



Digital Transformation, Artificial Intelligence Application, and Service Quality as Determinants of User Satisfaction in Mobile Money Services

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Abstract

Background: Mobile money is an online payment method that uses a mobile subscriber database to enable users to make money transfers and payments without a traditional bank account. This type of service is gaining popularity worldwide. However, in Vietnam, mobile money has been deployed only recently, and it still faces specific challenges and barriers.

Objective: This study investigates the combined influence of digital transformation, artificial intelligence, and service-related factors on customer satisfaction in mobile money services.

Methodology: Drawing on the theoretical foundations of the SERVQUAL model, the Technology Acceptance Model, and the Information Systems Success Model, this study develops an integrative framework linking service quality, trust, ease of use, digital experience, information quality, and the use of artificial intelligence. Data were analysed using partial least squares structural equation modelling, with 650 customers of mobile money services in five major cities.

Result: The results confirm that digital transformation is a fundamental driver of customer satisfaction, as evidenced by its significant impact. The results reveal that digital transformation is an essential driver of satisfaction by enhancing service quality, increasing reliability, improving information transparency, and improving overall system usability.

Conclusion: Artificial intelligence emerges as a powerful catalyst, enhancing personalisation, automation, and decision support, thereby enriching users' information experiences and reinforcing their satisfaction. In parallel, relational factors such as service quality and trust build user confidence and reduce perceived risk, whereas ease of use fosters more intuitive and engaging interactions.

Unique Contribution: The research contributes to the growing body of knowledge on AI-enabled digital transformation, offering practical insights for financial technology providers seeking to design trustworthy, user-centred, and intelligent service ecosystems.

Key Recommendation: The study emphasises that customer satisfaction in mobile money services is no longer defined solely by functional efficiency but increasingly by the seamless integration of intelligent technologies and positive digital experiences. To develop this service in the near future, it is necessary to change people's cash-use habits, align the relevant legal framework, improve service providers' transaction processes, and strengthen state oversight.

Keywords: Digital transformation, artificial intelligence, mobile money, and service quality.

Introduction

Mobile money is a service that uses customer identification via the service provider's mobile subscriber database. The nature of mobile money is to convert cash into money in the account at a 1:1 ratio; customers deposit cash to receive an amount of money in the mobile money account of equivalent value. Mobile money accounts are linked to the mobile device's SIM card but are separate from the telecommunications account. However, not everyone with a SIM card can use Mobile Money. To use the mobile money service, the subscriber's SIM card must be from a network operator licensed to provide mobile money services, and the user must register and be approved by the operator to use the service (Ajina et al., 2023). Mobile money services enable users to send and receive mobile money transfers and make mobile payments. In particular, with a mobile money transfer service, customers can use a Mobile money account linked to a mobile phone subscription to transfer money via a telecommunications service provider. With mobile payments, customers pay for products and services using a Mobile money account.

In addition, mobile money opens up opportunities for network operators to effectively utilise their infrastructure, increase revenue, and diversify the services they provide, ultimately enhancing the business ecosystem (Chen et al., 2023; Hijazi et al., 2022). In the context of a pilot implementation during the ongoing COVID-19 pandemic, the Mobile money service is considered to have built trust among customers and partially met their practical needs. It is gradually becoming an integral part of daily life.

Although Mobile money has significant potential for development in Vietnam, its expansion also raises many issues that need to be addressed, such as the ingrained habit of using cash in Vietnamese consumer behaviour. There remains a reluctance to adopt new payment technologies, as well as concerns about security and the costs associated with electronic payment methods, which make implementing cashless payments challenging. Second, mobile money is a relatively new service, so legal regulations are not yet fully developed and consistent, which may potentially pose risks during implementation. The advantage of Mobile money worldwide is that users need only a phone number; they can visit an agent to withdraw or deposit funds, and no documentation is required for deposits, withdrawals, or payments.

This is also an inconvenience for customers. Users must follow several steps to transfer funds between accounts. Another point is that network operators permit customers to deposit cash only through agents or bank accounts. They do not permit customers to deposit funds via phone top-up cards issued by them. The above factors render network operators' mobile money applications no different from other payment applications. In fact, using mobile money is more complicated than popular payment applications today.

To develop Mobile money services in the coming years, it is necessary to focus on identifying digital transformation, artificial intelligence applications, and service quality as determinants of user satisfaction. Therefore, this study investigates the combined influence of digital transformation, artificial intelligence, and service-related factors on customer satisfaction in

mobile money services. Finally, the study proposed recommendations for the development of mobile money services.

Literature Review

Customer satisfaction (SAT)

Customer satisfaction in the context of mobile money services refers to the positive emotional response of users, reflecting the extent to which their experience meets or exceeds their initial expectations. It represents an overall evaluation of the service performance after direct interaction with the digital financial system (Eren, 2021). From the perspective of service marketing, satisfaction arises from the confirmation–disconfirmation paradigm, where customers compare their pre-use expectations with the perceived outcomes of service performance. In a digital financial environment, satisfaction extends beyond transactional efficiency to encompass reliability, speed, security, ease of use, and the overall digital experience offered by the platform. In Mobile Money, customer satisfaction captures users’ confidence in the system’s effectiveness, informational accuracy, security, responsiveness, and perceived value. A high level of satisfaction enhances user trust, loyalty, and continued usage intention, thereby contributing to the long-term sustainability and competitiveness of digital financial service providers (Fauzi & Suryani, 2019).

