International Refereed, Blind Peer-Reviewed Multidisciplinary & Open Access Research Journal

Special Issue 01 | Vol.: 12 | June 20, 2025 | Pages: 131-136 | RRSSH | ISSN: 2348 – 3318 |

ICSSR | |National Seminar on "Indian Knowledge System: Education and Prosperity" Org. by Dhanauri P.G. College, Roorkee (28-29 Mar., 2025)

DOI : 10.5281/zenodo.15823816

The Role of Fintech in Advancing Financial Inclusion: A Key Driver for India's Self-Reliance

Abhishek Khari[1] & Susksham R. Aneja[2]

1. Research Scholar, Govt. P.G. College, Noida
2. Assistant Professor, Govt. P.G. College, Noida

Received : 30/03/2025	*1st BPR* : 22/04/2025	*2nd BPR* : 10/05/2025	*Accepted* : 30/05/2025

Abstract

Financial inclusion has emerged as a critical driver of economic growth and poverty alleviation in developing economies. In India, the advent of Financial Technology (FinTech) has revolutionized the financial landscape, offering innovative solutions to bridge the gap between traditional banking systems and underserved populations. This paper explores the impact of FinTech on financial inclusion in India, with a focus on its role in fostering a self-reliant economy. Using secondary data and a review of existing literature, the study highlights the transformative potential of FinTech in enhancing access to financial services, reducing inequality, and promoting economic empowerment.

Keywords: Financial Inclusion, Fintech, Self-reliant Economy, Financial Services

Introduction

Financial inclusion, the equitable availability and utilization of financial services across all societal segments, serves as a foundational pillar for long-term economic growth. It enhances individual and entrepreneurial capabilities by offering mechanisms to accumulate savings, access investments, and mitigate financial vulnerabilities. In India, home to more than 1.4 billion people, ensuring universal financial access has historically posed a formidable obstacle. Although progress has been made in recent decades, a significant percentage of citizens, especially in rural and semi-urban regions, continue to operate outside formal financial frameworks. Data from the World Bank's Global Findex Database (2021) reveals that around 190 million Indian adults remain without essential services like banking, credit, and insurance, exacerbating poverty, restricting economic advancement, and impeding national development.

Financial Technology (FinTech) has emerged as a pivotal catalyst in redefining these dynamics. Through innovations such as mobile-based banking, blockchain solutions, artificial intelligence, and digital payment platforms, FinTech has reshaped the delivery and adoption of financial services. India's FinTech ecosystem has witnessed rapid expansion, fueled by policy reforms, regulatory framework, and the proliferation of digital infrastructure. Initiatives like the 2016 Unified Payments Interface (UPI) revolutionized real-time transactions, while programs such as the Pradhan Mantri Jan Dhan Yojana (PMJDY)—a mission to universalize banking access—have been amplified by FinTech solutions streamlining account management and credit processes.

Aligned with the Government of India's "Self-Reliant India" (Atmanirbhar Bharat) agenda, which prioritizes equitable growth and economic stability, FinTech plays a vital role in integrating underserved populations into the formal economy. This vision emphasizes equipping marginalized communities with resources to participate in economic activities, thereby reducing disparities. FinTech's capacity to dismantle barriers between conventional financial institutions and unbanked populations positions it as a key enabler of inclusion, fostering socioeconomic equity and driving

International Refereed, Blind Peer-Reviewed Multidisciplinary & Open Access Research Journal

Special Issue 01 | Vol.: 12 | June 20, 2025 | Pages: 131-136 | RRSSH | ISSN: 2348 – 3318 |

collective prosperity. By enhancing accessibility, it holds promise for mitigating inequality, uplifting vulnerable groups, and accelerating India's journey toward holistic economic resilience.

Objective of the study

Objectives of the present study are:

1. To analyze the role Fintech Initiatives (BHIM UPI, AEPS, and PMJDY) in expanding access to financial services in India.
2. To evaluate the impact these fintech platforms on financial inclusion in India.
3. To review the literature.
4. To analyze the importance of Fintech enabled Financial Inclusion in making India Self-Reliant.
5. To provide policy recommendations for leveraging FinTech innovations to achieve universal financial inclusion and support India's vision of a self-reliant economy (Atmanirbhar Bharat).

