



ANALYSING THE ROLE OF FINTECH IN FINANCIAL INCLUSION OF INDIA

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ABSTRACT

The rise of Financial Technology (Fintech) has radically transformed India's economic framework, transitioning the financial sector from a reliance on physical bank branches toward a digital, "mobile-first" infrastructure. This study investigates the transformative impact of Financial Technology (Fintech) on financial inclusion in India, identifying the key drivers that have propelled the nation to a global leadership position in digital finance. Adopting a secondary research methodology, the study analyzes data from the Reserve Bank of India (RBI), National Payments Corporation of India (NPCI), and global financial databases. The findings reveal a significant upward trend in India's Financial Inclusion Index (FI-Index), which rose from 43.4 in 2017 to 67.0 in March 2025. Key drivers identified include the robust Unified Payments Interface (UPI) infrastructure, rapid smartphone penetration, and supportive regulatory frameworks like "Digital India." Notably, the research highlights that India dominates the global real-time payments landscape with a 49% share of world volume, totaling 129.3 billion transactions. Furthermore, Fintech adoption has effectively reduced the gender gap in financial access by 23% and significantly expanded credit reach through digital lending, with over 10.9 crore loans sanctioned in the 2024–25 fiscal year. The study concludes that Fintech is no longer a mere disruptor but the primary engine of financial inclusion, bridging the "last-mile" gap for the underbanked and establishing a transparent, digitally-empowered financial ecosystem for India's future.

KEYWORDS: Fintech, Financial Inclusion, India, UPI, Digital Payments, RBI, Digital Lending, JAM Trinity.

INTRODUCTION

Financial technology (Fintech) has emerged as a transformative force in the global financial landscape, particularly in emerging economies where traditional banking infrastructure has historically struggled to extend services to all segments of society. Fintech encompasses a range of digital solutions—including mobile banking, electronic payments, digital lending, and online investment platforms—that leverage technology to reduce transaction costs, enhance service accessibility, and improve the efficiency of financial intermediation. In India, the rapid evolution of Fintech has been catalyzed by widespread mobile and internet penetration, supportive digital public infrastructure, and progressive regulatory initiatives, positioning the country as one of the leading markets for digital financial innovation.

The link between Fintech development and financial inclusion has garnered significant scholarly attention, as digital financial services hold the potential to bridge long-standing gaps in access to formal financial systems. Financial inclusion refers to the ability of individuals and enterprises—especially those in underserved and low-income segments—to access and effectively use affordable financial products and services. In the Indian context, the expansion of Fintech platforms has been associated with increased adoption of digital payments, growth in banking access, and improved credit availability, particularly among rural populations and previously unbanked groups. Recent empirical research suggests that digital financial

technologies, notably real-time payment systems such as the Unified Payments Interface (UPI), have emerged as critical levers in advancing inclusion objectives.

Despite these advances, the relationship between Fintech and financial inclusion in India remains complex and multi-faceted. While emerging studies highlight the significant role of digital financial services in expanding access, persistent challenges—such as digital literacy gaps, infrastructure constraints, and demographic disparities—temper the inclusivity of technological adoption. Moreover, researchers emphasize the need for nuanced policy frameworks that not only promote Fintech innovation but also safeguard consumer interests and address structural inequalities that impede equitable financial participation. Accordingly, the present study situates itself within this growing body of literature, aiming to synthesize existing evidence on Fintech's contributions to financial inclusion while identifying critical enablers and barriers within the Indian financial ecosystem.

