



Received: 14-09-2025
Accepted: 24-10-2025

International Journal of Advanced Multidisciplinary Research and Studies

ISSN: 2583-049X

Digital Financial Transformation and the Promotion of Financial Inclusion in Vietnam: Opportunities and Challenges as Reflected in Industry Reports

¹ Nguyen Mai Phuong, ² Pham Thi Huong

^{1,2} Faculty of Economics, Hanoi University of Natural Resources and Environment, Vietnam

Corresponding Author: Nguyen Mai Phuong

Abstract

This study aims to systematically synthesize and analyze the opportunities and challenges of digital financial transformation for promoting financial inclusion in Vietnam. To achieve this objective, the study utilizes a qualitative method, specifically thematic analysis of specialized industry reports, white papers, and surveys published by reputable international and domestic organizations from 2018 to 2023. The analysis reveals a complex, dual-faceted picture: on one hand, digital transformation presents breakthrough opportunities by expanding access channels through mobile and e-KYC, reducing transaction costs to serve low-income segments, and fostering the emergence of innovative financial products (such as P2P lending and micro-insurance). On the other hand, this process faces

serious systemic barriers, including the digital divide in infrastructure, limitations in digital literacy and public trust, cybersecurity risks, and a legal framework that has not kept pace with practical developments. Therefore, the study asserts that merely promoting technology is insufficient and proposes significant policy implications, including investing in digital skills enhancement, urgently finalizing the legal corridor for Fintech, and promoting public-private partnerships to bridge the digital infrastructure gap. The novelty of this research lies in filling an academic gap by systematizing practical evidence from an industry-wide perspective, providing a comprehensive, multi-dimensional, and valuable reference for policymakers and financial institutions.

Keywords: Digital Transformation, Financial Inclusion, Fintech, Digital Banking, Industry Reports, Vietnam

1. Introduction

The global financial sector is undergoing a profound revolution, driven by the convergence of technology and finance, a phenomenon commonly referred to as Fintech (Arner *et al.*, 2015) ^[1]. Disruptive technologies such as artificial intelligence, big data, cloud computing, and mobile technology are fundamentally reshaping how financial services are created, distributed, and consumed. Parallel to this technological wave, promoting financial inclusion has become a critical policy priority worldwide, aiming to provide access to and use of useful and affordable financial services for all individuals and businesses (World Bank, 2018) ^[7].

In this context, Vietnam emerges as a dynamic digital economy, where the Government demonstrates strong political will to seize opportunities from digital transformation and address the challenges of financial inclusion. Two national strategic documents clearly reflect this orientation: Decision No. 749/QĐ-TTg approving the "National Digital Transformation Program to 2025, with a vision to 2030" (Prime Minister, 2020a) ^[5] and Decision No. 149/QĐ-TTg approving the "National Strategy for Financial Inclusion to 2025, with a vision to 2030" (Prime Minister, 2020b). The parallel existence of these two strategies indicates an expectation that digital transformation will be the main driver for realizing financial inclusion goals.

Although the link between digital financial transformation and financial inclusion is widely acknowledged, academic research in Vietnam on this topic has primarily focused on micro-level analyses, such as surveys on factors affecting user adoption of mobile banking (Nguyen & Nguyen, 2020) ^[3] or case studies of single Fintech companies. Consequently, a significant gap remains in the systematic synthesis and analysis of perspectives, evidence, and assessments from in-depth industry reports. These are valuable sources of information, reflecting market realities, expert opinions, and emerging policy issues that are not always captured in traditional academic literature.

From this identified research gap, this paper seeks to answer two main questions:

(i) What specific opportunities does digital transformation in the financial sector create to promote financial inclusion in

Vietnam, as recorded in industry reports?

(ii) What are the main challenges and barriers highlighted by industry reports in the process of using digital technology to expand financial inclusion in Vietnam?

The primary objective of this study is to answer these two questions through a qualitative analysis of industry reports published by reputable domestic and international organizations. By doing so, the paper contributes to scientific knowledge by providing a comprehensive, multi-dimensional, and evidence-based overview of the mutual relationship between digital financial transformation and financial inclusion in Vietnam. The research findings are expected to offer valuable implications for policymakers, financial institutions, and the research community in developing more effective strategies and solutions.