2. Literature Review

The following section reviews key studies and reports that explore the relationship between FinTech and financial inclusion:

1. A study by **Asif et al. (2023)** highlights FinTech's role in bridging urban-rural divides, fostering economic growth and self-reliance. However, challenges remain, including regulatory hurdles and low internet penetration, necessitating innovative policy solutions to maximize FinTech's potential. FinTech has revolutionized financial inclusion in India, particularly for rural populations. Services like mobile banking and microfinance have expanded access to financial tools.
2. **Goswami et al. (2022)** illustrates the transformative impact of FinTech on rural financial inclusion. Mobile money and digital payments have brought affordable services to underserved areas, enabling economic participation. Despite connectivity challenges, these technologies have enhanced access, promoting a self-reliant India. Future studies should focus on overcoming regulatory barriers and integrating FinTech into the broader economic framework for sustained growth.
3. **Patnaik and Baral (2022)** examine FinTech's role in empowering rural women entrepreneurs in India. Digital financial services have enhanced access to financial tools, promoting economic participation and self-reliance. However, challenges such as low literacy and connectivity issues persist. Future studies should explore strategies to overcome these barriers and enhance the impact of FinTech on financial inclusion.
4. **Morgan (2022)** This study states that the integration of FinTech in India has significantly impacted financial inclusion. Innovations in digital services have lowered barriers to entry for underserved populations, fostering economic growth. However, infrastructural and regulatory challenges remain. Future research should explore policy frameworks that support FinTech's growth while ensuring equitable access and consumer protection, driving India towards economic self-reliance.
5. **Gomathi (2021)** highlights FinTech's potential to transform India's digital economy and support financial inclusion. Innovations in payment systems and banking services have expanded access for underserved populations. Despite regulatory challenges, these technologies offer pathways to a self-reliant India. Research should focus on policy frameworks that support FinTech growth while ensuring consumer protection and equitable access.
6. **Kaur et al. (2021)** discuss the evolution of FinTech in India, highlighting its potential to drive financial inclusion and self-reliance. Digitalization and government initiatives like demonetization have accelerated FinTech adoption. Despite challenges, these technologies offer opportunities for inclusive growth. Research should focus on addressing regulatory barriers and ensuring the sustainability of FinTech innovations in fostering a self-reliant India.
7. **Raj and Upadhyay (2020)** highlight FinTech's role in accelerating financial inclusion through innovative services like mobile banking. These technologies have democratized access to financial services, particularly for rural populations. While challenges such as low internet penetration persist, policy interventions and technological advancements offer pathways to enhance inclusion.

International Refereed, Blind Peer-Reviewed Multidisciplinary & Open Access Research Journal

Special Issue 01 | Vol.: 12 | June 20, 2025 | Pages: 131-136 | RRSSH | ISSN: 2348 – 3318 |

Further research should examine the long-term sustainability of these models in achieving a self-reliant India.

8. **Kandpal and Mehrotra (2019)** explore FinTech's role in financial inclusion amid connectivity challenges in India. Government initiatives like Aadhaar and UPI have driven digital financial services, increasing access for underserved populations. These advancements support economic self-reliance. Continued research is needed to address technological and regulatory hurdles, ensuring FinTech's potential is fully realized in fostering inclusive growth.

3. Methodology

This study is based on secondary data collected from government reports, academic journals, and industry publications. The analysis focuses on key indicators of financial inclusion, such as the number of bank accounts, digital transactions, and access to credit. The study also incorporates insights from the literature review to provide a holistic understanding of the impact of FinTech on financial inclusion in India.

