

Analysis of Mobile Banking Customer Trust and Satisfaction in East Java, Indonesia

Cheng-Wen Lee¹, Yu-Ting Jhou² and Moch Bisyri Effendi²

Abstract

This study examines the relationships between system quality, information quality, and service quality, and their effects on trust and user satisfaction in the mobile banking context. Grounded in the DeLone and McLean Information Systems Success Model, the study positions trust as a mediating mechanism linking quality perceptions to satisfaction. The findings indicate that all three quality dimensions positively and significantly influence trust, with service quality emerging as the strongest predictor. Trust also exerts a significant positive effect on user satisfaction and mediates the relationships between system quality, information quality, service quality, and satisfaction, emphasizing its critical role in converting quality perceptions into favorable user evaluations. These findings reinforce the applicability of the DeLone and McLean model in digital financial services and highlight the importance of trust in enhancing customer satisfaction. However, the study is limited by its cross-sectional design, reliance on self-reported measures, and restricted sample representativeness. Future research should employ longitudinal designs, broader sampling strategies, and additional variables, including perceived risk, perceived security, and user experience, to improve the robustness and generalizability of the findings.

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¹ Department of International Business, Chung Yuan Christian University, Taiwan.

² Ph.D. Program in Business, Chung Yuan Christian University, Taiwan.

1. Introduction

Mobile banking has emerged as a transformative force in Indonesia's financial services sector, fundamentally reshaping customer-bank interactions and expanding financial accessibility across diverse demographic segments. The research aim was to assess the influence of the service quality of mobile banking (m-banking) against customer satisfaction at the greatest banks in Indonesia, including Bank Mandiri, Bank BRI, Bank BCA, Bank BNI, Bank CIMB Niaga, Bank Danamon, Bank Permata, and Bank Panin, with mobile banking users totaling 19.9 million customers, (Wardhana, 2015). The proliferation of mobile banking applications has created unprecedented opportunities for Indonesian banks to deliver services beyond traditional branch-based models, addressing fundamental barriers to financial access for millions of underbanked populations. Research results show that the use of digital payment services through fintech has made a positive contribution to financial inclusion in Indonesia, enabling access to financial services for those previously underserved by the traditional banking system, with digital payment services enabling easier, faster and safer financial transactions, (Sriyono et al., 2023). The competitive landscape has intensified significantly, with five applications being most widely used in Indonesia: BCA (60%), BRI Mobile (26%), Livin by Mandiri (25%), BNI Mobile Banking (23%), and BSI Mobile (9%), based on Populix research involving 1,000 respondents, (Priyadi, 2023).

Electronic service quality emerges as a multidimensional construct that profoundly influences customer satisfaction and loyalty outcomes in Indonesian mobile banking contexts. Research on the My BCA Mobile Banking Application demonstrates that e-service quality significantly influences e-customer satisfaction, which in turn positively impacts e-customer loyalty, with four of the six dimensions examined site organization, user-friendliness, personal needs, and efficiency showing significant effects on customer satisfaction and loyalty, (Sembiring, 2025). Empirical evidence consistently demonstrates the mediating role of satisfaction in quality-loyalty relationships. Research findings affirm that e-service quality significantly and positively affects e-loyalty through customer satisfaction among mobile banking users of private banks in Indonesia, utilizing path analysis with 112 respondents from private bank mobile banking users in Jakarta, (Yolanda & Handayan, 2024). Furthermore, hypothesis testing on Livin' by Mandiri shows positive and significant effects of interface design, reliability, responsiveness, trust, and personalization on customer satisfaction, with customer satisfaction subsequently affecting loyalty, demonstrating the mediating effect of satisfaction in the relationship between these quality dimensions and loyalty, (Hariyanto & Rachmawati, 2022).

Trust emerges as the foundational element upon which sustainable mobile banking adoption rests, functioning as both a direct antecedent to satisfaction and an indirect moderator of the relationship between service quality and loyalty. Research analyzing the influence of usability, customer satisfaction, customer service and trust towards mobile banking user loyalty in Surabaya, with 200 respondents using

mobile banking facilities from BCA, BNI or Bank Mandiri, showed a positive influence between usability, customer satisfaction, customer service and trust towards loyalty, (Johannes et al., 2018). Security perceptions directly influence trust formation and adoption intentions. A study of 395 mobile banking users in Indonesia proved that trust in mobile banking mediates the effects of corporate image, application security, and word of mouth on millennial's loyalty, with banks needing to include a guaranteed level of application security to gain the trust of users and foster and increase their loyalty. (Purwanto et al., 2020) The psychological dimension of security extends beyond technical implementation. Research on Bank Mandiri and Bank BNI applications shows that data security is the most influential factor on user trust, followed by the ease of use of the app, while access speed has less significant impact compared to the other two factors, (Ashofi & Migunani, 2025).

The Technology Acceptance Model (TAM) and its extensions provide robust theoretical frameworks for understanding how perceived usefulness and perceived ease of use drive behavioral intentions toward mobile banking adoption in Indonesian contexts. Research using TAM approach with 202 mobile banking users in Bandung found that e-service quality significantly impacts attitudes towards m-banking, perceived usefulness, and perceived ease of use, pointing out that internet-based transactions should be made easier, safer, and more convenient for consumers to use, (Az-Zahra et al., 2023). Extended frameworks demonstrate enhanced predictive power. A study integrating TAM and DeLone and McLean's information systems success model with 258 mobile banking users in Indonesia showed that perceived ease of use has a significant influence on perceived usefulness, while perceived usefulness, system quality, and service quality positively influence satisfaction and continued intention to use mobile banking apps, (Vaddhano, 2023). The UTAUT model similarly provides valuable insights. Research using the UTAUT model with 100 mobile banking users in Surabaya reveals that performance expectancy, effort expectancy, and social influence positively and significantly influence the behavioural intention to use mobile banking, which in turn has a positive and significant impact on use behaviour, (Wati et al., 2024).

Customer satisfaction in mobile banking contexts emerges from complex interactions among information quality, system quality, service quality, and security factors, with satisfaction subsequently mediating effects on loyalty and recommendation intentions. Research on M-BCA users in Surabaya with 115 respondents showed that system quality variables had a significant effect on user satisfaction with a regression coefficient of 0.458, service quality variables have a significant effect on User Satisfaction with a regression coefficient of 0.354, and user satisfaction variable has a significant effect on customer loyalty with a regression coefficient of 0.469, (Napitupulu et al., 2019). The mediating role of satisfaction demonstrates consistent empirical support across multiple Indonesian banking platforms. Research on BSI Mobile showed that E-Customer Satisfaction can mediate the positive and significant relationship between E-Service Quality and E-Loyalty, as well as mediating the positive and significant relationship between E-

Trust and E-Loyalty, (Rizkya & Putri, 2024). Islamic banking contexts reveal additional satisfaction dimensions. A study of 100 Islamic mobile banking users in Indonesia reveals that enjoyment, security, design, and application system of Islamic mobile banks significantly impact customer satisfaction, suggesting that Islamic banks should pay more attention to increasing their mobile banking application systems as the most crucial factor influencing customer satisfaction, (Fianto, 2021).