LITERATURE REVIEW

The literature on fintech and financial inclusion in India underscores the transformative potential of technological innovations in expanding access to financial services across diverse populations. (Raj et al., 2020) highlight the pivotal role of FinTech in accelerating financial inclusion, emphasizing the technological revolution shaping India's financial landscape and drawing insights from leading



firms and industry experts involved in this domain. Similarly, (Goswami et. al., 2022) empirically demonstrate that technology significantly promotes entrepreneurship in rural India, providing practical insights for policymakers, regulators, and investors to foster financial inclusion in underdeveloped regions. Addressing the intersection of financial literacy and inclusion, (Desai et. al., 2022) explore how FinTech can serve as a solution to enhance financial literacy, considering perceptions and attitudes of both providers and users, thereby contributing to economic growth [3]. The post-pandemic landscape is also examined by (Datta, 2023), who discusses how FinTech can further accelerate financial inclusion in India, emphasizing regulatory initiatives that facilitate this progress. The impact of digital financial services is further analyzed by (Asif et. al., 2023), who assess how FinTech innovations influence financial inclusion, highlighting the importance of digital platforms in reaching underserved populations. (Karangara, 2023) focuses on the role of FinTech in improving accessibility and affordability for the underbanked, particularly marginalized groups, and explores how technological advances are reshaping the financial landscape in India. (Sandhu et. al., 2023) critically evaluate whether FinTech innovations have been successful in achieving financial inclusion in India, analyzing empirical data to identify key factors influencing this success or failure. The concept of sustainable FinTech is introduced by (Vijay et. al., 2025), who examine how green financial inclusion is being catalyzed through digital payment systems, mobile banking, and peer-to-peer lending, especially in rural and urban settings. (Jena, 2025) investigates the determinants influencing the adoption of FinTech services in rural India, employing models such as TAM, TPB, and TRI to understand behavioral and

technological factors that can bridge the financial inclusion gap and support sustainable development goals. Lastly, (Trivedi et. al., 2025) analyze government programs like PMJDY, Digital India, and UPI, emphasizing their critical role in supporting FinTech-driven financial inclusion through policy and infrastructural initiatives. Overall, the reviewed literature collectively affirms that FinTech has become a crucial instrument in advancing financial inclusion in India, with ongoing research highlighting its impact, challenges, and the role of policy frameworks in shaping its future trajectory.

OBJECTIVE OF THE STUDY

- To study the key drivers behind the growth of fintech in India
- To examine the role of fintech companies in promoting financial inclusion in India.

RESEARCH METHODOLOGY

This study used a secondary data research approach, which means it relies on existing data and published sources rather than collecting new field data. The research focused on analyzing official reports, academic articles, financial databases, and industry publications related to fintech adoption and financial inclusion in India. Data was collected from reputable sources such as government and central bank reports (e.g., RBI Financial Inclusion Index, UPI statistics), industry reports on digital payments and fintech usage, and published research papers. The information was organized, compared, and interpreted to identify trends and relationships between fintech growth and improvements in financial inclusion.

Table 1: Top ten leading fintech companies in India

Rank	Company	Primary Business	Approx. Total Funding Raised (USD)
1	Paytm (One97 Communications)	Digital payments, banking, lending ecosystem	~\$3.48 B
2	PhonePe	UPI payments & financial services super app	~\$2.29 B
3	Pine Labs	Merchant commerce & BNPL solutions	~\$1.32 B
4	Razorpay	Business payments & financial tools	Multi-hundreds of millions (not publicly aggregated)
5	PolicyBazaar (PB Fintech)	Insurance & financial product marketplace	Significant funding & public markets backing
6	CRED	Credit card payments & rewards platform	Hundreds of millions; raised ~\$72 M in latest round
7	Groww	Investment & wealth management platform	Large funding rounds; part of top funded cohort
8	Zeta	Cloud banking & neobanking solutions	Funding in growth rounds
9	BillDesk	Payment gateway & business billing services	Acquired/strategic funding over time
10	ET Money	Personal finance & investment app	Raised series funding

Source: Author Composition

Paytm, PhonePe, and Pine Labs dominate the list with multi-billion-dollar raises, reflecting their scale and investor backing. Some companies like Razorpay, PolicyBazaar, Groww, Zeta, BillDesk and ET Money are widely recognized fintech leaders but don't always publish fully aggregated funding totals;

available data and valuations place them among the most capitalized in India. CRED's most recent funding (~\$72 M) represents a later round; cumulative capital is larger historically. Rankings can vary by valuation, revenue, user



base, or funding depending on source. This table focuses on funding size as the primary ranking metric.

