

Technology Acceptance and Online Banking Adaption: The Mediating Effect of Bank Customers Satisfaction in the Banking Sector of Davao City

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Article History:

Date Received: August 5, 2026

Date Revised: August 14, 2026

Date Accepted: August 25, 2026

Date Published: September 9, 2026

DOI: <https://doi.org/10.67903/ijroms0389>

Document ID: 2026IJROMS0389

Recommended Citation:

Turin, C. J. R., & Schneider, S. F. (2026). Technology acceptance and online banking adaption: The mediating effect of bank customers satisfaction in the banking sector of Davao City. *International Journal of Research on Multidisciplinary Studies*, 1(8), 45- 60. <https://doi.org/10.67903/ijroms0389>

Abstract. The rapid advancement of digital technologies has transformed the banking industry, making online banking an essential financial service. However, customer acceptance and satisfaction continue to depend on technological and behavioral factors. This study examined the relationships among the Technology Acceptance Model (TAM), online banking adoption, and bank customer satisfaction among bank clients in Davao City, Philippines. A quantitative cross-sectional research design was employed involving 305 bank clients selected through stratified random sampling. Data was collected using adapted and validated questionnaires measuring technology acceptance, online banking adoption, and customer satisfaction. Descriptive statistics, Pearson correlation analysis, and mediation analysis using Maximum Likelihood Estimation and the Sobel Z test were applied. Respondents reported a high level of technology acceptance ($M = 3.57$) and online banking adoption ($M = 4.10$), while bank customer satisfaction was rated very high ($M = 4.46$). Perceived usefulness, perceived ease of use, security and privacy, amount of information, and perceived enjoyment received very high ratings. Significant positive relationships were found among technology acceptance, online banking adoption, and customer satisfaction ($r = .819-.929, p < .01$). Mediation analysis indicated that online banking adoption partially mediated the relationship between technology acceptance and customer satisfaction. The findings demonstrate that favorable perceptions of online banking technologies enhance customer adoption and satisfaction. Improving usability, security, digital literacy, and service quality may strengthen customer engagement and promote sustained use of online banking platforms. The study provides empirical support for integrating the Technology Acceptance Model and Diffusion of Innovation Theory in explaining online banking behavior and offers practical implications for financial institutions seeking to improve digital banking services and customer satisfaction.

Keywords: Technology Acceptance Model; Online Banking Adoption; Customer; Satisfaction; Mediation Analysis

Introduction

The rapid advancement of digital technologies has transformed the global banking industry, with online banking becoming an essential channel for delivering financial services. Digital banking provides customers with convenient, accessible, and efficient transactions regardless of time and location (Azam, Nouman, & Gill, 2022). Studies across different countries have consistently demonstrated that technology acceptance significantly influences customers' adoption of online banking. For instance, research in Ghana confirmed the applicability of the Technology Acceptance Model (TAM) and Diffusion of Innovation Theory (DOI) in explaining mobile banking adoption among young consumers (Owusu, Bekoe, Addo-Yobo, & Otioku, 2021), while evidence from India showed that the COVID-19 pandemic accelerated the transition



from traditional banking to digital platforms (Agarwal, Poddar, & Karnavat, 2020). Likewise, online banking has been recognized as a catalyst for financial inclusion, particularly in underserved and rural communities (Mugisha, 2024; Ofori-Okyere, Edghiem, & Kumah, 2023).

Despite these developments, several challenges continue to hinder the widespread adoption of online banking. Concerns regarding security, privacy, platform complexity, and trust remain significant barriers influencing customers' willingness to use digital banking services (Kitsios, Giatsidis, & Kamariotou, 2021; Sahi et al., 2022). Addressing these concerns supports the achievement of Sustainable Development Goal 9, which emphasizes resilient infrastructure, innovation, and inclusive access to digital financial services (United Nations, n.d.; Khan, 2022; Merhi, Hone, & Tarhini, 2019; UN High-Level Panel on Digital Cooperation, 2019).

In the Philippine context, financial institutions have rapidly expanded digital banking services in response to increasing smartphone penetration and changing consumer preferences. However, despite improvements in digital financial infrastructure, customer adoption and satisfaction remain inconsistent because of variations in perceived usefulness, ease of use, security, and digital readiness. Existing local studies have largely focused on technology adoption or customer satisfaction independently, with limited empirical evidence examining how online banking adoption explains the relationship between technology acceptance and customer satisfaction.

This study addresses this gap by integrating the Technology Acceptance Model (Davis, 1986; Pikkariainen, Pikkariainen, Karjaluo, & Pahnla, 2004), Diffusion of Innovation Theory (Rogers, 1962; Bezovski, 2016; Jatmiko & Imronudin, 2023), and Disconfirmation Theory of Satisfaction (Oliver, 1980; Murugiah & Akgam, 2015). Specifically, it investigates whether online banking adoption mediates the relationship between technology acceptance and bank customer satisfaction among bank clients in Davao City. By integrating these complementary theories, the study contributes to a more comprehensive understanding of customers' digital banking behavior and provides evidence that may guide financial institutions in designing more secure, user-friendly, and customer-centered online banking services (Carranza, Díaz, Sánchez-Camacho, & Martín-Consuegra, 2021; Windasari, Kusumawati, Larasati, & Amelia, 2022; Rita, Oliveira, & Farisa, 2019).

Research Questions

This study aims to examine the relationships among the Technology Acceptance Model (TAM), Online Banking Adoption (OBA), and Bank Customer Satisfaction (BCS) among bank clients in Davao City. Specifically, it seeks to answer the following questions:

1. What is the level of Technology Acceptance Model in terms of:
 - 1.1 Perceived Usefulness;
 - 1.2 Perceived Ease of Use;
 - 1.3 Security and Privacy;
 - 1.4 Amount of Information; and
 - 1.5 Perceived Enjoyment?
2. What is the level of Online Banking Adoption in terms of:
 - 2.1 Relative Advantage;
 - 2.2 Compatibility;
 - 2.3 Complexity;
 - 2.4 Trialability; and
 - 2.5 Observability?
3. What is the level of Bank Customer Satisfaction among bank clients in Davao City?
4. Is there a significant relationship between:
 - 4.1 Technology Acceptance Model and Online Banking Adoption;
 - 4.2 Technology Acceptance Model and Bank Customer Satisfaction; and
 - 4.3 Online Banking Adoption and Bank Customer Satisfaction?
5. Does Online Banking Adoption significantly mediate the relationship between Technology Acceptance Model and Bank Customer Satisfaction?