The integration of Quick Response Indonesia Standard (QRIS) within mobile banking applications represents a significant advancement in Indonesia's digital payment infrastructure, facilitating broader financial inclusion objectives. Research on 275 respondents indicates that Government Support has a positive and significant relationship to behavioral intention to continue using QRIS, both directly and through the mediation of trust and perceived usefulness, with effort expectancy, social influence, innovativeness, perceived usefulness, and trust also directly affecting behavioral intention, (Puspitasari & Salehudin, 2022). The impact on financial inclusion is substantial. Analysis indicates that QRIS and e-wallets are complementary, with e-wallets attracting users through features and incentives while QRIS facilitates merchants with operational efficiency, significantly enhancing MSME financial inclusion through improved transaction recording for better financing access, (Haritsa et al., 2025). Research on Generation Z demonstrates strong adoption patterns. Data from 145 respondents reveal that 98% actively use QRIS, with users rating QRIS as practical and reliable (100%) and secure (98%), reflecting strong trust and perceived effectiveness, while 84% found QRIS highly convenient and 88% considered it more economical than other payment options.

The synthesis of empirical evidence reveals that mobile banking service quality, trust, and customer satisfaction form an interconnected framework that ultimately determines customer loyalty in Indonesian commercial banks. Research on mobile banking users in seven banks in Palembang City, including Bank Mandiri, Bank BNI, Bank BRI, Bank Danamon, BCA, and Bank Permata with 250 respondents, showed that service quality, perceived value, trust and customer satisfaction have strong effects on customer loyalty, recommending that banks should build strong relationships with customers and provide better service quality to reduce the behavior of customers switching to other bank services, (Setiawan, 2016). State-owned banks demonstrate comparable patterns. A study of 300 respondents at state-owned banks revealed that mobile banking technology, fintech innovations, and digital transaction security positively and significantly influence customer loyalty, with digital transaction security having a correlation coefficient of 0.68 and the strongest impact, collectively explaining 38% of the variance in customer loyalty, (Judijanto et al., 2024). Future research priorities should address emerging challenges. Despite financial inclusion reaching 80.51%, digital financial literacy rates remain relatively low (around 54–56%), creating a gap between digital access and financial capability, with social and behavioral factors combined with weak inter-agency coordination exacerbating online fraud risks and eroding public trust,

(Prihandini, 2025). These findings underscore the imperative for Indonesian banks to continuously enhance service quality while maintaining robust security protocols to sustain competitive advantage in the evolving digital banking landscape.

2. Literature Review

2.1 Mobile Banking

The advancement of information technology has driven the transformation of banking services from conventional systems toward digital services that enable customers to conduct transactions anytime and anywhere. The adoption of digital banking services is driven by factors like time-saving, convenience, accessibility, and security, influencing customer decisions. Many respondents use these services multiple times a week, with mobile and online banking identified as the most valuable digital offerings, (Sathwika et al., 2024). Mobile banking (m-banking) represents a banking service that utilizes mobile devices and internet networks to provide access to various financial services, including fund transfers, bill payments, digital product purchases, and real-time account management. Mobile banking has become one of the primary strategies for banks to enhance service quality, operational efficiency, and customer experience.

Digital transformation in the banking sector is a continuous process that affects both the external and internal environment by redesigning internal processes and existing methods. There are many reasons that digital transformation takes place, such as servicing remote areas without physical branches, differentiation from competitors or reduction of operating costs, (Kitsios et al., 2021). According to contemporary marketing scholarship, the development of digital technology has transformed consumer behavior, which increasingly prioritizes convenience, speed, and security in obtaining services. In the context of digital banking, the successful implementation of mobile banking is determined not only by technological sophistication but also by user perceptions of system quality, information quality, service quality, trust, and satisfaction obtained during application usage.

While mobile banking research focuses increasingly on adoption and behavioural intention, post-adoption behaviours such as customer satisfaction have been given little attention. The information system success model is employed to look into the antecedents of trust and satisfaction in mobile banking, proposing a conceptual model with five factors that influence customer trust in mobile banking: system quality, information quality, services quality, structural insurance, and task characteristics, (Geebren & Jabbar, 2021). The relationships between the independent variables and satisfaction are mediated by trust, representing one of the first discussions of the DeLone and McLean model within a customer trust and satisfaction framework.

The widespread use of digital technologies and the current pandemic (COVID) have fueled the need and call for digital transformation in the banking sector. Although this has various benefits, it is a disruption to the norm to which a bank customer has to become accustomed. This variance means that customers would have to make

some changes to their routine. This can constitute risks in terms of maintaining customer satisfaction at previous levels, (Kaur et al., 2021).

2.2 DeLone and McLean Information Systems Success Model

The DeLone and McLean Information Systems Success Model represents one of the most widely utilized theories in information systems research. Ten years ago, the DeLone and McLean Information Systems (IS) Success Model was presented as a framework and model for measuring the complex-dependent variable in IS research. Based on evaluation of important IS success research contributions of the last decade, focusing especially on research efforts that apply, validate, challenge, and propose enhancements to the original model, minor refinements and an updated DeLone and McLean IS Success Model were proposed, (DeLone & McLean, 2003). The model was first introduced in 1992 and updated in 2003 with the inclusion of service quality as a primary component of information systems success.

According to this model, system quality, information quality, and service quality constitute the primary determinants that influence system use and user satisfaction. The investment in information system brings significant impacts on the banking industry because it plays a pivotal role in providing better services and competitive edges. A study evaluating satisfaction level and benefit of the usage of the banking system using the IS Success Model approach developed by DeLone and McLean in 2003 showed that the IS Success Model consisting of system quality, information quality and service quality has a significant impact on customer satisfaction in using mobile banking, (Purwati et al., 2021).

The aim of studies employing the DeLone and McLean model is to present new models for customer satisfaction and trust with mobile banking services. The model includes three main factors—information quality, service quality and system quality of the DeLone and McLean model and investigates the impact of these factors on customer trust and satisfaction. Results show that trust in mobile banking has a positive impact on customer satisfaction. In assessing system quality and information quality with mobile banking, it was determined that system quality and information quality have positive effects on customer trust and satisfaction, (Damabi et al., 2018).

The DeLone and McLean model is highly relevant for mobile banking research because mobile banking has become a primary channel for retail financial services in emerging economies; however, prior research has focused predominantly on initial adoption intention rather than post-adoption usage behavior. An integrated Technology Acceptance Model and DeLone and McLean IS Success Model explains post-adoption mobile banking usage, with results indicating that perceived ease of use significantly enhances perceived usefulness. Perceived usefulness, system quality, information quality, and service quality positively affect user satisfaction, which emerges as the strongest direct predictor of self-reported actual usage, (Wardani et al., 2026).

2.3 Theory of Trust

Trust constitutes the user's belief that the service provider is capable of delivering safe, reliable, and expectation-aligned services. In digital environments, trust becomes a critical factor because users cannot interact directly with service providers. Trust is a core precondition for positive outcomes in multiple types of social exchange interactions, and has been successfully predicted by the perceived ability, benevolence, and integrity of a counterpart. However, the specific interplay of these ABI components remains largely unclear, especially in mixed-motive social exchange settings, (Sondern & Hertel, 2024).