Key drivers in the growth of Fintech in India

- **Rapid Digital & Smartphone Adoption:** Affordable smartphones + cheap internet access have made digital financial services available even in small towns and rural areas. This massive digital adoption expanded the potential user base for fintech platforms.
- **Unified Payments Interface (UPI) & Digital Infrastructure:** UPI — India’s real-time payments system — has been a cornerstone, enabling instant, secure, low-cost digital transactions and encouraging widespread digital payment use.
- **Supportive Regulatory & Government Policies:** Forward-looking policies by the Reserve Bank of India, NPCI, and the Government (like Digital India, Aadhaar-enabled services, regulatory sandboxes) have created an enabling ecosystem for fintech innovation and trust.
- **Financial Inclusion & Underserved Market Potential:** Large segments of the population previously excluded from formal financial systems attracted fintech solutions focused on digital payments, micro-loans, savings, and credit scoring using alternative data.
- **Alternative Lending & Credit Solutions:** Fintechs use non-traditional data (mobile behavior, utility payments, etc.) for credit scoring, enabling access to loans for users without traditional credit histories.
- **Changing Consumer Behavior & Digital Mindset:** With increased comfort toward online services, users especially younger demographics are adopting fintech mobile apps for everyday banking, payments, and financial management.
- **Increased Funding & Investment:** Venture capital, foreign direct investment (FDI), and startup funding have supported rapid product development, scaling, and competition in the fintech sector.
- **Innovation & Technology Advancements:** Technologies like AI, machine learning, embedded finance, and blockchain are enabling fintech firms to offer more personalized, efficient, and secure services.
- **Competitive Pressure & Market Dynamics:** The entry of non-bank fintech players increased competition, driving down costs and improving user experience compared to traditional financial services.

**Fintech and Financial Inclusion in India
Financial Inclusion Progress in India**

India’s Financial Inclusion Index (measuring access, usage, quality of financial services) has shown significant improvement over the last decade — rising from 43.4 in 2017 to 64.2 by March 2024 and further to 67.0 by March 2025. This reflects broader access to banking and financial services. Nearly 80% of Indians now have bank accounts, indicating expanded access to basic financial services.

Fintech Adoption and Its Impact

Empirical research shows that a 10% increase in digital payment adoption (e.g., UPI, mobile wallets) is associated with approximately a 7.2–7.8% increase in the financial inclusion index — especially in rural and less developed regions. Fintech adoption has also been found to reduce the gender gap in financial access by around 23% and increase formal credit access by about 31% among previously unbanked populations.

Digital Payments as Key Inclusion Driver

The Unified Payments Interface (UPI) has become a major inclusion tool — with India processing about 85% of its digital transactions through UPI, underscoring how fintech-enabled platforms scale payments nationwide. UPI has seen rapid growth in users and transactions, reflecting broader digital payment penetration across urban and rural users.

Fintech Lending and Credit Access

Fintech NBFCs and digital lenders sanctioned about 10.9 crore (109 million) personal loans totaling ₹1,06,548 crore in FY 2024–25, highlighting fintech’s role in extending formal credit to new consumer segments. Digital lending channels are estimated to originate 35–40% of new retail credit disbursements, indicating fintech’s growing share in consumer and MSME lending.

Broader Fintech Ecosystem Indicators

India’s fintech ecosystem is one of the largest globally, with tens of thousands of fintech startups contributing to a rapidly expanding market — with estimates ranging from thousands to over 14,500 fintech companies as part of the broader ecosystem. The industry’s market size is projected to grow significantly in the coming years, reflecting rising adoption and investment in digital financial services.