Various factors, including technology, information, and user experience, influence customer satisfaction in the mobile money sector. Based on the synthesis of classic models such as SERVQUAL, IS success model, technology acceptance model (TAM/UTAUT), and research on Artificial Intelligence in service (AI-in-Service). The study identifies seven main factors affecting satisfaction, including: Service quality (SQ), digital transformation (DT), information quality (IQ), artificial intelligence application (AI), trust (TR), ease of use (EU), and digital experience (DE). TAM relies on Perceived Usefulness (PU); however, this analysis eliminates it because Service Quality and Information Quality integrate its functional meaning. Mobile money users evaluate the usefulness of services based on trustworthy service performance and accurate, timely information. Thus, PU is conceptually redundant and can be removed to improve model parsimony while being consistent with TAM and the IS Success Model.

Theoretical Framework

Service Quality (SQ) and Trust (TR)

Service quality has long been recognised as a key determinant of trust in service marketing research. According to the SERVQUAL model (Parasuraman et al., 1985), perceived service quality, as measured by reliability, responsiveness, assurance, and empathy, directly influences customer trust. In the Mobile Money context, where users rely heavily on digital systems to manage financial transactions, consistent and dependable service delivery is essential for fostering user confidence (Gonu et al., 2023). When customers perceive high service reliability, transparency, and security, they are more likely to develop trust toward the service provider. H1 - service quality has a positive effect on trust in Figure 1.

Trust (TR) and Ease of Use (EU)

Trust is one of the most significant psychological antecedents of perceived ease of use in digital services. The Technology Acceptance Model (TAM) posits that users’ perceptions of system trustworthiness reduce uncertainty and enhance feelings of control and familiarity when using

technology (Flavián et al., 2022). In Mobile Money systems, trust functions as a psychological enabler, helping users believe the platform is secure and reliable, and that it is easier to operate and interact with. H2 - Trust has a positive effect on ease of use in Figure 1.

Ease of Use (EU) and Digital Experience (DE)

Perceived ease of use plays a critical role in shaping the overall digital experience. User experience theory (Kashyap et al., 2024) emphasises that intuitive and effortless system interaction leads to higher satisfaction and positive emotional responses. When a Mobile Money platform is designed to be straightforward, fast, and user-friendly, customers tend to experience greater enjoyment and engagement. Hence, ease of use underpins a seamless, satisfying digital experience. H3 - Ease of use has a positive effect on digital experience in Figure 1.

Digital Experience (DE) and Customer Satisfaction (SAT)

Digital experience captures the holistic perception and emotional reaction of users as they interact with a digital service. A positive digital experience reflects the effectiveness, convenience, and enjoyment users derive from their interactions. Previous studies highlight that digital experience mediates the relationship between technological quality and customer outcomes (Lee & Chen, 2022). In Mobile Money services, a smooth, secure, and engaging experience reinforces the user's overall satisfaction and willingness to continue using the service. H4 - Digital experience has a positive effect on customer satisfaction in Figure 1.

Digital Transformation (DT) and Service Quality (SQ)

Digital transformation involves integrating digital technologies into organisational processes to enhance efficiency, agility, and customer engagement. It enables firms to deliver more responsive, accurate, and consistent services. Prior research indicates that digital transformation initiatives improve operational reliability, data accuracy, and customer service standards (Zungu et al., 2025). Within Mobile Money services, digital transformation enables providers to enhance service consistency, security, and real-time responsiveness, thereby improving the perceived quality of service. H5 - Digital transformation has a positive effect on service quality in Figure 1.

Digital Transformation (DT) and Trust (TR)

Trust in digital financial services emerges not only from the service provider's reputation but also from the technological robustness of its platform. Digital transformation enhances system transparency, data security, and traceability, key factors that shape user trust (Rahi et al., 2023). By adopting technologies such as biometric authentication, encrypted transactions, and secure data management, digital transformation reinforces user confidence and perceived safety. As shown in Figure 1, digital transformation positively affects trust.

Digital Transformation (DT) and Ease of Use (EU)

A digitally transformed system typically integrates automation, streamlined processes, and user-centred design principles that minimise user effort. These innovations make the service more accessible and intuitive (Omoge et al., 2022). When digital transformation focuses on improving human–technology interaction, users perceive the system as easier to learn and operate. Therefore, digital transformation directly enhances the ease of use of Mobile Money

platforms. H7 - Digital transformation has a positive effect on ease of use in Figure 1.

Digital Transformation (DT) and Information Quality (IQ)

Information quality refers to the accuracy, timeliness, completeness, and clarity of the information users receive from a system (Okonkwo et al., 2023). Digital transformation significantly strengthens these attributes by enabling data integration, automation, and real-time updates. Through advanced analytics and cloud-based systems, Mobile Money platforms can provide accurate, personalised, and timely information, thereby reducing uncertainty and enhancing user decision-making. H8 - Digital transformation has a positive effect on information quality in Figure 1.

