifted interest from fuel-based vehicles to electric vehicles. Andaman & Nicobar in the eastern and Dadar Nagar Haveli in the western Union Territory concluded that the area is in a developing position, or not suitable for electric vehicles, or not having proper charging infrastructure has not been developed. Overall, it is concluded that both regions show an increase in the number of registrations of electric vehicles. This is positive and favorable to society and the environment. We know electric vehicles are environmentally friendly, with low emissions, helping protect the environment for future generations.

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A Study of Social and Economic Inclusion in Self Help Groups: In Reference to Indian Economy

Shubham Singh* , Prof. Mirza Shahab Shah**

Abstract

India whose economic growth is directly affected by the rural economy, if the pace of rural development increases, then the economic development of this country will increase. Today, on the basis of India's 2011 census, 69.5 percent of the total population is residing in rural areas. Out of these, 49% of the population is directly getting their livelihood from agriculture. But the contribution of the primary sector in GDP is 13.5 percent and in gross value addition it is 19.5 percent, which is much less than the labor ratio. If the contribution of the rural economy is to be ensured in the country's economic development, then we have to draw attention to the goal of inclusive development. Inclusive development is equal to financial development plus social development. In order to achieve the goal of financial development, payment of workers of the MNREGA scheme running in the rural areas is being ensured in the account of the account holder, so that financial transactions are done through banks and for banking services, people of rural areas can make cash payments through bank accounts and use savings accounts. Make the financial inclusion goal of the Government of India successful. Jan Dhan Yojana is making an important contribution in this, through which zero balance accounts are opened in rural areas. Through this, all the rural and urban poor could be enabled for financial transactions by opening their accounts. Second, social inclusion is that today, the work of women in rural areas is either not included or their contribution is measured very low. They are also known as unpaid workers, whose social and economic condition is poor. Self-help groups have an important contribution in improving their condition, whose population is less than 20%. Today, how many self-help groups are working in the country, whose products are being given space by the government on online

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Commerce & Business Studies : Vol. XIX, Issue : 38

platforms like Flipkart, Amazon, etc. The state of Kerala has played a leading role in this, where the 26th anniversary of the Self Help Group Kutumb Shri Yojna Mission was celebrated. Kudumbashree currently comprises 46.16 lakh members in three lakh neighbourhood groups, originally focused on women's enterprises but now offering legal aid, counselling, loans, cultural engagement and participation in disaster relief efforts.

Keywords- Self Help Group, Social Security, Unorganized Workers, Kutumb Shri Yojna, Social And Economic Inclusion.

Introduction :

Self Help Groups (SHGs) in India have emerged as a powerful tool for rural development, poverty alleviation, and women empowerment. These are informal associations of people, usually women from similar socio-economic backgrounds, who come together to collectively solve their problems, particularly those related to financial inclusion and livelihood generation. SHGs promote small savings among their members, which are then pooled together to provide loans to members at nominal interest rates, promoting self-reliance and entrepreneurship. The SHG movement gained momentum in the 1990s, largely driven by initiatives from non-governmental organizations (NGOs) and later supported by government schemes such as the Swarnjayanti Gram Swarozgar Yojana (SGSY), which was later replaced by the National Rural Livelihood Mission (NRLM) in 2011. Under NRLM, SHGs became central to empowering rural women and promoting sustainable livelihoods. The SHG-Bank Linkage Programme (SBLP), launched by NABARD (National Bank for Agriculture and Rural Development) in 1992, was a turning point in mainstreaming SHGs into the formal banking sector. As of March 2023, there were over 12.3 million SHGs in India, of which more than 87% were women-led. According to NABARD, the total savings of SHGs with banks reached Rs. 47,240 crore, and the total bank loans disbursed stood at Rs. 1.51 lakh crore in the financial year 2022-23. These figures highlight the growing trust and success of SHGs as credible institutions for microfinance. One of the most significant impacts of SHGs has been on women's empowerment. Through regular meetings, collective decision-making, and financial independence, women members of SHGs gain confidence, leadership skills, and a stronger voice in their households and communities. SHGs also serve as platforms for social change, addressing issues like domestic violence, health, education, sanitation, and gender inequality. Government programs like DAY-NRLM (Deendayal Antyodaya Yojana - National Rural Livelihoods Mission) aim to cover 70 million rural poor households by promoting and supporting SHGs and federations of SHGs.

The mission also encourages skill development, market linkages, and livelihood diversification. In addition, initiatives like PM SVANidhi and MUDRA Yojana have further supported SHG members in starting micro-enterprises and accessing credit. Despite their success, SHGs face challenges such as lack of financial literacy, irregular repayment of loans, weak internal governance, and inadequate market access. Efforts are being made by the government and civil society to address these issues through capacity-building programs, digital empowerment, and better credit access. In conclusion, SHGs in India have evolved into a robust grassroots movement that plays a crucial role in rural development, financial inclusion, and women empowerment. By fostering collective responsibility and mutual support, SHGs continue to transform millions of lives across the country and stand as a testament to the power of community-driven change.

Research Objective :

1. To understand the role of SHGs in promoting economic inclusion.
2. To assess the impact of SHGs on financial independence among rural and marginalized communities.
3. To evaluate the contribution of SHGs to the broader Indian economy.
4. Effectively linking financial inclusion with the rural economy.

Research Method and Technique :

The presented research paper is based on the second set of questions. Analytical research methods have been used in this research paper. To compile the data, books, general government reports and the website of the Ministry of Rural Development have been studied.

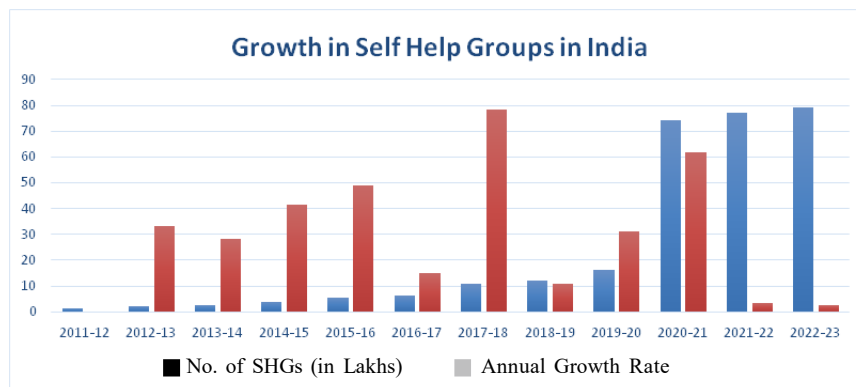
Data Analysis :

NABARD-led SHG bank linkage programme witnessed significant progress in the recent past. This has led to the growth in the number of SHGs all over the country. The growth in the number of SHGs which have availed loan from Banks since 2000-01 is shown in Table 1.

Table 1: Growth in Self Help Groups in India, 2011-12 to 2022-23

Year	No. of SHGs (in lakhs)	Annual Growth Rate
2011-12	1.49	
2012-13	1.99	33.4
2013-14	2.55	28.2
2014-15	3.62	41.4
2015-16	5.39	49.1
2016-17	6.20	15.0
2017-18	11.06	78.2
2018-19	12.28	11.0
2019-20	16.09	31.1
2020-21	74.30	61.8
2021-22	76.97	3.6
2022-23	79.03	2.7

Source: Annual Report of NABARD, Mumbai, various years.



