

Factors Affecting Customers' Intention to Use Fintech Payment Services at Joint-Stock Commercial Banks In Vietnam

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<https://doi.org/10.56201/ijefm.v11.no10.2026.pg1.9>

Abstract

In the context of the rapid growth of financial technology (Fintech) services in the payment operations of joint-stock commercial banks (JSCBs) in Vietnam, with the value of cashless payments in 2024 exceeding VND 295 quadrillion, this paper aims to systematize, analyze, and comparatively evaluate the factors influencing customers' intention to use Fintech payment services at Vietnamese JSCBs. The paper adopts a desk-research method, synthesizing and comparing domestic and international academic literature on the basis of three underlying theoretical frameworks: the Technology Acceptance Model (TAM), the Theory of Planned Behavior (TPB), and the Unified Theory of Acceptance and Use of Technology (UTAUT). The findings show that seven factors - performance expectancy, effort expectancy, social influence, facilitating conditions, perceived risk, trust, and perceived cost - each play a certain role, with performance expectancy, social influence, and trust showing the highest degree of consensus across the reviewed studies. On this basis, the paper proposes implications for JSCBs in improving the digital experience and building customer trust, and offers policy directions for the State Bank of Vietnam (SBV) to promote cashless payment in a sustainable manner.

Keywords: *financial technology; behavioral intention; cashless payment; joint-stock commercial banks.*

1. Introduction

The rapid development of financial technology (Fintech) services is reshaping payment practices across the joint-stock commercial bank (JSCB) system in Vietnam. According to the State Bank of Vietnam (SBV), the value of cashless payments in 2024 exceeded VND 295 quadrillion, equivalent to about 25 times the country's gross domestic product, while the share of adults holding a payment account reached 87 percent, surpassing the 80 percent target set for 2025 (VietnamPlus, 2025). The growth rate of cashless payment transactions has been maintained at 30 to 40 percent per year, with transactions via mobile phones and QR codes growing particularly fast (Tập chí Ngân hàng, 2025). In terms of industry structure, payment services continue to play the leading role within Vietnam's Fintech ecosystem, with the number of licensed payment intermediaries expanding steadily since the sector's formative years (Nguyễn & Lê, 2019). These figures indicate that customers' intention to use Fintech payment services at JSCBs is no longer a localized phenomenon but has become a structural trend that calls for a commensurate theoretical approach. At the academic level, domestic and international research on the intention to use Fintech can be grouped according to three dominant underlying theories: the Technology Acceptance Model (TAM), the Theory of Planned Behavior (TPB), and the Unified Theory of Acceptance and Use of Technology (UTAUT). A recent systematic review confirms that these three theories remain overwhelmingly dominant in international research on Fintech acceptance between 2019 and

2022 (Firmansyah et al., 2022). In Vietnam, the TAM-oriented line of research emerged early with the work of Liu and Pham (2016) on mobile payment, which emphasized the role of perceived usefulness and perceived ease of use. The UTAUT-oriented line of research was later extended through the work of Hoang et al. (2021) on digital wallets and Yen et al. (2023) on mobile payment, in which performance expectancy, effort expectancy, and social influence were consistently confirmed. In addition, Ha et al. (2022) contributed a perspective on trust and information quality in the context of fake news, while Ngo and Nguyen (2024) identified the distinctive role of customers' latent needs within a bank-based financial system. Although the body of research outlined above is relatively rich, most studies conducted in Vietnam rely on quantitative methods based on primary surveys of a specific locality or customer segment, typically applying a single theoretical framework in isolation. Meanwhile, a desk-research study that systematically synthesizes, analyzes, evaluates, and compares all three theoretical frameworks - TAM, TPB, and UTAUT - simultaneously, specifically within the context of JSCB customers in Vietnam following important regulatory changes such as the biometric-authentication requirement effective from July 2024, remains a gap yet to be filled. International systematic reviews such as that of Firmansyah et al. (2022), while valuable as a reference, do not delve into the institutional specifics and behavioral patterns of Vietnamese customers. Building on this gap, the paper sets out to systematize, analyze, and comparatively evaluate the factors affecting customers' intention to use Fintech payment services at JSCBs in Vietnam, on the basis of integrating the three underlying theoretical frameworks TAM, TPB, and UTAUT. Two research questions are posed: first, which factors have been consistently confirmed as influential across prior studies; and second, to what extent are these factors relevant to the specific characteristics of JSCB customers in Vietnam at the present stage. The paper's contribution is twofold. Theoretically, it develops an integrated analytical framework suited to Vietnam's institutional and behavioral context. Practically, it provides a reference basis for JSCBs in formulating digital-transformation strategies and for the SBV in refining policies that promote cashless payment. The remainder of the paper is organized as follows: Section 2 presents the theoretical foundation and research methodology; Section 3 analyzes and discusses the factors of influence; Section 4 sets out managerial and policy implications; and Section 5 concludes.

