

Development of FinTech and Its Role in MSMEs in India

Ms. Vaishalee Bhoi, Dr. Ankur Amin

Abstract

India's rapid digital transformation has significantly reshaped the financial ecosystem, leading to the emergence and growth of Financial Technology (FinTech). Supported by initiatives such as Digital India, Aadhaar, and Unified Payments Interface (UPI). FinTech has enhanced financial inclusion and improved access to digital financial services. This study examines the development of FinTech in India and analyzes its role in supporting Micro, Small, and Medium Enterprises (MSMEs). MSMEs face challenges such as limited access to finance, technological constraints, and operational inefficiencies. FinTech addresses these issues by enabling faster digital payments, alternative credit assessment, and quicker loan disbursement with minimal documentation. Regulatory support from the Reserve Bank of India has further strengthened secure FinTech growth. The study also highlights opportunities and challenges associated with FinTech adoption, including cybersecurity and regulatory concerns. Overall, FinTech plays a vital role in reducing financing gaps, promoting innovation, and fostering sustainable growth of MSMEs in India, thereby contributing to broader economic development.

Keywords: FinTech, MSMEs, Digital Financial Services

INTRODUCTION

India's digital transformation has been remarkable, with improved connectivity and technological capabilities leading to increased digital access and inclusivity for its citizens. Initiatives such as the Digital India program, Pradhan Mantri Grameen Digital Saksharta Abhiyan (PMGDSA), and Unified Payments Interface (UPI), etc. have played a significant role in transforming India into a digitally empowered society and a major player in the digital economy.

In recent years, the rapid advancement of digital technology has significantly transformed the financial sector, giving rise to innovative financial solutions commonly known as FinTech. Financial Technology (FinTech) means the combination of finance and technology. It refers to the use of modern technology to provide financial services in an easy, fast, and efficient way. By using technology, financial activities such as payments, banking, lending, and investment can be done digitally. FinTech helps people and businesses access financial services conveniently through mobile apps, websites, and online platforms. In short, FinTech uses technology to improve and simplify traditional financial services.

The widespread adoption of smartphones and affordable mobile data plans has also contributed to the growth of India's digital economy. E-commerce, mobile payments, digital banking, healthcare, tourism, and business are some of the sectors that have seen significant growth in recent years. This digital transformation has also played a crucial role in the development of Micro, Small, and Medium Enterprises (MSMEs). One of the most critical challenges affecting the survival and growth of Micro, Small and Medium Enterprises (MSMEs) is inadequate access to capital. One of the biggest threats to MSME existence is a lack of capital. According to the IFC Report, the MSME credit gap is estimated at USD 400 billion, which is where FinTech can play a key role, and solve the issue of credit availability. With several FinTech start-ups offering easier and quicker access to loans, MSMEs are no longer required to go through the tedious process of documentation, paperwork and multiple visits to a bank.

The purpose of this study is to examine the development of FinTech in India and the role of FinTech in improving access to finance for MSMEs.

OBJECTIVES

1. To examine the development of FinTech in India.
2. To assess the role of FinTech in the development of MSMEs in India.
3. To identify challenges faced by MSMEs in adopting FinTech.

DEVELOPMENT OF FINTECH IN INDIA

Over the past decade, India's financial technology (FinTech) sector has expanded rapidly, supported by favorable policy reforms, widespread digital adoption, and a growing base of technology-savvy users. India has emerged as one of the leading FinTech markets in Asia. FinTech refers to the use of modern technology to improve and automate financial services, making activities such as payments, lending, banking, insurance, and investments more efficient and accessible. Key segments of the FinTech ecosystem include digital payments, digital lending, BankTech, InsurTech, RegTech, and cryptocurrencies.

FinTech has extended its presence beyond traditional finance into areas such as education, retail banking, fundraising, non-profit services, and investment management. The Indian FinTech market was valued at USD 121.4 billion in 2024 and is expected to reach USD 550.9 billion by 2033, growing at a compound annual growth rate (CAGR) of 17.4 percent during the period 2025–2033. This strong growth reflects the sector's importance in driving business expansion, employment generation, and financial inclusion by enabling wider access to formal financial services.