Source: Annual Report of NABARD, Mumbai, various years

Table 1 Self-help groups have an important contribution in the economic development of India. The number of these institutions run by microfinance in India has increased from 1.49 lakh in 2011-12 to 79.23 lakh in 2022-23. Their annual growth rate was 30.4 in 2011-12 and 61.8 in 2020-21, out of which the maximum annual growth was 78.2% in 2017-18 and the minimum growth was 2.27 in 2022-23. Therefore, from Table No. 1, it appears that to achieve the goal of financial inclusion in India, microfinance is playing an important role in its development and is contributing towards fulfilling the concept of empowering women and self-reliant India.

Credit Outstanding :

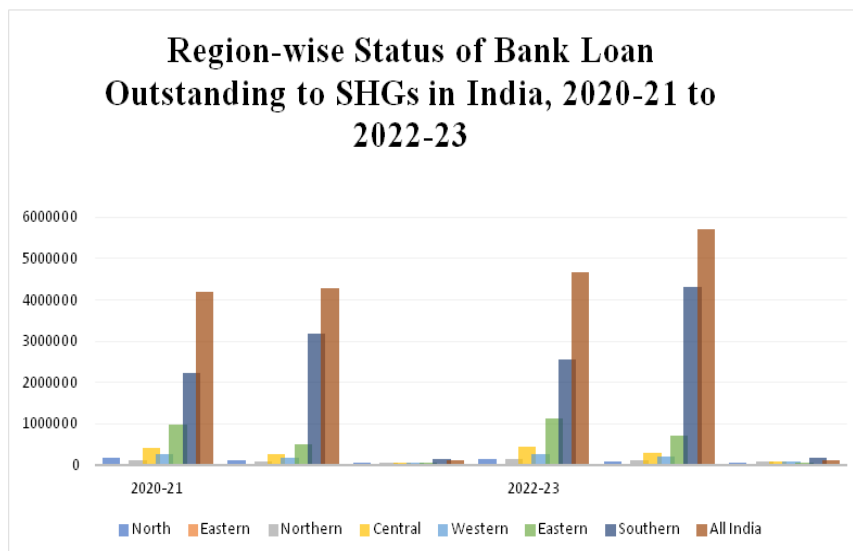
The region-wise status of bank loans outstanding to SHGs in India during 2013-14 to 2015-16 is shown in Table2.

Table 2: Region-wise Status of Bank Loan Outstanding to SHGs in India, 2020-21 to 2022-23

Region	2020-21			2021-22			2022-23		
	No. of SHGs	Total Loan o/s	Average Loan o/s	No. of SHGs	Total Loan o/s	Average Loan o/s	No. of SHGs	Total Loan o/s	Average Loan o/s
North Eastern	183929	110064	59840	176904	153970	87036	150860	88473	58646
Northern	124569	75380	60513	123041	72209	58687	154724	115907	74912
Central	419834	269666	64232	438216	248614	56733	434797	289590	66604
Western	269008	164046	60982	270718	198739	73412	258119	203462	78825
Eastern	978960	494463	50509	1069329	617046	57704	1130902	703767	62231
Southern	2221038	3179133	143137	2389972	3863969	161674	2543219	4310725	169499
All India	4197338	4292752	102273	4468180	5154546	115361	4672621	5711923	122242

Note: Total Loan o/s in Rs. Lakh; Average Loan o/s in Rs./SHG

Source: NABARD, Status of Microfinance in India, 2015-16, Mumbai, p. 15.



Note: Total Loan o/s in Rs. Lakh; Average Loan o/s in Rs./SHG

Source: NABARD, Status of Microfinance in India, 2015-16, Mumbai, p. 15.

As of March 2021-23, 46.72 lakh SHGs (59.1%) had loans outstanding, as against 44.68 lakh (58.1%) as of March 2022. Region wise position Highest credit linkage in South region (71.7%) East region (66.5%) Lowest in West region (25.4%) State wise position Highest credit linkage: Bihar (96%), Telangana (91%), Andhra Pradesh (89%) Lowest: Arunachal Pradesh (8.8%), and Gujarat (21.8%) among larger states Loan outstanding Total loan outstanding increased by 10.8% to ₹57,119 crore (from ₹51,545 crore in March 2022). Average loan outstanding increased by 6% to ₹1,22,242 per SHG (from ₹1,15,361 in previous year). Region-wise average loan outstanding Highest: South region Lowest: Northeast region State-wise average loan outstanding Highest: Andhra Pradesh (₹2.15 lakh), Telangana (₹2.00 lakh) Lowest: Chhattisgarh and Bihar (₹0.37 lakh) Contribution of regions Southern region had 54.4% share in SHGs with credit linkage and three-fourth share in bank credit of the entire country. Eastern region had 24.2% share in SHGs with credit linkage and 12.3% share in credit outstanding. Growth and decline: Eastern, Southern, and Northeast regions saw an increase in SHG numbers and outstanding amounts. Northern region saw a decline in both (-12.5% in SHG numbers, -24.7% in outstanding amounts). In the central and western regions, there was a slight decline in the number of SHGs but an increase in the outstanding amount.

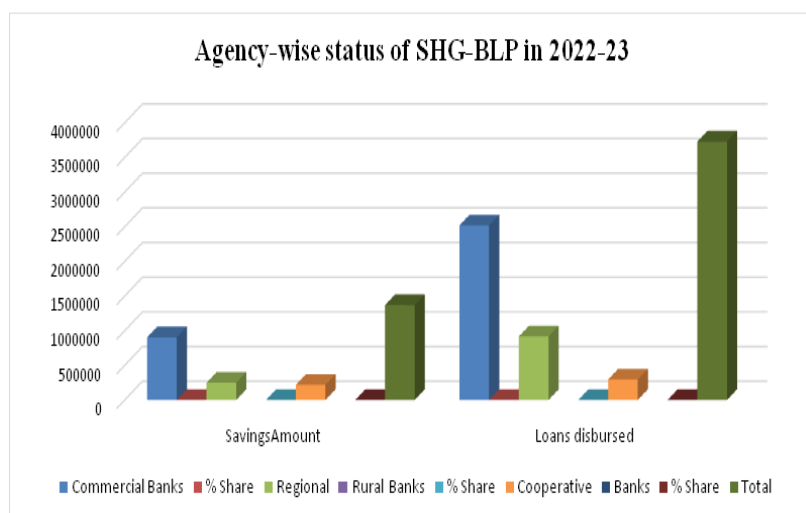
Agency-wise distribution of SHG-BLP

The agency-wise status of SHG-BLP in 2022-23 is analysed in this section and table 3 presents the necessary data.

Table 3: Agency-wise status of SHG-BLP in 2022-23

Agency	Total Savings of SHGs with Banks		Loans disbursed to SHGs by Banks		Total Outstanding Bank Loans against SHGs		NPAs	
	No. of SHGs	Savings Amount	No. of SHGs	Loans disbursed	No. of SHGs	Loan Outstanding	Amount of Gross	NPA (%)
Commercial Banks	4140111	903389	1132281	2518497	2626364	3714562	232140	6.25
% Share	52.6	66.0	61.8	67.5	56.2	65.0	62.9	
Regional Rural Banks	2256811	248428	470399	916493	1445476	1510935	106429	6.61
% Share	28.6	18.1	25.7	24.6	30.9	28.2	28.9	
Cooperative Banks	1506080	217322	229643	293700	600781	386426	30054	7.78
% Share	19.1	15.9	12.5	7.9	12.9	6.8	8.2	
Total	7903002	1369139	1832323	3728690	4672621	5711923	368623	6.45

Source: NABARD, Status of Microfinance in India, 2015-16, Mumbai, p. 18.



Source: NABARD, Status of Microfinance in India, 2015-16, Mumbai, p. 18.