2. Theoretical Foundation and Research Methodology

2.1. Underlying theories

To explain customers' intention to use Fintech payment services at Vietnamese JSCBs, the paper integrates three underlying theories that have been confirmed as the most widely used in this field (Firmansyah et al., 2022). First, the Technology Acceptance Model (TAM), proposed by Davis (1989), posits that the intention to use a technology is governed by two core beliefs: perceived usefulness and perceived ease of use. In the context of Fintech payment, perceived usefulness reflects customers' belief that the service makes transactions faster and more convenient than traditional methods, while perceived ease of use reflects the simplicity of the interaction, requiring minimal effort to learn. Second, the Theory of Planned Behavior (TPB), developed by Ajzen (1991) as an extension of the Theory of Reasoned Action, adds three predictors of behavioral intention: attitude, subjective norm, and perceived behavioral control. Compared with TAM, TPB broadens explanatory power by incorporating the influence of people around the individual, through subjective norm, and the degree to which customers feel they have sufficient resources, knowledge, and conditions to perform the behavior, through perceived behavioral control. Third, the Unified Theory of Acceptance and Use of Technology (UTAUT), developed by Venkatesh et al. (2003) by consolidating eight prior technology acceptance models, identifies four factors that directly predict behavioral intention:

performance expectancy, effort expectancy, social influence, and facilitating conditions. UTAUT offers superior explanatory power compared with earlier standalone models and is the most widely applied framework in recent Fintech studies in Vietnam, as seen in the work of Hoang et al. (2021) and Yen et al. (2023). The integration of these three theories stems from the observation that each captures only one dimension of technology-acceptance behavior. TAM focuses on the perception of the technology itself, TPB adds the social and resource dimension, while UTAUT consolidates and extends both approaches. Beyond the three original theories, applied studies also add factors specific to the financial-technology domain, such as perceived risk, trust, and perceived cost, which play an important role given that financial transactions are directly tied to customers' money (Ha et al., 2022; Ngo & Nguyen, 2024).

2.2. Synthesis of factors affecting intention from prior studies

Building on the three underlying theories above, Table 1 synthesizes the factors affecting the intention to use Fintech payment services that have been confirmed through prior empirical studies in Vietnam and internationally.

Table 1. Synthesis of Factors Affecting Customers' Intention to Use Fintech Payment Services from Prior Studies

Factor	Theoretical basis	Representative studies	Direction of effect
Performance expectancy	UTAUT	Hoang et al. (2021); Yen et al. (2023)	Positive; the strongest predictor
Effort expectancy	UTAUT, TAM	Liu & Pham (2016); Hoang et al. (2021)	Positive
Social influence	UTAUT, TPB	Yen et al. (2023)	Positive; the leading driver
Facilitating conditions	UTAUT, TPB	Hoang et al. (2021)	Positive
Perceived risk	Extended TAM	Hoang et al. (2021); Ha et al. (2022)	Negative
Trust	Extended TAM	Ngo & Nguyen (2024); Ha et al. (2022)	Positive
Perceived cost	Extended TAM	Liu & Pham (2016); Ngo & Nguyen (2024)	Negative; effect varies by context

