

ISRG Journal of Economics, Business & Management (ISRGJEBM)



ISRG PUBLISHERS

Abbreviated Key Title: Isrg J Econ Bus Manag

ISSN: 2584-0916 (Online)

Journal homepage: <https://isrgpublishers.com/isrgjebm/>

Volume – III Issue - VI (November-December) 2025

Frequency: Bimonthly



THE APPLICATION OF FINANCIAL TECHNOLOGY (FINTECH) IN ENHANCING CUSTOMER EXPERIENCE AT VIETNAMESE BANKS

Hoang Thi Thu Hien

Banking Academy of Vietnam 12 Chua Boc, Kim Lien, Hanoi.

| **Received:** 14.11.2025 | **Accepted:** 19.11.2025 | **Published:** 20.11.2025

***Corresponding author:** Hoang Thi Thu Hien

Banking Academy of Vietnam 12 Chua Boc, Kim Lien, Hanoi.

Abstract

The rapid development of Financial Technology (FinTech) has significantly reshaped the global banking industry, offering new opportunities to enhance service quality, operational efficiency, and customer satisfaction. In Vietnam, where digital transformation has accelerated in recent years, commercial banks have increasingly integrated FinTech solutions such as mobile banking applications, e-wallets, digital payments, biometric authentication, and AI-powered customer support. This study employs a qualitative descriptive approach to examine how FinTech applications contribute to improving the customer experience in Vietnamese banks. By synthesizing secondary data from industry reports, regulatory documents, and previous empirical studies, the research highlights several key improvements brought about by FinTech, including faster transaction processing, greater convenience, enhanced personalization, and strengthened security. The findings indicate that FinTech has enabled Vietnamese banks to provide more seamless, user-friendly, and customer-centric digital services, which play a crucial role in increasing customer engagement and loyalty. However, the study also identifies several challenges, including cybersecurity risks, uneven digital literacy among customer groups, and limitations in technological infrastructure across smaller banks. The analysis suggests that while FinTech adoption has made substantial contributions to enhancing customer experience, further investments in innovation, regulatory support, and digital ecosystem development are essential to fully leverage its potential. The study provides meaningful insights for banks, policymakers, and financial technology developers aiming to advance digital banking services in Vietnam.

Keywords: *FinTech; customer experience; Vietnamese banks; digital banking; mobile banking; e-wallets; digital transformation; qualitative analysis.*

1. Introduction

The rapid advancement of Financial Technology (FinTech) has fundamentally transformed the global banking landscape, reshaping how financial services are delivered and experienced by customers. FinTech encompasses a wide range of digital innovations including mobile banking, artificial intelligence (AI), blockchain, big data analytics, and e-wallet platforms that aim to enhance convenience, accessibility, and efficiency in financial transactions (Arner, Barberis, & Buckley, 2017). As customer expectations shift toward faster, more personalized, and seamless digital services, banks worldwide have increasingly adopted FinTech solutions to remain competitive and strengthen customer relationships. The integration of FinTech has become not only a technological evolution but also a strategic imperative for financial institutions seeking to improve service quality and overall customer experience.

In Vietnam, the adoption of FinTech in the banking sector has accelerated significantly over the past decade, driven by rapid digitalization, supportive government policies, and the rising demand for convenient digital financial services. The State Bank of Vietnam (SBV) has implemented various initiatives to promote cashless payments, modernize the financial infrastructure, and create a conducive regulatory environment for digital banking innovation (SBV, 2022). As a result, mobile banking applications, QR-code payments, e-wallets, and biometric authentication technologies have become increasingly prevalent. According to the Vietnam Banking Association, digital transactions grew by more than 90% annually between 2020 and 2022, demonstrating the strong shift toward digital financial services among Vietnamese consumers (VNBA, 2023). This rapid digital transformation has made FinTech a critical driver of customer experience enhancement within the Vietnamese banking system.

FinTech applications have contributed to multiple dimensions of customer experience, such as faster transaction processing, improved security, real-time customer support, and higher levels of personalization through data-driven insights. Technologies such as AI-based chatbots, automated onboarding, and biometric login systems have enhanced convenience and reduced service friction, enabling banks to deliver more consistent and user-friendly digital experiences (Lemon & Verhoef, 2016). For consumers, particularly younger demographics and urban populations, FinTech has become an essential component of daily financial activities. However, the impact of FinTech adoption is not uniform across all customer segments. Challenges remain regarding cybersecurity risks, digital inequality, and gaps in technological readiness, particularly among smaller banks and rural populations (World Bank, 2023). These issues underscore the need to examine both the opportunities and constraints of FinTech in enhancing customer experience in Vietnam's banking sector.