According to Mayer's integrative model, trust is built through perceptions of ability, integrity, and benevolence of service providers. Anchored in Mayer et al.'s integrative model of trust and psychological contract breach theory, research investigates how organizational AI misalignment affects users' integrity-based trust and recommendation reliance. Findings indicate that misalignment significantly increases psychological contract breach, which in turn reduces integrity-based trust, (Ghasemaghaei, 2026).

In mobile banking services, users will grant trust when the system can protect personal data, provide accurate information, and deliver consistent services. Service quality has the most significant impact on customer trust, followed by security, bank reputation, and privacy. Conversely, perceived risk was found to have a negative impact on customer trust. These findings suggest that the higher the service quality and perceived security, the higher the customer trust in digital banking services, (Budianto, 2026).

Trust serves as a psychological mechanism bridging the relationship between digital service quality and user satisfaction. In the context of mobile banking services, trust emerges as a pivotal factor influencing both the acceptance and utilisation of these services, significantly shaping customers' confidence in their usage. Existing literature proposes that trust operates as a mediator in the connection between customers' perceptions of the quality of information and the overall system in mobile banking, (Deventer, 2024b). Therefore, trust is employed as a mediating variable in this research.

2.4 System Quality

System quality represents the technical characteristics of an information system reflecting performance, ease of use, reliability, flexibility, and system efficiency. The DeLone and McLean Model of Information Systems (IS) Success is one of the most cited and commonly-used models in the IS literature. Website features that map to quality perceptions of system quality, information quality, and service quality do exist. In terms of relationships between these dimensions, the analysis suggests that both system quality and service quality positively affect system use; and system use strongly affects net benefits, (Pérez-Mira, 2010).

In the context of mobile banking, system quality indicates the application's capability to provide fast, easy-to-use, stable, and technically trouble-free services.

Research exploring factors that influence mobile banking users' word-of-mouth behavior reveals the direct and significant effect of customer satisfaction on word-of-mouth behavior. Individual performance and mobile banking system quality have been found to be positive factors influencing customer satisfaction, highlighting the mediating role of customer satisfaction in the relationship between system quality, individual performance and word-of-mouth, (Thuy et al., 2024).
Indicators of System Quality: Ease of use - Reliability - Accessibility - Response time - System flexibility.

2.5 Information Quality

Information quality represents the level of quality of information produced by an information system. Quality information must be accurate, complete, relevant, easily understood, and available in a timely manner. Research explored the application design attributes of mobile banking in the context of sustainability, empirically analyzing user usage intention and attitude. Information quality, utilitarian value, ease of use, and usefulness positively affected sustainable usage intention and attitude, providing insights into which user touchpoints designers should focus on when developing services, (Kim et al., 2023).

In mobile banking services, information quality is reflected through the clarity of balance information, account mutations, transaction fees, transaction notifications, and other banking product information. Among the examined dimensions, information accuracy emerged as the most statistically significant factor affecting customer satisfaction, with a p-value of 0.017. This result highlights the importance of providing accurate, reliable, and timely information through mobile banking platforms, (Rahman et al., 2025).

Indicators of Information Quality: Accuracy - Completeness - Relevance – Timeliness - Understandability.

2.6 Service Quality

Service quality represents user perceptions of service quality provided by service providers. The rise of mobile technologies has driven rapid growth in mobile banking (m-banking), making service quality a central area of inquiry for researchers and industry practitioners alike. A systematic review underscores the multifaceted nature of service quality and its pivotal role in steering customer-centric outcomes in m-banking, revealing a range of quality-, system success-, and user-based stimuli affecting m-banking users' attitude, brand attachment, flow, and trust, (Palamidovska-Sterjadovska et al., 2025).

In mobile banking, service quality relates not only to direct services from bank officers but also to support provided through digital applications. Research investigating the influence of mobile banking service quality on customer satisfaction shows a strong optimistic association between high service quality and customer satisfaction among mobile banking users. In particular, factors such as

system trustworthiness and user-friendly interfaces were found to significantly increase customer satisfaction, (Demeke, 2025).

Research determining the satisfaction level of banking customers regarding quality of different services provided by their bank and their loyalty indicates that service quality and all its dimensions have significant and positive association with customer satisfaction and customer loyalty, (Khan & Fasih, 2014).

Indicators of Service Quality: - Responsiveness - Assurance - Reliability - Empathy - Technical support

2.7 Trust

Trust represents the user's belief that mobile banking is capable of providing safe, reliable services that protect user interests during transactions. Trust emerges as the strongest predictor of digital banking intention, while security risks negatively impact adoption. Research examining the determinants of digital banking adoption intention focuses on the interplay between trust, security risks, and technological innovation, finding that technological innovation significantly enhances trust while reducing security risk perceptions, (Cahaya et al., 2026). Trust becomes a fundamental element in digital financial services because transactions are conducted without face-to-face interaction. Perceived risk has a negative and significant impact on customer trust, while perceived benefit positively and significantly influences trust. Furthermore, trust serves as a key mediator, reinforcing the effect of perceived benefit and risk on customer loyalty. High customer loyalty is determined not only by perceived benefits but also by customers' trust in the security and dependability of mobile banking services, (Afiyah et al., 2025).

Perceived security, perceived trust and service quality play key roles in improving the adoption of mobile banking apps. In addition, findings indicate that perceived risk had a negative impact on both clients' trust and their attitudes toward the use of mobile banking services, (Almaiah et al., 2023).

Indicators of Trust: - Integrity - Competence - Reliability - Security – Benevolence.

2.8 Satisfaction

Satisfaction represents the user's overall evaluation of mobile banking usage experience after comparing expectations with actual performance received. The tight competition in the banking industry in the digital era encourages digital transformation to remain competitive. Quality information systems and services improve the consumer experience of using service technology. The successful implementation of service technology can be seen from user satisfaction, which leads to user's intention to continue to use service technology and ultimately recommend it to others. Findings show that system quality, information quality, and service quality have a significant influence on customer satisfaction, which in turn

affects loyalty, (Kumalasari et al., 2022).

According to disconfirmation theory, satisfaction emerges when service performance meets or exceeds user expectations. The SERVQUAL model has been used for several years to illustrate the relationships between tangible, assurance, reliability, responsiveness, empathy, and customer satisfaction. The revised SERVQUAL includes dimensions that apply to the online service industry, and the Expectancy Disconfirmation Theory (EDT) emphasizes the robustness of theories in developing and improving models that define service quality in digital service contexts, (Hasan et al., 2024).

Indicators of Satisfaction: - Overall satisfaction - Fulfillment of expectations - Positive experience - Decision satisfaction - Continued satisfaction.

2.9 Hypothesis Development

2.9.1 The Effect of System Quality on Trust

High system quality indicates that the mobile banking application can operate stably, is easy to use, and provides consistent performance. Users tend to trust applications that rarely experience system errors, have fast response times, and can execute transactions accurately. Research examining whether South African Generation Y male and female banking customers differ in their mobile banking trust, system, and information quality found that, among male participants, the system quality of mobile banking predicts their mobile banking trust ($\beta = 0.72, p < .001$). For female Generation Y banking customers, mobile banking system quality was a significant predictor of both trust ($\beta = 0.53, p < .001$) and information quality ($\beta = 0.69, p < .001$). (Deventer, 2024a). Results examining the mechanism of trust formation and its impact on satisfaction, behavioral intention, and actual behavior of mobile banking customers showed that system quality (t-statistic = 2.85) significantly influences the trust variable. Additionally, there is a significant relationship between trust and user satisfaction with mobile banking, (Kashi & Rizi, 2025).