Digital Transformation (DT) and Customer Satisfaction (SAT)

Beyond its indirect effects on service and information quality, digital transformation can also directly impact customer satisfaction. When digital technologies enhance the efficiency, speed, and personalisation of financial transactions, users experience greater convenience and confidence (Gao et al., 2022). A well-executed digital transformation strategy delivers superior service consistency and innovation, leading to higher satisfaction even in the absence of intermediary constructs. H9 - Digital transformation has a positive direct effect on customer satisfaction in Figure 1.

Information Quality (IQ) and Customer Satisfaction (SAT)

Information quality is a central determinant of satisfaction in information system success models (Cheng et al., 2024). When users perceive that the information provided is accurate, up-to-date, and relevant, they are more confident in the service's reliability. In the Mobile Money context, high-quality transaction and account information builds user assurance, reduces cognitive effort, and contributes to overall satisfaction with the service. H10 - Information quality has a positive effect on customer satisfaction in Figure 1.

Ease of Use (EU) and Customer Satisfaction (SAT)

Ease of use significantly influences satisfaction by reducing effort expectancy and facilitating smooth interaction with technology, according to TAM and UTAUT. Systems perceived as easy to use foster positive attitudes and enjoyment, which in turn translate into higher satisfaction (Belk et al., 2023). In Mobile Money services, an intuitive interface and straightforward functionality enhance convenience, reducing user frustration and strengthening overall satisfaction. H11 - Ease of use has a positive effect on customer satisfaction in Figure 1.

Trust (TR) and Customer Satisfaction (SAT)

Trust represents a psychological assurance that the service provider is reliable and will act in the customer's best interest (Belanche et al., 2024). In digital financial environments characterised by intangible transactions, trust reduces perceived risk and anxiety. When customers believe that their data and funds are secure, they tend to evaluate the service more favourably and report higher levels of satisfaction. Hence, trust acts both as a direct driver and as a mediating mechanism between service quality and satisfaction. H12 - Trust has a positive effect on customer satisfaction in Figure 1.

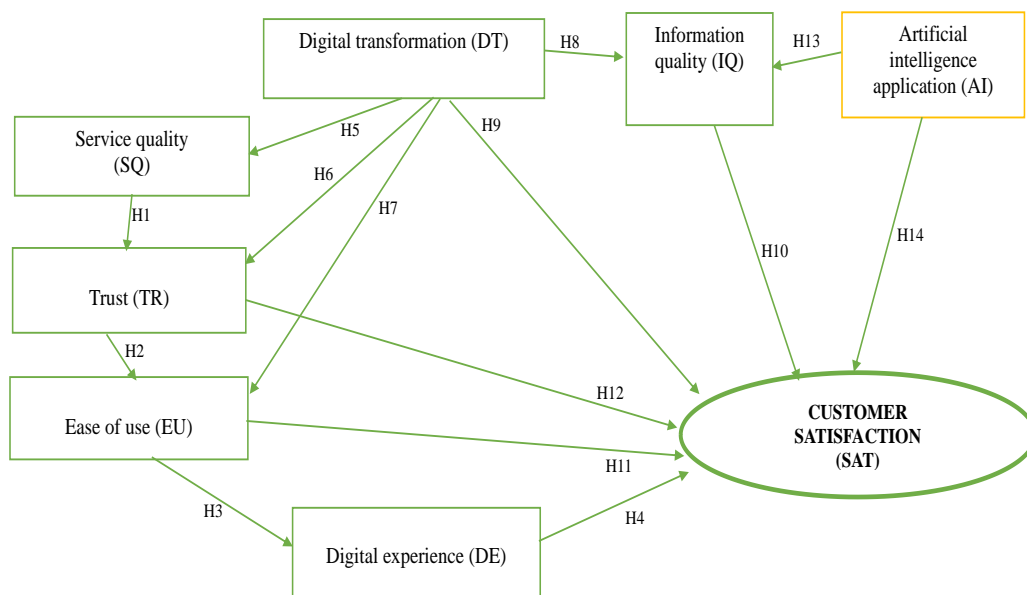
Artificial Intelligence Application (AI) and Information Quality (IQ)

Artificial intelligence enhances information quality by enabling automated data processing, predictive analytics, and real-time personalization. AI systems can filter noise, extract relevant insights, and present accurate information tailored to individual user needs (Akdim et al., 2023; Belanche et al., 2024). On mobile money platforms, AI applications enhance transaction recommendations, detect anomalies, and ensure accuracy in financial reporting, thereby improving users' perception of high-quality information. H13 - Artificial intelligence applications have a positive effect on information quality in Figure 1.

Artificial Intelligence Application (AI) and Customer Satisfaction (SAT)

Artificial intelligence also plays a transformative role in shaping customer satisfaction through intelligent interaction, personalisation, and security. AI-driven chatbots, automated support, and recommendation systems enrich the user experience and foster emotional engagement (Akdim et al., 2023; Belanche et al., 2024). Furthermore, AI-based fraud detection and personalised offers enhance perceived value and assurance, encouraging users to feel more satisfied with the service. H14 - Artificial intelligence applications have a positive effect on customer satisfaction in Figure 1.