Source: Compiled by the author

The synthesis shows that performance expectancy and social influence are the two most consistent predictors of behavioral intention in the Vietnamese market. Perceived risk and trust, although not part of the original UTAUT model, appear frequently in studies on the financial sector, reflecting the sensitive nature of monetary transactions compared with other types of technology. Perceived cost shows an inconsistent direction of effect across studies, possibly due to differences in fee structures among payment platforms at different points in time.

2.3. Research methodology

The paper employs a desk-research method, based on synthesizing, analyzing, evaluating, and comparing secondary sources. The research process comprises four steps. Step one involves

identifying search terms related to the intention to use Fintech, mobile payment, and e-wallets, combined with the theoretical frameworks TAM, TPB, and UTAUT. Step two involves collecting literature from international academic databases and domestic scientific journals, prioritizing works published from 2015 onward to ensure currency, supplemented with official statistics from the SBV to clarify the practical context. Step three involves screening the literature according to criteria of direct relevance to the research topic and verifiable academic or institutional provenance. Step four involves synthesizing the factors confirmed across studies, analyzing their consistency, assessing their relevance to the context of JSCB customers in Vietnam, and comparing findings to identify points of convergence as well as remaining gaps, which form the basis for constructing the proposed analytical framework.

2.4. Proposed research model

Based on the synthesis in Table 1, the paper proposes an integrated analytical framework comprising seven independent factors affecting the dependent variable - intention to use Fintech payment services - as presented in Figure 1. Four factors belong to the UTAUT group: performance expectancy, effort expectancy, social influence, and facilitating conditions. Three factors belong to the extended-TAM group: perceived risk, trust, and perceived cost. This framework fully inherits the original theoretical models while reflecting the specific patterns confirmed through empirical studies in Vietnam.