Although international studies have extensively explored the role of FinTech in improving service quality and customer satisfaction, research in the Vietnamese context is still limited and fragmented. Existing studies primarily focus on quantitative assessments of customer satisfaction or adoption intention, with less emphasis on qualitative, contextualized analysis of how FinTech applications concretely shape customer experience in practice. Moreover, many academic discussions overlook the operational challenges faced by Vietnamese banks in integrating FinTech solutions, including regulatory barriers, cybersecurity concerns, and technological capacity constraints. Therefore, there is a need for a more

comprehensive, qualitative understanding of the role of FinTech in enhancing customer experience within the Vietnamese banking sector.

This study aims to fill this gap by conducting a qualitative descriptive analysis of FinTech applications and their impact on customer experience at Vietnamese banks. By synthesizing secondary data from academic studies, industry reports, and regulatory documents, the research provides a contextualized understanding of how FinTech contributes to digital service improvement, customer satisfaction, and competitive advantage. The study also identifies key barriers to effective FinTech implementation and discusses potential directions for strengthening digital banking services in Vietnam. The findings contribute to both academic literature and practical policymaking, offering valuable insights for banks seeking to leverage FinTech to elevate customer experiences in an increasingly digital financial environment.

2. Literature review

FinTech, broadly defined as the application of digital technologies to enhance or automate financial services, has transformed traditional banking by improving efficiency, accessibility, and customer interaction. According to Arner, Barberis, and Buckley (2017), FinTech represents a convergence of finance, technology, and innovation, creating new service models that reshape customer expectations. Customer experience, on the other hand, is conceptualized as customers' holistic perception of their interactions with service providers across the entire service journey (Lemon & Verhoef, 2016). In the banking context, customer experience is influenced by several factors including speed, convenience, personalization, reliability, and emotional engagement. The integration of FinTech tools such as mobile applications, AI-driven support, and digital payment systems has therefore become a strategic approach for financial institutions seeking to enrich customer experience and improve satisfaction (Gomber et al., 2018).

FinTech technologies have significantly transformed the delivery of banking services globally. Mobile banking applications allow customers to perform transactions anytime and anywhere, contributing to enhanced convenience and service accessibility (Shaikh & Karjalainen, 2015). Digital payment innovations such as QR codes, e-wallets, and contactless transactions have accelerated transaction speed and reduced dependency on physical banking infrastructure (Ozili, 2018). Meanwhile, AI-powered chatbots and automated customer service tools enhance real-time support and improve responsiveness (Huang & Rust, 2021). Blockchain technology has also contributed to improving transparency and security, particularly in payment processing and transaction verification (Yermack, 2017). Big data analytics enable banks to better understand customer behavior, segment customer groups, and deliver personalized banking experiences through tailored offers, targeted marketing, and predictive financial advice (Jagtiani & Lemieux, 2019). Collectively, these technological innovations significantly elevate the quality of financial services by increasing speed, efficiency, and service reliability.

Research on FinTech adoption in emerging markets highlights both opportunities and constraints. Studies in Asia, Africa, and Latin America show that FinTech drives financial inclusion, improves customer satisfaction, and boosts competitiveness within the banking sector (Milian et al., 2019). However, emerging markets

also face barriers such as limited digital literacy, inadequate technology infrastructure, cybersecurity risks, and regulatory challenges (Ozili, 2018). In countries like India and Indonesia, FinTech has boosted digital payments and enhanced customer experience, but gaps remain in rural outreach and service standardization (Demirgüç-Kunt et al., 2020). This dual nature of FinTech offering both transformative potential and systemic risks underscores the importance of contextualized analyses when evaluating its impact on customer experience in specific economies.

FinTech adoption in Vietnam has grown rapidly in the past decade, driven by government initiatives promoting digital transformation and cashless payment ecosystems. Vietnam's FinTech market expanded significantly after 2020, with strong growth in mobile banking, QR payments, biometric authentication, and e-wallet services (VNBA, 2023). According to the State Bank of Vietnam (SBV, 2022), digital banking transactions increased by more than 90% annually between 2020 and 2022, demonstrating both customer demand and banks' commitment to digital transformation. Academic studies in Vietnam indicate that FinTech enhances customer satisfaction by improving convenience, transaction speed, and perceived service quality (Nguyen & Huynh, 2021). However, research also highlights challenges such as cybersecurity concerns, customer data privacy, inconsistent service quality among banks, and digital inequality among different customer groups (World Bank, 2023). Many Vietnamese banks, especially smaller institutions, face financial and technological constraints that limit their ability to implement advanced FinTech solutions. While existing literature recognizes the positive role of FinTech in enhancing customer experience, most studies rely on quantitative surveys and focus primarily on consumer perceptions. There is limited qualitative research analyzing how specific FinTech applications shape customer experience in practice, and even fewer studies explore challenges faced by banks during FinTech integration.