RBI Regulations Supporting Secure and Compliant Fintech Growth:

- The Reserve Bank of India (RBI) supports FinTech growth by creating regulations that balance innovation with consumer protection.
- RBI has introduced strict KYC and AML norms to prevent fraud and ensure transparency in digital financial services.
- Guidelines for digital lending platforms promote responsible lending by ensuring direct fund transfer between lenders and borrowers.
- Data security and privacy are emphasized through data localization rules aligned with the Digital Personal Data Protection Act, 2023.
- RBI has strengthened payment security through measures like tokenization and two-factor authentication (2FA).
- The regulatory sandbox allows FinTech firms to test new products safely, encouraging innovation while protecting users.

Government Initiatives Accelerating Digital Financial Inclusion

- Government initiatives such as Pradhan Mantri Jan Dhan Yojana, Aadhaar, and Unified Payments Interface (UPI) have played a key role in expanding digital financial access and bringing unbanked populations into the formal financial system.
- PMJDY has supported savings, direct benefit transfers, and digital payments, while Aadhaar-based authentication and AePS have simplified customer verification, especially in rural areas.
- Initiatives like FASTag, BharatQR, and UPI QR codes have promoted cashless transactions and enabled small businesses to accept digital payments easily.
- The Digital India mission has strengthened digital literacy and internet connectivity, encouraging the adoption of online financial services across the country.
- Programs such as Startup India and Invest India have supported FinTech entrepreneurship by easing regulations and promoting innovation.

Opportunities Related to FinTech

- FinTech helps promote financial inclusion by providing digital financial services to people outside the formal banking system.
- It improves access to finance for MSMEs, helping to address the large credit gap identified by the International Finance Corporation (IFC).

- FinTech platforms offer faster loans with minimal documentation, reducing dependence on traditional banks.
- Customer experience is enhanced through convenient, transparent, and user-friendly digital services.
- Advanced technologies like big data and machine learning enable better risk assessment and credit scoring.

Associated Challenges of FinTech

- **Cybersecurity Risks:** FinTech systems are vulnerable to hacks and cyber-attacks due to digitization and automation, as seen in incidents involving banks and debit card companies.
- **Data Privacy Concerns:** Consumers worry about misuse of personal and financial information and who is responsible in case of breaches.
- **Regulatory Challenges:** Emerging areas like cryptocurrency are often unregulated, creating opportunities for fraud. The wide variety of FinTech services makes it difficult to implement a single comprehensive regulatory framework.

THE ROLE OF FINTECH IN THE DEVELOPMENT OF MSMEs IN INDIA

According to the criteria prescribed by the Ministry of Micro, Small and Medium Enterprises, Micro, Small, and Medium Enterprises (MSMEs) in India are classified based on their level of investment in plant and machinery or equipment along with annual turnover. A micro enterprise is defined as one where the investment does not exceed ₹2.5 crore and the annual turnover is limited to ₹10 crore. Small enterprises are those with investment up to ₹25 crore and annual turnover not exceeding ₹100 crore. Medium enterprises include units with investment up to ₹125 crore and annual turnover up to ₹500 crore. This classification provides a standardized framework for policy formulation, regulatory support, and targeted financial assistance to MSMEs in India.

The Micro, Small and Medium Enterprises (MSME) sector plays a crucial role in India's economic development by contributing significantly to industrial output, employment generation, exports, and GDP growth. Despite its importance, the sector faces several challenges that restrict its growth. These include limited access to timely and adequate finance due to complex procedures, lack of collateral, and low awareness of government support schemes. MSMEs also struggle with technological limitations such as outdated machinery, low ICT adoption, and shortage of skilled manpower. Additionally, issues related to infrastructure constraints, supply chain inefficiencies, regulatory compliance, and intense competition from imported goods further affect their operational efficiency and competitiveness (Khatr, n.d.).