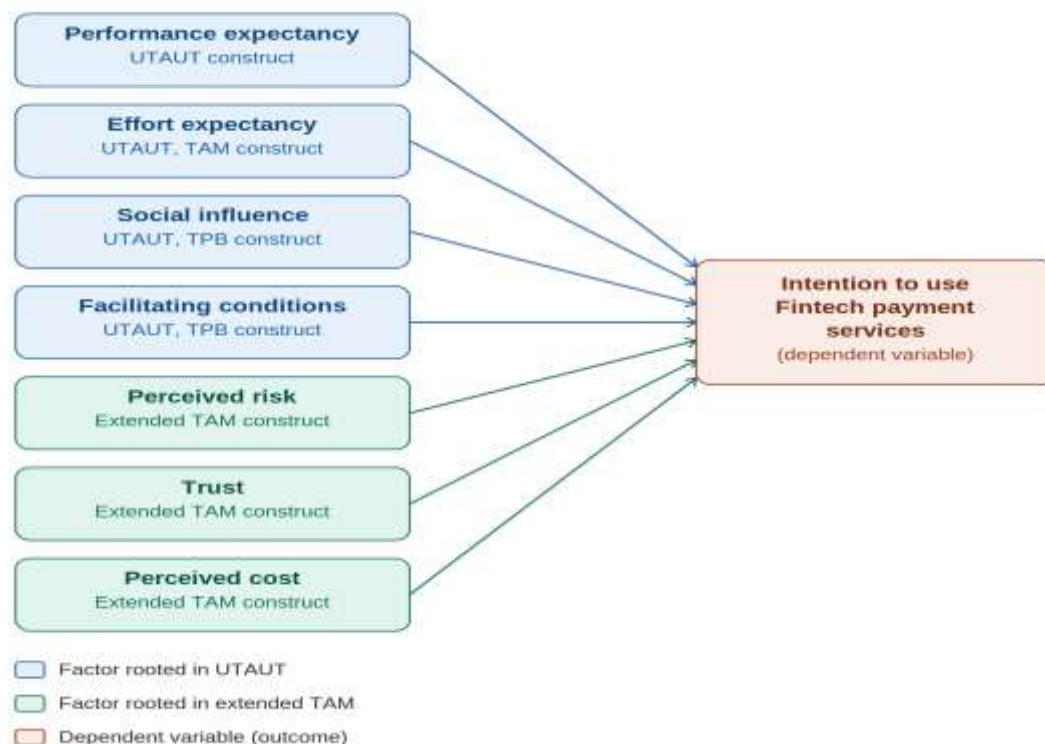


Figure 1. Conceptual framework of factors affecting customers' intention to use Fintech payment services at joint-stock commercial banks in Vietnam, integrating TAM, TPB, and UTAUT.

Source: author's synthesis

3. Results and Discussion

Building on the analytical framework proposed in Figure 1, this section presents the analysis, evaluation, and comparison of each factor, drawing on empirical studies conducted in Vietnam

and internationally in comparable contexts, in order to clarify the extent to which each factor is relevant to customers of JSCBs in Vietnam.

3.1. Performance expectancy

Performance expectancy reflects the degree to which customers believe that using Fintech payment services will enable them to achieve greater transaction efficiency than traditional methods, directly inheriting the concept of perceived usefulness in TAM. In Vietnam, Hoang et al. (2021) confirm that this is one of the two strongest predictors of the intention to use e-wallets, together with effort expectancy. This finding is consistent with the international study of Oliveira et al. (2016) on mobile-payment users, in which performance-related perception was a consistent predictor of both intention to use and intention to recommend the technology. Notably, the two studies were conducted in different cultural contexts and at different stages of digital-finance development, yet both point in the same direction, suggesting that performance expectancy is highly universal and relatively unaffected by country-specific characteristics. For JSCB customers in Vietnam, this factor carries even greater practical significance given the 30 to 40 percent annual growth rate of cashless payment transactions noted in Section 1, which reflects customers' growing confidence in the actual effectiveness of the technology. Overall, this factor shows the highest degree of consensus among the synthesized studies and is well suited to serve as the central pillar of the proposed analytical framework.

3.2. Effort expectancy

Effort expectancy reflects the degree of ease customers perceive when interacting with Fintech payment services, corresponding to perceived ease of use in TAM. The early study of Liu and Pham (2016) on mobile payment in Vietnam found perceived ease of use to be the strongest predictor, even stronger than perceived usefulness, while perceived risk was found to have no statistically significant effect, a notably distinctive finding that is discussed further in Section 3.5. This result is reinforced by Hoang et al. (2021), in which effort expectancy remained a significant predictor for e-wallets. On a theoretical level, Venkatesh et al. (2003) noted that the effect of effort expectancy tends to diminish as users accumulate experience with the technology, meaning that this factor typically plays a more prominent role in the early stages of technology acceptance. This raises a noteworthy consideration for the current Vietnamese context: as most JSCB customers now have years of experience using banking applications and e-wallets, the magnitude of effort expectancy's influence may have declined relative to the period when the above-cited studies were conducted. This represents a gap between the context of the original studies and the present context that should be taken into account when applying this factor.

3.3. Social influence

Social influence reflects the extent to which customers are affected by the opinions of family, friends, colleagues, or the online community when deciding to use Fintech payment services, sitting at the intersection of the social-influence component of UTAUT and the subjective-norm component of TPB. Yen et al. (2023) confirm that this is the strongest predictor of the intention to use mobile payment in Vietnam, surpassing even factors related to system quality and security. This finding aligns with the collectivist cultural characteristics generally regarded as amplifying the role of social influence in consumption decisions across Asia. However, it should also be weighed against the original observation of Venkatesh et al. (2003) that social influence tends to be more pronounced in mandatory-use contexts or in the early stage of technology diffusion, while its role may diminish for long-term voluntary use. Since Fintech

payment at Vietnamese JSCBs is now largely voluntary and has moved past its initial diffusion phase, the current magnitude of this factor's influence should be interpreted with caution rather than mechanically inferred from earlier survey results.