Scope and Delimitation of the Study

This study examined the relationships among the Technology Acceptance Model (TAM), Online Banking Adoption (OBA), and Bank Customer Satisfaction (BCS) among bank clients in Davao City, Philippines. Specifically, it determined the level of technology acceptance in terms of perceived usefulness, perceived ease of use, security and privacy, amount of information, and perceived enjoyment; assessed online banking adoption through the dimensions of relative advantage, compatibility, complexity, trialability, and observability; and measured the level of bank customer satisfaction. Furthermore, the study investigated the relationships among these variables and examined the mediating role of online banking adoption in the relationship between technology acceptance and bank customer satisfaction. The study employed a quantitative, non-experimental, cross-sectional research design. Data were collected from 305 bank clients in Davao City using adapted and validated survey questionnaires administered during the study period. Respondents were selected through stratified random sampling to ensure representation of the target population. Data were analyzed using descriptive statistics, Pearson product-moment correlation, and mediation analysis through Maximum Likelihood Estimation (MLE) with the Sobel Z test. The study was delimited to bank clients who were 18 years old and above, maintained an active bank account, and had experience using online banking services offered by their respective financial institutions. It focused exclusively on customers' perceptions and experiences of online banking and did not examine the perspectives of bank employees, managers, or information technology personnel. Likewise, the study was confined to banking institutions operating in Davao City; therefore, the findings may not be generalized to clients in other geographic locations or financial settings. Furthermore, the investigation was limited to the constructs derived from the Technology Acceptance Model, Diffusion of Innovation Theory, and Disconfirmation Theory of Satisfaction. Other factors that may influence online banking adoption and customer satisfaction such as demographic characteristics, financial literacy, organizational policies, internet infrastructure, service quality dimensions, regulatory factors, cultural influences, and economic conditions were beyond the scope of this study. Finally, because of its cross-sectional design, the study captured respondents' perceptions at a single point in time and did not establish causal relationships or measure changes in technology acceptance, online banking adoption, or customer satisfaction over time.

Literature Review

Digital Transformation in the Banking Industry

The banking industry has undergone a significant transformation with the emergence of digital technologies, shifting from traditional branch-based services to online and mobile banking platforms. Digital banking enables customers to perform financial transactions anytime and anywhere, thereby improving convenience, accessibility, and operational efficiency (Azam, Nouman, & Gill, 2022). The rapid adoption of digital banking accelerated during the COVID-19 pandemic, as financial institutions expanded electronic service delivery while customers increasingly relied on virtual transactions (Agarwal, Poddar, & Karnavat, 2020). Beyond operational efficiency, digital banking has become an important mechanism for promoting financial inclusion by extending banking services to geographically isolated and underserved communities (Mugisha, 2024; Ofori-Okyere, Edghiem, & Kumah, 2023). The continued advancement of financial technology has therefore shifted banking competition from physical infrastructure toward digital service quality, customer experience, and technological innovation.

Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM), developed by Davis (1986), remains one of the most influential frameworks for explaining individuals' acceptance of information technologies. TAM proposes that users' behavioral intentions to adopt technology are primarily determined by two perceptions: perceived usefulness and perceived ease of use. In online banking, customers are more likely to adopt digital platforms when they perceive these systems to improve banking performance while requiring minimal effort (Davis, 1986). Recognizing the complexity of electronic banking, Pikkariainen et al. (2004) expanded TAM by incorporating additional constructs including security and privacy, amount of information, and perceived enjoyment. These dimensions better explain customers' decisions in digital financial

environments where trust, information quality, and user experience are essential. Recent empirical studies consistently support TAM as a strong predictor of online banking adoption across different countries and cultural settings (Owusu et al., 2021; Khando, Islam, & Gao, 2023).

Online Banking Adoption

Online banking adoption refers to customers' willingness and actual utilization of digital banking services to perform financial transactions electronically. The adoption process is commonly explained by Rogers' (1962) Diffusion of Innovation Theory (DOI), which describes how innovations spread within a social system over time. Customers generally adopt online banking when they perceive substantial advantages over traditional banking, compatibility with their lifestyles, opportunities to experiment with the technology, and visible benefits experienced by others. Conversely, complexity discourages adoption because users perceive digital platforms as difficult to understand or operate (Bezovski, 2016; Jatmiko & Imronudin, 2023). Several studies have confirmed that these innovation attributes significantly predict customers' online banking adoption decisions (Carranza et al., 2021; Windasari et al., 2022).

Bank Customer Satisfaction

Customer satisfaction represents customers' evaluation of banking services based on whether actual performance meets or exceeds their expectations. Oliver's (1980) Disconfirmation Theory explains that satisfaction occurs when perceived service performance exceeds prior expectations, whereas dissatisfaction results when expectations are not fulfilled. Within online banking, satisfaction depends on multiple factors including system reliability, ease of navigation, transaction speed, security, service quality, and customer support (Murugiah & Akgam, 2015). Digital banking customers increasingly evaluate financial institutions based not only on product offerings but also on the quality of digital service experiences. Research has consistently demonstrated that satisfied online banking customers exhibit stronger loyalty, higher retention, greater trust, and increased intention to continue using digital financial services (Rita, Oliveira, & Farisa, 2019).

Technology Acceptance and Online Banking Adoption

Numerous studies have established technology acceptance as a significant determinant of online banking adoption. Customers who perceive online banking platforms as useful, easy to use, secure, and enjoyable are more likely to adopt digital financial services (Khando, Islam, & Gao, 2023). Perceived usefulness often emerges as the strongest predictor because customers adopt technologies that improve efficiency and convenience. Likewise, perceived ease of use reduces learning barriers, while security and privacy enhance trust in electronic transactions (Pikkarainen et al., 2004). These findings consistently validate TAM across different banking environments (Owusu et al., 2021).

Online Banking Adoption and Customer Satisfaction

The adoption of online banking substantially influences customer satisfaction by improving convenience, transaction efficiency, service accessibility, and overall banking experience (Rita, Oliveira, & Farisa, 2019). Customers who frequently utilize digital banking services benefit from faster transactions, lower transaction costs, and increased control over their financial activities. These advantages strengthen positive evaluations of banking services and improve overall satisfaction (Kajol, Singh, & Paul, 2022). However, satisfaction may decline when customers encounter technical difficulties, cybersecurity concerns, or poor digital service quality (Sahi et al., 2022).

Technology Acceptance and Customer Satisfaction

Technology acceptance also directly influences customer satisfaction. Customers who perceive online banking as useful, secure, informative, and enjoyable tend to report higher satisfaction because positive technology experiences improve their overall perceptions of banking services (Kitsios, Giatsidis, & Kamariotou, 2021). Empirical evidence suggests that improving digital usability and strengthening cybersecurity measures significantly enhance customers' satisfaction with online banking platforms (Moghavvemi et al., 2021).

