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Customers on the Move: Predicting Customer Satisfaction among Mobile Banking Users in Malaysia

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Abstract: In recent decades, the financial industry has seen rapid modernization of information technology and increased competition. Nevertheless, numerous past studies have shown that technological adoption in mobile banking is relatively low in certain Southeast Asian countries. Customers' opposition to mobile banking services is mostly attributed to a lack of knowledge, security worries, and technological difficulties. Therefore, financial service providers need to comprehend and meet customer expectations to enhance the mobile banking experience. In relation to this, the present research seeks to examine the determinants of customer satisfaction with mobile banking among Malaysian consumers. The findings demonstrate that perceived ease of use, efficiency, and responsiveness were significant in influencing customer satisfaction. However, interoperability, privacy and security, and reliability were not significant in affecting mobile banking satisfaction. The findings have implications for both theoretical and practical perspectives, highlighting the need for efficient mobile banking services, enhancing financial inclusion, and empowering individuals.

Keywords: *Customer Satisfaction, Ease of Use, Efficiency, Interoperability, Privacy and Security, Responsiveness, Reliability*

1. Introduction

Mobile banking is a platform that allows consumers to interact with banks via mobile devices and access financial services (Alrizq & Alghamdi, 2024). It is distinct from conventional banking, which refers to the use of a mobile device as a form of payment to complete the purchasing process. Mobile banking provides a real advantage to users because it allows them to use the services at any time and in any location (Beanning, 2024). Mobile banking services often include popular banking functions such as mobile cheque deposits, mobile money transfers, and mobile bill payments. These services are designed for those who are always on the move and often include practical elements such as peer-to-peer payments via various platforms. The conduct of financial transactions is an integral aspect of everyday life, whether they are carried out in a bank branch or via other online channels (Shankar & Jebarajakirthy, 2019).

According to Alalwan et al. (2016), mobile banking services acceptance is still at an early stage in certain Southeast Asian countries. Factors determining mobile banking adoption include infrastructural facility, self-control, social influence, and perceived risk. The lack of infrastructure and facilities are the primary factors contributing to the present low adoption rate (Ahmad, 2018). The acceptance level of mobile banking is substantially influenced by both the perceived dangers and advantages of using mobile banking.

Due to this notion, this study aims to investigate the antecedents of customer satisfaction with mobile banking services and the respondents were selected among Malaysian consumers. By understanding the factors that influence customer satisfaction, banks can work towards providing excellent financial services by reducing the amount of service failures.

2. Literature Review

This section will review the literature related to the variables used in this study which includes customer satisfaction, efficiency, interoperability, privacy, security, ease of use, responsiveness, and reliability.

Customer Satisfaction: Customer satisfaction can be regarded as an emotional state that surfaces from the relationship developed over time between a customer and an online service provider via their interactions

(Pazarbasioglu et al., 2020). The level of customer satisfaction can be demonstrated by how effectively its products or services connect with consumers which will lead to long-term relationships. In today's digital age, customer satisfaction should not be neglected as customers are becoming more sophisticated and everything can be performed with a few mouse clicks. This is especially true in banking, where people can conduct transactions, make payments, pay bills, check account balances, and create account statements in a few seconds using their cell phones.

Customer satisfaction is typically attained by comparing the customer's perceived performance of the product or service with their initial expectations (Sampaio et al., 2017). When the performance of the product or service surpasses the customer's expectation, it leads to an increase in customer satisfaction (Sucandra & Rinnova, 2024). Conversely, customers will experience feelings of discontent if the perceived performance does not fulfill their expectations.

Customer satisfaction is one of the critical aspects of a company's long-term success and competitiveness. It involves the assessment of the difference between a customer's expectations and the actual performance of a product or service (Chungu & Phiri, 2024). A service provider's ability to generate high levels of satisfaction is vital for distinguishing their offerings and cultivating robust client relationships (Deng et al., 2010).