Role of Banks in SHG-BLP (2022-23) Commercial Banks have taken the lead in SHG-BLP (Self Help Group-Bank Linkage Programme). 52.39% (41.40 lakh) SHGs in the country opened their savings account with commercial banks. The share of commercial banks in the number of savings accounts of SHGs declined marginally, but the share in savings amount increased from 60% to almost two-thirds. Regional Rural Banks

(RRBs): Increase in both number of SHGs and savings balance. Cooperative Banks: Increase in number of SHGs but share in savings amount declined. Credit Disbursement 2022-23 By Commercial Banks: Loans disbursed of ₹25,185 crore (₹17,334 crore in 2022-23) Loans disbursed to 11.32 lakh SHGs (8.56 lakh in 2022-23). Average loan per SHG: ₹2,22,482 (National average ₹2,03,495). Commercial Banks accounted for 67.5% of total loans disbursed. By RRBs: 24.6% share in loan disbursement. Decline in number of SHGs: from 32.1% to 25.7%. Average loan disbursement per SHG: ₹1,94,833. By cooperative banks: Decline in both loan disbursement and number of SHGs. Average loan per SHG: ₹1,27,894. Loan Outstanding as on 31 March 2022-23 Increase in number of SHGs with loan outstanding across all banks. Increase particularly high in RRBs (from 12.7 lakh to 14.4 lakh). Commercial banks account for nearly two-thirds of total loan outstanding. Average loan outstanding: Commercial banks: ₹1,41,433. RRBs: ₹1,11,447. Cooperative banks: ₹64,321. NPA Status NPA rate on total SHG loans declined to 6.4% (7.4% in 2022). Decline in gross NPA amount: from ₹3814.7 crore to ₹3686.2 crore. Decline in NPA levels of all banks. NPA rate in NRLM (National Rural Livelihood Mission) supported SHGs declined to 6.2% (8.7% in 2022-23).

Self-Help Groups (SHGs) in India have played a key role in empowering rural populations, especially women, by promoting financial inclusion and collective action. However, they face several major challenges:

1. Limited Financial Literacy
2. Dependence on External Support.
3. Lack of Market Access
4. Inadequate Training & Capacity Building
5. Social and Cultural Barriers
6. Group Dynamics and Conflicts
7. Irregular Meetings and Participation
8. Credit Misuse or Defaults

Scheme for Promotion of Women SHGs in backward districts of India

NABARD and the Government of India are collaborating to support women's groups in 150 underdeveloped areas, providing loans and financial assistance to enhance their livelihoods. In each district, a designated NGO is selected to facilitate this process. The NGO connects Women's Self-Help Groups with banks, assists with loan acquisition, and ensures timely repayment. Additionally, the NGO works closely with banks to extend outreach and foster group growth. For its services, the NGO receives a 5% fee. This initiative empowers women financially by providing access to banking services, generating livelihood opportunities, and supporting women's development programs. By promoting sustainable livelihoods, the scheme

aims to improve the socio-economic status of women in SHGs. The program's focus on financial inclusion and capacity building enables women to take charge of their economic lives. Overall, the scheme is a significant step towards promoting women's empowerment and financial independence in rural areas.

Conclusion :

Self Help Groups (SHGs) in India have emerged as a powerful tool for promoting economic inclusion, especially among marginalized communities. Through collective action and mutual support, SHGs have enabled individuals, particularly women, to access financial services, develop entrepreneurial skills, and enhance their socio-economic status. The study highlights that SHGs not only facilitate access to credit but also encourage savings habits, skill development, and self-confidence, leading to a more inclusive and resilient economy. By fostering a sense of community and empowerment, SHGs have contributed to reducing poverty, promoting gender equality, and supporting sustainable development at the grassroots level. However, challenges such as inadequate training, limited market access, and dependency on external agencies still persist. To maximize their impact, it is essential to strengthen SHG structures, promote financial literacy, and integrate SHGs into larger value chains. Overall, SHGs play a critical role in India's journey toward inclusive growth, and with the right support and policy interventions, they can continue to be a transformative force for economic empowerment and social change. Self Help Groups have become a beacon of economic empowerment and financial inclusion in India. With NABARD's active promotion and support, SHGs have improved millions of lives, contributing greatly to the inclusive growth of the Indian economy. Continued efforts to strengthen and scale up the SHG movement will be vital to achieving broader developmental goals, such as financial inclusion, gender equality, and poverty eradication.

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ग्रामीण निर्धनता पर बैंकिंग सेवाओं के प्रभाव (बाँदा जनपद के विशेष सन्दर्भ में)

डॉ० बिष्णु स्वरूप गुप्ता*

समस्या की प्रकृति :-

ग्रामीण निर्धनता के अन्तर्गत कृषि, लघु ग्रामीण एवं कुटीर उद्योगों से जीवनयापन करने वाले लोगों को रखा जाता है। भारतीय अर्थव्यवस्था के कृषि प्रधान होने के कारण ग्रामीण निर्धनता का सम्बन्ध ग्रामीण अर्थव्यवस्था के आर्थिक दृष्टि से कमजोर लोगों से लगाया जाता है। इसके अन्तर्गत एकीकृत ग्रामीण विकास कार्यक्रम, बीस सूत्रीय कार्यक्रम के लाभार्थियों तथा अनुसूचित जाति एवं जनजाति वर्ग के लोगों को शामिल किया जा सकता है। ग्रामीण अर्थव्यवस्था के इन वर्गों के लोगों के प्रति बैंकिंग संस्थाओं का दृष्टिकोण उदासीन तथा संकीर्ण रहा है और इन्हें वित्त प्रदान करने में इन संस्थाओं की कोई रुचि नहीं रही है। ग्रामीण क्षेत्र के अधिकांश लोग अपनी महत्वपूर्ण आवश्यकताओं के लिए निजी महाजनों एवं व्यापारियों पर निर्भर रहे हैं। अखिल भारतीय ग्रामीण साख सर्वेक्षण कमेटी ने अपने एक सर्वे में यह अनुभव किया है कि देश में सहकारिता असफल रही है पर इसे सफल होना चाहिए। ग्रामीण क्षेत्र में बैंकिंग के विकास के लिए इस कमेटी ने सहकारी बैंकों के विकास के साथ सार्वजनिक क्षेत्र के बैंक स्थापित करने की सिफारिश की थी। जो ग्रामीण क्षेत्र की साख आवश्यकताओं को पूरा कर सके।

अध्ययन के उद्देश्य :-

इस प्रकार ग्रामीण क्षेत्र में वित्त प्रदान करने के लिए तीन प्रकार की संस्थाएँ, सहकारी संस्थायें, व्यापारिक बैंक तथा क्षेत्रीय ग्रामीण बैंक कार्य कर रही हैं। जिससे ग्रामीण क्षेत्र का साख ढाँचा बहु एजेन्सी दृष्टिकोण वाला हो गया है। जिसका विकास 60वें दशक के अन्तिम वर्षों से विकसित किया गया है। जिसके परिणाम स्वरूप ग्रामीण क्षेत्र के विभिन्न वर्गों के साख की आपूर्ति में वृद्धि हुई है। इस बढ़ी हुई साख आपूर्ति से—

1. ग्रामीण क्षेत्र में विभिन्न उत्पादन के क्षेत्रों में उत्पाद में वृद्धि कितनी हो सकी है।
2. बैंकिंग सेवाओं के द्वारा कमजोर वर्ग के लोगों का आर्थिक आधार किस सीमा तक स्थायी एवं मजबूत हो सका है।
3. लोगों के रहन-सहन के स्तर में वृद्धि किस मात्रा तक हो सकी है।
4. रोजगार के अवसरों में कितनी वृद्धि हुई है।

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परीक्षण की जाने वाली परिकल्पनाएँ—