3. Current situation of Fintech adoption and customer experience in Vietnamese Banks

In recent years, the Vietnamese banking sector has undergone a rapid digital transformation driven by rising customer demand for convenient financial services and strong government initiatives promoting cashless payments. According to the State Bank of Vietnam (SBV, 2022), digital banking transactions increased by over 90% annually between 2020 and 2022, demonstrating a substantial shift from traditional in-branch services to mobile and online banking platforms. Major commercial banks such as Vietcombank, BIDV, Techcombank, and VPBank have invested heavily in mobile applications, automated onboarding systems, e-KYC (electronic Know Your Customer), and integrated digital payment solutions. These developments have significantly expanded customer access to banking services, reduced waiting times, and enabled 24/7 service availability, marking a notable improvement in the overall customer experience.

Mobile banking has emerged as the most widely adopted FinTech innovation in Vietnam, with nearly all commercial banks offering highly functional mobile applications. These platforms allow customers to conduct fund transfers, bill payments, savings deposits, and loan applications with unprecedented convenience. The rise of QR code payments and e-wallets such as MoMo,

ZaloPay, and ShopeePay further enhances transactional efficiency, especially among younger and tech-savvy consumers. As a result, customers increasingly expect seamless, fast, and frictionless digital interactions. Banks that successfully integrate these features have reported higher levels of customer satisfaction and engagement, as noted in industry reports by the Vietnam Banking Association (VNBA, 2023). The improvement in convenience and accessibility reflects FinTech's growing influence on shaping customers' perceptions of service quality.

In addition to convenience, FinTech adoption has also improved personalization and customer support. Many Vietnamese banks have deployed AI-powered chatbots and automated service tools capable of handling common inquiries, providing transaction instructions, and recommending financial products based on customer behavior. Big data analytics enable banks to segment customers more precisely and develop personalized services, such as tailored credit offers or savings recommendations. These innovations contribute to a more customer-centric approach, aligning banking services with individual preferences and reducing the need for physical interactions. As customer expectations evolve, the ability to deliver personalized digital experiences has become a decisive factor in customer retention and competitive advantage.

Despite these advancements, several challenges constrain the full realization of FinTech's potential to enhance customer experience. One major concern is cybersecurity. As digital services expand, the vulnerability of financial data and digital transaction systems becomes more pronounced. Vietnamese banks have faced increasing risks related to fraud, phishing attacks, and data breaches, which undermine customer trust in digital banking services (World Bank, 2023). Additionally, the level of digital literacy varies significantly across demographic groups. While urban customers readily adopt mobile banking and e-wallet services, older adults and rural populations encounter barriers in using digital interfaces, limiting the inclusiveness of FinTech-based customer experiences.

Another challenge arises from disparities in technological capacity among Vietnamese banks. Large banks possess the financial resources to adopt advanced FinTech solutions, whereas small and medium-sized banks struggle with outdated IT infrastructure, high implementation costs, and a shortage of skilled technology personnel. This creates an uneven digital development landscape, with service quality and customer experience varying significantly across institutions. Furthermore, regulatory limitations—particularly concerning data privacy, digital identification, and cross-platform integration—continue to restrict banks from fully optimizing FinTech applications. These constraints highlight the need for a more cohesive digital ecosystem to support sustainable innovation in the financial sector.

Overall, the current situation shows that FinTech has made substantial contributions to enhancing customer experience in Vietnamese banks by improving convenience, efficiency, personalization, and service accessibility. Yet, the full potential of FinTech remains partially unrealized due to persistent challenges related to cybersecurity, digital inequality, technological readiness, and regulatory barriers. Addressing these issues is essential for maximizing FinTech's role in shaping a secure, inclusive, and customer-centric digital banking environment in Vietnam.

4. Conclusion

The findings of this study demonstrate that FinTech has played a transformative and increasingly indispensable role in enhancing customer experience within Vietnamese banks. Through innovations such as mobile banking applications, digital payments, biometric authentication, AI-powered customer support, and big data analytics, FinTech has significantly improved convenience, accessibility, and service quality for a wide range of customers. Vietnamese banks have leveraged these technologies to streamline service processes, reduce transaction time, personalize user interactions, and strengthen security mechanisms. However, despite these notable improvements, the benefits of FinTech adoption are not evenly distributed across customer groups or banking institutions. Challenges such as cybersecurity risks, digital literacy gaps, technological disparities among banks, and regulatory constraints continue to limit the optimization of FinTech-driven customer experiences. These findings indicate that while FinTech has substantially enhanced digital service delivery, further development is required to ensure that its impact is sustainable, inclusive, and aligned with long-term customer needs.