Mediating Role of Online Banking Adoption

Although previous studies have independently examined technology acceptance and customer satisfaction, relatively few have investigated the mediating role of online banking adoption. Technology acceptance may not directly translate into customer satisfaction unless customers actively adopt and continuously use digital banking services. From the perspective of TAM and DOI, positive perceptions toward digital technologies encourage adoption, while actual adoption enables customers to experience the functional benefits of online banking, ultimately improving satisfaction (Carranza et al., 2021; Windasari et al., 2022). This mediation mechanism provides a more comprehensive explanation of how technology acceptance influences customer outcomes and remains underexplored in the Philippine banking context. Existing international literature has consistently demonstrated significant relationships among technology acceptance, online banking adoption, and customer satisfaction. However, several gaps remain. First, many studies have examined these constructs independently rather than within a single integrated mediation framework. Second, limited empirical evidence exists regarding the mediating role of online banking adoption between technology acceptance and customer satisfaction. Third, few studies have been conducted in the Philippine setting, particularly in Davao City, where customers' digital banking experiences may differ because of demographic, technological, and socioeconomic conditions. Accordingly, this study integrates the Technology Acceptance Model (TAM), Diffusion of Innovation Theory (DOI), and Disconfirmation Theory of Satisfaction to examine the mediating role of online banking adoption in explaining the relationship between technology acceptance and bank customer satisfaction among bank clients in Davao City.

Methodology

Research Design

This study employed a quantitative, non-experimental, cross-sectional research design to examine the relationships among the Technology Acceptance Model (TAM), Online Banking Adoption (OBA), and Bank Customer Satisfaction (BCS). A cross-sectional design was deemed appropriate because data were collected from respondents at a single point in time, allowing the assessment of existing relationships among the study variables without manipulating the research environment (Wang & Cheng, 2020). The study also investigated the mediating role of online banking adoption in the relationship between technology acceptance and customer satisfaction through mediation analysis using Structural Equation Modeling (SEM).

Sampling Design

The study utilized stratified random sampling to ensure adequate representation of bank clients across relevant demographic groups. Stratified sampling minimizes sampling bias and enhances the representativeness of the sample by dividing the population into homogeneous subgroups before random selection (Nguyen, Shih, Srivastava, Tirthapura, & Xu, 2021; Ward, 2022; Widyastuti & Hermanto, 2022). A total of 305 bank clients participated in the study, exceeding the minimum sample size recommended for quantitative studies employing multivariate statistical analysis (Andrade, 2020; Lakens, 2022).

Research Locale

The study was conducted in Davao City, Philippines, one of the country's major urban and commercial centers with a well-established banking sector. The city was selected because of its diverse banking clientele, increasing adoption of digital financial services, and expanding digital infrastructure, making it an appropriate setting for examining online banking adoption and customer satisfaction (Malaque, 2017).

Research Participants

The study involved 305 bank clients residing in Davao City, Philippines, who actively utilized online banking services. Respondents were selected through stratified random sampling to ensure adequate representation of the target population across relevant demographic groups. The sample size exceeded the



minimum recommended for quantitative studies employing multivariate statistical analyses (Andrade, 2020; Lakens, 2022). To be eligible for participation, respondents were required to be 18 years old or older, reside in Davao City, maintain an active bank account, have access to the internet and an internet-enabled device, and possess prior experience using online banking services. These criteria ensured that participants had sufficient knowledge and practical experience to evaluate technology acceptance, online banking adoption, and customer satisfaction. Conversely, individuals who did not use online banking services, lacked internet access, resided outside Davao City, were employed by banking institutions, or submitted incomplete questionnaires were excluded from the study to minimize response bias and maintain data quality (Musyaffi et al., 2022; Rabbani, 2020).

Research Instrument

Data were collected using a structured survey questionnaire adapted from established and validated instruments in the literature. The questionnaire consisted of three sections corresponding to the major constructs of the study: Technology Acceptance Model (TAM), Online Banking Adoption (OBA), and Bank Customer Satisfaction (BCS). Responses were measured using a five-point Likert scale, ranging from 1 (Strongly Disagree) to 5 (Strongly Agree), with higher scores indicating greater agreement with each statement. The Technology Acceptance Model instrument was adapted from Pikkariainen et al. (2004) and comprised 29 items measuring Perceived Usefulness, Perceived Ease of Use, Security and Privacy, Amount of Information, and Perceived Enjoyment. The Online Banking Adoption instrument consisted of 21 items adapted from Bezhovski (2016) and Jatmiko and Imronudin (2023), assessing Relative Advantage, Compatibility, Complexity, Trialability, and Observability. Bank Customer Satisfaction was measured using a 21-item instrument adapted from Murugiah and Akgam (2015). Prior to data collection, the adapted instruments underwent expert validation to assess their content validity, clarity, relevance, and contextual appropriateness for the Philippine banking environment. Recommendations from the validators were incorporated to improve the questionnaire before its administration. The reliability of the instruments was subsequently established using Cronbach's alpha coefficient. The Technology Acceptance Model instrument obtained a reliability coefficient of 0.985, the Online Banking Adoption instrument recorded 0.980, and the Bank Customer Satisfaction instrument achieved 0.988, all of which indicate excellent internal consistency. These results confirmed that the adapted instruments were reliable and appropriate for measuring the constructs investigated in this study.

Data Gathering Procedure

Prior to data collection, ethical approval was obtained from the University of Mindanao Ethics Review Committee (UMERC) under Protocol No. 2024-314. Ethical approval ensured compliance with institutional standards for research involving human participants. Permission to conduct the study was secured before distributing the questionnaires. Qualified respondents were informed of the study's objectives, procedures, voluntary nature of participation, confidentiality measures, and their right to withdraw at any stage without penalty. Written informed consent was obtained before participation. Survey questionnaires were personally administered and collected from qualified bank clients in Davao City. Completed questionnaires were screened for completeness before encoding and statistical analysis. All collected data were anonymized and stored securely. Only the researcher had access to the dataset, and no personally identifiable information was disclosed during analysis or reporting. The data were analyzed using descriptive statistics (frequency, percentage, mean, and standard deviation) to describe respondent characteristics and variable levels. Pearson Product-Moment Correlation was employed to determine the relationships among Technology Acceptance Model, Online Banking Adoption, and Bank Customer Satisfaction. Finally, the mediating effect of Online Banking Adoption was examined using Structural Equation Modeling (SEM) with Maximum Likelihood Estimation (MLE) in AMOS, while the significance of the indirect effect was confirmed using the Sobel Z test.

Results and Discussions

Research Question 1: What is the level of Technology Acceptance Model in terms of Perceived Usefulness, Perceived Ease of Use, Security and Privacy, Amount of Information, and Perceived Enjoyment?