2. Theoretical Framework and Literature Review

2.1 The Concept of Digital Transformation in the Financial Sector

Digital transformation, in its essence, is not merely the process of digitizing documents or automating individual tasks. It is a profound and comprehensive transformation process aimed at improving an entity by creating significant changes in its properties through the combination of information, computing, communication, and connectivity technologies (Vial, 2021) ^[6]. Applied to the financial sector, digital transformation entails a fundamental shift in business models, organizational structures, operational processes, and corporate culture, driven by the application of digital technologies. Instead of just upgrading existing systems, financial institutions are restructuring how they create value and interact with customers. The foundational technologies for this process include mobile banking, which expands distribution channels; artificial intelligence (AI) and big data, which enable customer behavior analysis and alternative credit scoring; and electronic Know Your Customer (e-KYC), which simplifies and accelerates the account opening process, thereby reducing costs and enhancing user experience.

2.2 The Concept and Pillars of Financial Inclusion

Financial inclusion is defined as individuals and businesses having access to and use of useful and affordable financial products and services that meet their needs—including transactions, payments, savings, credit, and insurance—delivered in a responsible and sustainable way (World Bank, 2018) ^[7]. This concept extends beyond merely having a bank account and is measured across three main dimensions. The first is **access**, which reflects the availability of financial service points, whether physical or digital. The second is **usage**, which reflects the frequency and regularity of substantive use of financial services. The third is **quality**, which includes factors such as product suitability, reasonable costs, transparency, and effective consumer protection mechanisms. The primary target groups for financial inclusion are vulnerable and underserved populations, including low-income individuals, people in rural and mountainous areas, women, and micro, small, and medium-sized enterprises (MSMEs).

2.3 Theoretical Linkage between Digital Transformation and Financial Inclusion

The theoretical linkage between digital financial transformation and financial inclusion is manifested through

several impact channels. First, digital technology significantly reduces transaction and operational costs for financial service providers. Eliminating the need for physical branches and automating processes allows these institutions to serve low-transaction-value customer segments while ensuring economic efficiency (Ozili, 2018) ^[4]. Second, mobile and internet technologies help overcome geographical barriers, bringing financial services to rural and remote areas where traditional banking networks are limited. Third, digital transformation helps mitigate information asymmetry, one of the biggest obstacles in traditional credit. By analyzing alternative data from telecommunication transaction histories, utility bills, or social media activity, AI algorithms can build credit scoring models for individuals without a formal financial history, thereby opening up access to credit for them (Arner *et al.*, 2015) ^[1]. Finally, flexible technology platforms enable the design and delivery of personalized microfinance products, such as small loans, micro-insurance packages, or flexible savings products, which are better suited to the needs and financial capacity of low-income individuals.

2.4 Review of Previous Studies

Internationally, numerous studies have affirmed the positive role of financial technology (Fintech) in promoting financial inclusion. The works of Arner *et al.* (2015) ^[1] and Ozili (2018) ^[4] have demonstrated the potential of digital solutions to expand access to financial services for underserved populations. In Vietnam, academic studies have also begun to explore this topic, but often focus on specific aspects. For example, some studies analyze the factors affecting consumers' intention and behavior in adopting mobile banking (Nguyen & Nguyen, 2020) ^[3], while others focus on describing the Fintech ecosystem or analyzing case studies of a few prominent startups. However, a common feature of these studies is that they have not comprehensively systematized the multifaceted opportunities and challenges—including issues of technology, social behavior, digital literacy, and especially the legal framework—from an integrated, industry-wide perspective. Therefore, analyzing specialized industry reports, which crystallize practical observations and the judgments of market experts, will help fill this research gap and provide a more realistic view of the digital financial transformation process aimed at promoting financial inclusion in Vietnam.

3. Research Methodology

To answer the research questions, this paper employs a qualitative research method, with a primary design of desk research. This approach is considered most appropriate for the study's objective, which is to synthesize, analyze, and interpret viewpoints, data, and assessments already published in specialized industry reports, rather than collecting primary data.

The secondary data sources for the study include published materials such as industry reports, thematic reports, white papers, and survey reports. These documents were systematically collected from reputable sources, including: international development organizations like the World Bank (WB), Asian Development Bank (ADB), and the United Nations Capital Development Fund (UNCDF); leading global consulting and auditing firms (PwC, Deloitte, EY, KPMG); and domestic regulatory bodies and

associations such as the State Bank of Vietnam and the Vietnam Banks Association. To ensure timeliness and accurately reflect the context, the time frame of the documents was limited from 2018 to 2023, a period that witnessed a strong acceleration of the digital transformation process in Vietnam. The search was conducted using keywords in both Vietnamese and English, including: "financial inclusion Vietnam", "digital finance Vietnam", "fintech Vietnam", "digital banking Vietnam", "chuyển đổi số ngân hàng", and "tài chính toàn diện Việt Nam". The core selection criterion was that the reports must contain in-depth analysis of the Vietnamese market and explicitly address the link between financial technology development and financial inclusion goals. From this, approximately 20-30 core reports were selected for in-depth analysis.