Based on these findings, several policy implications can be drawn to support the effective integration of FinTech into the Vietnamese banking system. First, strengthening the regulatory framework is essential to ensure secure and transparent digital financial environments. Policymakers should develop clearer regulations on data privacy, digital identity verification, cybersecurity standards, and cross-platform interoperability. Such measures would build customer trust, encourage greater FinTech adoption, and reduce systemic risks associated with digital banking. Moreover, the State Bank of Vietnam should continue fostering a conducive environment for FinTech innovation by promoting sandboxes and pilot programs that allow banks and FinTech firms to test new technologies under regulatory supervision.

Second, improving technological infrastructure across banks particularly small and medium-sized institutions is crucial for narrowing the digital divide. Government agencies and industry associations should encourage investments in modern IT systems, cloud computing, and cybersecurity protection. Financial support programs or public-private partnerships may help smaller banks upgrade their digital capabilities and compete more effectively in the rapidly evolving digital landscape. Strengthening technological readiness would also enhance service consistency, ensuring that customers across regions and banks receive reliable digital experiences.

Third, customer education and digital literacy programs are necessary for promoting inclusive FinTech adoption. Banks, regulators, and FinTech firms should collaborate to design awareness campaigns, training programs, and user-friendly instructional tools that help customers especially older adults and rural populations navigate digital platforms safely and confidently. Improving digital literacy would not only enhance customer experience but also reduce vulnerabilities to online fraud and cyber threats.

Finally, banks should prioritize customer-centric innovation by leveraging data analytics to deepen customer insight, optimize service personalization, and enhance proactive support. Investing in human resources particularly in digital technology, data science, and cybersecurity is essential for sustaining long-term FinTech

development. Banks should also incorporate user feedback into system design to ensure that technological advancements align with actual customer expectations and service needs.

In conclusion, FinTech has emerged as a critical driver of customer experience enhancement in Vietnamese banks, offering substantial improvements in convenience, efficiency, and personalization. However, to fully realize its potential, coordinated efforts from policymakers, financial institutions, and technology providers are necessary. Strengthening digital governance, improving technological infrastructure, expanding financial literacy, and fostering customer-centric innovation will be vital to shaping a secure, inclusive, and resilient digital banking ecosystem in Vietnam. These measures will not only elevate customer experience but also enhance the overall competitiveness and sustainability of the Vietnamese banking sector in the digital era.

Acknowledgments Funding: The authors gratefully acknowledge the financial support from the Banking Academy of Vietnam.

Competing interests: The authors declare that there are no conflicts of interest regarding the publication of this paper.

REFERENCES

1. Arner, D. W., Barberis, J., & Buckley, R. P. (2017). FinTech and regtech: Impact on regulators and banks. *Journal of Banking Regulation*, 19(4), 1–14.
2. Demirgüç-Kunt, A., Klapper, L., Singer, D., & Ansar, S. (2020). *The Global Findex Database 2020*. World Bank Publications.
3. Gomber, P., Kauffman, R. J., Parker, C., & Weber, B. W. (2018). On the Fintech revolution: Interpreting the forces of innovation, disruption, and transformation in financial services. *Journal of Management Information Systems*, 35(1), 220–265.
4. Huang, M.-H., & Rust, R. T. (2021). Artificial intelligence in service. *Journal of Service Research*, 24(1), 3–25.
5. Jagtiani, J., & Lemieux, C. (2019). The roles of alternative data and machine learning in fintech lending. *Financial Management*, 48(4), 1009–1026.
6. Lemon, K. N., & Verhoef, P. C. (2016). Understanding customer experience throughout the customer journey. *Journal of Marketing*, 80(6), 69–96.
7. Milian, E. Z., Spinola, M. D. M., & Carvalho, M. M. (2019). Fintechs: A literature review and research agenda. *Electronic Commerce Research and Applications*, 34, 100833.
8. Nguyen, P. T., & Huynh, T. L. (2021). The impact of mobile banking on customer satisfaction: Evidence from Vietnam. *Journal of Asian Finance, Economics and Business*, 8(2), 209–218.
9. Ozili, P. (2018). Impact of digital finance on financial inclusion and stability. *Borsa Istanbul Review*, 17(4), 329–340.
10. State Bank of Vietnam (SBV). (2022). *Annual report on digital transformation in the banking sector*. Hanoi: SBV Press.
11. Vietnam Banking Association (VNBA). (2023). *Vietnam digital banking report 2023*. Hanoi: VNBA Publishing.
12. World Bank. (2023). *Digital economy assessment for Vietnam*. Washington, DC: World Bank.