Table 1. Level of Technology Acceptance

Indicators	Mean	Std. Deviation	Interpretation
Perceived usefulness	4.45	.92	Very High
Perceived ease of use	4.46	.89	Very High
Security and privacy	4.45	.91	Very High
Amount of information	4.47	.90	Very High
Perceived enjoyment	4.47	.89	Very High
Technology Acceptance Model	4.46	.89	Very High

Table 1 presents the respondents' assessment of the Technology Acceptance Model (TAM) across its five dimensions: perceived usefulness, perceived ease of use, security and privacy, amount of information, and perceived enjoyment. Overall, technology acceptance was rated High ($M = 4.46$, $SD = 0.89$), indicating that respondents generally exhibited favorable perceptions toward online banking technologies.

Among the five dimensions, amount of information ($M = 4.47$, $SD = 0.90$) and perceived enjoyment ($M = 4.47$, $SD = 0.89$) obtained the highest mean ratings, followed closely by perceived ease of use ($M = 4.46$, $SD = 0.89$), while perceived usefulness ($M = 4.45$, $SD = 0.92$) and security and privacy ($M = 4.45$, $SD = 0.91$) likewise received very high evaluations. These findings suggest that respondents perceived online banking platforms as informative, user-friendly, secure, and enjoyable to use.

Despite the consistently high ratings across the individual dimensions, the overall TAM score remained within the High category rather than Very High, suggesting that although customers recognized the benefits of online banking technologies, certain concerns continue to moderate their overall acceptance. These concerns may relate to inconsistent user experiences, occasional technical issues, or perceived risks associated with digital financial transactions. Consequently, while respondents generally accepted online banking technologies, continuous improvements in system reliability, usability, and customer support remain necessary to strengthen long-term technology acceptance.

The findings corroborate previous studies demonstrating that the Technology Acceptance Model remains a robust framework for explaining customers' acceptance of digital banking services. Uula and Avedta (2023) emphasized that perceived usefulness and technological innovation continue to drive online banking adoption globally, while Ahmad (2018) identified TAM as one of the most widely applied models for explaining technology usage in e-commerce, mobile banking, and online financial transactions. Likewise, Bidayan et al. (2024) reported that perceived security significantly enhances perceived usefulness, service reliability, responsiveness, and customers' intention to continue using digital banking services. Similarly, Lycaso and Gui (2025) found that perceived usefulness, perceived ease of use, social influence, and perceived security significantly influence customers' intentions to adopt digital banking in Indonesia. Collectively, these studies support the present findings that technology acceptance is shaped not only by system functionality but also by customers' trust, perceived security, and overall digital experience.

Overall, the results indicate that bank clients in Davao City demonstrate favorable acceptance of online banking technologies. However, sustaining this acceptance requires banking institutions to continuously enhance platform usability, strengthen cybersecurity measures, and improve customers' digital banking experiences.

Research Question 2: What is the level of Online Banking Adoption in terms of Relative Advantage, Compatibility, Complexity, Trialability and Observability?

Table 2. Level of Online Banking Adoption

Indicators	Mean	Std. Deviation	Interpretation
Advantage	4.40	.85	Very High
Compatibility	4.36	.88	Very High
Complexity	3.54	1.14	High
Trialability	4.11	.90	High
Observability	4.46	.88	Very High
The Online Banking Adoption	4.10	.81	High

Table 2 presents the respondents' level of Online Banking Adoption based on the dimensions of relative advantage, compatibility, complexity, trialability, and observability. Overall, online banking adoption was rated High ($M = 4.10$, $SD = 0.81$), indicating that respondents generally embraced online banking as part of their regular financial activities.

Among the adoption dimensions, observability obtained the highest mean score ($M = 4.46$, $SD = 0.88$), followed by relative advantage ($M = 4.40$, $SD = 0.85$) and compatibility ($M = 4.36$, $SD = 0.88$), all interpreted as Very High. These findings indicate that respondents clearly recognized the visible benefits of online banking, including convenience, efficiency, accessibility, and compatibility with their daily financial needs and lifestyles. Trialability was likewise positively evaluated ($M = 4.11$, $SD = 0.90$), suggesting that customers appreciated opportunities to explore and familiarize themselves with digital banking services before fully integrating them into their financial routines.

In contrast, complexity recorded the lowest mean ($M = 3.54$, $SD = 1.14$), although it remained within the High category. The relatively lower rating and higher variability indicate that some respondents continued to perceive online banking platforms as difficult to navigate or understand. This finding suggests that while online banking has achieved widespread acceptance, differences in digital literacy, technological familiarity, and user experience remain important considerations for financial institutions.

The findings imply that customers readily adopt online banking when they perceive clear advantages and compatibility with their lifestyles. However, simplifying digital interfaces, providing customer education, and strengthening technical support may further reduce perceived complexity and encourage sustained adoption across diverse user groups.

These findings are consistent with the Diffusion of Innovation Theory, which proposes that innovations are adopted more rapidly when users perceive them to offer clear relative advantages, compatibility with existing practices, opportunities for experimentation, and observable benefits while minimizing complexity (Rogers, 1962). Similarly, Albort-Morant (2022) reported that the Technology Acceptance Model significantly explains online banking adoption across Spanish cities, whereas Singh et al. (2020) found that relative advantage strongly predicts customers' behavioral intentions to adopt online banking within the Indian banking sector. In the Philippine context, Alcain et al. (2024) likewise reported increasing acceptance of cashless transactions despite varying environmental conditions, highlighting customers' growing confidence in digital financial services.

Conversely, Elhajjar et al. (2020) observed that digital literacy and resistance to change remain significant barriers to online banking adoption in Lebanon, particularly among users who perceive digital banking systems as complex. Awoniyi (2022) further emphasized that organizational environments and external contextual factors influence customers' adoption decisions, while Ahmad et al. (2020) demonstrated that institutional support and banking environments shape customers' attitudes toward digital financial services.

Taken together, these findings indicate that online banking adoption among bank clients in Davao City is generally favorable. Nevertheless, reducing perceived complexity through user-centered platform design, digital literacy initiatives, and continuous customer support remains essential to achieving broader and more sustainable adoption of online banking technologies.

Research Question 3: What is the level of Bank Customer Satisfaction among bank clients in Davao City?

Table 3. Presented the Respondent's Perceived Level of Bank Customer Satisfaction based on the Dimensions of Customer Satisfaction, Customer Loyalty, Service Quality, and Security.

Indicators	Mean	Std. Deviation	Interpretation
Customer Satisfaction	4.53	.86	Very High
Customer Loyalty	4.48	.86	Very High
Service Quality	4.35	.86	Very High
Security	4.47	.86	Very High
Overall Bank Customer Satisfaction	4.46	.83	Very High

Table 3 presents the perceived level of bank customer satisfaction among online banking users in Davao City. The findings revealed a very high overall level of customer satisfaction with an aggregate mean score of 4.46 (SD = 0.83), indicating that respondents generally expressed favorable experiences with their banking services. The results demonstrate that online banking users perceived their banking institutions as capable of delivering reliable, secure, and satisfactory services through digital platforms.