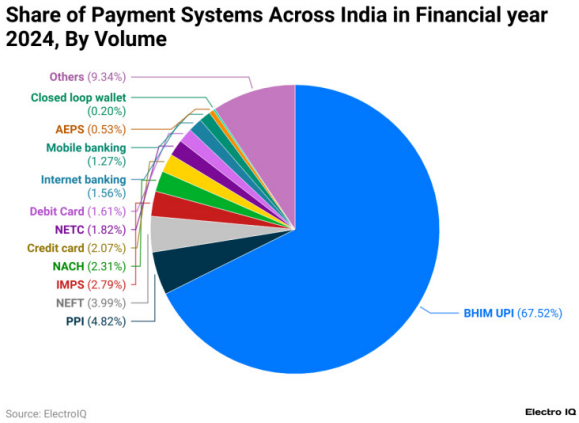
4. Data Analysis

The analysis of secondary data reveals significant insights into the role of indigenous FinTech innovations in driving financial inclusion in India. The following sections present key findings based on data from government reports, industry publications, and academic studies, with a focus on India's homegrown FinTech ecosystem and its impact on financial inclusion.

4.1 BHIM UPI

BHIM UPI, launched in 2016, has revolutionized digital payments in India, driving financial inclusion and economic empowerment. By 2023, it processes over 10 billion monthly transactions, valued at ₹15 trillion, with 300 million registered users. A significant 40% of transactions originate from rural and semi-urban areas, highlighting its reach in underserved regions. UPI has empowered small businesses, with 50 million merchants adopting digital payments, and facilitated government welfare schemes like Direct Benefit Transfers (DBT).

BHIM UPI emerged as the largest payment method from last several years as a report of Electro IQ shows in the figure-



Source – Electro IQ

As per the report share of BHIM UPI on the payment systems in India in FY 2024 is 67.62% which is the highest amongst all payment methods.

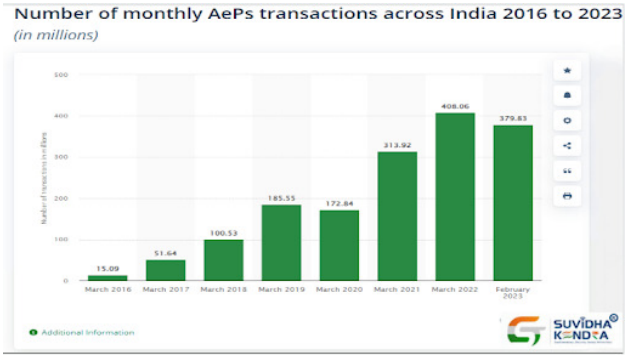
Government initiatives like Digital India and Aadhaar-enabled e-KYC have supported UPI's growth. By 2025, UPI is projected to handle 20 billion monthly transactions, contributing significantly to India's vision of a self-reliant economy. To sustain this growth, addressing infrastructure gaps, enhancing digital literacy, and strengthening cybersecurity measures are critical. BHIM UPI stands as a cornerstone of India's FinTech revolution, bridging the gap between traditional banking and the unbanked, and fostering inclusive economic growth.

International Refereed, Blind Peer-Reviewed Multidisciplinary & Open Access Research Journal

Special Issue 01 | Vol.: 12 | June 20, 2025 | Pages: 131-136 | RRSSH | ISSN: 2348 – 3318 |

4.2 Aadhaar Enabled Payment System (AEPS)

The Aadhaar Enabled Payment System (AEPS), launched by NPCI, has been a game-changer for financial inclusion in India, especially in rural and underserved areas. By 2023, AEPS processes 1.5 billion transactions annually, with 70% originating from rural regions. AEPS commonly known as the debit card of rural India as it enables basic banking services like cash withdrawals, deposits, and fund transfers using biometric authentication, eliminating the need for cards or PINs. Over 500 million Aadhaar-linked bank accounts are operational, empowering low-income households and small businesses. Number of AEPS transections as increased over the years as shown in following figure.



AEPS plays a critical role in government welfare schemes, facilitating Direct Benefit Transfers (DBT) of over ₹3 trillion in 2023 under programs like PM-KISAN and MGNREGA. It has also empowered 40% women and 50% farmers, promoting gender inclusivity and rural economic growth.