प्रस्तुत शोध अध्ययन के विभिन्न उद्देश्यों को ध्यान में रखकर निम्नलिखित परिकल्पनाओं का परीक्षण किया जायेगा—

1. कमजोर वर्ग के लोगों की गरीबी में कमी आई है।
2. कमजोर वर्ग के लोगों के रोजगार अवसरों में वृद्धि हुई है।

शोध—प्रविधि :-

प्रस्तुत शोध—अध्ययन सुनिश्चित शोध प्रविधि पर आधारित है। उल्लेखनीय है कि किसी भी अनुसंधान में एक सुनिश्चित अध्ययन की प्रविधि को अपनाया जाना अत्यन्त आवश्यक होता है क्योंकि शोध—कार्य को वैज्ञानिक स्वरूप तभी मिल पाता है जब किसी सुनिश्चित वैज्ञानिक प्रक्रिया को अपनाया जाये। प्रस्तुत अध्ययन में प्राथमिक समकों का प्रमुख रूप से प्रयोग किया गया है। वर्तमान अध्ययन में कमजोर वर्ग के लोगों से सम्बन्धित परिकल्पनाओं का परीक्षण करने के लिए बुन्देलखण्ड क्षेत्र के बाँदा जनपद का चुनाव किया गया है। सघन व व्यष्टि अध्ययन के लिए बाँदा जनपद के कमासिन विकास खण्ड का चुनाव किया गया। विकास खण्ड कमासिन से सम्बद्ध 100 लाभार्थियों के बहु आयामी समकों का एकत्रीकरण साक्षात्कार अनुसूची के निर्माण द्वारा किया गया है और तदुपरान्त एक सुनिश्चित सांख्यिकीय प्रक्रिया अपनायी गयी है। इस हेतु साक्षात्कार अनुसूची पर आधारित मास्टर सीट का निर्माण करके समकों की फ्री हैण्ड कोडिंग की गई है। पुनः उनका सारणीयन करके सांख्यिकीय विश्लेषण निर्वचन किया गया है।

विभिन्न सरकारी योजनाओं में चयनित लाभार्थी :-

तालिका संख्या-1 विभिन्न सरकारी योजनाओं के अन्तर्गत चयनित लाभार्थियों की संख्या प्रदर्शित कर रही है।

तालिका संख्या-1

विभिन्न सरकारी योजनाओं के अन्तर्गत चयनित लाभार्थियों की संख्या

क्र०सं०	सरकारी योजना का नाम	चयनित लाभार्थियों की संख्या	चयनित लाभार्थियों का समग्र से प्रतिशत
1.	डेयरीफार्मिंग योजना	22	22.00
2.	मुर्गी पालन योजना	08	08.00
3.	लघु सिंचाई एवं भूमि विकास	14	14.00
4.	कृषि यन्त्रीकरण	13	13.00
5.	बकरी व भेड़ पालन	04	04.00
6.	स्वर्ण जयन्ती ग्राम स्वरोजगार योजना	18	18.00
7.	किसान क्रेडिट कार्ड योजना	21	21.00
	समग्र का योग	100	100.00

स्रोत :- प्रयुक्त साक्षात्कार अनुसूची

तालिका संख्या-1 प्रदर्शित करती है कि विभिन्न सरकारी ऋण योजनाओं में सर्वाधिक 22.00 प्रतिशत लाभार्थियों को डेयरी फार्मिंग योजना के अन्तर्गत व सबसे कम 4.00 प्रतिशत लाभार्थियों को बकरी व भेड़ पालन योजना के अन्तर्गत वित्त प्राप्त हुआ है।

बैंकिंग सेवाओं के प्रभाव :

अध्ययन क्षेत्र विकास खण्ड कमासिन में बैंकिंग संस्थाओं द्वारा प्रदान किये गये वित्त प्रतिदर्श के लाभार्थियों के कल्याण के लिए कितनी महत्वपूर्ण भूमिका अदा की है एवं उसके जीवन पर इसके कौन-कौन से प्रभाव पड़े हैं इसका विस्तृत विश्लेषण निम्न प्रकार किया जा सकता है—

1. उत्पादन पर प्रभाव :

इन संस्थाओं द्वारा प्रदान किये गये वित्त का उत्पादन पर महत्वपूर्ण प्रभाव पड़ा है। इस वित्त के माध्यम से अधिकांश लाभार्थियों ने उत्पादक परिसम्पत्तियों का निर्माण कर लिया है। क्षेत्रीय सर्वेक्षण से स्पष्ट हुआ है कि 69.00 प्रतिशत लाभार्थियों ने उत्पादक परिसम्पत्तियों का निर्माण किया है। जिसमें लाभार्थियों ने कृषि भूमि क्रय व विस्तार, कृषि यन्त्रीकरण, सिंचाई कार्य व भूमि विकास, पशु सम्पत्ति सृजन, मुर्गीपालन, मत्स्य पालन, दरी उद्योग, दोना पत्तल उद्योग व मिट्टी के बर्तन उद्योग आदि कार्य किये हैं। तालिका संख्या-2 उस अतिरिक्त कृषि उत्पादन को व्यक्त कर रही है जो कृषि क्षेत्र में संस्थागत वित्त के प्रयोग से सम्भव हुआ है—

तालिका संख्या – 2

चयनित लाभार्थियों द्वारा बैंकिंग वित्त के प्रयोग से अतिरिक्त उत्पन्न किया गया

वार्षिक कृषि उत्पादन

क्र०सं०	फसल का नाम	उत्पादन (कु० में)
1.	रबी	750.00
2.	खरीफ	330.00
3.	जायद	60.00
	कुल उत्पादन	1140.00

स्रोत :- प्रयुक्त साक्षात्कार अनुसूची

तालिका संख्या-2 स्पष्ट कर रही है कि बैंकिंग वित्त के प्रयोग से कृषि उत्पादन में पर्याप्त वृद्धि हुई है और रबी में 750 कुन्तल, खरीफ में 330 कुन्तल व जायद में 60 कुन्तल वार्षिक कृषि उत्पादन में वृद्धि हुई है। इस प्रकार कृषि क्षेत्र में कुल अतिरिक्त वार्षिक उत्पादन 1140 कुन्तल हुआ जो उन लाभार्थियों द्वारा उत्पादित किया गया है जिन्होंने बैंकिंग वित्त को कृषि पर प्रत्यक्ष रूप से निवेश किया है।

तालिका संख्या-3

चयनित लाभार्थियों द्वारा पशु सम्पत्ति सृजन से उत्पन्न किया गया वार्षिक उत्पादन

क्र०सं०	फसल का नाम	उत्पादन (कु० में)
1.	दूध	548
2.	घी	27
3.	दही	236
4.	मट्ठा	130

स्रोत :- प्रयुक्त साक्षात्कार अनुसूची

तालिका संख्या-3 प्रदर्शित करती है कि लाभार्थियों द्वारा पशु सम्पत्ति के सृजन से वार्षिक उत्पादन में वृद्धि हुई है और दूध में 548 कु०, घी में 27 कु०, दही में 236 कु० व मट्ठा में 130 कु० की वृद्धि हुई है।

जो संस्थागत वित्त के माध्यम से सम्भव हुआ है। इसी प्रकार से जिन लाभार्थियों ने बैंकिंग वित्त का प्रयोग मुर्गी पालन, मत्स्य पालन, दरी उद्योग, दोना-पत्तल उद्योग व मिट्टी के बर्तन उद्योग आदि पर किया है, वो लाभार्थी भी सम्बन्धित उद्योग में पर्याप्त उत्पादन कर रहे हैं। परिणामस्वरूप बैंकिंग वित्त का उत्पादन पर सकारात्मक प्रभाव पड़ा है।

