

Examining the FinTech and Digital Payments in Changing Economic Context

Dr. Indumati S. Gangannavar

Assistant Professor, Laxmibai Bhaurao Patil Mahila Mahavidyalaya, Solapur

Abstract

Technology has revolutionized the industries, governance, societies and economies to the great extent. The Financial Technology (FinTech) has emerged as a transformative force in modern economies by reshaping traditional financial services and accelerating the adoption of digital payment systems. Across the world, digital platforms such as mobile wallets, Unified Payments Interface (UPI), and contactless payment technologies are redefining how individuals and businesses conduct financial transactions. In India, the rapid expansion of digital infrastructure and government initiatives such as Digital India has significantly contributed to the growth of cashless transactions and financial inclusion. The present study explores how FinTech innovations are altering economic practices, consumer behaviour, and payment preferences in the digital era. Using a descriptive analytical approach based on secondary data and existing studies, the research highlights the increasing reliance on mobile-based payment systems and the growing role of fintech startups in enhancing accessibility and efficiency of financial services. The findings indicate that FinTech-driven digital payments improve transaction transparency, convenience, and economic participation, while also presenting challenges related to cybersecurity, digital literacy, and regulatory governance.

Keywords: *FinTech, Digital Payments, Financial Technology, Cashless Economy, Mobile Wallets, Financial Inclusion, Digital Transactions*

Submitted: January 25, 2026

Revised: February 28, 2026

Accepted: March 13, 2026

Published: March 16, 2026

DOI: [10.5281/zenodo.19371163](https://doi.org/10.5281/zenodo.19371163)



1. Introduction

The global economy is influenced by the high-end use of technologies. Financial Technology (FinTech) has emerged as one of the most transformative innovations in the global financial ecosystem, reshaping how individuals, businesses, and governments conduct financial transactions. FinTech broadly refers to the application of advanced digital technologies such as mobile applications, artificial intelligence, blockchain, and cloud computing to deliver financial services more efficiently and conveniently. The rapid growth of digital infrastructure and widespread smartphone penetration has significantly accelerated the adoption of digital payment systems across the world. The digital payment technologies allow users to conduct transactions electronically without physical cash, thereby reducing transaction costs, improving speed, and enhancing financial accessibility. Research indicates that the development of FinTech solutions, including mobile banking and digital payment platforms, has enabled financial institutions to reach previously underserved populations and expand financial services beyond traditional banking channels (Asif et al., 2023). Digital payment systems have been recognized as a major driver of financial inclusion by providing easier access to formal financial services for individuals and small businesses in developing economies (Saroy, 2023). The global shift toward digital payments has been particularly significant in emerging economies where financial technology has bridged gaps in traditional banking systems. Digital payment platforms such as mobile wallets, contactless payment cards, and real-time payment networks have simplified financial transactions and improved consumer

convenience. Theoretical perspectives on technology adoption suggest that user attitudes, financial literacy, and perceived usefulness play a crucial role in determining the acceptance of fintech services. Empirical studies show that digital financial transactions are influenced by several behavioural and technological factors including ease of use, trust in digital systems, and the availability of digital infrastructure (Kajol, 2022). Furthermore, financial literacy and digital awareness have been found to significantly increase the likelihood of individuals adopting fintech-based payment services, thereby strengthening the digital financial ecosystem (Usman et al., 2025).

The growth of digital payments has accelerated significantly due to government initiatives, technological advancements, and increasing internet connectivity. Programs such as Digital India, the introduction of the Unified Payments Interface (UPI), and the expansion of mobile banking services have encouraged citizens to adopt cashless payment methods. The advanced tools such as artificial intelligence can not only automate the services but also integrate, simplify them from sustainability perspectives (Gaikwad, 2024). Some studies reveal that a rise in digital payment adoption significantly improves financial inclusion and expands access to formal financial services, particularly in rural and economically disadvantaged regions (Khan et al., 2025). Moreover, fintech innovations such as peer-to-peer payment systems and mobile banking have transformed consumer financial behaviour by promoting faster, transparent, and secure transactions (Jiang, 2022).