Maintaining a high level of customer satisfaction is essential for a company's earnings and reputation. Satisfaction is a person's sentiments, and it can lead to either good or negative feelings regarding a product or service if it lives up to the individual's expectations. Online firms, in particular, face increased customer satisfaction as it is easier for dissatisfied consumers to move to other online companies if they are unhappy with the items or services they are currently receiving from the first online company (Mamakou, Zaharias & Milesi, 2024)

Mobile banking service failure is a significant factor determining whether or not mobile banking is successful. Studies have shown that faulty internet banking, such as browsing and selecting services to squander their time, may cause customers to feel a sense of loss in their minds. Service failure in mobile banking can result in a major change in users' use patterns as a direct result of the disaster.

In conclusion, customer satisfaction is a critical aspect of a company's success, especially in this digital era. It requires continuously assessing the surprise element of a product purchase or consumption experience, which is crucial for businesses to address to ensure customer satisfaction and achieve overall success.

Efficiency: Efficiency is crucial in both online and offline service settings. In an online setting, the speed at which a bank's digital transactions are processed is essential to achieve efficiency (Raza et al., 2019). The Technology Acceptance Model (TAM) found that perceived simplicity of use and perceived utility of new technologies are essential components in determining the adoption of mobile banking. A friendly user interface and design make it easier for users to navigate the app and complete transactions, which subsequently will lead to increased satisfaction. Responsive customer assistance is also another essential component of efficiency.

Efficiency in mobile banking can positively affect customer satisfaction, trust, and retention. It involves the swiftness and dependability of transactions, user-friendliness of the interface, proactive customer assistance, and smooth integration of financial services (Sharma & Malviya, 2011). An efficient digital service platform aligns with customers' needs and minimizes information requirements, providing a variety of financial aid and answering customer service demands quickly. Enhancing operational efficiency in the banking industry can provide strategic advantages, such as improved customer retention. Efficiency significantly influences customer satisfaction and retention intentions in mobile banking services.

The E-SERVQUAL model highlights the importance of timely and effective responses to customer questions and concerns (Ahmed et. al., 2020). The idea consists of four essential dimensions: efficiency, fulfilment, system availability, and privacy. Each of these characteristics has a significant impact on customer satisfaction, especially among users of mobile banking. The many components of E-SERVQUAL have a major impact on customer satisfaction by effectively addressing the primary concerns and expectations of users of mobile banking (Campbell et al., 2020). Gaining knowledge and using these aspects may assist banks in improving

their service quality, resulting in increased customer satisfaction and loyalty (Mujinga, 2020). In particular, efficiency guarantees that consumers may expeditiously and effortlessly carry out their financial operations while on the go (Campbell et al., 2020). Therefore, this leads to the development of the first hypothesis of this study that is:
H1: Efficiency can positively influence customer satisfaction among mobile banking users.

Interoperability: Interoperability is essential as it enhances user comfort, promotes financial inclusion, and fosters a competitive financial environment. It encompasses technological, regulatory, and operational aspects. Interoperability enables efficient communication and data exchange across different financial systems. Regulatory elements include the implementation of rules and procedures to guarantee the protection of security, privacy, and adherence to financial legislation in various countries (Brunnermeier et al., 2023).

In Malaysia, the use of interoperable mobile banking services has been significant in promoting financial inclusion. Bank Negara Malaysia, the nation's primary financial institution, has spearheaded endeavors such as the Real-time Retail Payments Platform (RPP), which encompasses the DuitNow service. DuitNow enables consumers to promptly transfer cash across several banks by only utilizing a cell number or ID, showcasing the tangible advantages of interoperability. This technology not only simplifies the payment process but also enables a larger segment of people to engage in the digital economy, hence promoting national financial inclusion objectives and economic expansion. Currently, banks are integrating their digital services into several platforms so that users can easily transact business with many service providers.