H1: System Quality has a positive effect on Trust.

2.9.2 The Effect of Information Quality on Trust

Accurate, complete, and timely information assists users in making transaction decisions. When mobile banking applications can present clear and reliable information, users will feel more confident in the services provided. When the effect of the DeLone and McLean Model on trust and satisfaction is examined, it is observed that all three quality dimensions significantly impact trust and user satisfaction. This finding highlights the importance of continuous monitoring and enhancing the quality associated with these factors. This shows that the characteristics of a system from a technical perspective are especially of significant importance for enhancing the trust and satisfaction users feel towards mobile banking, (Rosa, 2024). Quality information reduces uncertainty and perceived risk

by users, thereby increasing trust in the system. Information quality (t-statistic = 4.55) significantly influences the trust variable in mobile banking contexts, (Kashi & Rizzi, 2025).

H2: Information Quality has a positive effect on Trust.

2.9.3 The Effect of Service Quality on Trust

Good service quality demonstrates the bank's commitment to helping users resolve problems that arise during mobile banking usage. Fast responses, adequate technical support, and professional service can increase user confidence in the bank as a service provider. Mobile service quality has a positive and significant effect on e-trust. E-trust has a positive and significant effect on e-satisfaction, e-satisfaction has a positive and significant effect on e-loyalty and e-trust has a positive and significant effect on e-loyalty, (Suariedewi, & Suprapti, 2020). Service quality (t-statistic = 2.20) significantly influences the trust variable, demonstrating the importance of service quality in building customer trust in mobile banking services, (Kashi & Rizzi, 2025).

H3: Service Quality has a positive effect on Trust.

2.9.4 The Effect of Trust on Satisfaction

Trust is a critical factor influencing user satisfaction in digital services. Trust has a significant positive effect on customer satisfaction in mobile banking. These results highlight the dominant role of trust in shaping user satisfaction, indicating that the quality of accounting information systems and data security alone are insufficient to enhance the customer experience, (Angraini et al., 2025). Users who trust mobile banking will feel more comfortable and secure in conducting transactions, resulting in more positive experiences. Mobile banking service quality and trust significantly influence customer satisfaction, with the trust variable having a significant influence on customer satisfaction. This indicates that the trust variable has a significant influence on customer satisfaction. (Habibi et al., 2024). Trust also reduces risk perception and increases confidence that the services used can meet user needs. Customer satisfaction is the strongest predictor of loyalty. Simple mediation results show significant indirect effects through perceived risk, trust, and satisfaction. The sequential mediation confirms that trust and satisfaction form a powerful pathway to loyalty, (Kamil & Yimer, 2026).

H4: Trust has a positive effect on Satisfaction.

2.10 The Mediating Role of Trust

Based on trust theory and the DeLone and McLean model, system quality, information quality, and service quality not only affect satisfaction directly but also through the formation of user trust. E-Service Quality has a positive and significant

effect on e-Satisfaction, e-Trust has a positive and significant effect on e-Satisfaction, e-Satisfaction has a positive and significant effect on e-Loyalty. E-Service Quality has a positive and significant effect on e-Loyalty through e-Satisfaction and e-Trust has a positive and significant effect on e-Loyalty through e-Satisfaction, (Melinda et al., 2023).

The study aimed to investigate whether trust acts as a mediating variable in the relationship between information and system quality within mobile banking experiences. The findings reveal that trust indeed serves as an intermediary factor between perceived information quality and the overall system quality in mobile banking. This insight holds significant implications for comprehending customer behaviour, elevating the user experience, addressing perceived risks, and guiding strategic decision-making within the dynamic landscape of the mobile banking industry, (Deventer, 2024b).

When users experience good system quality, obtain quality information, and receive adequate services, they will build trust in mobile banking. Trust through customer satisfaction has a positive and significant effect on loyalty. Furthermore, the quality of mobile banking services has a positive and significant effect on loyalty either through customer satisfaction or directly, (Permatasari & Purwanto, 2022).

This trust subsequently drives the formation of higher satisfaction. Thus, trust serves as a mediating mechanism explaining how system quality, information quality, and service quality can enhance mobile banking user satisfaction. The quality of self-service technology (SST) has a significant positive impact on customer satisfaction, and trust in technology plays a significant positive mediating role between SST quality and customer satisfaction. A well-designed SST with high trust leads to greater customer satisfaction and continued use, (Dinesha et al., 2025).

H5: Trust mediates the effect of System Quality on Satisfaction.

H6: Trust mediates the effect of Information Quality on Satisfaction.

H7: Trust mediates the effect of Service Quality on Satisfaction.

3. Research Method

This study employed a quantitative research approach using a cross-sectional survey design to examine the influence of System Quality, Information Quality, and Service Quality on Customer Satisfaction through the mediating role of Trust in mobile banking services. The study targeted conventional bank customers in East Java, Indonesia, who actively use mobile banking applications. Data were collected through an online questionnaire distributed via Google Forms using a non-probability accidental sampling technique, whereby respondents were selected based on their accessibility and willingness to participate. To ensure that participants possessed sufficient experience with mobile banking services, screening questions were included to confirm active usage within the previous six months. Following the recommendations of Hair et al. (2022), a minimum sample size of 400 respondents was established to ensure adequate statistical power and

robustness for structural equation modeling analysis. All constructs were measured using a five-point Likert scale ranging from 1 (“strongly disagree”) to 5 (“strongly agree”). The exogenous variables consisted of System Quality, Information Quality, and Service Quality, while Trust served as the mediating variable and Customer Satisfaction as the endogenous variable.

The measurement model was evaluated using Partial Least Squares Structural Equation Modeling (PLS-SEM) with WarpPLS 7.0 software. Prior to testing the structural relationships, the validity and reliability of the measurement instruments were assessed. Convergent validity was evaluated through factor loadings and Average Variance Extracted (AVE), where loading values greater than 0.70 and AVE values exceeding 0.50 indicated acceptable validity. Discriminant validity was examined using the Fornell-Larcker criterion and Heterotrait-Monotrait Ratio (HTMT), while internal consistency reliability was assessed using Cronbach’s Alpha and Composite Reliability, with values above 0.70 considered satisfactory. These procedures ensured that all constructs adequately represented the latent variables under investigation and met the recommended psychometric standards for SEM analysis.

The structural model was subsequently assessed to examine the direct and indirect relationships among the study constructs. Hypothesis testing was conducted using the bootstrapping procedure, with path coefficients evaluated based on t-statistics (>1.96) and p-values (<0.05). The predictive power of the model was assessed using the coefficient of determination (R^2), while effect size (f^2) and predictive relevance (Q^2) were examined to evaluate the contribution and predictive capability of the exogenous variables. Furthermore, the mediating role of Trust was analyzed through indirect effect testing and the Variance Accounted For (VAF) approach. VAF values below 20% indicate no mediation, values between 20% and 80% indicate partial mediation, and values above 80% indicate full mediation. This analytical procedure enabled a comprehensive evaluation of the proposed hypotheses regarding the effects of System Quality, Information Quality, and Service Quality on Customer Satisfaction through Trust in the context of mobile banking services.