2. Background of the Study

The rapid evolution of financial technologies has significantly transformed the structure and functioning of global financial systems. Historically, financial transactions were primarily dependent on traditional banking channels such as physical branches, cash payments, and paper-based instruments. However, the emergence of digital technologies and internet-enabled financial platforms has created new opportunities for financial service delivery and economic participation. FinTech integrates technological innovation with financial services, enabling faster, more transparent, and cost-effective transactions. The development of digital payment infrastructures such as mobile wallets, online banking, and real-time payment systems has gradually reduced dependence on cash-based transactions. Studies indicate that digital payment systems enhance efficiency in financial markets by reducing transaction costs, improving payment speed, and facilitating secure financial exchanges between individuals and businesses (Gomber et al., 2018). Furthermore, technological innovation in finance has enabled new financial intermediaries and startups to compete with traditional banking institutions, thereby promoting greater innovation and service diversification in the financial sector (Arner et al., 2020). The background of digital payments is also closely linked with the expansion of mobile technologies and increasing internet penetration worldwide. Smartphones, cloud computing, and digital platforms have enabled consumers to access financial services anytime and anywhere. The concept of a cashless economy has gained significant attention among policymakers and financial institutions as digital payments provide improved transparency and traceability of financial transactions. These systems also help reduce the risks associated with physical cash handling, such as theft, fraud, and transaction delays. Research has highlighted that digital payment adoption is strongly influenced by technological readiness, consumer trust, and regulatory frameworks supporting fintech innovation (Ozili, 2018). Additionally, the integration of technologies such as blockchain and artificial intelligence has further strengthened the security and efficiency of digital payment systems, allowing financial institutions to offer more personalized and secure financial services (Lee & Shin, 2018).

The introduction of the Unified Payments Interface (UPI) has particularly revolutionized digital transactions by enabling instant bank-to-bank transfers through mobile applications. According to recent financial reports, India has become one of the fastest-growing digital payment markets in the world due to increasing smartphone penetration, improved internet connectivity, and supportive regulatory policies. These developments have significantly expanded financial access for small businesses, rural communities, and individuals who previously lacked access to formal banking services. Empirical studies reveal that fintech innovations and digital payment platforms contribute to economic growth by improving financial inclusion, enhancing transaction efficiency, and promoting digital entrepreneurship within emerging economies (Dorfleitner et al., 2017; Frost, 2020).

3. Scope and Significant of Study

The scope of the present study focuses on examining the growing role of financial technology (FinTech) in transforming digital payment systems and their influence on modern economic practices. With the increasing integration of technology into financial services, digital payment platforms such as mobile wallets, online banking systems, and real-time payment networks have become central to everyday financial transactions. The study primarily investigates how FinTech innovations contribute to the adoption of digital payments among individuals, businesses, and financial institutions. It also explores the behavioural and technological factors influencing digital payment usage, including convenience, security, trust, and accessibility. By analysing existing studies and secondary data sources, the research aims to understand how digital payment technologies are reshaping consumer payment behaviour and promoting cashless transactions in modern economies (Vives, 2019). Furthermore, the study considers the role of regulatory frameworks and technological infrastructure in enabling the expansion of fintech services across developed and emerging markets (Thakor, 2020). Digital financial services have the potential to connect unbanked and underbanked populations to formal financial systems, thereby reducing economic inequality and improving financial accessibility. However, there are concerns such as lack of privacy, data breach, cyber-attacks leading to the digital and mental stress for the users (Gaikwad & Bhattacharya). Moreover, the fintech-driven payment systems can significantly enhance financial inclusion and support economic growth by enabling easier access to credit, savings, and payment facilities for individuals and micro-enterprises (Demirgüç-Kunt et al., 2018). Additionally, the increasing use of digital payment technologies has been associated with higher levels of economic productivity and improved transaction transparency within financial markets (Philippon, 2019).