Interoperability refers to the ability of a technology to exchange information, communicate, and cooperate with other systems without the need for substantial adjustments to its underlying structure (Shirowzhan et al., 2020). Therefore, comprehending this environment might provide valuable perspectives for e-wallet administrators and the government. For example, banks in Ghana have included their digital platforms in the nation's mobile money interoperability infrastructure, enabling customers to transfer funds between two distinct cellular or bank accounts (GSMA, 2020). In the absence of interoperability, the exchange of financial information will persist inside closed and exclusive systems. Therefore, the following hypothesis is proposed based on the above discussion:
H2: Interoperability can positively influence customer satisfaction among mobile banking users.

Privacy and Security: The rise of mobile banking has made financial services more accessible but concerns over privacy and security have become critical in influencing customer satisfaction. Privacy concerns, particularly regarding how personal data is handled, can significantly affect trust and satisfaction. Recent studies highlight that customers who feel their privacy is at risk are less likely to be satisfied with mobile banking services (Bansal & Gefen, 2020). Ensuring transparency in data practices and implementing strong privacy measures are essential for maintaining customer trust.

Security concerns, such as fears of unauthorized access and fraud, are also pivotal in shaping customer satisfaction. Research shows that perceived security directly impacts customer satisfaction, with secure systems fostering higher levels of trust and satisfaction (Cheng et al., 2020). Financial institutions are increasingly adopting advanced security technologies like multifactor authentication and biometric verification to address these concerns and enhance customer experience.

The interplay between privacy, security, and customer satisfaction is complex, with trust acting as a crucial mediator. When customers trust that their privacy and security are well-protected, their satisfaction with mobile banking services increases (Zhang et al., 2022). Balancing robust security measures with user convenience and clear privacy policies is key to sustaining customer loyalty and satisfaction in the competitive mobile banking landscape. Therefore, the following hypothesis is proposed based on the above discussion:
H3: Privacy and security can positively influence customer satisfaction among mobile banking users.

Ease of Use: Ease of use is a crucial factor influencing customer satisfaction in mobile banking, as it affects how easily customers can navigate and utilize banking services. Recent studies emphasize that a user-friendly interface and seamless navigation directly contribute to positive user experiences, which are key to customer satisfaction (Alalwan et al., 2020). When mobile banking applications are easy to use, they reduce the cognitive

load on users, making the experience more enjoyable and leading to higher levels of satisfaction (Yoon & Occeña, 2019).

Moreover, ease of use significantly impacts customer trust and perceived security in mobile banking. Customers who find an application easy to navigate are more likely to feel in control and confident in managing their financial transactions, which enhances their overall satisfaction (Tam & Oliveira, 2019). This is particularly important as trust and perceived control are vital for the adoption and continued use of mobile banking services (Wang et al., 2021).

Finally, ease of use is essential for ensuring accessibility to a broader audience, including those who may not be tech-savvy. By simplifying the user interface and minimizing the learning curve, mobile banking providers can enhance customer satisfaction across diverse demographic groups (Malaquias & Hwang, 2019). As ease of use improves the overall service quality, it becomes a critical factor in retaining customers and ensuring their long-term engagement with mobile banking platforms. Thus, the following hypothesis is derived based on the above discussion:
H4: Ease of use can positively influence customer satisfaction among mobile banking users.

Responsiveness: Responsiveness in mobile banking refers to how quickly and effectively banks address customer needs, from resolving issues to providing timely updates. In the mobile banking context, quick transaction processing, real-time notifications, and efficient in-app customer support are crucial elements of responsiveness. Research highlights that these factors significantly contribute to customer satisfaction, as users value prompt responses and real-time information (Wu et al., 2020).

Empirical studies underscore the strong link between responsiveness and customer satisfaction in mobile banking. For instance, Wu et al. (2020) found that prompt service delivery, including real-time information and quick customer support, is a significant predictor of customer satisfaction. Similarly, Chandio et al. (2021) emphasized that the ability of mobile banking platforms to swiftly address technical issues and provide timely updates enhances customer trust and satisfaction.