Among the measured dimensions, customer satisfaction obtained the highest mean score (M = 4.53, SD = 0.86), suggesting that respondents were highly satisfied with the overall banking experience, including the convenience, accessibility, and efficiency provided by their financial institutions. This was followed by customer loyalty (M = 4.48, SD = 0.86) and security (M = 4.47, SD = 0.86), indicating that positive experiences with digital banking services contribute to stronger customer trust and continued patronage. Meanwhile, service quality obtained a mean score of 4.35 (SD = 0.86), which, although the lowest among the indicators, was still interpreted as very high, demonstrating that respondents recognized the capability of banks to provide quality services through both technological and service-oriented approaches.

The findings imply that digital banking services have become an essential contributor to positive customer experiences. The high satisfaction rating may be attributed to the ability of online banking platforms to provide faster transactions, greater accessibility, and improved financial management convenience. However, the slightly lower score in service quality compared with other dimensions suggests that while digital platforms enhance banking experiences, continuous improvement in customer support, responsiveness, and service delivery remains necessary.

These results are consistent with the findings of Tedjokusumo and Murhadi (2023), who emphasized that service quality significantly influences customer satisfaction and loyalty within banking institutions. Similarly, Singh et al. (2023) highlighted that trust and loyalty serve as important determinants in strengthening customer relationships in digital banking environments. In the Philippine context, Alcaín et al. (2024) further demonstrated that online banking quality is positively associated with customer loyalty and satisfaction, emphasizing the importance of reliable digital financial services.

Moreover, Samuel-Godadaw et al. (2023) found a significant relationship between service quality, customer satisfaction, and loyalty, suggesting that banking institutions must balance technological advancement with customer-centered service strategies. Therefore, the findings highlight that customer satisfaction in online banking is not solely determined by technological functionality but also by the perceived reliability, security, and quality of the overall banking experience.

Research Question 4: Is there a significant relationship between Technology Acceptance Model and Online Banking Adoption, Technology Acceptance Model and Bank Customer Satisfaction and Online Banking Adoption and Bank Customer Satisfaction?

Table 4. Overall Significant Correlation among Study Variables

Variables	Technology Acceptance Model	Online Banking Adoption	Bank Customer Satisfaction
Technology Acceptance Model	1	.819**	.929**
Online Banking Adoption	.819**	1	.843**
Bank Customer Satisfaction	.929**	.843**	1

Table 4 presents the Pearson Product-Moment Correlation analysis examining the relationships among Technology Acceptance Model (TAM), Online Banking Adoption, and Bank Customer Satisfaction. The results revealed that all variables demonstrated strong positive and statistically significant relationships at the 0.01 level, indicating that improvements in technology acceptance and online banking adoption are associated with increased customer satisfaction.

The relationship between Technology Acceptance Model and Bank Customer Satisfaction generated the strongest correlation coefficient ($r = .929$, $p < .001$), indicating a very strong positive association. This suggests that respondents who perceived online banking platforms as useful, easy to use, secure, and enjoyable were more likely to demonstrate higher levels of satisfaction with their banking institutions. The result reinforces the central proposition of TAM that users' perceptions regarding technological usefulness and usability strongly influence their attitudes and behavioral outcomes (Davis, 1986).

Similarly, Technology Acceptance Model and Online Banking Adoption showed a strong positive relationship ($r = .819$, $p < .001$). This indicates that greater acceptance of digital banking technologies contributes significantly to users' willingness to adopt and continuously utilize online banking services. The finding supports previous research emphasizing that perceived usefulness, ease of use, and trust-related factors are critical determinants of digital banking adoption (Pikkarainen et al., 2004; Uula & Avedta, 2023).

Furthermore, the relationship between Online Banking Adoption and Bank Customer Satisfaction was also strongly positive ($r = .843$, $p < .001$). This indicates that customers who actively use online banking services and perceive them as convenient, compatible, and beneficial tend to experience greater satisfaction with their banking relationships. The result suggests that adoption itself serves as an important mechanism in transforming technological acceptance into meaningful customer experiences.

These findings support the argument that online banking satisfaction is shaped by a combination of technological perceptions and actual usage behavior. While acceptance establishes users' willingness to engage with digital platforms, adoption represents the actual utilization of these services, which subsequently strengthens satisfaction outcomes. Therefore, banking institutions should prioritize not only technological development but also strategies that encourage continuous usage through improved accessibility, security, user support, and digital literacy initiatives.

The findings are consistent with previous studies highlighting that perceived usefulness, security, and convenience significantly influence digital banking adoption and customer satisfaction (Bidayan et al., 2024; Lycaso & Gui, 2025). These results further demonstrate that in emerging digital banking environments such as Davao City, technology acceptance and adoption operate together as critical drivers of sustainable customer engagement.

Research Question 5: Does Online Banking Adoption significantly mediate the relationship between Technology Acceptance Model and Bank Customer Satisfaction?

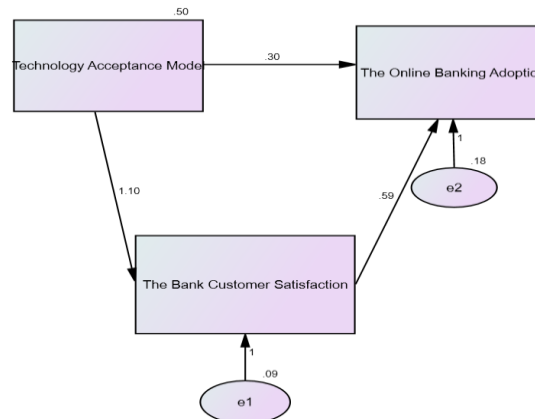


Figure 2. Structural Mediation Model

To further examine the mechanism through which Technology Acceptance influences Bank Customer Satisfaction, a mediation analysis was conducted using Structural Equation Modeling (SEM) through Analysis of Moment Structures (AMOS). The proposed model examined whether Online Banking Adoption functions as a mediating variable between Technology Acceptance Model (independent variable) and Bank Customer Satisfaction (dependent variable). Specifically, the analysis assessed the direct effect of Technology Acceptance on Customer Satisfaction, the influence of Technology Acceptance on Online Banking Adoption, and the indirect pathway through which Online Banking Adoption contributes to satisfaction outcomes.