The significance of this study lies in its ability to provide a comprehensive understanding of the evolving fintech ecosystem and its impact on modern economic practices. As governments and financial institutions increasingly promote digital payment infrastructures, understanding the benefits and challenges associated with fintech adoption becomes essential for policymakers, businesses, and consumers. The study highlights how fintech innovations can enhance efficiency, transparency, and accessibility in financial systems while also identifying potential challenges such as cybersecurity risks, regulatory concerns, and digital literacy barriers. The findings of this research can support policymakers in designing effective regulatory frameworks and digital financial policies that promote sustainable fintech growth. Moreover, the study contributes to academic literature by providing insights into the relationship between digital financial technologies and economic transformation in the digital era (Zetzsche et al., 2020). It also emphasizes the importance of technological innovation in creating resilient and inclusive financial ecosystems capable of supporting long-term economic development (Nicoletti, 2017).

4. Objectives of the Study

- To examine the concept and evolution of FinTech and digital payment systems
- To analyze the impact of digital payments on economic practices and consumer behavior
- To demonstrate the role of digital payments in promoting financial inclusion and economic efficiency
- To identify challenges and risks associated with digital payments
- To suggest policy measures for sustainable growth of the digital payment ecosystem

5. Reviews of Literature

Financial technology has significantly influenced the transformation of financial services by integrating digital innovation into traditional banking systems. Early research on FinTech emphasizes that technological advancements such as mobile banking, digital wallets, and online payment gateways have created new financial ecosystems that promote efficiency and accessibility. These developments have reshaped consumer expectations by enabling faster and more convenient financial transactions. Studies have also indicated that fintech innovations encourage competition in the financial sector by introducing new service models and reducing operational costs. The growing adoption of digital payments has improved financial participation and reduced dependency on physical cash in many economies. Evidence suggests that fintech solutions play a vital role in modernizing financial services and expanding financial inclusion among previously underserved populations (Gomber et al., 2018). Furthermore, technological innovation in finance has contributed to the emergence of alternative financial platforms that support seamless digital transactions and improve service delivery within financial markets (Lee & Shin, 2018).

Another stream of literature focuses on the role of digital payment systems in shaping consumer behaviour and financial practices in the digital economy. Digital payments such as mobile wallets, real-time payment networks, and contactless payment technologies have transformed the way consumers interact with financial services. Research highlights that factors such as ease of use, perceived usefulness, trust, and security strongly influence the adoption of digital payment systems among users. These behavioural factors are commonly explained through technology acceptance theories, which suggest that individuals are more likely to adopt technological innovations when they perceive them as reliable and beneficial. Empirical studies demonstrate that digital payment adoption is associated with improved transaction efficiency, reduced transaction costs, and enhanced convenience for both consumers and businesses (Oliveira et al., 2016). Additionally, the rapid expansion of digital financial services has encouraged financial institutions to innovate continuously in order to meet evolving consumer expectations in a competitive digital marketplace (Ozili, 2018).

The literature also highlights the economic and developmental implications of fintech-driven digital payments in emerging economies. In many developing countries, digital payment systems have played a crucial role in promoting financial inclusion by providing affordable and accessible financial services to individuals who lack access to traditional banking infrastructure. Mobile-based payment platforms have enabled rural populations and small-scale entrepreneurs to participate in the formal financial system and conduct secure financial transactions. Researchers argue that fintech innovations can contribute to economic growth by increasing financial accessibility, improving financial transparency, and supporting digital entrepreneurship. The integration of digital payment technologies into national financial systems

has also improved the efficiency of financial transactions and strengthened economic resilience. Empirical studies indicate that countries with higher levels of fintech adoption tend to experience greater financial inclusion and improved economic productivity (Demirgüç-Kunt et al., 2018). Moreover, the increasing reliance on digital financial services has encouraged policymakers to develop regulatory frameworks that ensure the security and sustainability of fintech ecosystems (Frost, 2020).