However, maintaining high responsiveness can be challenging due to technical issues, network problems, and resource limitations. Banks need to invest in robust IT infrastructure and continuous training for customer support staff to sustain high levels of responsiveness (Chandio et al., 2021). Overall, the literature suggests that responsiveness is a critical factor in customer satisfaction, influencing the overall success of mobile banking services. Therefore, the following hypothesis is proposed based on the abovementioned discussion:
H5: Responsiveness can positively influence customer satisfaction among mobile banking users.

Reliability: Reliability is a crucial factor influencing customer satisfaction in mobile banking. Reliability refers to the consistent performance of mobile banking services, including accurate transactions and system uptime. Recent studies confirm that a reliable mobile banking system significantly impacts customer satisfaction by ensuring that services are consistently available and secure. For instance, Sharma and Sahi (2020) highlight that customers who experience fewer technical issues and reliable service are more likely to be satisfied and loyal to their banking provider.

Conversely, when mobile banking systems fail or encounter frequent issues, customer dissatisfaction can rise. According to Singh and Sinha (2021), problems like application crashes or transaction errors lead to decreased trust and satisfaction among users. Their research indicates that customers who face these reliability issues may switch to competitors offering more stable services. This underscores the importance of maintaining a high level of reliability to retain customers and prevent negative experiences.

Overall, reliability not only affects immediate customer satisfaction but also has long-term implications for customer loyalty. Reliable services foster trust and encourage customers to remain with their current provider. As noted by Kumar and Patel (2022), banks that prioritize and enhance the reliability of their mobile banking platforms are better positioned to achieve higher customer satisfaction and long-term loyalty. Ensuring consistent and reliable service is, therefore, key to maintaining a positive relationship with customers. Therefore, the following hypothesis is proposed based on the above discussion:

H6: Reliability can positively influence customer satisfaction among mobile banking users.

3. Research Methodology

This section discusses the methodology involved in conducting this study which includes the research design, sampling technique, instrument, and statistical data analysis to achieve research objectives within the scope of the study. The research design for this research is quantitative and correlational as involves the examination of relationship between variables. Specifically, this research investigates the relationship between ease of use, privacy and security, responsiveness, efficiency, interoperability, and reliability on customer satisfaction among mobile banking users. A purposive sampling technique was employed as this study focuses on iRakyat mobile banking users in the area of Klang Valley, Malaysia. Screening questions were included at the beginning of the questionnaire to ensure only iRakyat users participated in this study. The study utilized G*Power software to determine the sample size and a minimum number of 89 respondents was required. However, the researcher distributed 107 questionnaires considering the possibilities of problematic responses that may lead certain respondents to be discarded. This study utilized SPSS for descriptive, correlational, and multiple regression analysis to test all the hypotheses. The following table 1 shows the instrument used in this study and all the items were derived from past studies.

Table 1: Instrument of the Study

Section	Description of Instrument	Scale
Section A	Demographic profile of the respondents	Nominal and Categorical
Section B	Independent variables (Ease of Use, Responsiveness, Privacy and Security, Reliability, Interoperability, and Efficiency) Questionnaire items were adapted from Egala et al., (2021) and Sharma and Malviya (2011).	5-point Likert Scale (Strongly Disagree to Strongly Agree)
Section C	Dependent variable (Customer Satisfaction) Questionnaire items were adapted from Egala et al., (2021) and (Sharma & Malviya, 2011)	5-point Likert Scale (Strongly Disagree to Strongly Agree)

4. Results of Data Analysis

Table 2 shows the means and standard deviations for the independent and dependent variables. The independent variables are Ease of Use, Interoperability, Efficiency, Privacy and Security, Responsiveness, and Reliability. While Customer Satisfaction is the dependent variable.