4. Results and Discussion

The respondents in this study consisted of 400 mobile banking users drawn from customers of eight major conventional banks operating in East Java, Indonesia. These banks were selected because they represent the largest banking institutions in terms of customer base, branch network, and mobile banking adoption in the region. To ensure proportional representation, the sample was distributed across the eight banks based on their relative market presence and mobile banking user penetration. The final sample composition comprised 70 respondents from Bank Central Asia (BCA), 65 respondents from Bank Rakyat Indonesia (BRI), 60 respondents from Bank Mandiri, 55 respondents from Bank Negara Indonesia (BNI), 45 respondents from CIMB Niaga, 40 respondents from Bank Syariah Indonesia (BSI), 35

respondents from Permata Bank, and 30 respondents from OCBC Indonesia. Data were collected through an online survey using Google Forms, enabling respondents from various cities and regencies across East Java to participate conveniently and efficiently. The online survey method was chosen because it facilitated rapid data collection, reduced administrative costs, and allowed automatic data tabulation for subsequent statistical analysis.

The demographic distribution of respondents reflects the diversity of mobile banking users across East Java. The inclusion of customers from eight leading banks ensured that the sample captured a wide range of user experiences and perceptions regarding mobile banking services. Respondents were selected using an accidental sampling approach, whereby individuals who met the screening criteria and were willing to participate were included in the study. To ensure the relevance of the responses, only customers who actively used mobile banking services within the previous six months were eligible to participate. This criterion was particularly important because the study examined users' evaluations of System Quality, Information Quality, Service Quality, Trust, and Customer Satisfaction. Consequently, all respondents possessed sufficient experience and familiarity with mobile banking applications to provide informed assessments of the constructs under investigation.

From a methodological perspective, the sample size of 400 respondents exceeds the minimum threshold recommended for PLS-SEM analysis and is considered adequate for testing complex structural relationships involving mediation effects. The proportional allocation across the eight major banks enhances the representativeness of the sample and reduces the risk of institutional bias associated with relying on a single banking provider. Furthermore, the geographical coverage across East Java strengthens the external validity of the findings by capturing customer experiences from both metropolitan and non-metropolitan areas. Therefore, the respondent profile provides a robust empirical foundation for examining how System Quality, Information Quality, and Service Quality influence Customer Satisfaction through Trust in the context of mobile banking services. The diversity and adequacy of the sample contribute to the reliability, generalizability, and practical relevance of the study's findings for the banking in Indonesia.

4.1 Outer Model Analysis

Prior to evaluating the structural relationships hypothesized in the research model, a rigorous assessment of the measurement model (outer model) was conducted to establish the psychometric adequacy of the measurement instruments. The measurement model evaluation was performed at both the first-order and second-order levels, with Service Quality conceptualized as the sole higher-order construct, whereas the remaining constructs were specified as first-order latent variables. Given the reflective nature of all measurement indicators, Confirmatory Factor Analysis (CFA) within the Partial Least Squares Structural Equation Modeling (PLS-SEM) framework was employed to assess construct validity and reliability.

The evaluation encompassed three complementary dimensions, namely convergent validity, discriminant validity, and internal consistency reliability. Convergent validity was assessed through standardized factor loadings and Average Variance Extracted (AVE), whereby loading values exceeding 0.70 and AVE values above 0.50 indicate that the indicators sufficiently capture the variance of their underlying constructs. Discriminant validity was examined using cross-loading analysis to ensure that each indicator exhibited a stronger association with its designated construct than with any competing construct, thereby confirming construct distinctiveness. Furthermore, internal consistency reliability was evaluated using Cronbach’s Alpha and Composite Reliability (CR), with threshold values greater than 0.70 indicating satisfactory reliability. Collectively, these procedures provide robust evidence regarding the validity and reliability of the measurement model, thereby establishing a sound foundation for the subsequent assessment of the structural model. The results of the outer model evaluation are presented in Table 1.

Table 1: Outer Model Analysis

Indicator	Sys	Se	If	Sf	Tr	AVE	CA	CR
Sys1	0.823	-0.204	0.378	-0.312	0.051	0.725	0.904	0.929
Sys2	0.891	-0.405	0.113	0.278	-0.068			
Sys3	0.897	0.101	-0.224	0.136	0.019			
Sys4	0.792	0.564	-0.193	-0.318	0.064			
Sys5	0.854	-0.01	-0.069	0.165	-0.058			
Se1	0.259	0.813	-0.805	-0.153	0.07	0.695	0.893	0.919
Se2	0.825	0.826	-0.502	0.087	0.092			
Se3	0.051	0.823	-0.093	0.189	-0.088			
Se4	-0.677	0.869	0.714	0.093	-0.199			
Se5	-0.411	0.842	0.624	-0.219	0.134			
If1	0.059	0.114	0.856	-0.354	0.184	0.761	0.921	0.941
If2	-0.326	0.322	0.861	0.135	-0.341			
If3	0.345	-0.366	0.839	-0.151	0.207			
If4	0.226	-0.214	0.919	0.168	0.033			
If5	-0.303	0.146	0.884	0.18	-0.076			
Sf1	-0.066	0.07	0.22	0.891	-0.185	0.652	0.806	0.883
Sf2	0.399	-0.652	0.188	0.904	0.233			
Sf3	-0.001	0.432	-0.513	0.893	0.025			
Sf4	-0.321	0.125	0.116	0.922	-0.063			
Sf5	-0.462	2.113	-1.19	0.712	-0.796			
Tr1	-0.763	0.73	-0.046	-0.37	0.087	0.552	0.712	0.789
Tr2	-0.408	0.755	0.81	-0.016	0.701			
Tr3	-0.174	0.319	0.447	0.159	0.719			
Tr4	-0.037	0.554	-0.252	0.226	0.853			
Tr5	-0.139	-0.151	0.786	-0.133	0.872			

The results of the outer model evaluation presented in Table 1 provide strong empirical evidence regarding the adequacy of the measurement model. The assessment encompassed three fundamental criteria, namely convergent validity, discriminant validity, and reliability validity, to ensure that the measurement instruments accurately and consistently captured the latent constructs under investigation. Convergent validity was evaluated through factor loading and Average Variance Extracted (AVE) values. The findings reveal that all indicators achieved loading values exceeding the recommended threshold, indicating that each measurement item exhibited a strong correlation with its respective construct. Likewise, all constructs reported AVE values above the minimum acceptable criterion, suggesting that the latent variables explain a substantial proportion of the variance in their corresponding indicators. These results confirm that the indicators adequately converge to measure the same underlying theoretical concept and provide robust support for the construct validity of the measurement model.