Based on the above-mentioned analysis, the proposed model integrates both technological enablers (digital transformation and AI) and service attributes (service quality, information quality, trust, and ease of use), as well as experiential outcomes (digital experience and satisfaction). This conceptual framework aligns with modern perspectives on AI-enabled digital service ecosystems, illustrating how technology-driven capabilities translate into relational and experiential value for users in Figure 1.



Source: The authors proposed the model

Figure 1: A research model for critical factors influencing customer satisfaction

Figure 1 depicts the conceptual research model, which connects 14 proposed paths that represent both direct and indirect linkages. It highlights how internal capabilities foster innovation and digital preparedness in mobile money services, thereby enhancing customer satisfaction.

Research methods

The research process was conducted in two phases: (1) qualitative exploration through expert consultation and (2) a formal quantitative survey for hypothesis testing in Figure 1.

Qualitative phase based on expert interviews: This phase was conducted to explore, validate, and refine the measurement items for the constructs included in the conceptual framework. A semi-structured group discussion was organised with 15 banking professionals with 5-15 years of experience in digital financial services and Mobile Money operations. I have a thorough familiarity with financial service management; (ii) hands-on experience with digital transformation or Mobile Money deployment; and (iii) comprehension of technical innovation and ways to improve banking customers' experiences were the three main criteria used to choose participants (Hair et al., 2022). Topics covered included determining whether measurement items for concepts like digital transformation, information quality, trust, digital experience, and satisfaction were relevant, clear, and appropriate in the given context. Using thematic analysis, we extracted key characteristics and dimensions of each construct from the qualitative data. This phase laid the groundwork for the subsequent quantitative investigation by developing a modified, contextually tailored measurement scale suitable for the mobile money service environment in Vietnam.

The quantitative phase: Following the qualitative validation, the updated measuring scale was used to test the theoretical model and hypotheses (H1-H14). A structured questionnaire was sent to mobile money users to gather data. Using SmartPLS and Partial Least Squares Structural Equation Modeling (PLS-SEM), we evaluated the measurement reliability and the correlations among the constructs simultaneously.

Step 1: Development of the official measurement instrument to evaluate all constructs in the proposed model followed the qualitative phase. This instrument included a measurement scale and a questionnaire. To ensure the measurement items were relevant to the Vietnamese mobile money ecosystem, they were adapted from existing scales in prior studies and then refined based on expert feedback. All items were measured using a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). This scale is widely adopted in service and behavioural research due to its simplicity and high reliability in PLS-SEM analysis. Each construct, service quality, digital transformation, information quality, artificial intelligence, trust, ease of use, digital experience, and satisfaction, was operationalised through multiple reflective indicators that captured cognitive, functional, and experiential aspects of user perception. The questionnaire consisted of three sections: an introductory section, the main body containing measurement items, and a demographic section capturing respondents' age, gender, occupation, frequency, and duration of Mobile Money usage. The survey was administered bilingually to ensure clarity and comprehension. A pilot test with 30 respondents was conducted to confirm the reliability, clarity, and internal consistency of the measures before the main data collection.

Step 2: Data Collection and Analysis Procedures - After refining the measurement scales and conducting a pilot test, the primary quantitative survey was administered to test the proposed research model and hypotheses empirically. Sampling and data collection targeted respondents who were users of Mobile Money services in Vietnam and had prior experience with digital financial transactions, including payments, transfers, or deposits via mobile platforms. Data were collected through both online and face-to-face questionnaires distributed across five major cities - Hanoi, Ho Chi Minh City, Da Nang, Can Tho, and Hai Phong to ensure geographic and demographic diversity. A total of 650 questionnaires were distributed, and 621 valid responses were retained for analysis after excluding incomplete or inconsistent responses,

yielding an effective response rate of 95.5%. This sample size meets and exceeds the minimum requirement suggested by Hair et al. (2022) for the PLS-SEM model.

Results

Demographic information of respondents based on the sample

The study collected 621 valid responses from users of Mobile Money services across five major Vietnamese cities. The demographic composition of the sample demonstrates diversity across gender, age, occupation, and experience with digital financial services, ensuring the representativeness of the findings. Gender - Out of 621 respondents, 244 (39.3%) were male and 377 (60.7%) were female. The predominance of female users reflects the growing participation of women in adopting financial technology and their active engagement with mobile payment systems in Vietnam. Marital Status of the respondents: 225 (36.2%) were single, while 396 (63.8%) were married. This distribution suggests that most Mobile Money users are from family-oriented groups, indicating that financial management and convenience are key motivations for adoption. Age - The age structure reveals that a large proportion (34.3%) were aged 45 years and above, followed by 28.7% aged 35–44 years, 11.1% aged 25–34 years, and only 2.3% aged below 25 years. Mobile money's positioning in Vietnam favors women and elderly users. Government programs have promoted mobile money as an inclusive financial tool for unbanked and underbanked women and elderly people, who are overrepresented. These groups also trust digitally transformed telecom infrastructure more than feature-rich but complex e-wallet platforms due to its stability and widespread coverage. The model's emphasis on trust and information quality may explain the high number of married users. Household financial managers prioritise transaction reliability, data correctness, and risk reduction. The considerable effects of trust (H12) and information quality (H10) on satisfaction demonstrate their central role in domestic financial management in mobile money usage.