Table 2: Descriptive Statistics

No	Variables	Mean	Std Deviation
	Efficiency	**3.8224**	
1	iRakyat mobile banking apps are easy to navigate.	3.9533	0.80544
2	iRakyat mobile banking registration process is simple.	3.6168	1.02465
3	iRakyat mobile banking creates a positive experience for me.	3.8972	0.75153
	Interoperability	**3.8255**	
1	The user experience when accessing mobile banking services is seamless across different platforms.	3.8224	0.77476
2	iRakyat mobile banking users can easily link their mobile banking accounts with third-party financial management apps or payment platforms.	3.8505	0.78673
3	Mobile banking apps work seamlessly across different mobile networks.	3.8037	0.91568
4	The user experience when accessing mobile banking services is seamless across different platforms.	3.8224	0.77476

5	iRakyat mobile banking users can easily link their mobile banking accounts with third-party financial management apps or payment platforms.	3.8505	0.78673
	Privacy and Security	**4.1196**	
1	I have full trust in iRakyat mobile banking services.	4.0467	0.71879
2	I feel safe with my transactions while doing mobile banking.	4.0654	0.60300
3	I feel secure in providing sensitive information while doing a mobile banking transaction.	4.0374	0.62834
4	I believe my bank does not share my personal or financial transaction details with other third parties.	4.2430	0.65648
5	iLock Maintenance is usable and important if there is suspected fraud (Security Feature for iRakyat Mobile Banking)	4.2056	0.59460
	Ease of Use	**4.0140**	
1	iRakyat mobile banking services and transactions are very simple and easy to use.	4.0467	0.78167
2	I can confidently navigate the iRakyat mobile banking digital service platform.	4.07477	0.735885
3	I feel comfortable anytime using the iRakyat mobile banking digital service platform during perform the transaction.	3.9533	0.74458
4	iRakyat mobile banking screen incorporates a good color scheme, is easy on the eye, is visually attractive, and has an efficient layout.	3.9813	0.87934
	Responsiveness	**3.7352**	
1	iRakyat mobile banking provides prompt responses if my transaction is not processed.	3.7664	0.91713
2	The bank quickly resolves mobile banking-related problems.	3.6262	0.88513
3	iRakyat mobile banking provides me with exactly as promised.	3.8131	0.79064
	Reliability	4.0467	
1	iRakyat mobile banking services provided by Bank Rakyat are timely.	3.8411	0.77884
2	iRakyat mobile banking transactions are processed accurately.	4.1776	0.62666
3	I know exactly when my transaction will be performed.	4.1215	0.60983
	Customer Satisfaction	**3.9416**	
1	I will recommend iRakyat mobile banking digital services to other customers.	4.0280	0.82939
2	I am satisfied with the way digital banking services are delivered by my bank.	3.9065	0.83024
3	I am satisfied with the quality of the digital banking services I received.	3.9159	0.77850
4	Overall, I am satisfied with the quality of digital banking services I received from my bank during COVID-19.	3.9159	0.80237

Subsequently, a reliability analysis was performed. Reliability analysis quantifies the degree of internal consistency among indicators used to measure a construct (Hair et. al., 2013). The researcher uses the term "reliability" to describe the consistency and stability an instrument exhibits when testing a concept and evaluating the usefulness of a measurement. Based on the results in Table 3, high internal consistency was demonstrated as Cronbach's Alpha values are above 0.8 for all variables.

Table 3: Reliability Analysis

Variable	Cronbach Alpha (α)	Interpretation
Ease Of Use	0.887	Good
Interoperability	0.844	Good
Efficiency	0.858	Good
Privacy and Security	0.841	Good
Responsiveness	0.893	Good
Reliability	0.808	Good
Satisfaction	0.935	Excellent

Next, correlation analysis was conducted between all the variables. Table 4 depicts the correlation matrix between Ease of Use, Interoperability, Efficiency, Privacy and Security, Responsiveness, Reliability, and Customer Satisfaction. These correlations reflect the inter-correlation that exists between the variables that were examined. It can be claimed that there is a significant correlation between each of the variables that were investigated in this study. According to these results, the variables have a discriminant validity, which means that although they are associated, they do not overlap with one another.