Table 5. Regression Weights of the Structural Model Using Maximum Likelihood Estimation

Relationship	Estimate	S.E.	C.R.	p-value	Interpretation
Online Banking Adoption ← Technology Acceptance Model	1.095	.025	43.712	< .001	Significant
Bank Customer Satisfaction ← Technology Acceptance Model	.297	.094	3.164	.002	Significant
Bank Customer Satisfaction ← Online Banking Adoption	.585	.080	7.360	< .001	Significant

Table 5 presents the regression weights of the structural model using the Maximum Likelihood Estimation method. The results demonstrate that all hypothesized structural paths were statistically significant, confirming the proposed relationships among the three constructs.

The structural model revealed that Technology Acceptance Model significantly predicts Online Banking Adoption ($\beta = 1.095$, C.R. = 43.712, $p < .001$). This indicates that users' perceptions regarding the usefulness, ease of use, security, information availability, and enjoyment of online banking technologies significantly influence their decision to adopt and utilize digital banking services. The magnitude of the coefficient suggests that technology acceptance serves as a strong foundation for encouraging actual online banking usage among customers.

This finding provides empirical support for the Technology Acceptance Model proposed by Davis (1986), which emphasizes that perceived usefulness and perceived ease of use are fundamental determinants of users' behavioral intentions toward technology adoption. In the context of online banking, when customers perceive digital platforms as beneficial, reliable, and convenient, they become more willing to integrate these services into their routine banking activities. Similar findings were reported by

Pikkarainen et al. (2004), who emphasized that users' perceptions of online banking functionality significantly influence adoption behavior.

Furthermore, the results showed that Technology Acceptance Model has a significant direct effect on Bank Customer Satisfaction ($\beta = 0.297$, C.R. = 3.164, $p = .002$). This indicates that customers who positively perceive online banking technologies tend to report higher satisfaction with their banking experience, even without considering their actual level of adoption. This finding suggests that favorable technological perceptions alone contribute to positive customer evaluations by improving perceptions of convenience, accessibility, and service efficiency.

The result supports previous studies emphasizing that digital service quality, system usability, and technological reliability are important contributors to customer satisfaction in financial services. Rita et al. (2019) highlighted that electronic service quality dimensions, including ease of navigation, reliability, and responsiveness, significantly influence customers' satisfaction with digital platforms. Therefore, technology acceptance represents not only a predictor of adoption but also an important factor shaping customers' overall perceptions of banking services.

Additionally, the pathway from Online Banking Adoption to Bank Customer Satisfaction was found to be statistically significant ($\beta = 0.585$, C.R. = 7.360, $p < .001$). This indicates that actual utilization of online banking services significantly enhances customer satisfaction. Customers who actively engage with digital banking platforms are more likely to experience the practical benefits of online transactions, including convenience, accessibility, transaction efficiency, and improved financial management.

This finding supports the Diffusion of Innovations Theory of Rogers (1962), which explains that adoption of innovations leads to continued acceptance when users experience observable benefits and compatibility with their needs. In this study, online banking adoption serves as the behavioral mechanism that transforms positive technological perceptions into actual satisfaction outcomes.

Ethical Considerations

The study adhered to ethical standards involving human participants and obtained approval from the University of Mindanao Ethics Review Committee. Ethical protocols were followed to ensure that participants' rights, welfare, and privacy were protected. Participation was voluntary, informed consent was obtained prior to data collection, and participants were allowed to withdraw from the study without consequences. Confidentiality was maintained in accordance with the Data Privacy Act of 2012, and no personally identifiable information was collected. Recruitment targeted qualified online banking users in Davao City and was conducted with transparency and fairness. Although no financial compensation was provided, the study aimed to provide insights beneficial to banking institutions and users regarding technology acceptance and customer satisfaction. Research integrity and credibility were maintained through responsible research practices, including the prevention of plagiarism and transparency in reporting. The researcher disclosed no conflicts of interest and provided participants with complete information about the research. Permission was secured from the relevant institutions, and appropriate data security measures were implemented to protect the collected information. Authorship credit was appropriately assigned based on contributions to the study, ensuring compliance with scholarly ethical standards.

Conclusions

This study examined the relationships among Technology Acceptance Model (TAM), Online Banking Adoption, and Bank Customer Satisfaction among online banking users in Davao City. The findings revealed that respondents generally demonstrated favorable perceptions toward online banking technologies, particularly in terms of perceived usefulness, ease of use, security, information accessibility, and enjoyment. However, the overall technology acceptance experience suggests that continuous improvements remain necessary to address potential concerns affecting users' complete acceptance of digital banking platforms. The findings further indicated that online banking adoption was highly evident among respondents, particularly in terms of perceived advantages, compatibility, trialability, and observability. While customers recognized the benefits and convenience of online banking, complexity emerged as a potential barrier, highlighting the need for financial institutions to simplify digital interfaces



and strengthen user support mechanisms. Moreover, respondents reported a very high level of bank customer satisfaction, emphasizing the importance of service quality, security, and positive digital banking experiences in strengthening customer relationships and loyalty. The study confirmed significant positive relationships among Technology Acceptance, Online Banking Adoption, and Customer Satisfaction, demonstrating that technology perceptions and actual usage behavior are essential determinants of customer experiences in digital banking environments. The mediation analysis further established that Online Banking Adoption partially mediates the relationship between Technology Acceptance and Bank Customer Satisfaction. This indicates that while technology acceptance directly contributes to customer satisfaction, actual adoption and utilization of online banking services further enhance satisfaction outcomes. The findings highlight that successful digital banking transformation requires not only the development of advanced technological platforms but also strategies that encourage sustained customer engagement and usage.

Recommendations

Based on the findings, banking institutions should continuously enhance their digital platforms by prioritizing user-friendly design, system reliability, security features, and responsive customer support. Since complexity was identified as a potential adoption barrier, banks are encouraged to develop simplified interfaces, provide digital literacy initiatives, and implement onboarding programs that assist customers in effectively navigating online banking services. Banks should also establish continuous feedback mechanisms to capture customer experiences and integrate user insights into future improvements and service innovations. Responsive customer assistance, instructional materials, and in-app guidance may further increase user confidence and reduce resistance toward digital banking adoption. Furthermore, financial institutions should strengthen service quality monitoring by ensuring platform stability, minimizing system downtime, improving transaction efficiency, and maintaining secure digital environments. Targeted communication and marketing strategies may also be implemented to highlight the benefits and accessibility of online banking, particularly among customers with limited technological familiarity. For future researchers, studies may expand the investigation to other geographical locations and include comparative analyses between urban and rural banking users to improve the generalizability of findings. Future research may also incorporate additional variables such as digital literacy, trust, perceived risk, financial literacy, service innovation, and customer experience to provide a more comprehensive understanding of online banking behavior. Additionally, longitudinal and mixed-method research designs are recommended to examine changes in technology acceptance, adoption behavior, and customer satisfaction over time. Considering demographic differences such as age, occupation, and technological familiarity may also provide deeper insights into developing more inclusive and customer-centered digital banking strategies. Overall, the study emphasizes that sustainable digital banking adoption depends on the integration of technological effectiveness, customer-centered service delivery, and continuous innovation. By addressing both technological and human factors, banking institutions can strengthen customer satisfaction, loyalty, and long-term engagement with digital financial services.