3.4. Facilitating conditions

Facilitating conditions reflect the degree to which customers perceive that they have adequate technological infrastructure, devices, network connectivity, and support needed to use Fintech payment services, corresponding to perceived behavioral control in TPB. Hoang et al. (2021) confirm a positive effect of this factor on the intention to use e-wallets in Vietnam. Notably, in the original UTAUT model, Venkatesh et al. (2003) positioned facilitating conditions as a direct predictor of actual use behavior rather than of behavioral intention, a structural distinction that many subsequent applied studies, including those conducted in Vietnam, have adjusted by incorporating it directly as a predictor of intention. This adjustment has practical grounding, since in the context of Fintech payment, customers' awareness of available infrastructure, such as the network of QR-code payment acceptance points or mobile internet coverage, typically forms during the deliberation process itself, before actual use occurs. With Vietnam's digital infrastructure improving rapidly, as reflected in the 87 percent adult payment-account ownership rate noted in Section 1, facilitating conditions are expected to continue serving as a reinforcing, foundational factor rather than a source of competitive differentiation among JSCBs.

3.5. Perceived risk

Perceived risk reflects customers' concern about the possibility of financial loss, exposure of personal information, or transaction failure when using Fintech payment services. Hoang et al. (2021) confirm a negative effect of this factor on the intention to use e-wallets, consistent with theoretical expectations. Ha et al. (2022) add an important perspective, showing that the negative impact of fake news heightens perceived risk, which in turn indirectly undermines the intention to use, indicating that perceived risk does not arise solely from actual experience but also from the surrounding information environment. Internationally, Oliveira et al. (2016) likewise confirm the role of perceived risk within an integrated extended-UTAUT model for mobile payment. However, the findings of Liu and Pham (2016) show that perceived risk had no statistically significant effect on the intention to use mobile payment in their sample; the risk items were in fact dropped during exploratory factor analysis because they did not affect respondents' intention. The divergence among these results indicates that perceived risk is a less consistent factor than performance expectancy or effort expectancy, with its magnitude of effect likely depending heavily on sample characteristics, the timing of the study, and customers' prior experience with information-security incidents.

3.6. Trust

Trust reflects the extent to which customers believe in the competence, honesty, and goodwill of JSCBs as well as the intermediaries providing Fintech services. Ngo and Nguyen (2024) find that customers who already have an existing relationship with a bank display a relatively high intention to adopt Fintech services regardless of the cost or time involved, implying that trust accumulated through a traditional banking relationship may be transferred to Fintech services provided or co-delivered by that same bank. Ha et al. (2022) likewise emphasize trust, together with service quality, as two key factors that help mitigate the negative effects of fake news on intention to use. Internationally, Oliveira et al. (2016) confirm that trust plays a particularly important role in mobile payment compared with other technology domains, given that transactions are directly tied to users' financial assets. Trust therefore shows a high degree

of consensus across the synthesized studies, while also revealing a context-specific feature of Vietnamese JSCBs: trust can be built on an existing bank brand reputation, unlike the context of independent Fintech firms that have not yet established a prior customer relationship.