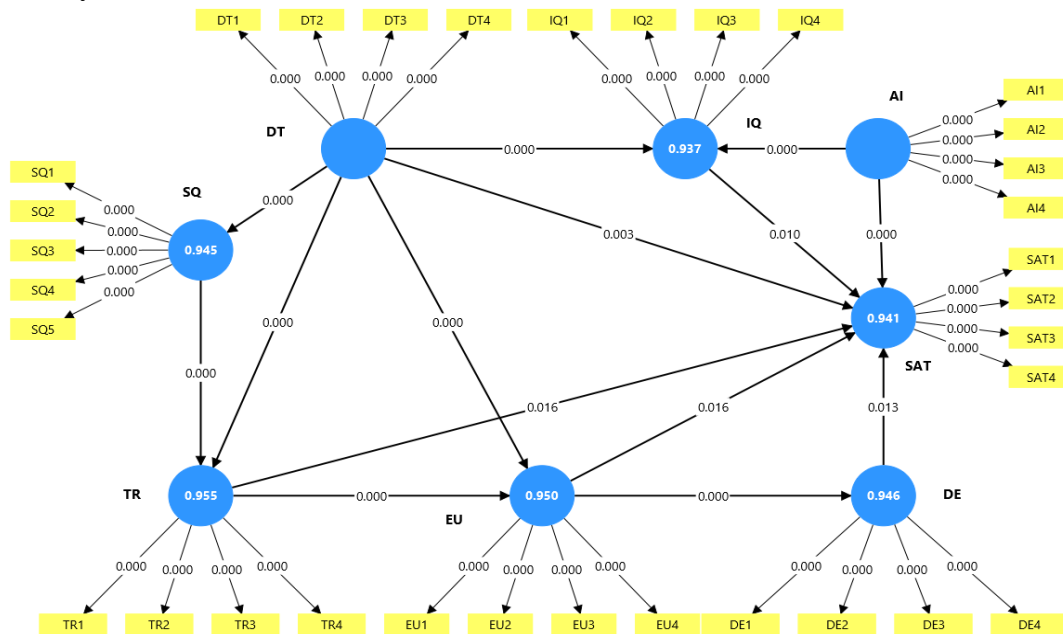
Testing critical factors influencing the customer satisfaction of mobile money services

Table 1: Testing of key factors influencing customer satisfaction

Factors	Original sample	Sample mean	Standard deviation	T statistics	P values
AI → IQ	0.135	0.136	0.031	4.368	0.000
AI → SAT	0.327	0.332	0.060	5.481	0.000
DE → SAT	0.136	0.135	0.055	2.475	0.013
DT → EU	0.483	0.483	0.043	11.265	0.000
DT → IQ	0.849	0.848	0.028	29.800	0.000
DT → SAT	0.164	0.164	0.056	2.945	0.003
DT → SQ	0.972	0.972	0.002	487.030	0.000
DT → TR	0.504	0.505	0.038	13.358	0.000
EU → DE	0.973	0.973	0.002	449.678	0.000
EU → SAT	0.113	0.112	0.047	2.406	0.016
IQ → SAT	0.149	0.146	0.058	2.571	0.010
SQ → TR	0.480	0.479	0.038	12.662	0.000
TR → EU	0.499	0.499	0.043	11.587	0.000
TR → SAT	0.116	0.115	0.048	2.404	0.016

Source: own calculations in SmartPLS 4.0.

Table 1 presents the structural path coefficients and significance levels for the hypothesized relationships in the model. The findings validate the robustness of the suggested framework by demonstrating that all primary linkages are statistically significant at $p < 0.05$. Among the essential factors that influence how customers view a company, digital transformation stands out for its significant impact on various aspects, including service quality, information quality, usability, and trust.



Source: processed from SmartPLS 4.0

Figure 2: Testing SEM for factors influencing the customer satisfaction of mobile money services

The structural model illustrating the interconnections between the primary factors influencing the happiness of mobile money service users is presented in Figure 2. Dependability values for all constructions range from 0.937 to 0.955, indicating outstanding dependability and internal consistency. Information quality, service quality, trust, and simplicity of use are all significantly impacted by digital transformation, which is a key antecedent, according to the results. The structural model explains a significant portion of the variance in customer satisfaction ($R^2 = 0.941$), indicating excellent explanatory power. This shows that the integrated model captures the factors underlying mobile money service satisfaction.

Discussion of findings

The findings of this study provide comprehensive insights into the determinants of customer satisfaction in Mobile Money services, emphasising the interplay between technological, informational, experiential, and trust-related factors. The results from the PLS-SEM analysis confirm that the integrated model performs well, accounting for a substantial portion of the variance in satisfaction. This aligns with contemporary theories in digital service management, technology acceptance, and AI adoption, highlighting the multidimensional nature of satisfaction in digital financial ecosystems. Digital Transformation is a predictor and a requirement for Service Quality and Information Quality in Vietnamese mobile money services, as indicated by near-unity path coefficients. These findings imply that digital processes structurally dictate service and information quality as new technologies transform

service delivery. This makes digital transformation a hallmark of service architecture in growing fintech markets.