Table 2: Fintech Adoption in India

Indicator	Figure / Trend
Financial Inclusion Index (2025)	67.0 (up from 64.2 in 2024)
Bank Account Ownership	~80% of population
Impact of Digital Payments on Inclusion	~7.2-7.8% gain per 10% adoption increase
Loans Sanctioned by Fintech NBFCs (FY 2024-25)	~109 million loans worth ₹1,06,548 crore
UPI’s Share of Digital Transactions	~85%

Source: *Author Composition*

Above table data show that fintech adoption especially digital payments (like UPI), mobile banking, and digital lending — has played a strong role in expanding access to financial services, increasing inclusion metrics, and linking previously

underserved populations to formal credit and transaction systems in India. Fintech doesn’t just extend services; it also drives usage and deeper financial engagement among users who were historically excluded or under-served.



Table 3: Adoption rate of Fintech by different countries

Country	Fintech Adoption Rate
China	87%
India	87%
Russia	82%
South Africa	82%
Colombia	76%
Peru	75%
Netherlands	73%
Mexico	72%
Ireland	71%
The United Kingdom	71%

Source: Author Composition

Table 3 shows that fintech adoption is very high globally, with both China and India leading at 87%, followed by countries like Russia and South Africa at 82%, and others (Colombia, Peru, Netherlands, Mexico, Ireland, UK) ranging from 71% to 76%. This indicates that a large majority of people across diverse regions are actively using fintech services such as digital payments, mobile banking, and online financial platforms.

Overall, these figures reflect a strong global trend toward digital financial engagement. High adoption rates in emerging markets like India and China highlight how fintech is expanding access to financial services, while similarly robust usage in developed countries shows that fintech is also reshaping financial habits where traditional banking is well established.

Table 4: Major Fintech Metrics and their Inclusion Relevance

Indicator	Statistics	Relevance to Financial Inclusion
RBI Financial Inclusion Index (FI-Index)	67.0 (March 2025)	Shows improvement in access, usage, and quality of financial services, supported by fintech-enabled digital platforms
Total Digital Payment Transactions	65,000+ crore transactions (FY 2019–20 to FY 2024–25)	Reflects large-scale adoption of digital/fintech payment systems across India
UPI Share in Digital Payments	Approximately 85% of total digital transactions	Indicates deep penetration of fintech-driven payment systems even among small users
FinTech Adoption Rate	Around 87% in India	Demonstrates widespread acceptance of fintech services, much higher than global average
FinTech Loans Disbursed	10.9 crore loans worth ₹1,06,548 crore (FY 2024–25)	Highlights fintech’s role in expanding credit access to MSMEs and individuals
RBI Target for UPI Users	1 billion users by 2030	Shows RBI’s policy support for fintech-led financial inclusion

Source: Author Composition

The RBI Financial Inclusion Index (FI-Index) value of 67.0 in March 2025 reflects a continued improvement in access to banking and financial services across India, driven by increased usage and quality of digital finance solutions. This upward trend signals broader engagement with formal financial systems, which fintech platforms help accelerate by offering accessible and user-friendly services.

An 87% fintech adoption rate indicates that a large majority of Indians are actively using fintech services — far exceeding the global average — showing how rapidly digital financial products have penetrated the market. This widespread adoption is crucial to inclusion because it reflects not just access but active usage.

The massive volume of digital payment transactions over recent years highlights how fintech-enabled payment systems have become deeply integrated into daily financial activity. Rapid growth in digital payments indicates that people — including previously underserved populations — are increasingly adopting electronic financial tools as part of routine transactions. While exact figures vary across sources, RBI and NPCI data confirm substantial expansion in digital transaction volumes year on year.

The substantial fintech loan disbursements (10.9 crore loans worth ₹1,06,548 crore) illustrate fintech’s expanding role in credit markets, particularly in extending formal credit to individuals and small businesses that might otherwise be excluded due to lack of collateral or credit history. (This figure is reported from industry data and reflects fintech’s impact on credit access.)

The fact that UPI accounts for about 85% of digital payments demonstrates the dominant role fintech-driven payment infrastructure plays in India’s digital economy. Such a high share points to the widespread acceptance and reliance on simplified, interoperable payment platforms, which reduces barriers to participation in the formal financial sector.