2. आय पर प्रभाव :

बैंकिंग संस्थाओं द्वारा प्रदान किये गये वित्त का आय पर व्यापक प्रभाव पड़ा है। बैंकिंग वित्त के माध्यम से लाभार्थियों ने आधुनिक तकनीक में उत्पादन किया है। कृषि क्षेत्र में उन्नतशील बीज, खाद, सिंचाई सुविधाएँ एवं कृषि यन्त्रीकरण के माध्यम से उत्पादन किया है जिसके फलस्वरूप उत्पादन में वृद्धि हुई है और उसकी आय प्रत्यक्ष रूप से बढ़ी है और जो लाभार्थी कृषि के अतिरिक्त अन्य उद्योग अपनाये हुये हैं उन्होंने भी सम्बन्धित उद्योग में आधुनिक पद्धति को अपनाया है जिससे उत्पादन में वृद्धि हुई है और परिणाम स्वरूप आय बढ़ी है।

तालिका संख्या - 4

चयनित लाभार्थियों द्वारा परिसम्पत्ति निर्माण से प्राप्त वार्षिक प्रतिफल आय

क्र०सं०	आय वर्ग (रु० में)	चयनित लाभार्थियों की संख्या	चयनित लाभार्थियों का समग्र से प्रतिशत
1	0-20,000	49	49.00
2	20,000-40,000	15	15.00
3	40,000-60,000	6	5.00

स्रोत:- प्रयुक्त साक्षात्कार अनुसूची

तालिका संख्या-4 प्रदर्शित कर रही है कि जिन 69.00 प्रतिशत लाभार्थियों ने बैंकिंग वित्त का प्रयोग उत्पादन कार्यों पर किया है उनमें 49.00 प्रतिशत लाभार्थी 0-20,000 रु० वार्षिक, 15.00 प्रतिशत लाभार्थी 20,000-40,000 रु० वार्षिक व 5.00 प्रतिशत लाभार्थी 40,000-60,000 रु० वार्षिक आय अर्जित कर रहे हैं।

इस प्रकार कहा जा सकता है कि चयनित लाभार्थियों के अधिकांश भाग ने बैंकिंग वित्त के माध्यम से उत्पादक परिसम्पत्तियों का निर्माण कर लिया है जिसके परिणामस्वरूप स्वरूप उनकी आय प्रत्यक्ष रूप से बढ़ी है और उनका आर्थिक आधार स्थायी एवं मजबूत हो सका है। परिणामतः बैंकिंग वित्त का आय पर सकारात्मक प्रभाव पड़ा है।

3. रोजगार पर प्रभाव :

बैंकिंग संस्थाओं द्वारा प्रदान किये गये वित्त का रोजगार के अवसरों पर सकारात्मक प्रभाव पड़ा है इससे लाभार्थियों को व उसके परिवार के सदस्यों को तो स्वरोजगार के अवसर प्राप्त हुये हैं, क्षेत्र के अन्य लोगों को भी रोजगार के अवसर प्राप्त हुये हैं। तालिका संख्या-5 रोजगार के अवसरों के सृजन की स्थिति स्पष्ट कर रही है।

तालिका संख्या-5

चयनित लाभार्थियों द्वारा बैंकिंग वित्त के माध्यम से रोजगार के अवसरों का सृजन

क्र०सं०	रोजगार के अवसर	लाभार्थी व उसके परिवार के रोजगार रत सदस्यों की सं०	अन्य रोजगाररत सदस्यों की संख्या	कुल रोजगार के अवसर
1.	कृषि भूमि क्रय व विस्तार	24	16	40
2.	कृषि यन्त्रीकरण	17	9	26
3.	सिंचाई कार्य व भूमि विकास	31	63	94
4.	पशु सम्पत्ति सृजन	62	21	83
5.	मुर्गी पालन	15	-	15
6.	मत्स्य पालन	7	10	17
7.	दरी उद्योग	8	-	8
8.	दोना पतल उद्योग	6	-	6
9.	मिट्टी के बर्तन उद्योग	5	-	5
	कुल योग	175	119	294

स्रोत :- प्रयुक्त साक्षात्कार अनुसूची

तालिका संख्या-5 प्रदर्शित करती है कि जिन 69.00 प्रतिशत लाभार्थियों ने उत्पादक परिसम्पत्तियों का निर्माण किया है उनके द्वारा पर्याप्त रोजगार के अवसरों का सृजन किया गया है। बैंकिंग वित्त के माध्यम से लाभार्थी द्वारा स्वयं व उसके परिवार के अन्य सदस्यों के स्वरोजगार के अवसरों में वृद्धि हुई है तथा इसके साथ ही इनके द्वारा अन्य व्यक्तियों को भी रोजगार पर लगाया गया है। अतः कहा जा सकता है कि बैंकिंग वित्त का रोजगार पर सकारात्मक प्रभाव पड़ा है।

4. रहन-सहन के स्तर पर प्रभाव :

बैंकिंग संस्थाओं द्वारा प्रदान किये गये वित्त का लाभार्थियों के रहन-सहन के स्तर पर भी प्रभाव पड़ा है। बैंकिंग वित्त के माध्यम से अधिकांश लाभार्थियों ने आय सृजक परिसम्पत्तियों का निर्माण किया है जिससे उनको पर्याप्त आय सृजित हो रही है और उपभोग व्यय भी कर रहे हैं। इस प्रकार उनके रहन-सहन के स्तर पर बैंकिंग वित्त के प्रभाव का मूल्यांकन निम्न आधार पर किया जा सकता है।

क. उच्च वर्ग के लाभार्थियों के रहन-सहन के स्तर पर प्रभाव :

अध्ययन क्षेत्र के उच्च वर्ग के लाभार्थियों की आर्थिक स्थिति अच्छी है। उनके पास पर्याप्त कृषि योग्य भूमि है और उससे उनको पर्याप्त कृषि आय हो रही है। बैंकिंग वित्त के परिप्रेक्ष्य में सर्वाधिक सकारात्मक प्रभाव इसी वर्ग पर पड़ा है क्योंकि बैंकिंग वित्त के माध्यम से इन लाभार्थियों ने अपनी कृषि योग्य भूमि पर सिंचाई की सुविधाओं का विकास कर लिया है तथा आधुनिक कृषि उपकरणों का प्रयोग करते हुये उन्नतशील बीज व खाद का भी प्रयोग कर रहे हैं। इस प्रकार से ये मिश्रित फसल-चक्र को अपनाते हुये पर्याप्त उत्पादन कर रहे हैं और पर्याप्त आय उत्पन्न कर रहे हैं जिसके परिणाम स्वरूप इनका उपभोग व्यय सर्वाधिक है और आवश्यक आवश्यकताओं के अतिरिक्त आरामदायक व विलासितापूर्ण वस्तुओं का पर्याप्त उपभोग कर रहे हैं। इस प्रकार इनके रहन-सहन का स्तर उच्च है और इस पर बैंकिंग वित्त का सकारात्मक प्रभाव पड़ा है।

ख. मध्यम वर्ग के लाभार्थियों के रहन-सहन के स्तर पर प्रभाव :

अध्ययन क्षेत्र के मध्यम वर्ग के लाभार्थियों के रहन-सहन का स्तर मिश्रित है। अर्थात् यह अपनी आवश्यकताओं की पूर्ति कर लेते हैं और आरामदायक वस्तुओं का भी उपभोग कर लेते हैं परन्तु विलासिता पूर्ण वस्तुओं का उपभोग नहीं कर पाते इनकी आय संरचना भी उच्च वर्ग के लाभार्थियों से कम है। इन लाभार्थियों पर भी बैंकिंग वित्त का सकारात्मक प्रभाव पड़ा है।