The data analysis process followed the thematic analysis method as proposed by Braun & Clarke (2006) [2]. First, the author conducted a deep familiarization with the data by carefully reading and noting initial ideas from all selected reports. Next, an initial coding process was systematically performed across the entire dataset, assigning descriptive codes to relevant text segments. In the third step, these codes were sorted and classified to search for and identify potential themes. These themes were then reviewed and refined to ensure internal coherence within each theme and clear differentiation between themes. Finally, the main themes were precisely defined and named. This entire analysis was guided by the two central research questions, aiming to identify and systematize themes around two main groups: the opportunities and the challenges of digital financial transformation for promoting financial inclusion in Vietnam.

4. Research Findings

The thematic analysis of industry reports from 2018-2023 highlighted two main, opposing yet complementary groups of themes, reflecting a multi-dimensional picture of the relationship between digital financial transformation and financial inclusion in Vietnam. The first group of themes focuses on the breakthrough opportunities that digital technology brings. The second group delves into the systemic challenges and barriers that hinder the realization of those opportunities. The detailed content of each theme is presented below.

4.1 Theme 1: Opportunities for Promoting Financial Inclusion from Digital Transformation

Analysis of the reports reveals a high degree of consensus that digital transformation is opening unprecedented pathways to promote financial inclusion in Vietnam, directly impacting all three pillars: access, usage, and quality of service.

4.1.1 Expanding Access Channels through Mobile and Electronic Know Your Customer (e-KYC)

One of the most emphasized opportunities in reports by the World Bank, ADB, and consulting firms is leveraging the high smartphone ownership rate and increasing mobile internet penetration in Vietnam. The reports identify this as a strategic "lever" to overcome geographical barriers, one of the inherent obstacles of the traditional banking system. Instead of investing in costly physical branch networks, financial institutions can reach customers in rural, mountainous, and island areas through digital banking applications.

In this context, electronic Know Your Customer (e-KYC) technology is consistently regarded as the "golden key". Reports from the State Bank of Vietnam and Fintech companies indicate that allowing users to open accounts remotely through biometric verification and cross-referencing with the national population database has created a revolution in attracting new users. This eliminates the requirement for customers to physically visit a counter, a major barrier for low-income individuals, self-employed workers with limited time, or people in areas far from urban centers.

4.1.2 Reducing Costs, Enabling Service for Low-Income Customer Segments

A key economic theme analyzed in-depth in reports by PwC and Deloitte is the cost-effectiveness of digital channels. The analysis shows that the operational cost for a digital transaction is significantly lower than for a transaction conducted at the counter. This difference not only helps banks optimize operations but also creates a viable business model to serve customer segments previously considered "unprofitable". The reports illustrate that, with low transaction costs, providing products such as payment accounts with small transaction values, micro-savings, or micro-loans becomes economically efficient. This directly addresses the needs of the low-income population, who often have small and infrequent financial transactions.

4.1.3 The Emergence of Innovative Financial Products and Services

Reports on Vietnam's Fintech ecosystem (e.g., from UNCDF, Fintech Singapore Report) document a wave of innovative financial products and services specifically designed to target the "gaps" left by the traditional banking system. Three prominent areas frequently mentioned are:

- **Peer-to-Peer (P2P) Lending:** P2P platforms are described as bridges between individual investors and borrowers who do not qualify for bank credit, such as micro-enterprises or self-employed workers without labor contracts.
- **E-wallets and Super-apps:** Reports highlight the remarkable development of e-wallets, evolving from simple payment tools into integrated service portals offering everything from bill payments and money transfers to shopping and affiliated financial services like Buy Now Pay Later.
- **Micro-insurance:** Digital technology allows insurance and Insurtech companies to design and distribute low-cost insurance packages with flexible terms (daily, per trip), targeting specific risks of low-income individuals such as occupational accidents, health issues, or crop failure.