Table 4: Correlation Analysis

	Ease Of Use	Interoperability	Efficiency	Privacy & Security	Responsiveness	Reliability	Satisfaction
Ease of Use	1						
Interoperability	.628**	1					
Efficiency	.790**	.759**	1				
Privacy & Security	.438**	.491**	.474**	1			
Responsiveness	.587**	.757**	.737**	.546**	1		
Reliability	.658**	.653**	.712**	.574**	.740**	1	
Satisfaction	.721**	.673**	.806**	.511**	.760**	.717**	1

***. Correlation is significant at the 0.01 level (2-tailed).*

Subsequently, multiple regression analysis was employed to assess all the hypothesized relationships. The model tested H1, H2, H3, H4, H5, and H6 by regressing all the independent variables (Ease of Use, Interoperability, Efficiency, Privacy and Security, Responsiveness, Reliability) towards the dependent variable (Customer Satisfaction). Additionally, a diagnostic test was performed to check for multicollinearity and collinearity. Hair et al. (2013) and Sekaran and Bougie (2010) suggested that a tolerance value of less than 0.10 is problematic. As none of the tolerance values fell below 0.10, multicollinearity was not considered to be a problem in the data. As for the VIF, Hair et al. (2013) and Sekaran and Bougie (2010) suggested that a value above 10 indicates multicollinearity. As the VIF values for the current data fell below 10, thus multicollinearity was not evidenced. Based on the results in Table 5, it can be concluded that Efficiency (H1), Ease of Use (H4), and Responsiveness (H5) significantly contribute to Customer Satisfaction in the context of mobile banking among Malaysian consumers.

Table 5: Results of Hypothesis Testing Using Multiple Regression

	Beta (β)	t-value	Sig (*p*)	Tolerance	VIF	Decision
Efficiency (H1)	0.372	3.479	0.001	0.231	4.324	Supported
Interoperability (H2)	-0.058	-0.649	0.518	0.334	2.993	Not Supported
Privacy & Security (H3)	0.048	0.738	0.462	0.632	1.583	Not Supported
Ease of Use (H4)	0.187	2.159	0.033	0.352	2.845	Supported
Responsiveness (H5)	0.314	3.327	0.001	0.296	3.378	Supported
Reliability (H6)	0.108	1.231	0.221	0.344	2.903	Not Supported

5. Discussion and Recommendations

This study has proven the positive relationship between efficiency, ease of use, and responsiveness on satisfaction among mobile banking customers. Consistent with Mbama and Ezepue (2018), perceived value positively can influence customer experience and perceived usability of digital banking or mobile banking

innovation. Additionally, mobile banking innovation can positively impact employee-customer engagement and enhance user satisfaction with mobile banking services. Due to this notion, it is recommended that iRakyat mobile banking developers invest in enhancing user experience (UX) design, conducting regular usability testing, and gathering user feedback to identify and address weaknesses to be improved.

In the context of ease of use, the finding is supported by Mbama and Ezepue (2018) denoting that the simplicity of use of digital banking can have a beneficial impact on customer satisfaction and perceived usefulness. Besides, mobile banking innovation has a beneficial effect on the level of interaction between employees and customers, and it also improves customer satisfaction with mobile banking services. A study by Bakri (2020) also found that ease of use is the most powerful predictor in mobile banking and therefore we can claim that it can have the most impact on the acceptance of mobile banking services.

In terms of responsiveness, the finding is consonant with studies conducted by Egala et al. (2021), which found that the level of responsiveness, service charges, and range of services offered by digital banking services, or mobile banking have a major impact on the happiness and intention of customers to continue using the service. Prior research also has confirmed that the level of responsiveness exhibited by mobile banking has a direct impact on customer satisfaction and retention (Al-Ghraibah, 2020).