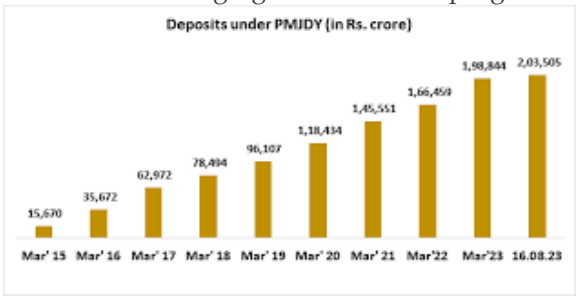
However, challenges persist, including infrastructure gaps (only 45% rural internet penetration), biometric authentication failures (15% transaction failures in 2022), and fraud risks (5,000 fraud cases reported in 2022). Addressing these issues is crucial for sustaining growth.

With government support through initiatives like the JAM Trinity and Digital India, AEPS is projected to process 2 billion transactions annually by 2025. It remains a cornerstone of India's financial inclusion strategy, bridging the gap between traditional banking and the unbanked, and fostering a self-reliant economy.

4.3 Pradhan Mantri Jan Dhan Yojana (PMJDY)

Launched in 2014, the Pradhan Mantri Jan Dhan Yojana (PMJDY) is a flagship financial inclusion initiative aimed at providing universal access to banking services. By 2023, over 450 million bank accounts have been opened under PMJDY, with 55% belonging to women and 67% to rural areas. These accounts have collectively deposited over ₹2 trillion, reflecting increased savings among low-income households.

PMJDY has significantly reduced the unbanked population, with 99% of households now having access to a bank account. It has also facilitated the rollout of government welfare schemes, enabling Direct Benefit Transfers (DBT) of over ₹5 trillion in 2023 under programs like PM-KISAN and MGNREGA. The scheme has empowered marginalized groups, with 30 million accounts opened for street vendors under the PM-SVANidhi initiative. Following figures shows the progress in deposits under PMJDY.



Source- PIB

International Refereed, Blind Peer-Reviewed Multidisciplinary & Open Access Research Journal

Special Issue 01 | Vol.: 12 | June 20, 2025 | Pages: 131-136 | RRSSH | ISSN: 2348 – 3318 |

However, challenges remain, including inactive accounts (20% of PMJDY accounts show zero balance) and limited financial literacy in rural areas. Additionally, digital infrastructure gaps hinder the full utilization of PMJDY-linked services like RuPay cards and mobile banking.

Despite these challenges, PMJDY has been a cornerstone of India's financial inclusion strategy, fostering economic empowerment and reducing inequality. With continued focus on financial literacy and infrastructure development, PMJDY is poised to play a pivotal role in achieving a self-reliant India (Atmanirbhar Bharat).

5. Findings and Conclusion

The empirical analysis of India's FinTech ecosystem, anchored by initiatives such as BHIM UPI, Aadhaar Enabled Payment System (AEPS), and the Pradhan Mantri Jan Dhan Yojana (PMJDY), underscores the transformative role of technology in advancing financial inclusion. Findings reveal that these platforms have significantly narrowed the gap between traditional financial systems and underserved populations, particularly in rural and semi-urban regions. BHIM UPI, with its seamless, real-time transaction capabilities, has democratized digital payments, fostering a culture of cashless economies even among previously unbanked demographics. AEPS, leveraging biometric authentication, has bridged infrastructural barriers, enabling secure financial access for individuals lacking formal identification or technological literacy. Meanwhile, PMJDY's integration with FinTech solutions has amplified its reach, converting policy objectives into tangible outcomes by streamlining account creation, credit disbursement, and financial literacy programs.

Data trends highlight exponential growth in adoption rates, with UPI alone processing over 10 billion monthly transactions, reflecting its embeddedness in everyday economic activities. PMJDY's success—evidenced by over 500 million beneficiaries—demonstrates how policy-technology synergies can dismantle systemic exclusion. However, challenges persist, including regional disparities in digital infrastructure, cybersecurity vulnerabilities, and the need for sustained financial literacy to ensure informed usage of these tools.