The results reveal that digital transformation plays a foundational role in shaping user experiences and perceptions. Mobile Money is a new service, so the legal regulations are not yet complete or fully aligned, which may pose risks during implementation (Ajina et al., 2023; Flavián et al., 2022). The global advantage of Mobile Money is that users only need a phone number; they can visit an agent to withdraw or deposit money, and no documents are required to complete the deposit, withdrawal, or payment steps.

Artificial Intelligence (AI) shows a significant positive impact on both information quality and customer satisfaction. AI's direct impact on customer satisfaction stems from functional mechanisms, not general personalization (Akdim et al., 2023; Belanche et al., 2024). AI-driven security and fraud detection boost users' confidence in financial transactions, and intelligent chatbots improve service responsiveness in mobile money services. These techniques directly increase satisfaction beyond information quality by reducing perceived danger and waiting time. Using Mobile Money is more complicated than using popular payment applications. Currently, network operators completely distinguish money in mobile phone accounts and Mobile Money accounts. Customers depositing/withdrawing cash into Mobile Money accounts at network operators' business locations, depositing/withdrawing funds from customers' payment accounts at banks, and depositing/withdrawing funds from customers' payment accounts via their e-wallets cause significant inconvenience. However, as observed in the moderation analysis, excessive automation may reduce users' sense of control, potentially diminishing satisfaction when human oversight is lacking.

Ease of use and digital experience emerged as strong experiential factors influencing satisfaction. Telecommunications providers should offer direct loading via phone top-up cards or seamlessly integrate mobile phone and Mobile Money accounts to simplify usage (Belk et al., 2023; Cheng et al., 2024). Simplifying internal transfers would improve the digital experience by reducing cognitive effort and transactional processes. This innovation addresses the usability barrier that restricts mobile money's competitive difference. The path coefficients indicate that when users perceive the system as intuitive and effortless, their interaction experience becomes more enjoyable and efficient. Users must follow several steps to transfer funds between accounts. Moreover, network operators permit customers to top up only at agents or via bank accounts, and do not allow them to top up using the phone top-up cards they have issued. These factors render network operators' Mobile Money applications no different from other payment applications. This contradiction implies that the benefits of Digital Transformation and AI outweigh usability issues. Users prefer DT's reliability, ubiquity, fundamental financial functions, and AI-driven customisation. The simplicity of formal financial services compensates for interface complexity for a large previously unbanked population, making satisfaction less sensitive to ease-of-use limits.

Trust remains a psychological cornerstone of satisfaction. In high-risk digital environments, trust mitigates uncertainty and enhances users' confidence in system reliability and data security (Belanche et al., 2024; Lee & Chen, 2022). Mobile Money faces competition from numerous payment applications (e-wallets), including Momo, ZaloPay, VnPay, Moca, and AirPay. These applications have been around for a long time, have many customers, and understand customers' habits, preferences, and concerns. Information quality significantly affects satisfaction, underscoring that users' perceptions of accuracy, clarity, and transparency are crucial to service evaluation.

Ultimately, the findings reveal that customer satisfaction in mobile money services stems from the synergistic integration of digital transformation, AI-driven personalisation, usability,

and trust. These applications have created user habits, offer multiple payment acceptance points, handle various types of bills, and are linked to numerous banks. The relatively late birth makes it difficult for Mobile Money to differentiate itself from the competition. Notably, some payment applications are also linked to Grab and Be services, which capture a significant market share among users of these super applications.

Conclusions and Policy Recommendations

Conclusions

Mobile Money is an intermediary service that provides payment solutions via mobile devices, not a type of money. To facilitate non-cash payment transactions, the organization providing Mobile Money services will provide customers with an electronic account linked to a mobile subscription. This account allows storing a specific monetary value called mobile money - a form of electronic money. This study examines the factors that affect Vietnamese customers' satisfaction with Mobile Money services. The results, based on 621 genuine replies and analyzed using PLS-SEM, show that digital transformation and AI are the most effective drivers of customer satisfaction. When it comes to services, digital transformation enhances dependability, transparency, and efficiency, while AI facilitates personalization, security, and informed decision-making. Digital experience, information quality, simplicity of use, and trust are also critical experiential aspects that transform technical advancements into positive feelings. Digital financial service satisfaction results from a three-way interplay among technology, user experience, and trust, as shown by the results. Reliable, transparent, user-friendly, and intelligent mobile money solutions result in happier customers. Notably, the results also show that excessive automation can make people feel less in control, highlighting the need for a balanced relationship between humans and AI. Overall, the research advances both academic theory and managerial practice by identifying how technology-driven innovation, when aligned with human-centric design, can foster sustainable satisfaction and long-term engagement in digital financial ecosystems.

Policy Recommendations

Based on the empirical findings from the structural model and the original sample's path coefficients, these recommendations are prioritized by the strength of the observed relationships, ensuring that interventions focus on the most impactful factors first.