4.1.4 Enhancing Financial Education and Information Transparency

A recognized social opportunity is the potential of digital platforms to improve financial literacy among the population. Many survey reports by EY and KPMG indicate that modern digital banking applications increasingly integrate Personal Finance Management (PFM) tools. These tools allow users to track spending, categorize income and expenses, and set savings goals, thereby giving them a clearer view of their financial situation. Furthermore, digitization helps present information on products, interest rates, and fee schedules clearly and easily comparable, contributing to increased transparency and better consumer

protection compared to the complex paper contracts of the past.

4.2 Theme 2: Key Challenges and Barriers

Alongside the clear opportunities, the reports also consistently point out a series of major challenges and barriers that require concerted solutions from both the public and private sectors.

4.2.1 The Digital Divide and Inconsistent Infrastructure

This is a paradox mentioned in most development reports. Although Vietnam has high mobile penetration, the quality and stability of internet connectivity still vary greatly between urban and rural, mountainous areas. WB reports emphasize that the lack of stable, broadband internet in remote areas is a physical barrier, preventing people from effectively accessing and using digital financial services. This risks creating a new form of exclusion, where the poorest and most remote populations are left behind in the digital revolution.

4.2.2 Limitations in Digital Literacy and Trust

This is considered the biggest and most complex challenge, emphasized in all consumer survey reports. The reports indicate that a significant portion of the population, especially the elderly, people in rural areas, and unskilled workers, lack the basic digital skills to use financial applications confidently and safely. More importantly, trust in digital channels is low. The fear of online scams, concerns about losing money in accounts, and the complexity of technology are major psychological barriers that lead them to prefer cash and traditional transaction channels.

4.2.3 Cybersecurity and Personal Data Protection Risks

The explosion of digital financial transactions is accompanied by a corresponding increase in cybersecurity risks. Reports from cybersecurity firms and the Big Four audit firms constantly warn of increasingly sophisticated forms of attacks such as phishing, malware installation, and identity theft. When these incidents occur, they not only cause direct financial loss to users but also severely erode trust in the entire digital financial system. In addition, the issue of personal data protection is a major concern. The reports raise questions about how customer data is being collected, used, and shared by banks and Fintech companies, and whether the current legal framework is strong enough to protect citizens' privacy.

4.2.4 Incomplete and Inflexible Legal Framework

The legal theme is a hot topic mentioned in most policy reports. Experts from the ADB, WB, and industry associations share the consensus that Vietnam's legal framework has not kept pace with the speed of financial technology development. The reports frequently point to delays in issuing clear regulations for new business models like P2P lending, leading to a legal "gray area" fraught with risks. Similarly, the implementation of a regulatory sandbox for Fintech has been slow, limiting the space for innovation and testing of new solutions. The absence of a comprehensive legal framework for Open Banking is also seen as an obstacle, slowing down the secure and efficient sharing of data between financial institutions, which is the foundation for creating more innovative and competitive financial services.

5. Discussion

5.1 Interpreting the Results: The Two-Sided Picture of Digital Transformation

The analysis of industry reports paints a complex, two-sided picture of the role of digital transformation in financial inclusion in Vietnam. On one hand, digital technology emerges as a powerful tool, a catalyst capable of breaking down traditional barriers of geography and cost. The expansion of access through mobile channels, simplification of processes via e-KYC, and the emergence of innovative microfinance products are clear testaments to the potential for narrowing the financial gap. On the other hand, this very transformation risks creating a new form of inequality: the digital divide. The challenges of the digital divide, limited digital skills and trust, and cybersecurity risks are not just technical obstacles but also profound social barriers. This suggests that the deployment of technology does not automatically lead to inclusion; on the contrary, if not managed carefully, it can exacerbate the exclusion of the most vulnerable populations.

5.2 Comparison with Theory and Previous Research

The findings from the industry reports both confirm and supplement, as well as deepen, the presented theoretical framework. The research results fully support the arguments of Ozili (2018) ^[4] and Arner *et al.* (2015) ^[1] that digital technology helps reduce transaction costs and overcome information asymmetry, creating conditions to serve new customer segments. However, the unique contribution of analyzing industry reports is highlighting the decisive role of intermediary factors, which are less emphasized in purely theoretical models. While theory focuses on economic and technological benefits, our analysis shows that non-economic factors such as trust, digital skills, and psychological barriers play a pivotal role in determining whether the opportunities created by technology are embraced and substantively used by the population, especially the target groups of financial inclusion. This finding also dialogues with micro-level studies like that of Nguyen & Nguyen (2020) ^[3] on technology adoption behavior but expands it to an industry-wide scale, affirming that these are systemic challenges, not just issues at the individual level.