FinTech plays an important role in supporting Micro, Small, and Medium Enterprises (MSMEs) by improving financial inclusion and financial literacy. It provides easy access to financial services such as mobile wallets, digital payments, and online lending, making transactions faster and more convenient for MSMEs. FinTech also helps overcome geographical barriers by reaching enterprises in remote and underserved areas. Through digital lending platforms, MSMEs can access business loans quickly with less paperwork and faster disbursement, helping them address capital constraints. In addition, the use of FinTech has increased awareness and usage of financial products among MSME owners, driven by the demand for convenience, secure transactions, and the shift toward digital business practices. Overall, FinTech empowers MSMEs and contributes positively to economic development (Manap et al., 2023).

FinTech plays a crucial role in reducing financing constraints and promoting innovation in Small and Medium Enterprises (SMEs) by addressing information asymmetry. By using advanced technologies such as big data, cloud computing, and artificial intelligence, FinTech improves information transparency, risk assessment, and cost efficiency. Digital records and alternative credit scoring models enable investors, banks, suppliers, and government agencies to extend credit even when SMEs lack detailed financial histories. As a result, FinTech increases access to funding, supports efficient resource allocation, and facilitates greater investment in research and development, ultimately enhancing innovation and growth among SMEs (Li et al., 2023).

Emerging Digital Lending Models:

Digital lending has led to the development of several innovative financing models that support financial inclusion by providing easier access to credit for MSMEs and underserved segments. These models use technology to reduce delays, lower costs, and improve credit availability.

- **Peer-to-Peer (P2P) Lending:** Peer-to-peer lending platforms directly connect borrowers with individual or institutional lenders through online systems. The platform manages loan applications, repayments, and records, making the lending process simple and transparent. This model benefits MSMEs and small business owners who are new to formal banking, as it provides them access to credit without strict collateral requirements and helps reduce dependence on traditional banks.
- **Supply Chain Financing:** Supply chain financing is a digital solution that links buyers and suppliers involved in business transactions. It allows suppliers to receive early payments against approved invoices, which improves cash flow and reduces working capital pressure. This model is especially beneficial for small businesses with limited credit history, as financing is based on transaction strength rather than collateral, helping MSMEs maintain smooth business operations.
- **Invoice Financing:** Invoice financing enables businesses to borrow funds against unpaid customer invoices. By converting pending receivables into immediate cash, this model helps MSMEs meet operational expenses, manage cash flow effectively, and expand their business activities. It reduces the waiting period for payments and supports continuous business growth.
- **Point-of-Sale (POS) Lending:** Point-of-sale lending operates through partnerships between merchants and financial institutions, offering credit to customers at the time of purchase. Lending decisions are based on transaction data and basic financial information, making credit easily accessible to new and thin-file customers. This model benefits both businesses and consumers by increasing sales, improving customer affordability, and supporting credit history development.
- **Buy Now, Pay Later (BNPL):** Buy Now, Pay Later is a short-term digital credit model that allows customers to make purchases and repay the amount in small installments. When payments are made on time, the credit is usually interest-free. BNPL improves affordability and convenience for consumers and helps businesses increase sales, while also extending credit access to individuals who do not use traditional credit cards.

CHALLENGES FACED BY MSMEs IN ADOPTING FINTECH

- **Low Digital and Financial Literacy:** Many MSME owners lack digital skills and financial know-how, which hampers their ability to understand and use FinTech solutions effectively. This lack of awareness slows down adoption and makes technology usage feel risky or confusing for business owners. MSMEs struggle with complex financial and technological concepts needed to adopt digital payments and credit platforms. Digital literacy gaps are identified as a key barrier, especially in rural and semi-urban areas.
- **Inadequate Digital Infrastructure:** Many MSMEs operate with poor internet connectivity, outdated systems, and limited access to computers or mobile technology, making the consistent use of FinTech services difficult. Without robust digital infrastructure, reliance on manual processes continues, reducing FinTech penetration. Poor infrastructure also increases transaction costs and transaction failures.
- **Regulatory Complexity and Compliance Burden:** Complex and changing regulations create uncertainty for MSMEs and FinTech platforms alike. MSME often find it difficult to understand KYC, AML, data protection, and digital transaction norms. High compliance requirements remain burdensome relative to their operational resources. Regulatory changes may unexpectedly affect service costs or access.
- **Data Privacy and Cybersecurity Risks:** Concerns about security of financial data, cyberattacks, and data misuse are major risks perceived by MSMEs. MSME owners worry about data breaches, identity theft, and unauthorized access. Rising digital fraud overall increases mistrust in FinTech platforms.
- **Lack of Credit History and Challenges in Accessing Finance:** Even with FinTech tools available, many MSMEs struggle to access affordable credit due to limited credit back-up data and lack of traditional financial records. Without formal credit history, many digital lenders remain hesitant to provide loans. FinTech lenders use alternative data but this is an evolving area and still not universally trusted.
- **Trust and Perceived Risk in Technology:** Many MSME owners are used to working with cash transactions and manual record-keeping. Because of this habit, they often feel that digital systems are risky