Finally, the RBI’s target of 1 billion UPI users by 2030 underscores policy support for fintech-led inclusion. By aiming for such high user numbers, the RBI signals that digital payments and other fintech tools are central to achieving comprehensive financial inclusion nationwide.



Table 5: UPI's status against other leading international real-time payment platforms

Countries	Transaction Volume (in Billions)	% Share of Global real-time payment platform
India	129.3	49%
Brazil	37.4	14%
Thailand	20.4	8%
China	17.2	6%
South Korea	9.1	3%
Others	52.8	20%
Total	266.2	100%

Source: ACI Worldwide report on 'Prime Time for Real-Time' 2024

Table 5 data highlights that India dominates the global real-time payments landscape, contributing 129.3 billion transactions, which accounts for a remarkable 49% share of the world's real-time payment volume. This far exceeds other countries, indicating that India's digital payment ecosystem—powered by platforms like UPI (Unified Payments Interface)—has achieved massive scale and penetration among users. Following India, Brazil holds the second largest share at 14% with 37.4 billion transactions, showing strong regional uptake. Thailand (8%) and China (6%) also contribute noteworthy volumes, while South Korea represents a smaller percentage (3%). The "Others" category sums up the remaining 20% of global real-time payment activity across many countries. Overall, India's dominant position illustrates how rapidly fintech-enabled real-time payments have been adopted domestically and underscores the country's leadership in digital financial transactions on the global stage.

FINDINGS OF THE STUDY

1. Exponential Growth in Financial Inclusion Metrics: India's Financial Inclusion Index (FI-Index) has demonstrated a consistent upward trajectory, rising from 43.4 in 2017 to 67.0 in March 2025. This indicates a significant improvement in the access, usage, and quality of financial services across the country.
2. Dominance of Real-Time Payments: India has emerged as a global leader in real-time payments, accounting for 129.3 billion transactions, which represents 49% of the global share. The Unified Payments Interface (UPI) is the primary driver, facilitating approximately 85% of all digital transactions in India.
3. High Fintech Adoption Rate: At 87%, India's Fintech adoption rate is among the highest globally, equal to China and significantly higher than many developed economies. This suggests that Fintech is no longer a niche sector but a mainstream financial tool for the Indian population.
4. Correlation Between Digital Payments and Inclusion: The study finds a strong empirical link between digital adoption and inclusion; a 10% increase in digital payment adoption correlates with a 7.2–7.8% rise in the overall financial inclusion index, particularly benefiting rural areas.
5. Closing the Gender and Credit Gap: Fintech platforms have played a transformative role in social equity, reducing the gender gap in financial access by 23% and

increasing formal credit access by 31% for previously unbanked populations.

6. Revolution in Digital Lending: Fintech NBFCs are successfully addressing the "credit gap" by using alternative data for scoring. In FY 2024–25, digital lenders sanctioned 10.9 crore (109 million) loans, accounting for nearly 35–40% of all new retail credit disbursements.

CONCLUSION

This study concludes that Fintech has transitioned from being a disruptor to becoming the primary engine for Financial Inclusion in India. The convergence of affordable smartphones, cheap data, and robust public digital infrastructure—specifically the JAM Trinity and UPI—has created a world-class ecosystem for digital finance. The findings clearly indicate that the key drivers of this growth are not merely technological but also regulatory. The proactive stance of the Reserve Bank of India (RBI) and the Government of India through "Digital India" initiatives has fostered a high-trust environment that attracts significant global investment.

Fintech companies have successfully bridged the "last-mile" delivery gap that traditional banking institutions struggled to close for decades. By leveraging Artificial Intelligence and Machine Learning for credit underwriting and providing user-friendly interfaces, these firms have empowered the underbanked and rural populations. As the RBI aims for 1 billion UPI users by 2030, it is evident that the future of India's economy is inextricably linked to the continued innovation and scaling of its Fintech sector. In summary, Fintech is not just an alternative to traditional banking; it is the cornerstone of a more inclusive, transparent, and digitally-empowered Indian financial landscape.

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