References

- Agarwal, V., Poddar, S., & Karnavat, S. J. (2020). A study on growth of mobile banking in India during COVID-19. *PalArch's Journal of Archaeology of Egypt/Egyptology*, 17(6), 9461–9485. <https://doi.org/10.17051/ilkonline.2021.03.345>
- Ahmad, M. (2018). Review of the technology acceptance model (TAM) in internet banking and mobile banking. *International Journal of Information Communication Technology and Digital Convergence*, 3(1), 23–41.
- Ahmad, S., Bhatti, S. H., & Hwang, Y. (2020). E-service quality and actual use of e-banking: Explanation through the Technology Acceptance Model. *Information Development*, 36(4), 503–519. <https://doi.org/10.1177/0266666919871611>

- Albort-Morant, G., Sanchís-Pedregosa, C., & Paredes Paredes, J. R. (2022). Online banking adoption in Spanish cities and towns: Finding differences through TAM application. *Economic Research-Ekonomska Istraživanja*, 35(1), 854–872. <https://doi.org/10.1080/1331677X.2021.1945477>
- Alcain, J. B., Aquino, M. A. P., Dave, G. H. E., Fadri, E. J. C., & Halabaso, A. A. (2024). Perceived adoption behavior of Filipinos to the utilization of online banking and e-wallet payment transactions. In *Proceedings of the 5th African International Conference on Industrial Engineering and Operations Management*. IEOM Society. <https://doi.org/10.46254/AF05.20240266>
- Andrade, C. (2020). Sample size and its importance in research. *Indian Journal of Psychological Medicine*, 42(1), 102–103. https://doi.org/10.4103/IJPSYM.IJPSYM_504_19
- Awoniyi, O. (2022). Digital banking adoption in Nigeria: The place of technology acceptance model. *Asian Journal of Economics, Business and Accounting*, 22(7), 30–45. <https://doi.org/10.9734/AJEBA/2022/v22i730579>
- Azam, M., Nouman, M., & Gill, A. (2022). Impacts of information technology on society in the new century. Article 2022070283. <https://doi.org/10.20944/preprints202207.0283.v1>
- Bezovski, Z. (2016). The future of the mobile payment as electronic payment system. *European Journal of Business and Management*, 8(8), 127–132.
- Bidayan, J. M. I., Cambay, A. G., Cruz, A. G. C., Leandro, N., Fajardo, G., Ople, E. M. P., & Navarro, M. M. (2024). Post pandemic factors influencing continued usage of e-payment in higher education institution: Integrating Extended Technology Acceptance Model. In *Proceedings of the 14th Annual International Conference on Industrial Engineering and Operations Management*. IEOM Society. <https://doi.org/10.46254/AN14.20240402>
- Carranza, R., Díaz, E., Sánchez-Camacho, C., & Martín-Consuegra, D. (2021). e-Banking adoption: An opportunity for customer value co-creation. *Frontiers in Psychology*, 11, 621248. <https://doi.org/10.3389/fpsyg.2020.621248>
- Davis, F. D. (1986). *A theory of acceptance of new technologies by individual users* [Doctoral dissertation, Massachusetts Institute of Technology]. MIT Libraries.
- Diener, F., & Špaček, M. (2021). Digital transformation in banking: A managerial perspective on barriers to change. *Sustainability*, 13(4), 2032. <https://doi.org/10.3390/su13042032>
- Elhajjar, S., & Ouaida, F. (2020). An analysis of factors affecting mobile banking adoption. *International Journal of Bank Marketing*, 38(2), 352–367. <https://doi.org/10.1108/IJBM-02-2019-0055>
- Gigante, N., Martin, P., & Marutani, H. (2022). Transitioning towards a fully digital banking environment: Analyzing financial consumption preferences of Metro Manila banking customers. *Journal of Business and Management Studies*, 4(2), 213–229. <https://doi.org/10.32996/jbms.2022.4.2.17>
- GT, R. B. (2021). *Online banking service: An analysis on consumer adoption and satisfaction on Nepalese banking services* [Doctoral dissertation, Tribhuvan University]. Central Library, Tribhuvan University. <https://hdl.handle.net/20.500.14540/9621>
- Jatmiko, M. H., & Imronudin, I. (2023). Pengaruh relative advantage, compatibility, complexity, observability dan trialability terhadap intention to use pada e-wallet Dana. *Jurnal Lentera Bisnis*, 12(2), 538–553. <https://doi.org/10.34127/jrlab.v12i2.780>
- Kajol, K., Singh, R., & Paul, J. (2022). Adoption of digital financial transactions: A review of literature and future research agenda. *Technological Forecasting and Social Change*, 184, Article 121991. <https://doi.org/10.1016/j.techfore.2022.121991>
- Khando, K., Islam, M. S., & Gao, S. (2022). The emerging technologies of digital payments and associated challenges: A systematic literature review. *Future Internet*, 15(1), 21. <https://doi.org/10.3390/fi15010021>
- Khan, I. U. (2022). How does culture influence digital banking? A comparative study based on the unified model. *Technology in Society*, 68, Article 101822. <https://doi.org/10.1016/j.techsoc.2021.101822>
- Kitsios, F., Giatsidis, I., & Kamariotou, M. (2021). Digital transformation and strategy in the banking sector: Evaluating the acceptance rate of e-services. *Journal of Open Innovation: Technology, Market, and Complexity*, 7(3), Article 204. <https://doi.org/10.3390/joitmc7030204>
- Komulainen, H., & Saraniemi, S. (2019). Customer centricity in mobile banking: A customer experience perspective. *International Journal of Bank Marketing*, 37(5), 1082–1102. <https://doi.org/10.1108/IJBM-11-2017-0245>