Furthermore, discriminant validity was assessed using cross-loading analysis to determine whether each construct was empirically distinct from the others. The results demonstrate that all indicators loaded more strongly on their assigned constructs than on any alternative constructs included in the model. This finding indicates that each latent variable captures a unique conceptual domain and that the measurement items are capable of distinguishing among different theoretical constructs. The absence of substantial cross-loading issues suggests that the constructs of System Quality, Service Quality, Information Quality, Satisfaction, and Trust represent conceptually independent dimensions within the mobile banking context. Consequently, the measurement model exhibits satisfactory discriminant validity, reducing the likelihood of construct redundancy and enhancing confidence in the interpretation of the structural relationships among the variables.

In addition to validity assessment, reliability validity was examined through Cronbach's Alpha and Composite Reliability (CR) coefficients. The results indicate that all constructs exceeded the recommended threshold values for both reliability measures, thereby demonstrating a high degree of internal consistency among the indicators associated with each construct. These findings suggest that the measurement items consistently capture the same latent phenomenon and are capable of producing stable and reliable responses across respondents. The strong reliability coefficients further reinforce the robustness of the measurement model and indicate that the instruments employed in this study are suitable for empirical investigation. Taken together, the evidence from convergent validity, discriminant validity, and reliability validity confirms that the measurement model possesses sound psychometric properties and satisfies the methodological requirements for subsequent structural model analysis and hypothesis testing within the PLS-SEM framework.

4.2 Inner Model Analysis

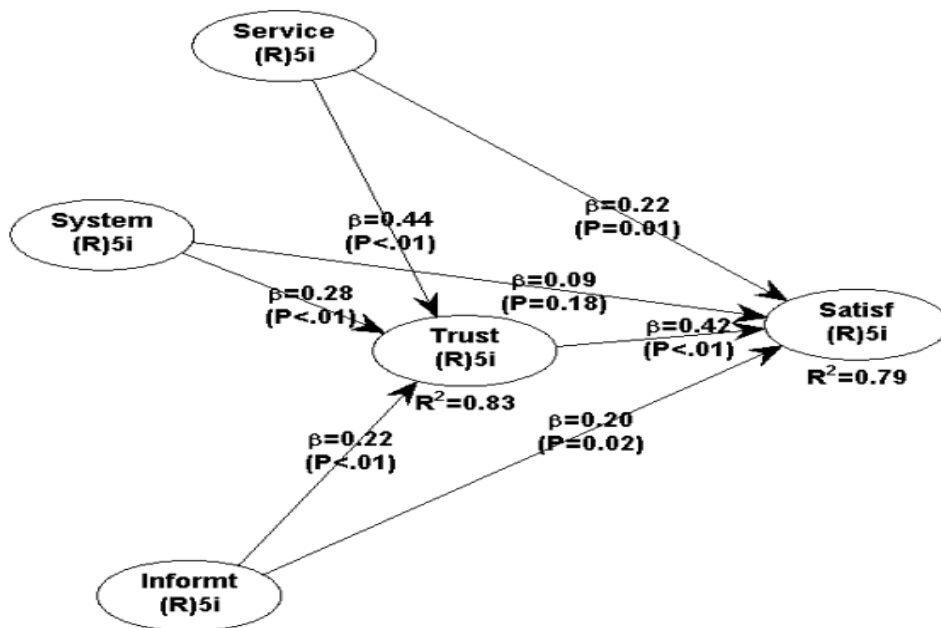


Figure 1: Structural Modelling

The structural model presented in Figure 1 examines the relationships among System Quality, Service Quality, Information Quality, Trust, and Satisfaction. The results indicate a strong model fit in terms of explanatory power. Specifically, the coefficient of determination (R^2) for Trust is 0.83, suggesting that 83% of the variance in trust is jointly explained by system quality, service quality, and information quality. According to commonly accepted criteria in PLS-SEM, an R^2 value above 0.75 indicates substantial predictive accuracy. Similarly, the R^2 value for Satisfaction is 0.79, implying that 79% of the variance in user satisfaction is explained by trust and the three quality dimensions. These findings demonstrate that the proposed model possesses substantial explanatory capability and effectively captures the key determinants of trust and satisfaction.

Regarding the antecedents of trust, all three exogenous constructs exert positive and statistically significant effects. Service Quality has the strongest influence on Trust ($\beta = 0.44$, $p < 0.01$), indicating that improvements in service responsiveness, reliability, empathy, and support mechanisms substantially enhance users' trust perceptions. This finding suggests that users place considerable importance on the quality of interactions and support services when forming trust judgments. System Quality also exhibits a significant positive effect on Trust ($\beta = 0.28$, $p < 0.01$), implying that system characteristics such as ease of use, accessibility, reliability, and functionality contribute to the development of user confidence. Likewise,

Information Quality significantly influences Trust ($\beta = 0.22, p < 0.01$), demonstrating that accurate, relevant, timely, and understandable information strengthens users' perceptions of credibility and dependability. Among these predictors, Service Quality emerges as the most dominant factor in building trust, highlighting the critical role of service-related experiences in shaping users' confidence toward the system.

The findings further reveal that Trust significantly influences Satisfaction with a standardized path coefficient of $\beta = 0.42 (p < 0.01)$. This represents the strongest direct effect on satisfaction within the model, indicating that users who perceive the system as trustworthy are more likely to report higher levels of satisfaction. Trust therefore functions as a key psychological mechanism through which users evaluate and derive positive experiences from the system. In addition to trust, Service Quality exerts a direct positive effect on Satisfaction ($\beta = 0.22, p = 0.01$), suggesting that high-quality service experiences directly contribute to favorable user evaluations. Similarly, Information Quality significantly affects Satisfaction ($\beta = 0.20, p = 0.02$), indicating that users are more satisfied when information provided by the system is reliable, useful, and relevant to their needs. These results underscore the importance of both service-related and information-related attributes in generating positive user outcomes.

In contrast, the direct relationship between System Quality and Satisfaction is positive but statistically insignificant ($\beta = 0.09, p = 0.18$). This finding suggests that system quality alone is insufficient to directly increase satisfaction. Instead, users may perceive system functionality and technical performance as baseline expectations rather than factors that generate satisfaction. Consequently, the impact of system quality appears to be transmitted primarily through trust. This pattern indicates that although a well-designed and reliable system can foster trust, satisfaction will only increase when that trust translates into positive evaluations of the overall experience. From a mediation perspective, Trust serves as a crucial intervening variable linking the quality dimensions to satisfaction outcomes.