(1) Strengthen digital transformation as the core enabler - By lowering user uncertainty and perceived risk, legal reform strengthens trust in digitally transformed mobile money systems and promotes the validated model. Clear and consistent regulations boost platform security and reliability, accelerating Digital Transformation to Trust and customer happiness, as shown by the structural model. Digital transformation emerged as the most dominant driver influencing multiple constructs, service quality, information quality, trust, and ease of use. Policymakers and financial institutions should prioritize the development of comprehensive digital infrastructure, with a focus on interoperability, system resilience, and cybersecurity. Investment in robust digital platforms can ensure transaction accuracy, minimize downtime, and improve reliability. The government needs to establish and refine the legal framework for Mobile Money. The construction of the legal corridor should aim to expand participation, as this model is widely used worldwide and very successful. In our country, if only telecommunications enterprises are licensed to provide mobile money services, this field will have difficulty attracting investment, a lack of new and innovative products and services, and

it will also be challenging to popularize this service among all users and points of sale. According to the structural model, mobile money services should focus on digital transformation and AI rather than on convenience, with e-wallets dominating. Providers should leverage telecom infrastructure for unmatched reliability, transparent transactions, and AI-driven security and fraud detection. These attributes directly improve trust and happiness, providing a defensible competitive advantage, as evidenced by the model's strongest path coefficients.

(2) Leverage artificial intelligence for personalization and security - AI-driven chatbots, intelligent assistants, and automated dispute resolution systems can also reduce response time and improve customer satisfaction. However, firms should maintain human oversight to avoid overreliance on automation and ensure empathy in customer service interactions. In addition to investing in technology and telecommunications equipment, telecommunications businesses also need to build a network of transaction points and accept payments nationwide, a synchronous Mobile Money service provision process, and at the same time train a team of employees with sufficient quantity and quality assurance; carry out many advertising programs and guide customers to use mobile money services, bringing people's understanding and trust in this service.

(3) Enhance ease of use and digital experience - The model shows that ease of use significantly affects digital experience and, subsequently, customer satisfaction. Therefore, mobile money providers should focus on simplifying the user interface and applying universal design principles that accommodate users with varying levels of digital literacy. Platforms should minimize cognitive load, enable quick navigation, and ensure multilingual support. Government agencies could collaborate with fintech developers to promote inclusive design policies that prioritize accessibility for rural, elderly, and low-income populations. Enhancing digital experience through intuitive design, gamification, and seamless user journeys will foster emotional engagement and loyalty.

(4) Build and maintain trust through transparency and security - Trust continues to be a critical determinant of satisfaction. Increase the Mobile Money transaction limit, as the current limit is a barrier for frequent spenders and shoppers, especially in urban areas. Increase mobile money transaction limits while retaining strong security controls to boost service value and functionality. Without this barrier, digital transformation may become purely a financial utility, with no improvement in customer satisfaction. Higher limitations reduce functional hurdles, helping consumers adopt digital transformation for everyday financial transactions. The limit increase must not be too different from that of e-wallets. It must satisfy the spending needs of the majority of Vietnamese people, while also minimizing crimes related to this service. Have a policy for mobile money users. The policy must bring benefits to service users, allowing them to access other financial products and services.

(5) Improve information quality for better decision-making - High-quality, timely, and accurate information directly influences customer satisfaction. Build preferential mechanisms and policies, flexibly adjust policies, and establish a legal framework to develop mobile money, ensuring compliance with practical requirements and preventing unfair competition, such as money laundering and online gambling. In addition, special attention should be paid to consumers, especially those in rural, remote, border, and island areas, to create favorable conditions for everyone to access network operators and credit institutions quickly and transparently. It is necessary to strengthen promotional and educational activities to make users aware of the benefits and how to use e-commerce services via identification accounts linked to SIM numbers, through mass media. At the same time, open training classes equip individuals

with knowledge and skills in personal finance and basic, easy-to-understand risk management, raising awareness among people.

(6) Promote continuous innovation and customer-centric design by creating a communication channel for users to report problems and receive support. Continue researching and re-evaluating the fees applied to mobile money transactions, ensuring reasonable and fair fees for customers with small transaction needs, while creating opportunities for customers to transact more frequently through fee reductions or promotional policies. Increasing advertising of mobile money services through online channels, social networks, and cloud platforms can help raise awareness and attract new customers.

Limitations and future research: Although this study is comprehensive, it has several limitations. First, the data were collected from five major cities in Vietnam, which may limit the generalizability of the findings to rural or less developed regions. Second, the cross-sectional design restricts the ability to assess causal relationships over time. Third, self-reported data may introduce response bias. Future research should employ longitudinal or experimental designs to validate causal effects, expand the sample to include diverse demographic and regional groups, and integrate moderating variables such as income level, digital literacy, or perceived risk to deepen the understanding of customer satisfaction in digital financial ecosystems.