- Lakens, D. (2022). Sample size justification. *Collabra: Psychology*, 8(1), Article 33267. <https://doi.org/10.1525/collabra.33267>
- Lycaso, A., & Gui, A. (2025). Digital transformation in banking: Behavioral and technological factors in Indonesia. In *Proceedings of the 2025 29th International Conference on Information Technology (IT)* (pp. 1–5). IEEE. [https://doi.org/10.70764/gdpu-jbfi.2025.1\(2\)-08](https://doi.org/10.70764/gdpu-jbfi.2025.1(2)-08)
- Malague, I. R. (2017). *Multi-step transition in housing provision and progressive development of urban settlements: Case of Davao City, Philippines* [Unpublished research paper]. <https://www.researchtrend.net/ijet/pdf/The%20Competitive%20Structure%20and%20Strategic%20Positioning%20of%20Commercial%20Banks%20in%20Saudi%20Arabia%20Mustafa%20Raza%20Rabbani%201656j1.pdf>
- Merhi, M., Hone, K., & Tarhini, A. (2019). A cross-cultural study of the intention to use mobile banking between Lebanese and British consumers: Extending UTAUT2 with security, privacy and trust. *Technology in Society*, 59, Article 101151. <https://doi.org/10.1016/j.techsoc.2019.101151>
- Moghavvemi, S., Mei, T., Phoong, S., & Phoong, S. (2021). Drivers and barriers of mobile payment adoption: Malaysian merchants' perspective. *Journal of Retailing and Consumer Services*, 59, Article 102364. <https://doi.org/10.1016/j.jretconser.2020.102364>
- Mugisha, B. (2024). Role of information and communication technologies in promoting financial inclusion in rural African communities in Rwanda. *International Journal of Technology and Systems*, 9(1), 15–27. <https://doi.org/10.47604/ijts.2276>
- Murugiah, L., & Akgam, H. (2015). Study of customer satisfaction in the banking sector in Libya. *Journal of Economics, Business and Management*, 3(7), 674–677. <https://doi.org/10.7763/JOEBM.2015.V3.253>
- Musyaffi, A., Gurendrawati, E., Afriadi, B., Oli, M., Widawati, Y., & Oktavia, R. (2022). Resistance of traditional SMEs in using digital payments: Development of innovation resistance theory. *Human Behavior and Emerging Technologies*, 2022, Article 5675386. <https://doi.org/10.1155/2022/5675386>
- Nguyen, T. D., Shih, M. H., Srivastava, D., Tirthapura, S., & Xu, B. (2021). Stratified random sampling from streaming and stored data. *Distributed and Parallel Databases*, 39(3), 665–710. <https://doi.org/10.1007/s10619-020-07310-7>
- Ofori-Okyere, I., Edghiem, F., & Kumah, S. (2023). Marketing inclusive banking services to financially vulnerable consumers: A service design approach. *Journal of Services Marketing*, 37(2), 232–247. <https://doi.org/10.1108/JSM-05-2021-0194>
- Oliver, R. L. (1980). A cognitive model of the antecedents and consequences of satisfaction decisions. *Journal of Marketing Research*, 17(4), 460–469. <https://doi.org/10.1177/002224378001700405>
- Owusu, G., Bekoe, R., Addo-Yobo, A., & Otioku, J. (2021). Mobile banking adoption among the Ghanaian youth. *Journal of African Business*, 22(3), 339–360. <https://doi.org/10.1080/15228916.2020.1753003>
- Pikkarainen, T., Pikkarainen, K., Karjaluo, H., & Pahlila, S. (2004). Consumer acceptance of online banking: An extension of the Technology Acceptance Model. *Internet Research*, 14(3), 224–235. <https://doi.org/10.1108/10662240410542652>
- Rabbani, M. R. (2020). The competitive structure and strategic positioning of commercial banks in Saudi Arabia. *International Journal on Emerging Technologies*, 11(3), 43–46.
- Rita, P., Oliveira, T., & Farisa, A. (2019). The impact of e-service quality and customer satisfaction on customer behavior in online shopping. *Heliyon*, 5(10), e02690. <https://doi.org/10.1016/j.heliyon.2019.e02690>
- Rogers, E. M. (1962). *Diffusion of innovations*. Free Press of Glencoe.
- Sahi, A., Khalid, H., Abbas, A. F., Zedan, K., Khatib, S., & Al Amosh, H. (2022). The research trend of security and privacy in digital payment. *Informatics*, 9(2), Article 32. <https://doi.org/10.3390/informatics9020032>
- Sait, M., Ali, M., Almunawar, M., & Haji Masri, H. (2024). Understanding factors to digital wallet discontinuance intention among past users: An exploratory study. *Journal of Science and*

- Technology Policy Management*. Advance online publication. <https://doi.org/10.1108/JSTPM-07-2023-0122>
- Samuel Godadaw, A., Birhan Ambachew, T., & Bantie Getnet, Y. (2023). Examining the effect of electronic banking service quality on customer satisfaction and loyalty: An implication for technological innovation. *Journal of Innovation and Entrepreneurship*, 12, Article 45. <https://doi.org/10.1186/s13731-023-00287-y>
- Singh, S., & Srivastava, R. K. (2020). Understanding the intention to use mobile banking by existing online banking customers: An empirical study. *Journal of Financial Services Marketing*, 25(3), 86–96. <https://doi.org/10.1057/s41264-020-00074-w>
- Singh, V., Sharma, M. P., Jayapriya, K., Kumar, B. K., Chander, M. A. R. N., & Kumar, B. R. (2023). Service quality, customer satisfaction and customer loyalty: A comprehensive literature review. *Journal of Survey in Fisheries Sciences*, 10(4S), 3457–3464. <https://doi.org/10.53555/sfs.v10i4S.2218>
- Tedjokusumo, C., & Murhadi, W. R. (2023). Customer satisfaction as a mediator between service quality and customer loyalty: A case study of Bank Central Asia. *Jurnal Siasat Bisnis*, 27(2), 156–170. <https://doi.org/10.20885/jsb.vol27.iss2.art2>
- United Nations. (n.d.). *The impact of digital technologies*. <https://www.un.org/en/un75/impact-digital-technologies>
- United Nations High-Level Panel on Digital Cooperation. (2019). *The age of digital interdependence: Report of the UN Secretary-General's High-Level Panel on Digital Cooperation*. United Nations. <https://digitallibrary.un.org/record/3865925>
- Uula, M. M., & Avedta, S. (2023). Technology Acceptance Model (TAM) on banking: A review. *Islamic Marketing Review*, 2(1), 1–15.
- Wang, X., & Cheng, Z. (2020). Cross-sectional studies: Strengths, weaknesses, and recommendations. *Chest*, 158(1), S65–S71. <https://doi.org/10.1016/j.chest.2020.03.012>
- Ward, B. (2022). Resolving the raven paradox: Simple random sampling, stratified random sampling, and inference to best explanation. *Philosophy of Science*, 89(2), 360–377. <https://doi.org/10.1017/psa.2021.29>
- Widyastuti, M., & Hermanto, Y. (2022). The effect of financial literacy and social media on micro capital through financial technology in the creative industry sector in East Java. *Cogent Economics & Finance*, 10(1), Article 2087647. <https://doi.org/10.1080/23322039.2022.2087647>
- Windasari, N., Kusumawati, N., Larasati, N., & Amelia, R. (2022). Digital-only banking experience: Insights from Gen Y and Gen Z. *Journal of Innovation & Knowledge*, 7(2), Article 100170. <https://doi.org/10.1016/j.jik.2022.100170>