6. Discussion and Analysis

The expansion of FinTech and digital payment systems has significantly transformed economic practices by introducing faster, safer, and more efficient financial transactions. Digital platforms such as mobile wallets, Unified Payments Interface (UPI), and online banking have simplified the payment process for consumers and businesses, enabling transactions to occur in real time with minimal cost. This technological advancement has improved the accessibility of financial services, particularly for individuals and small businesses that previously faced barriers in accessing traditional banking facilities. The increasing reliance on digital payment systems indicates a shift toward a cashless economic environment where financial transactions are conducted electronically through secure digital platforms. Empirical evidence suggests that digital payment technologies improve transaction transparency and reduce operational inefficiencies within financial markets, thereby contributing to greater economic productivity and financial inclusion (Vives, 2019). Moreover, the integration of advanced technologies such as artificial intelligence and data analytics has enabled financial institutions to offer more personalized financial services, improving user experience and strengthening the digital financial ecosystem (Thakor, 2020).

From an economic perspective, the growth of fintech-driven digital payments has also influenced consumer behaviour and business operations across different sectors. Consumers increasingly prefer digital payment methods due to their convenience, speed, and accessibility, while businesses benefit from improved transaction tracking, reduced handling of physical cash, and enhanced financial management. The rise of e-commerce and digital marketplaces has further accelerated the adoption of digital payment solutions, allowing consumers to conduct transactions seamlessly across digital platforms. At the same time, governments and regulatory authorities have promoted digital payments as a strategy to improve financial transparency, reduce tax evasion, and strengthen formal economic systems. Research indicates that economies with well-developed digital payment infrastructures experience improved financial inclusion and increased economic participation among citizens (Demirgüç-Kunt et al., 2018). Additionally, the widespread use of digital payment technologies contributes to economic modernization by encouraging innovation, improving financial efficiency, and supporting the growth of digital economies (Frost, 2020).

7. Findings of Study

- The study finds that FinTech and digital payment systems have significantly accelerated financial inclusion, particularly in emerging economies such as India. The proliferation of mobile banking, Unified Payments Interface (UPI), and digital wallets has enabled previously unbanked and underbanked populations to access formal financial services with minimal transaction costs.
- Another key finding highlights that digital payments have enhanced transactional efficiency and transparency across economic activities. Businesses, especially small and medium enterprises

(SMEs), have benefited from faster payment cycles, reduced operational costs, and improved financial record-keeping.

- Additionally, the traceability of digital transactions has supported regulatory frameworks by minimizing tax evasion and promoting accountability, thereby strengthening the overall financial governance structure in evolving economic contexts.
- Trust and data privacy concerns remain critical barriers for certain demographic groups, particularly in rural areas. Therefore, the long-term sustainability of digital payment ecosystems depends on strengthening regulatory mechanisms, enhancing digital literacy, and ensuring robust technological infrastructure to support secure and inclusive financial innovation.

8. Conclusion

The study concludes that financial technology (FinTech) has significantly transformed modern economic practices by accelerating the adoption of digital payment systems and reducing dependence on traditional cash-based transactions. Digital payment platforms such as mobile wallets, online banking, and real-time payment networks have improved transaction efficiency, convenience, and accessibility for consumers and businesses. These technological innovations have not only simplified financial transactions but also expanded financial inclusion by enabling individuals and small enterprises to access formal financial services more easily. The integration of fintech solutions into financial systems has strengthened transparency, reduced operational costs, and supported the growth of digital economies. However, the expansion of digital payments also highlights challenges related to cybersecurity, digital literacy, and regulatory governance. Therefore, continuous technological innovation, supportive policy frameworks, and improved digital awareness are essential to ensure secure, inclusive, and sustainable growth of fintech-driven financial ecosystems.