5.3 Implications of the Study

From the above discussion, this study offers important implications for stakeholders.

- **For policymakers:** The results show that a strategy focused solely on promoting technology is insufficient. Instead, a comprehensive and human-centered approach is needed. This includes (1) prioritizing investment to bridge the digital infrastructure gap between regions; (2) implementing national programs to enhance digital skills and awareness of financial safety in cyberspace; and (3) urgently finalizing a flexible legal framework, especially a "sandbox" mechanism and regulations on personal data protection, to both encourage innovation and strengthen consumer trust.
- **For financial institutions (banks and Fintech companies):** Success in promoting financial inclusion lies not only in launching high-tech applications but

also in a deep understanding of the target customers. Institutions need to invest in designing digital products that are truly "inclusive"—that is, with simple, intuitive interfaces, easy-to-understand language, and processes friendly to users with limited digital skills. At the same time, building trust through robust security mechanisms, transparent communication, and effective customer support is vital for transitioning from "access" to sustainable "usage" of services.

6. Conclusion and Policy Implications

Using a qualitative analysis of industry reports, this study has answered two central questions, thereby providing a comprehensive and multi-dimensional overview of the relationship between digital financial transformation and financial inclusion in Vietnam. The results show that digital transformation brings breakthrough opportunities to expand access to and use of financial services through mobile channels, e-KYC technology, innovative business models, and the ability to reduce operational costs. However, this process also faces systemic challenges, including the digital divide in infrastructure, limitations in public digital skills and trust, rising cybersecurity risks, and a legal framework that has not kept pace with practice. In essence, digital transformation is both a powerful driver for financial inclusion and a potential source of a new form of exclusion if appropriate interventions are not in place.

From the research findings, the paper proposes three groups of high-action policy implications to maximize opportunities and mitigate challenges:

(i) **Develop and synchronously implement national programs on enhancing digital skills and financial education:** Strategic investment is needed to build capacity for the public, especially targeting vulnerable groups such as rural populations, the elderly, and unskilled workers. These programs should be designed practically, focusing on guiding the safe use of digital financial tools and identifying online fraud risks.

(ii) **Accelerate the finalization of the legal corridor for Fintech:** The Government and the State Bank of Vietnam need to urgently issue clear and flexible regulations for new business models like P2P lending, while also officially operationalizing the Regulatory Sandbox mechanism soon. Concurrently, finalizing strong regulations on personal data protection is a key factor in building and reinforcing user trust in the digital financial ecosystem.

(iii) **Promote public-private partnership (PPP) models for digital infrastructure development:** To address the "digital divide," there is a need for mechanisms to encourage collaboration between the state and private enterprises in investing in and expanding stable, broadband internet infrastructure to remote, rural, and island areas, ensuring no one is left behind in the digital revolution.

7. Limitations and Future Research Directions

This study has certain limitations, primarily stemming from its reliance on secondary data from published reports, which may not fully reflect internal strategies or challenges not publicly disclosed by organizations.

To deepen the understanding of this topic, future research could follow two main directions. First, quantitative studies are needed to measure the actual impact of specific digital financial products (e.g., e-wallets, P2P lending) on financial inclusion indicators (such as savings rates, access to credit)

of households. Second, ethnographic studies would be invaluable for a deeper understanding of the behavioral, cultural, and psychological barriers of end-users, especially vulnerable groups, as they interact with digital financial services.

8. References

1. Arner DW, Barberis J, Buckley RP. The evolution of Fintech: A new post-crisis paradigm? *Georgetown Journal of International Law*. 2015; 47(4):1271-1319.
2. Braun V, Clarke V. Using thematic analysis in psychology. *Qualitative Research in Psychology*. 2006; 3(2):77-101.
3. Nguyen XT, Nguyen TT. Factors affecting Industry 4.0 adoption in the curriculum of university students in Ho Chi Minh City. *The Journal of Asian Finance, Economics and Business*. 2020; 7(10):303-313.
4. Ozili PK. Impact of digital finance on financial inclusion and stability. *Borsa Istanbul Review*. 2018; 18(4):329-340.
5. Prime Minister. Decision No. 749/QĐ-TTg dated June 3, 2020 approving the "National Digital Transformation Program to 2025, with a vision to 2030", 2020a.
6. Vial G. Understanding digital transformation: A review and a research agenda. In *Managing digital transformation*, 2021, 13-66.
7. World Bank. The Global Findex Database 2017: Measuring financial inclusion and the fintech revolution. World Bank Publications, 2018.