The alignment of FinTech innovations with India's "Atmanirbhar Bharat" vision is unmistakable. By empowering marginalized communities with access to savings, credit, and insurance, these technologies not only reduce poverty but also stimulate grassroots entrepreneurship, fostering a self-reliant economy. The journey toward universal financial inclusion remains ongoing, necessitating collaborative efforts among policymakers, financial institutions, and tech innovators to address existing gaps. As India continues to harness FinTech's potential, its blueprint offers a replicable model for emerging economies seeking to balance technological disruption with equitable growth.

However, challenges such as digital literacy gaps, infrastructure limitations, and cybersecurity risks must be addressed to fully harness their potential. Policymakers, regulators, and industry stakeholders must collaborate to:

1. Enhance digital literacy and awareness programs, particularly in rural areas.
2. Invest in digital infrastructure, including internet connectivity and power supply.
3. Strengthen cybersecurity measures to protect users from fraud and data breaches.
4. Promote innovation through supportive regulatory frameworks and public-private partnerships.

By addressing these challenges, India can further leverage FinTech innovations to achieve its vision of a self-reliant and inclusive economy. BHIM UPI, AEPS, and PMJDY serve as powerful examples of how technology can bridge the gap between traditional banking systems and underserved populations, fostering inclusive growth and economic resilience.

Biblography

1. Asif, M., Khan, M. N., Tiwari, S., Wani, S. K., & Alam, F. (2023). The impact of fintech and digital financial services on financial inclusion in India. *Journal of Risk and Financial Management*, *16*(2), 122.
2. Goswami, S., Sharma, R. B., & Chouhan, V. (2022). Impact of financial technology (Fintech) on financial inclusion (FI) in Rural India. *Universal Journal of Accounting and Finance*, *10*(2), 483-497.

Special Issue 01 | Vol.: 12 | June 20, 2025 | Pages: 131-136 | RRSSH | ISSN: 2348 – 3318 |

3. Patnaik, R., & Baral, S. K. Empowering rural women entrepreneurs: A critical study on the intervention of fintech platforms in India. In *Mbali Conference 2022 Proceedings* (p. 494).
4. Morgan, P. J. (2022). Fintech and financial inclusion in Southeast Asia and India. *Asian Economic Policy Review*, *17*(2), 183-208.
5. Gomathi, M. A. ROLE OF FINTECH-INNOVATION AND ADOPTION IN SUSTAINABLE BUSINESS START-UPS. *SUSTAINABLE DEVELOPMENTS THROUGH MSMEs: A PATHWAY TO SELF-RELIANT INDIA*, *25*, 102.
6. Kaur, B., Kiran, S., Grima, S., & Rupeika-Apoga, R. (2021). Digital banking in Northern India: The risks on customer satisfaction. *Risks*, *9*(11), 209.
7. Raj, B., & Upadhyay, V. (2020, January 1). Role of FinTech in Accelerating Financial Inclusion in India. Social Science Research Network. https://doi.org/10.2139/ssrn.3591018
8. Kandpal, V. (2019, March 13). Financial Inclusion: The Role of Fintech and Digital FinancialServicesinIndia. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3485038
9. Ministry of Finance, Government of India. (2023). *Pradhan Mantri Jan Dhan Yojana (PMJDY) annual report 2023*. https://www.india.gov.in
10. National Payments Corporation of India (NPCI). (2023). *Unified Payments Interface (UPI) and Aadhaar Enabled Payment System (AEPS) transaction data*. https://www.npci.org.in
11. Reserve Bank of India (RBI). (2023). *Report on FinTech and financial inclusion in India*. https://www.rbi.org.in
12. NITI Aayog. (2022). *FinTech and financial inclusion: A pathway to Atmanirbhar Bharat*. https://www.niti.gov.in
13. World Bank. (2019). *Financial inclusion and the role of FinTech*. https://www.worldbank.org
14. https://www.worldbank.org/en/publication/globalfindex

*** ***