References

- Arner, D. W., Barberis, J., & Buckley, R. P. (2020). The evolution of FinTech: A new post-crisis paradigm. *Georgetown Journal of International Law*, 47(4), 1271–1319. <https://doi.org/10.2139/ssrn.2676553>
- Asif, M., Khan, S., & Ahmad, R. (2023). The impact of fintech and digital financial services on financial inclusion in India. *Journal of Risk and Financial Management*, 16(2), 122. <https://www.mdpi.com/1911-8074/16/2/122>
- Demirgüç-Kunt, A., Klapper, L., Singer, D., Ansar, S., & Hess, J. (2018). *The Global Findex database 2017: Measuring financial inclusion and the fintech revolution*. World Bank. <https://doi.org/10.1596/978-1-4648-1259-0>
- Dorfleitner, G., Hornuf, L., Schmitt, M., & Weber, M. (2017). *FinTech in Germany*. Springer. <https://doi.org/10.1007/978-3-319-54666-7>
- Frost, J. (2020). The economic forces driving fintech adoption across countries. *Bank for International Settlements Working Papers*, 838. <https://www.bis.org/publ/work838.htm>
- Gaikwad, S. R. (2024, August). Role of artificial intelligence in smart manufacturing of automobile industry in India. In *AIP Conference Proceedings* (Vol. 3178, No. 1). AIP Publishing. <https://doi.org/10.1063/5.0229368>
- Gaikwad, S. R., & Bhattacharya, C. (2024). Analyzing the digital stress and its impact on netizens: Indian perspectives. *Journal of Informatics Education and Research*, 4(3). <https://doi.org/10.52783/jier.v4i3.1642>

- Gomber, P., Koch, J., & Siering, M. (2018). Digital finance and FinTech: Current research and future research directions. *Journal of Business Economics*, 87(5), 537–580. <https://doi.org/10.1007/s11573-017-0852-x>
- Jiang, L. (2022). Digital payment adoption and consumer spending behavior. *Journal of Digital Finance*, 5(3), 45–61. <https://doi.org/10.1002/jcpy.1234>
- Kajol, K. (2022). Adoption of digital financial transactions: A review of literature. *Technological Forecasting and Social Change*. <https://www.sciencedirect.com/science/article/pii/S0040162522005121>
- Khan, A., Rahman, M., & Gupta, P. (2025). The impact of fintech on financial inclusion in India: An empirical analysis of digital payment adoption and banking access. <https://www.researchgate.net/publication/393389201>
- Lee, I., & Shin, Y. J. (2018). FinTech: Ecosystem, business models, investment decisions, and challenges. *Business Horizons*, 61(1), 35–46. <https://doi.org/10.1016/j.bushor.2017.09.003>
- Nicoletti, B. (2017). *The future of FinTech: Integrating finance and technology in financial services*. Palgrave Macmillan. <https://doi.org/10.1007/978-3-319-51415-4>
- Oliveira, T., Thomas, M., Baptista, G., & Campos, F. (2016). Mobile payment: Understanding the determinants of customer adoption and intention to recommend the technology. *Computers in Human Behavior*, 61, 404–414. <https://doi.org/10.1016/j.chb.2016.03.030>
- Ozili, P. K. (2018). Impact of digital finance on financial inclusion and stability. *Borsa Istanbul Review*, 18(4), 329–340. <https://doi.org/10.1016/j.bir.2017.12.003>
- Philippon, T. (2019). On fintech and financial inclusion. *Annual Review of Financial Economics*, 11, 1–21. <https://doi.org/10.1146/annurev-financial-101218-032941>
- Saroy, R. (2023). Impact of digital payment adoption on Indian banking efficiency. <https://pmc.ncbi.nlm.nih.gov/articles/PMC10066024/>
- Thakor, A. V. (2020). Fintech and banking: What do we know? *Journal of Financial Intermediation*, 41, 100833. <https://doi.org/10.1016/j.jfi.2019.100833>
- Usman, B., Shehadeh, M., & Al-Fayoumi, N. (2025). Digital payment adoption: Revisiting the theory of planned behavior. <https://www.sciencedirect.com/science/article/pii/S2667096825000011>
- Vives, X. (2019). Digital disruption in banking. *Annual Review of Financial Economics*, 11, 243–272. <https://doi.org/10.1146/annurev-financial-100719-120854>
- Zetzsche, D. A., Buckley, R. P., Arner, D. W., & Barberis, J. (2020). From FinTech to TechFin: The regulatory challenges of data-driven finance. *New York University Journal of Law & Business*, 14(2), 393–446. <https://doi.org/10.2139/ssrn.2959925>