स. निम्न वर्ग के लाभार्थियों के रहन-सहन के स्तर पर प्रभाव :

अध्ययन क्षेत्र विकास खण्ड कमासिन के निम्न वर्ग के लाभार्थियों की आर्थिक स्थिति अत्यन्त चिन्तनीय है। इनकी आय संरचना अत्यन्त निम्न है और वार्षिक रूप से 0-40000 रु० तक ही आय अर्जित कर पाते हैं जिस कारण ये अपनी आवश्यक आवश्यकताओं की ही पूर्ति बड़ी मुश्किल से कर पाते हैं। इस प्रकार इनका रहन-सहन का स्तर अत्यन्त निम्न है। तथा इनके रहन-सहन के स्तर पर बैंकिंग वित्त का प्रभाव भी आंशिक पड़ा है। क्योंकि इन्हें जो वित्त प्राप्त हुआ है उसे कुछ लाभार्थियों ने उपभोग कार्यों पर व्यय कर दिया है जिससे उनको कोई आय प्राप्त नहीं हो रही है। जिन निम्न वर्ग के लाभार्थियों ने उत्पादक परिसम्पत्तियों का निर्माण कर लिया है उनसे उनको 0-20000 रुपये तक वार्षिक आय उत्पन्न हो रही है और परिणामस्वरूप अपनी आवश्यक आवश्यकताओं की सन्तुष्टि ही कर पा रहे हैं। इस प्रकार निम्न वर्ग (कमजोर वर्ग) के लाभार्थियों के रहन-सहन के स्तर पर बैंकिंग वित्त का प्रभाव आंशिक रूप से पड़ा है।

5. गरीबी पर प्रभाव :-

अध्ययन क्षेत्र विकास खण्ड कमासिन के निम्न वर्ग के लाभार्थी अत्यन्त ही गरीब हैं तथा अपनी आवश्यक आवश्यकताओं की पूर्ति भी बहुत कठिनाई से कर पाते हैं। निम्न वर्ग के अधिकांश लाभार्थियों ने बैंकिंग वित्त का प्रयोग अनुत्पादक कार्यों पर किया है जिससे इनको कोई भी आय अर्जित नहीं हो रही शेष जिन लाभार्थियों ने उत्पादक परिसम्पत्तियों का निर्माण किया है, उनसे उनको अत्यन्त ही कम 0-20000 रुपये वार्षिक आय हो रही है। इस न्यून आय से ये लाभार्थी अपनी आवश्यक आवश्यकताओं की भी पूर्ति बहुत कठिनाई से कर पाते हैं अतः स्पष्ट है कि बैंकिंग वित्त के प्रयोग से कोई भी लाभार्थी निम्न वर्ग से मध्यम वर्ग या उच्च वर्ग में सम्मिलित नहीं हो सका है और अपनी आवश्यक आवश्यकताओं के अतिरिक्त आरामदायक व विलासिता से सम्बन्धित वस्तुओं का प्रयोग नहीं कर पाया है। इस प्रकार कह सकते हैं कि बैंकिंग वित्त के प्रयोग से गरीबी में कमी नहीं आयी है और बैंकिंग वित्त का प्रभाव गरीबी पर नकारात्मक पड़ा है।

परिकल्पनाओं का सत्यापन-

परिकल्पनाओं का सत्यापन शोध-अध्ययन का एक महत्वपूर्ण पक्ष है। प्रस्तुत शोध अध्ययन में अनुपात विधि से परिकल्पनाओं का सत्यापन किया गया है। जिसकी सत्यापित की गई परिकल्पनाएं निम्न हैं-

1. कमजोर वर्ग के लोगों की गरीबी में कमी आई है-

यह परिकल्पना असत्य साबित होती है। क्योंकि बैंकिंग वित्त के प्रयोग से प्राप्त प्रतिफल आय से कमजोर वर्ग का कोई भी लाभार्थी आवश्यक आवश्यकताओं को छोड़कर आरामदायक व विलासिता से सम्बन्धित वस्तुओं का प्रयोग नहीं कर पाया है एवं बैंकिंग वित्त के प्रयोग से कोई भी लाभार्थी कमजोर वर्ग से मध्यम आय वर्ग या उच्च आय वर्ग में सम्मिलित नहीं हो सका है।

2. कमजोर वर्ग के लोगों के रोजगार अवसरों में वृद्धि हुई है-

यह परिकल्पना सत्य साबित होती है क्योंकि बैंकिंग वित्त के माध्यम से अध्ययन क्षेत्र के लोगों में रोजगार के अवसर बढ़े हैं। तालिका संख्या-5 प्रदर्शित करती है कि जिन लाभार्थियों ने प्राप्त वित्त को उत्पादन कार्यों पर व्यय किया है उससे उनको व उनके परिवार के 175 व्यक्तियों को रोजगार मिला हुआ है तथा 119 अन्य व्यक्तियों को भी रोजगार पर लगाये हुये हैं।

निष्कर्ष :

निष्कर्ष रूप में कहा जा सकता है कि ग्रामीण निर्धनता पर बैंकिंग सेवाओं का व्यापक प्रभाव पड़ा है।

उच्च वर्ग व मध्यम वर्ग पर इसका सर्वाधिक लाभदायक प्रभाव पड़ा है। जबकि कमजोर वर्ग पर इसका आंशिक लाभदायक प्रभाव पड़ा है। चूंकि प्रस्तुत शोध I-पत्र प्रमुख रूप से कमजोर वर्ग के लोगों से सम्बन्धित है। अतः कहा जा सकता है कि बैंकिंग वित्त का कमजोर वर्ग के लोगों पर आंशिक लाभदायक प्रभाव पड़ा है।

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युवा वर्ग की कृषि विमुखता एवं उन्मुखता

प्रदीप कुमार मौर्य*, डॉ० रमेश कुमार**

परिचय :

प्रत्येक युग में भारत जैसे देश ने कृषि को प्रमुखता से अपनाया है। अपना व संसार का भरण पोषण किया है तथा अर्थव्यवस्था व सामाजिक व्यवस्था का आधार स्तंभ रही है। हमारे देश का नाम भारत होने का एक कारण 'भरत' अर्थात् भरने वाला या भरण पोषण करने वाला है। यहाँ की भूमि ने माँ की भूमिका निभाई है जैसे एक माँ अपने बच्चे का पोषण जिस मातृत्व भाव से करती है उसी प्रकार भारत भूमि ने यहाँ के निवासियों का किया है। यहाँ की कृषि क्षेत्र, वानिकी क्षेत्र ने प्राणिमात्र की सेवा निःशुल्क की है। या सामान्य शब्दों में कहें कि यह जीवन का आधार रही है। कृषि व सम्बन्धित अन्य उद्यम व सेवा के सन्दर्भ में एक लोकोक्ति आज भी प्रचलित है— उत्तम खेती मध्यम बान, नीच चाकरी कुकुर निदान। यह लोकोक्ति आज के परिप्रेक्ष्य में कितना प्रभावी है या यह केवल बीते दिनों की बातें हैं जिनका आज के सन्दर्भ में वास्तविकता से कोई लेना-देना नहीं है। या इसे पुनर्स्थापित किया जा सकता है।