Table 2 : Inner Model Analysis

Variable	Path Coef	Pvalue	VAF	Conclusion
H1: System-Q --> Trust	0.284	0.001		Significant
H2: Information-Q --> Trust	0.225	0.009		Significant
H3: Service-Q --> Trust	0.435	<0.001		Significant
System-Q --> Satisfaction	0.089	0.183		Not Significant
Information-Q --> Satisfaction	0.197	0.02		Significant
Service-Q --> Satisfaction	0.218	0.011		Significant
H4: Trust --> Satisfaction	0.424	<0.001		Significant
H5: System-Q --> Trust --> Satisfaction			0.575	Mediating
H6: Information-Q --> Trust --> Satisfaction			0.326	Mediating
H7: Service-Q --> Trust --> Satisfaction			0.458	Mediating

The results of the inner model analysis indicate that System Quality ($\beta = 0.284$, $p = 0.001$), Information Quality ($\beta = 0.225$, $p = 0.009$), and Service Quality ($\beta = 0.435$, $p < 0.001$) all have significant positive effects on Trust, thereby supporting H1, H2, and H3. Among these antecedents, Service Quality exerts the strongest influence, suggesting that users' trust is primarily shaped by the quality of services they receive. Regarding user satisfaction, Information Quality ($\beta = 0.197$, $p = 0.020$) and Service Quality ($\beta = 0.218$, $p = 0.011$) significantly enhance Satisfaction, whereas System Quality does not have a significant direct effect on Satisfaction ($\beta = 0.089$, $p = 0.183$). Furthermore, Trust significantly influences Satisfaction ($\beta = 0.424$, $p < 0.001$), confirming H4 and highlighting trust as a critical determinant of positive user evaluations. The mediation analysis further demonstrates that Trust plays an important intervening role in the relationship between the quality dimensions and Satisfaction. Specifically, the VAF value of 0.575 indicates that Trust mediates the effect of System Quality on Satisfaction, while VAF values of 0.326 and 0.458 confirm the mediating role of Trust in the relationships between Information Quality and Satisfaction, and between Service Quality and Satisfaction, respectively. Since all VAF values fall between 20% and 80%, the mediation effects can be categorized as partial mediation, implying that the quality dimensions influence Satisfaction both directly and indirectly through Trust. Overall, these findings emphasize that trust serves as a key psychological mechanism through which users transform their perceptions of system, information, and service quality into satisfaction outcomes, thereby reinforcing the central role of trust in information system success.

4.3 System Quality has a positive effect on Trust

The analysis results demonstrate that System Quality exerts a positive and significant influence on Trust, with a path coefficient of 0.284 and a p-value of 0.001. This finding indicates that enhanced system quality directly elevates users' trust levels toward digital platforms. Grounded in the DeLone and McLean Information Systems Success Model (2003), transparent information provision,

stable system performance, and reliable service support function as essential mechanisms for reducing perceived risk and facilitating transaction continuity, (Lan et al., 2025). System quality encompasses technical characteristics including ease of use, reliability, flexibility, security, and response speed. When users perceive that a system operates stably, is easily comprehensible, and delivers consistent usage experiences, they develop confidence that the platform can fulfill their needs and expectations. Positive flow experiences enhance user trust and satisfaction, promoting continued use of lightweight applications for healthcare services, (Wang et al., 2025). Thus, hypothesis H1 is supported.

Research on digital banking demonstrates that information, system and service quality influence satisfaction, with the latter two having the most significant influence on trust and satisfaction, (Chang et al., 2025). When examining the effect of the DeLone and McLean Model on trust and satisfaction, all three quality dimensions significantly impact trust and user satisfaction, highlighting the importance of continuous monitoring and enhancing the quality associated with these factors, (Rosa, 2024). Furthermore, empirical results show a positive relationship between system quality and information quality with data privacy and security, users' trust and users' satisfaction, with users' trust functioning as a mediator between information quality and users' satisfaction, (Sharma et al., 2025). These findings reinforce the argument that system quality constitutes a fundamental foundation for establishing long-term relationships between users and digital platforms.

4.4 Information Quality has a positive effect on Trust

The testing results reveal that information quality positively and significantly influences trust, with a path coefficient of 0.225 and p-value of 0.009. This finding indicates that superior information quality provided by platforms corresponds with elevated user trust levels. An empirical study in Indonesia provided strong evidence that trust mediated the effects of information quality to perceived usefulness and end-user satisfaction in the mobile banking environment, (Koo & Wati, 2020). Information quality refers to the extent to which presented information possesses characteristics of accuracy, relevance, completeness, timeliness, comprehensibility, and credibility. Within digital environments, information quality constitutes a critical factor helping users reduce uncertainty during decision-making processes. When received information is deemed credible and aligned with needs, users develop greater confidence that platforms can deliver expected benefits.

These findings are consistent with prior research positioning information quality as an important antecedent of trust in information systems and digital service contexts. Research on Indonesian banking services indicates that system quality, service quality, and information systems significantly positively affect customer satisfaction, with information quality also found to affect intention to use banking services, (Mulyono & Sfenrianto, 2022). Studies examining mobile banking services found that information accuracy emerged as the most statistically

significant factor affecting customer satisfaction, highlighting the importance of providing accurate, reliable, and timely information through mobile banking platforms, (Rahman et al., 2025). Research evaluating chatbot quality in Indonesian banking demonstrates that all three quality dimensions information quality, system quality, and service quality significantly improve user satisfaction, which subsequently drives continuance intention, emphasizing the role of information clarity and technological reliability in shaping digital trust, (Fadillah & Mulyono, 2025).

4.5 Service Quality has a positive effect on Trust

The research results indicate that service quality has a positive and significant effect on trust, with a path coefficient of 0.435 and significance level of $p < 0.001$. This coefficient value is the largest compared to other quality variables' effects on trust, indicating that service quality is the dominant factor in forming user trust. Research on mobile banking users of M-BCA, Mandiri Online, and BRI Mobile found that mobile service quality has a positive and significant effect on e-trust, with e-trust subsequently having a positive and significant effect on e-satisfaction, (Suariedewi, & Suprpti, 2020). Service quality refers to the service provider's ability to deliver responsive, reliable, empathetic services that effectively meet user needs. When users perceive that service providers can offer prompt and professional assistance, they develop confidence that the platform is dependable.

This finding is supported by various previous studies demonstrating that service quality constitutes a primary determinant of trust formation in technology-based services. Research analyzing the effect of service quality and trust on customer satisfaction in using BRI Mobile (BRImo) showed that service quality and customer trust have a significant positive effect on customer satisfaction, both partially and simultaneously, (Mandiri et al., 2021). Studies on BPD DIY mobile banking customers found that e-service quality and e-trust have positive and significant effects on e-satisfaction and e-loyalty, demonstrating that customer satisfaction and loyalty increase when service quality and trust in mobile banking are enhanced, (Gunawan et al., 2023). Research on mobile banking users in seven banks in Palembang City including Bank Mandiri, Bank BNI, Bank BRI, Bank Danamon, BCA, and Bank Permata demonstrated that service quality, perceived value, trust and customer satisfaction have strong effects on customer loyalty, with service quality having significant effect on consumer satisfaction, (Setiawan, 2016).

4.6 Trust has a positive effect on Satisfaction

The analysis results demonstrate that trust positively and significantly influences satisfaction, with a path coefficient of 0.424 and p -value < 0.001 . This finding indicates that increased user trust directly elevates satisfaction levels with services utilized. Research examining mobile banking at PT Bank XYZ found that trust has a significant positive effect on customer satisfaction, highlighting the dominant role of trust in shaping user satisfaction and indicating that the quality of accounting

information systems and data security alone are insufficient to enhance the customer experience, (Anggraini et al., 2025). Trust is defined as user belief that service providers possess integrity, competence, and capability to deliver benefits according to expectations. When users trust a platform, they tend to feel more comfortable, secure, and confident in conducting interactions, thereby reducing perceived uncertainty and resulting in more positive usage experiences.