3.7. Perceived cost

Perceived cost reflects customers' assessment of transaction fees, account-maintenance charges, or the opportunity cost of switching from traditional payment methods to Fintech. This is the least consistent factor among the seven synthesized in this paper. Liu and Pham (2016) find that cost- and compatibility-related factors had no significant effect on perceived usefulness in their sample. More notably, Ngo and Nguyen (2024) find that existing bank customers display a high intention to use Fintech regardless of the cost and time involved, suggesting that for customers already loyal to a bank, cost is not a decisive barrier. This result departs somewhat from the conventional theoretical assumption within extended TAM, which treats perceived cost as a deterrent to the intention to use. The inconsistency may be explained by differences in customer segments across studies: loyal bank customers tend to be less cost-sensitive than customers newly engaging with digital financial services. This represents an empirical gap worth testing further in subsequent quantitative studies on the context of JSCB customers in Vietnam.

4. Managerial and Policy Implications

Drawing on the analysis in Section 3, the paper proposes several specific implications for two groups of stakeholders.

For JSCBs, priority should be given to improving performance expectancy. Application interfaces need to be simplified. Transaction processing speed needs to be faster. Confirmation waiting times need to be shortened as much as possible. Effort expectancy also needs to be minimized. User-experience design should be intuitive. Usage instructions need to be clear and accompanied by visual illustrations. Older customers and customers in rural areas require dedicated support. Social influence is an important lever. JSCBs should build referral programs. Incentives that spread through social media are likely to be particularly effective in the Vietnamese market, where community factors play a major role in consumption decisions. Facilitating conditions need to be further strengthened. The network of QR-code payment acceptance points needs to be expanded. Compatibility with a wide range of devices and operating systems needs to be ensured. Perceived risk and trust need to be addressed together. Transaction security needs to be strengthened, especially following the biometric-authentication regulation that took effect in July 2024. Information about transaction safety needs to be transparent. JSCBs should proactively communicate through official channels to limit the impact of fake news on customer trust. Perceived cost needs to be managed flexibly by segment. Loyal customers may be less fee-sensitive. New customers need fee-incentive policies in the early stage to encourage trial use. For the SBV and regulatory authorities, the legal framework for cooperation between banks and Fintech firms needs to continue being refined. A controlled regulatory sandbox for new Fintech models should be formally issued as soon as possible. Security and authentication standards need to be promoted consistently across the entire system. Technology-risk oversight mechanisms need to be strengthened to protect the rights of financial consumers amid the rapid growth of digital transactions. Digital financial-inclusion policy needs to be directed more strongly toward rural areas and the unbanked population. The goal of raising the share of adults holding a payment account should be paired with programs to improve digital financial literacy among the population.

Finally, communication efforts to counter fake news related to the financial sector need to be closely coordinated among the SBV, JSCBs, and media agencies, in order to protect customer trust across the entire digital payment ecosystem.

5. Conclusion

This paper has systematized, analyzed, and compared seven factors affecting customers' intention to use Fintech payment services at JSCBs in Vietnam, on the basis of integrating three underlying theoretical frameworks: TAM, TPB, and UTAUT. The synthesized findings show that performance expectancy, social influence, and trust are the factors with the highest degree of consensus, while perceived risk and perceived cost still show inconsistent results across studies. Theoretically, the paper contributes an integrated analytical framework suited to the institutional context and customer behavior in Vietnam. Practically, the findings provide a reference basis for JSCBs in formulating digital-transformation strategies and for the SBV in refining policies to promote cashless payment. The main limitation of the paper lies in its desk-research method, which is qualitative and synthesis-based and has not been tested against primary data; the generalizability of the findings is therefore limited. Future research should conduct a quantitative survey of a specific sample of JSCB customers, using structural equation modeling to simultaneously test all seven proposed factors.

Acknowledgements: The article was conducted with the research support of the project “*Factors Affecting Customers' Intention to Use Fintech Payment Services at Joint-Stock Commercial Banks in Vietnam [Các nhân tố ảnh hưởng đến ý định sử dụng dịch vụ công nghệ tài chính trong hoạt động thanh toán của khách hàng tại các Ngân hàng Thương mại cổ phần ở Việt Nam]*”. Project code: HUNRE.2026.06.09. Chaired by Hanoi University of Natural Resources and Environment.

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