वर्ष 1965 में भारत पाकिस्तान के युद्ध के समय जब खाद्यान्न की कमी हुई तो कई मित्र देशों ने भारत का साथ नहीं दिया तो भारत को खाद्यान्न आत्मनिर्भरता की आवश्यकता महसूस हुई। तत्कालीन प्रधानमंत्री लालबहादुर शास्त्री जी ने देश की रक्षा करने वाले जवानों के लिए जय जवान व खाद्यान्न पूर्ति करने वाले किसानों के लिए जय किसान का नारा दिया। उसके पश्चात हरित क्रांति एवं बफर स्टॉक बनाने की परम्परा शुरू हुई और आज भारत खाद्यान्न सम्पन्न व सुरक्षित राष्ट्र है। किन्तु आज के युवाओं का कृषि की तरफ रुझान कम होने से वर्ष 2050 में जब आबादी चरम पर, भूउपलब्धता कम तथा कृषकों का अभाव होगा तो यह सामाजिक व आर्थिक चुनौतियों को जन्म देगा। इस हेतु उपरोक्त शीर्षक का चयन तथा उसका अध्ययन आवश्यक है।

वर्तमान में किसी भी देश को विकसित होने का आर्थिक पैमाना है कि उसका सेवा व उत्पादन क्षेत्र (द्वितीयक व तृतीयक) की भागीदारी सर्वाधिक व कृषि क्षेत्र या प्राथमिक क्षेत्र की भागीदारी कम हो। यदि द्वितीयक व तृतीयक क्षेत्रों पर निर्भरता होगी तो देश आय व रोजगार के उच्चतम स्तर पर होगा, सर्वसाधन

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**एसोसिएट प्रोफेसर, वाणिज्य विभाग, बाबा बरुआदास पी0जी0 कालेज परुइया आश्रम, जलालपुर, अम्बेडकरनगर।

सुलभ होगा, समाज की आवश्यकताओं की पूर्ति होगी, किन्तु विकासशील देश का आर्थिक पैमाना उसकी प्राथमिक या कृषि क्षेत्र पर अत्यधिक निर्भरता है। शोधार्थी का यह मानना है कि यदि कृषि क्षेत्र भारत जैसे देश में समाज से उपेक्षित होगा तो समाज का तानाबाना महत्वपूर्ण रूप से प्रभावित होगा। अधिकतर औद्योगिक व व्यापारिक गतिविधियाँ कृषि क्षेत्र से संचलित होती हैं। तथा लाभार्जन करके अर्थव्यवस्था में महत्वपूर्ण योगदान देती हैं। अवलोकन से यह लगता है कि यह क्षेत्र रूग्णता का शिकार हो रहा है और युवाओं का रुझान कृषि क्षेत्र पर नहीं है। जो समाज की मूलभूत आवश्यकता यथा भोजन, वस्त्र, मकान, स्वास्थ्य का पूरक है। यदि इसमें युवाओं का कम रुझान या गिरावट की प्रवृत्ति आती है तो औद्योगिक उत्पाद महँगे, व्यापारिक इकाइयों की रूग्णता (जो कृषि सम्बन्धित या उस पर आधारित हैं) तथा सामाजिक चुनौतियों में वृद्धि देखने में आयेंगी। भारतीय युवा वर्ग की मनोवृत्तियों में बदलाव या कृषि विमुखता के कारण भावी चुनौतियों में वृद्धि होगी।

शोध उद्देश्य :

युवावर्ग की मनोवृत्ति कृषि व अन्य क्षेत्रों का अध्ययन करना। उनको कारणों का पता लगाना तथा उसका निवारण या हल देना। ताकि कृषि क्षेत्र अप्रभावी न हो व युवाओं की शारीरिक क्षमता में कमी न हो। तथा वे उसे एक व्यवसाय या उद्यम के रूप में स्वीकार करके सम्मानित महसूस कर सकें।

शोध सीमाएँ :

कृषकों व व्यक्तियों की मनोवृत्ति जानने के लिए यादृच्छिक रूप में केवल 30 उत्तरदाताओं को लिया गया है। जो राष्ट्रीय या प्रादेशिक स्तर पर सूक्ष्मता को प्रदर्शित करता है। तथा केवल उत्तर भारत में की जाने वाली मुख्य फसलों यथा धान व गेहूँ को ही शामिल किया गया है। तथा कुछ प्रचलित व्यवसायों, कारीगरों व मजदूरों से ही कृषकों की आय व लाभ को शामिल किया गया है।

शोध कथन/परिकल्पना :

H0: युवाओं का कृषि की तरफ रुझान कम हुआ है।

H1: युवाओं का रुझान कम नहीं हुआ है।

प्राथमिक आँकड़े एवं विश्लेषण :

लागत, आय व लाभ का अध्ययन—

खड़ी खेती करने वाले (गेहूँ व धान की फसल) कृषकों की औसत लागत, उत्पादन, तथा लाभ निम्नलिखित है।

Table 1 फसल प्रति बीघा गेहूँ

लागत मद	औसत लागत में	औसत उत्पादन रु0 में	लाभ
खेत जुताई	2000		
बीज	1200		
उर्वरक रासायनिक/जैविक	1100		
कीटनाशक, खरपतवार नाशक	300		
सिंचाई 2 बार 12 घंटे (प्रति घंटे 120 रु0)	1440		
फसल कटाई	2000		
थ्रेसिंग	1600		
10 मानव कार्य दिवस (मजदूरी)	3000		
भूकिराया	5000		
कुल	17640	23000 (बीज एवं स्ट्रा विक्रय MSP एवं प्रचलित बाजार भाव पर)	6640

उपरोक्त सारणी में प्रतिबीघा गेहूँ का औसत उत्पादन लागत व लाभ को प्रदर्शित किया गया है जिसमें सब्सिडी को शामिल नहीं किया गया है। एक कृषक का गेहूँ के लिए औसत लाभ एक फसल चक्र में 6640 रु है।

Table 2 फसल प्रति बीघा धान

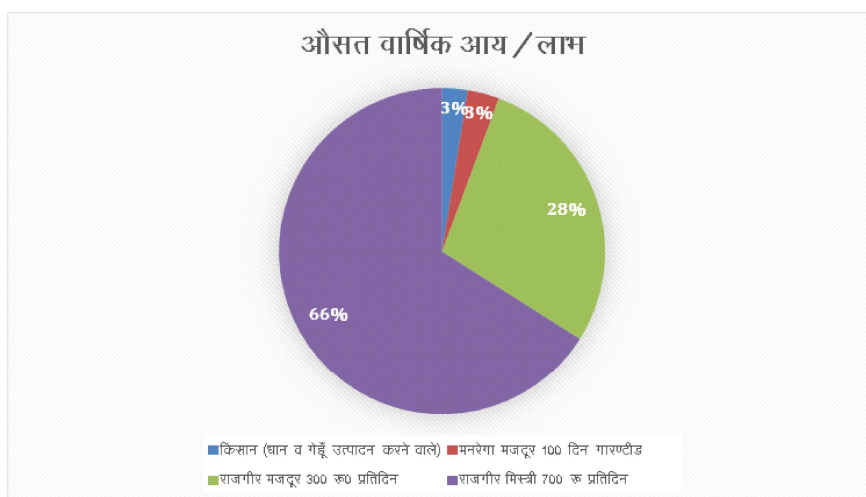
लागत मद	औसत लागत में	औसत उत्पादन रु0 में	लाभ
खेत जुताई	2500		
बीज	1200		
धान रोपाई	2000		
उर्वरक रासायनिक/जैविक	1000		
सिंचाई 4 बार 24 घंटे (प्रति घंटे 120 रु0)	2880		
फसल कटाई	2000		
थ्रेसिंग	4000		
मानव कार्य दिवस (मजदूरी)	4000		
भूकिराया	5000		
	24580	27600	3020