References

- Ajina, A. S., Joudeh, J. M. M., Ali, N. N., Zamil, A. M., & Hashem, T. N. (2023). The effect of mobile-wallet service dimensions on customer satisfaction and loyalty: An empirical study. *Cogent Business & Management*, *10*(2), 1–18. <https://doi.org/10.1080/23311975.2023.2229544>
- Akdim, K., Belanche, D., & Flavián, M. (2023). Attitudes toward service robots: Analyses of explicit and implicit attitudes based on anthropomorphism and construal level theory. *International Journal of Contemporary Hospitality Management*, *35*(8), 2816–2837. <https://doi.org/10.1108/IJCHM-12-2020-1406>
- Belanche, D., Belk, R. W., Casaló, L. V., & Flavián, C. (2024). The dark side of artificial intelligence in services. *The Service Industries Journal*, *44*(3–4), 149–172. <https://doi.org/10.1080/02642069.2024.2305451>
- Belk, R. W., Belanche, D., & Flavián, C. (2023). Key concepts in artificial intelligence and technologies 4.0 in services. *Service Business*, *17*(1), 1–9. <https://doi.org/10.1007/s11628-023-00528-w>
- Chen, F., Jiang, G., & Xiao, J. J. (2023). Mobile payment use and payment satisfaction: Mediation and moderation analyses. *International Journal of Bank Marketing*, *41*(4), 727–748. <https://doi.org/10.1108/IJBM-09-2022-0406>
- Cheng, X., Qiao, L., Yang, B., & Li, Z. (2024). An investigation on the influencing factors of elderly people's intention to use financial AI customer service. *Internet Research*, *34*(3), 690–717. <https://doi.org/10.1108/INTR-06-2022-0402>
- Eren, B. A. (2021). Determinants of customer satisfaction in chatbot use: Evidence from a banking application in Turkey. *International Journal of Bank Marketing*, *39*(2), 294–311
- Fauzi, A. A., & Suryani, T. (2019). Measuring the effects of service quality by using CARTER model towards customer satisfaction, trust and loyalty in Indonesian Islamic banking. *Journal of Islamic Marketing*, *10*(1), 269–289. <https://doi.org/10.1108/JIMA-04-2017-0048>

- Flavián, C., Pérez-Rueda, A., Belanche, D., & Casaló, L. V. (2022). Intention to use analytical artificial intelligence (AI) in services – The effect of technology readiness and awareness. *Journal of Service Management*, 33(2), 293–320. <https://doi.org/10.1108/JOSM-10-2020-0378>
- Gao, J., Ren, L., Yang, Y., Zhang, D., & Li, L. (2022). The impact of artificial intelligence technology stimuli on smart customer experience and the moderating effect of technology readiness. *International Journal of Emerging Markets*, 17(4), 1123–1142. <https://doi.org/10.1108/IJOEM-06-2021-0975>
- Gonu, E., Agyei, P. M., Richard, O. K., & Asare-Larbi, M. (2023). Customer orientation, service quality and customer satisfaction interplay in the banking sector: An emerging market perspective. *Cogent Business & Management*, 10(1), 1–20. <https://doi.org/10.1080/23311975.2022.2163797>
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2022). *A primer on partial least squares structural equation modeling (PLS-SEM)* (3rd ed.). Sage.
- Hijazi, R., Abu Daabes, A. A., & Al-Ajlouni, M. I. A. (2022). Mobile payment service quality: A new approach for continuance intention. *International Journal of Quality & Reliability Management*, 40(8), 2019–2038. <https://doi.org/10.1108/IJQRM-05-2022-0151>
- Kashyap, S., Gupta, S., & Chugh, T. (2024). An empirical assessment of customer satisfaction of internet banking service quality–Hybrid model approach. *International Journal of Quality & Reliability Management*, 41(1), 360–391. <https://doi.org/10.1108/IJQRM-04-2022-0125>
- Lee, J. C., & Chen, X. (2022). Exploring users' adoption intentions in the evolution of artificial intelligence mobile banking applications: The intelligent and anthropomorphic perspectives. *International Journal of Bank Marketing*, 40(4), 631–658. <https://doi.org/10.1108/IJBM-08-2021-0394>
- Okonkwo, C. W., Amusa, L. B., Twinomurizi, H., & Fosso Wamba, S. (2023). Mobile wallets in cash-based economies during COVID-19. *Industrial Management & Data Systems*, 123(2), 653–671. <https://doi.org/10.1108/IMDS-01-2022-0029>
- Omoge, A. P., Gala, P., & Horky, A. (2022). Disruptive technology and AI in the banking industry of an emerging market. *International Journal of Bank Marketing*, 40(6), 1217–1247. <https://doi.org/10.1108/IJBM-09-2021-0403>
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A conceptual model of service quality and its implications for future research. *Journal of Marketing*, 49(4), 41–50. <https://doi.org/10.1177/002224298504900403>
- Rahi, S., Alghizzawi, M., & Ngah, A. H. (2023). Factors influence user's intention to continue use of e-banking during COVID-19 pandemic: the nexus between self-determination and expectation confirmation model. *EuroMed Journal of Business*, 18(3), 380–396. <https://doi.org/10.1108/EMJB-12-2021-0194>
- Zungu, N. P., Amegbe, H., Hanu, C., & Asamoah, E. S. (2025). AI-driven self-service for enhanced customer experience outcomes in the banking sector. *Cogent Business & Management*, 12(1), 1–21. <https://doi.org/10.1080/23311975.2025.2450295>