This finding is supported by various previous research demonstrating that trust constitutes a primary antecedent of customer satisfaction. Research investigating relationships between customer experience, customer satisfaction, trust, and loyalty intention among mobile banking customers in Indonesia using data from 477 respondents revealed that customer satisfaction strongly influences both trust and loyalty intention, with trust serving as an important mediator between customer satisfaction and loyalty intention, (Winata et al., 2024). Studies on m-BCA customers showed that e-trust has a positive and significant effect on e-satisfaction, and e-satisfaction has a positive and significant effect on e-loyalty, meaning that e-trust can be improved so that it will have an impact on e-satisfaction and subsequently on customer loyalty, (Melinda et al., 2023). Research on BRImo digital service quality demonstrated that the quality of digital services directly has a positive and significant effect on customer loyalty through customer trust and satisfaction, (Siagian et al., 2021).

4.7 Trust mediates the effect of System Quality on Satisfaction

The mediation analysis results indicate that trust mediates the relationship between system quality and satisfaction, with a Variance Accounted For (VAF) value of 0.575. This value demonstrates partial mediation as more than 20% but less than 80% of the total effect is explained through the mediating variable. Additionally, the direct path from system quality to satisfaction was not significant with p-value of 0.183, while the indirect path through trust proved significant. Research in Indonesia clarified that trust mediated the effects of information quality to perceived usefulness and end-user satisfaction, with the relationships of system quality and perceived usefulness and system quality and end-user satisfaction being partially mediated by trust in the mobile banking environment, (Koo & Wati, 2020). This finding indicates that system quality does not directly increase user satisfaction but first builds trust, which subsequently drives satisfaction formation.

This finding aligns with previous research explaining that trust frequently serves as a mediator between system quality and various user behavioral outcomes. Research using the IS Success Model approach found that the model consisting of system quality, information quality and service quality has a significant impact on customer satisfaction, validating that system quality affects user satisfaction through perceptual and psychological evaluation mechanisms, (Purwati et al., 2021). Studies on BRImo mobile banking customer satisfaction revealed that system quality has a direct and considerable impact on both user experience and satisfaction, with the indirect relationship between system quality and customer satisfaction being

mediated by user experience, (Wisata et al., 2024). Research comparing m-BCA and Livin' by Mandiri found that factors influencing customer satisfaction lie in aspects of service quality and trust, demonstrating that trust plays a crucial role in translating system characteristics into customer satisfaction. (Wangsanegara et al., 2024).

4.8 Trust mediates the effect of Information Quality on Satisfaction

The testing results demonstrate that trust mediates the relationship between information quality and satisfaction, with a VAF value of 0.326. This value indicates that approximately 32.6% of information quality's effect on satisfaction is explained through user trust. The empirical results from Indonesia provided strong evidence that trust mediated the effects of information quality to perceived usefulness and end-user satisfaction, demonstrating that information quality not only directly increases satisfaction but also strengthens satisfaction through enhanced trust, (Koo & Wati, 2020). Accurate, relevant, and comprehensible information helps users reduce uncertainty in decision-making processes. When users feel that provided information is trustworthy, they develop confidence in the platform, subsequently generating positive evaluations of usage experiences and increasing satisfaction levels.

These findings are consistent with various previous studies finding that information quality increases satisfaction through the formation of user trust. Research on Indonesian banking chatbot services showed that system quality, service quality, and information systems significantly positively affect customer satisfaction, with information quality also found to affect intention to use banking services, (Mulyono & Sfenrianto, 2022). Studies on mobile banking services demonstrated that information accuracy emerged as the most statistically significant factor affecting customer satisfaction, suggesting that accurate and reliable information provision may play a role in shaping customer perceptions, (Rahman et al., 2025). Research analyzing information quality, system quality, and service quality towards customer satisfaction and trust found that these quality dimensions impact both satisfaction and trust, subsequently affecting continuous use intention in digital financial services. (Ludwina et al., 2022).

4.9 Trust mediates the effect of Service Quality on Satisfaction

The analysis results show that trust mediates the relationship between service quality and satisfaction, with a VAF value of 0.458. This value indicates that nearly half of service quality's effect on user satisfaction is channeled through trust. Research on mobile banking users found that mobile service quality has a positive and significant effect on e-trust, and e-trust has a positive and significant effect on e-satisfaction, demonstrating that high service quality not only provides directly positive experiences but also increases user trust toward service providers, (Suariedewi, & Suprapti, 2020). When users receive responsive, reliable, and professional services, they develop confidence that service providers possess

competence to fulfill their needs. The trust formed subsequently increases positive perceptions of overall usage experiences, resulting in higher satisfaction levels. This finding is supported by various previous research confirming the importance of trust as a mediator in the relationship between service quality and customer satisfaction. Research analyzing the influence of e-service quality and e-trust on customer loyalty through customer satisfaction demonstrated that e-service quality and e-trust have significant positive effects on customer satisfaction, with customer satisfaction able to mediate the relationship between e-trust and customer loyalty, (Nurhani & Harsono, 2024). Studies on m-BCA customers found that e-service quality has a positive and significant effect on e-satisfaction, e-trust has a positive and significant effect on e-satisfaction, and e-trust has a positive and significant effect on e-loyalty through e-satisfaction, confirming that trust serves as a key mechanism transforming service quality into sustained user satisfaction, (Melinda et al., 2023). Research on banking customer satisfaction and loyalty showed that service quality impacts satisfaction, trust impacts satisfaction and loyalty, and customer satisfaction acts as an intervening variable that strengthens the influence of service quality and trust on customer loyalty, emphasizing the importance of improving service quality and building trust as the main strategy in maintaining customer loyalty, (Subiyanto et al., 2025).

5. Conclusion, Limitations, and Suggestion

This study provides robust empirical evidence that system quality, information quality, and service quality constitute critical antecedents of trust within the mobile banking context, with service quality emerging as the most salient determinant among the three. Furthermore, trust is demonstrated to exert a direct and statistically significant effect on user satisfaction, while simultaneously functioning as a pivotal mediating construct that amplifies the indirect effects of system quality, information quality, and service quality on satisfaction. These findings underscore the centrality of trust as a psychological mechanism through which perceived quality attributes are translated into favorable user evaluations, thereby reinforcing the theoretical relevance of the DeLone and McLean Information Systems Success Model in digital financial services. Nevertheless, this study is subject to several methodological and contextual limitations. The reliance on a relatively homogeneous and geographically constrained sample limits the external validity and generalizability of the findings across diverse demographic and cultural settings. Additionally, the cross-sectional research design precludes the establishment of causal relationships and fails to capture the dynamic evolution of user perceptions over time. The exclusive dependence on self-reported measures further introduces the possibility of common method bias and perceptual distortion. Moreover, the conceptual model remains somewhat parsimonious, as it does not incorporate other potentially influential constructs such as perceived risk, perceived security, user experience, or technology readiness. Accordingly, future research is strongly encouraged to adopt longitudinal or mixed-method research designs, expand the sampling frame to

include more heterogeneous populations, and integrate a broader set of theoretical variables to enhance explanatory power. Such efforts would contribute to a more nuanced and comprehensive understanding of the multifaceted determinants of trust and user satisfaction in the rapidly evolving mobile banking ecosystem.

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