उपरोक्त सारणी में प्रतिबीघा धान का औसत उत्पादन लागत व लाभ को प्रदर्शित किया गया है जिसमें सब्सिडी को शामिल नहीं किया गया है। एक कृषक का धान के लिए औसत लाभ एक फसल चक्र में 3020 ₹ है। दोनों फसलों धान व गेहूँ का सकल लाभ मात्र 9660 ₹ है।

Table-3 Income of Different Class

वर्ग	औसत वार्षिक आय/लाभ
किसान (धान व गेहूँ उत्पादन करने वाले)	9660 (6640 तथा 3020)
मनरेगा मजदूर 100 दिन गारण्टीड	12000
राजगीर मजदूर 300 ₹ प्रतिदिन	108000
राजगीर मिस्त्री 700 ₹ प्रतिदिन	252000

Figure 1 Average Annual Income/ Profit



उपरोक्त पाई चार्ट में कृषक, मनरेगा मजदूर, सामान्य श्रमिक एवं राजगीर की आय प्रदर्शित की गयी है एक कृषक जिसके पास 1 बीघा भूमि है उसकी औसत आय सबसे कम है। शेष की आय या तो बराबर या उससे कहीं बहुत अधिक है।

मनोवृत्ति का अध्ययन—

कृषि कार्य को करने की मनोवृत्ति व स्थिति को जानने के लिए 30 व्यक्तियों से यादृच्छिक रूप से आँकड़ों को प्रश्नावली बनाकर अनुक्रिया (त्मेचवदेम) प्राप्त किया गया।

Figure 2 Age

1. आपका आयु वर्ग



उपरोक्त पाई चार्ट में किशोर, युवा किशोर, युवा, युवा प्रौढ़ तथा प्रौढ़ व्यक्तियों को शामिल किया गया है। जिसमें सबसे अधिक युवा प्रौढ़ 45 प्रतिशत हैं तथा सबसे कम किशोर 7 प्रतिशत शामिल हुये।

Figure 3Wish to do Farming

2. क्या आप खेती करना चाहते



उपरोक्त पाई चार्ट खेती करने वालों की इच्छा के बारे में है। 67 प्रतिशत लोगों ने खेती करने को चुना है तथा मात्र 33 प्रतिशत लोगों ने खेती न करने को चुना है।

Figure 4 Reason for not Selecting Agriculture

3. यदि नहीं तो कारण

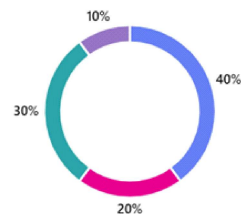


खेती न करने के कारणों में उत्तरदाताओं ने आय की कमी तथा संतुष्टि को कारण माना है तथा 27 प्रतिशत लोगों ने रोजगार की अस्थिरता को माना है। तथा 7 प्रतिशत ने यह माना है कि कृषि कार्य में विवेक की कम आवश्यकता होती है।

Figure 5 Field Engagement

4. आप क्या करना चाहते हैं

सरकारी नौकरी	12
निजी क्षेत्र नौकरी	6
निजी व्यवसाय	9
अन्य	3

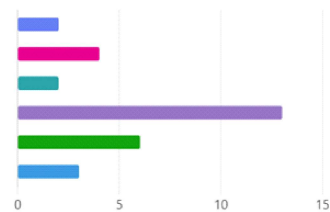


यह जानने के लिए कि उत्तरदाता किस प्रकार के उद्यम या सेवा से ज्यादा जुड़ाव चाहते हैं इस हेतु मात्र 10 प्रतिशत ने ही अन्य को चुना है तथा सबसे अधिक प्राथमिकता सरकारी नौकरी को दिया है।

Figure 6 future Dream

5. आप क्या बनना चाहते हैं

डॉक्टर	2
इंजीनियर	4
वकील	2
अध्यापक	13
व्यवसायी	6
कृषक	3



प्रश्न सं 5 चित्र सं 6 में 'आप क्या बनना चाहते हैं' सबसे महत्वपूर्ण है मात्र 10 प्रतिशत उत्तरदाताओं ने ही कृषक बनने को चुना है। प्राप्त समंको के आधार पर यह कहा जा सकता है कि निकट भविष्य में कृषि क्षेत्र में कृषकों का अभाव देखने में आ सकता है।

परिणामों का निर्वचन :

वर्णनात्मक सांख्यिकी आँकड़े यथा सारणी, चार्ट दर्शाते हैं कि अधिकांश उत्तरदाता 'युवा प्रौढ़' वर्ग के हैं। हालाँकि 66.7 प्रतिशत लोगों ने खेती में शामिल होने की इच्छा व्यक्त की। किन्तु एक कैरियर के रूप में नहीं स्वीकारा। मात्र 10 प्रतिशत उत्तरदाता कृषक बनने की इच्छा रखते हैं। शेष डाक्टर, इंजीनियर, वकील, अध्यापक व व्यवसायी को चुना। कृषि को एक कैरियर के रूप में न चुनने के कारणों में आय की कमी, संतुष्टि व रोजगार की अस्थिरता को माना है। जो कृषि से विमुख होने के मुख्य कारण थे।

युवाओं का कृषि विमुखता के अन्य कारण—

1. कृषि उत्पाद लागतों का अधिक होना।
2. अन्य उद्यमों में कृषि की अपेक्षा अधिक लाभ का होना।
3. कृषि आय व कृषि लागत के बीच सार्थक अन्तर (लाभ) का न होना।
4. दूसरे अन्य क्षेत्र जैसे सेवा क्षेत्र, औद्योगिक उत्पादन क्षेत्र या व्यापारिक क्षेत्र से तुलनात्मक कम आय व लाभ प्राप्त होना।

परिकल्पना परीक्षण :

शून्य परिकल्पना H0: युवाओं का कृषि की तरफ रुझान कम हुआ है। व वैकल्पिक परिकल्पना H1: युवाओं का रुझान कम नहीं हुआ है। फिगर सं0 5 से स्पष्ट है कि कैरियर के रूप में सबसे कम कृषक बनने को चुना गया है जबकि अन्य पेशे जैसे अध्यापक, डाक्टर, इंजीनियर व अन्य को चुना गया है।

जिस कारण शून्य परिकल्पना स्वीकार हो जाती है कि युवाओं का कृषि की तरफ रुझान कम हुआ है या युवाओं के अन्दर विभिन्न कारणों से कृषि विमुखता आयी है। जो भविष्य के लिए एक चुनौती बन जाती है।

भावी चुनौतियाँ :

- खेती का कार्य करने व शारीरिक कार्य करने वाले व्यक्तियों की कमी होगी।
- मानसिक कार्य/बौद्धिक कार्य करने वालों की अधिकता होगी।
- कृषि उत्पाद अत्यधिक महँगे होने से औद्योगिक उत्पादन व सामाजिक सर्वाइवल कठिन होगा।
- सामाजिक बुराइयों को बल मिलेगा।

समाधान/सुझाव :

- कृषकों की मनोवृत्ति को सकारात्मक बनाये रखना।
- कृषि वानिकी अपनाने पर जोर
- युवाओं को कृषि उन्मुखी बनाना अथवा कृषि तत्परता/कृषि उन्मुखता को बढ़ावा देना।
- कृषकों का खोया सम्मान वापस लाना।
- कृषि में नयी खोजों व आधुनिक तकनीकों का उपयोग करना व प्रशिक्षण की व्यवस्था करना।
- प्रभावी कृषि उन्मुखी योजनाओं के निर्माण की आवश्यकता है जो वर्ष 2050 की इंफ्रास्ट्रक्चर व उसकी आवश्यकताओं को ध्यान में रखकर बने।

सन्दर्भ सूची

- प्रत्यक्ष सर्वेक्षण।
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