or too new to trust. They worry about making mistakes while using technology or losing control over their financial information.

CONCLUSION

The growth of FinTech in India has changed the financial system and helped MSMEs grow. With support from government initiatives like Digital India, Aadhaar, and UPI, and guidance from the Reserve Bank of India, FinTech has made financial services faster, easier, and more accessible. MSMEs benefit from digital payments and new lending options such as P2P lending and invoice financing, which reduce paperwork and improve cash flow. However, problems like low digital knowledge, poor infrastructure, cybersecurity risks, and complex regulations still exist. These issues need attention through better digital training and strong data protection. Overall, FinTech plays an important role in improving access to finance, encouraging innovation, and supporting the sustainable growth of MSMEs in India.

REFERENCES

1. Manap, A., Sasmiyati, R. Y., Edy, N., Idris, N., & Pan, S. (2023). THE ROLE OF FINTECH IN MICRO, SMALL AND MEDIUM ENTERPRISES (MSMES). *Small And Medium Enterprises*, 12(01).
2. Li, H., Lu, Z., & Yin, Q. (2023). The Development of Fintech and SME Innovation: Empirical Evidence from China. *Sustainability*, 15(3), 2541. <https://doi.org/10.3390/su15032541>
3. Khatri, P. (n.d.). *A Study of the Challenges of the Indian MSME Sector*.
4. Schueffel, P. (2016). *Taming the Beast: A Scientific Definition of Fintech*.
5. Dhar, V., & Stein, R. M. (n.d.). *FinTech Platforms and Strategy*.
6. India, P. (n.d.). *FinTech for the Underserved: Future of FinTech and payments to drive financial inclusiveness*.
7. AlMomani, A. A., & Alomari, K. F. (2021). Financial Technology (FinTech) and its Role in Supporting the Financial and Banking Services Sector. *International Journal of Academic Research in Business and Social Sciences*, 11(8), Pages 1793-1802. <https://doi.org/10.6007/IJARBS/v11-i8/10625>
8. Irawan, I., Fadhlihi, A., Diwasya, I. R., & Astuti, S. (2026). Financial Literacy, Government Support, and Fintech Adoption as Drivers of SME Sustainability Performance. *Academia Open*, 11(1). <https://doi.org/10.21070/acopen.11.2026.13046>
9. Bhoganadam, S. D., Rao, D. N. S., & Rao, D. D. S. (2017). *A STUDY ON ISSUES AND CHALLENGES FACED BY SME'S: A LITERATURE REVIEW. 1*.
10. Ha, D., Le, P., & Nguyen, D. K. (2025). Financial inclusion and fintech: A state-of-the-art systematic literature review. *Financial Innovation*, 11(1), 69. <https://doi.org/10.1186/s40854-024-00741-0>
11. **Industry Today. (2025).** *India FinTech market size, share, growth, industry outlook, top companies, and research report 2025-2033*. <https://industrytoday.co.uk/it/india-fintech-market-size-share-growth-industry-outlook-top-companies-and-research-report-2025-2033>
12. (n.d.). Retrieved from <https://www.linkedin.com/pulse/how-government-led-innovation-redefining-financial-services-dswgc/>
13. Parjapati, J., & Chandel, D. J. K. (2023). *Role Of Fintech In Bridging The Credit Gap; In Context Of Indian Msmes*. 11(10).

Copyright & License:



© Authors retain the copyright of this article. This work is published under the Creative Commons Attribution 4.0 International License (CC BY 4.0), permitting unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.