For the recommendations, future researchers are suggested to replicate the current framework in other settings such as airlines, hospitality, food services, or healthcare services as mobile applications are also widely used in these sectors. It may yield different results as compared to mobile banking and customers may have different perceptions. Additionally, future researchers are also suggested to enhance the current framework of study by integrating a moderator or mediator variable. Researchers may consider adding moderator variables such as age, gender, relationship age, culture, or type of customers. For the mediator variable, researchers may consider including customer loyalty, trust, brand equity, repurchase intention, or customer experience.

Conclusion

Overall, the results of this study have fulfilled the research objectives specified at the beginning of the study. This highlights the importance of user experience and service efficiency in determining the level of customer satisfaction provided by mobile banking services. These findings brought to light the need for continuously improving and optimizing both the services and the customer experience. The study's findings imply that mobile banking service providers, such as iRakyat, have to consider the initiatives to improve user-friendliness, address security concerns, and enhance the user experience to increase overall consumer happiness and adoption of mobile banking services. The incorporation of user input and feedback into service enhancements and the prioritization of client wants are both essential components for achieving higher levels of customer satisfaction and gaining wider adoption of mobile banking services.

Furthermore, regulators should focus on enhancing privacy and security regulations to foster a more secure technological environment and maintain customer confidence. It is crucial to educate customers about the many advantages of mobile banking since many individuals are unaware of these benefits. By presenting users with the advantages of the mobile application, such as uninterrupted accessibility, time, money, and effort savings, as well as the avoidance of physical contact and waiting in the queue, they will be motivated to change their routines and begin using the mobile application. Consequently, the utilization of mobile banking will likely increase if users perceive that it enhances their productivity and effectiveness in their professional tasks.

References

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.

Ahmed, R. R., Romeika, G., Kauliene, R., Streimikis, J., & Dapkus, R. (2020). ES-QUAL model and customer satisfaction in online banking: Evidence from multivariate analysis techniques. Oeconomia Copernicana, 11(1), 59-93.

Alalwan, A. A., Baabdullah, A. M., Rana, N. P., Tamilmani, K., & Dwivedi, Y. K. (2020). Examining adoption of mobile internet in Saudi Arabia: Extending TAM with perceived enjoyment, innovativeness and trust. Technological Forecasting and Social Change, 151, 119793.

Alalwan, A. A., Dwivedi, Y. K., Rana, N. P., & Williams, M. D. (2016). Consumer adoption of mobile banking in Jordan: Examining the role of usefulness, ease of use, perceived risk and self-efficacy. Journal of Enterprise Information Management, 29(1), 118-139.

Al-Ghraibah, O. B. (2020). Online consumer retention in Saudi Arabia during COVID-19: the moderating role of online trust. J. Crit. Rev, 7(9), 2464-2472.

Alrizq, M., & Alghamdi, A. (2024). Customer satisfaction analysis with Saudi Arabia mobile banking apps: a hybrid approach using text mining and predictive learning techniques. Neural Computing and Applications, 36(11), 6005-6023.

Bakri, M. (2020). Factors of acceptance of mobile banking in Malaysia. International Journal of Human and Technology Interaction (IJHaTI), 4(2), 13-22.

Bansal, G., & Gefen, D. (2020). The role of privacy assurance mechanisms in building trust and the moderating role of privacy concern. Journal of Information Privacy and Security, 16(1), 3-20.

Beanning, L. (2024). The effect of e-service quality on customer satisfaction and customer loyalty: A study on mobile banking application in Indonesia. *Communications in Humanities and Social Sciences*, 4(1), 51-58.

Brunnermeier, M. K., Limodio, N., & Spadavecchia, L. (2023). Mobile money, interoperability, and financial inclusion.

Campbell, S., Greenwood, M., Prior, S., Shearer, T., Walkem, K., Young, S., Bywaters, D., & Walker, K. (2020). Purposive sampling: complex or simple? Research case examples. Journal of Research in Nursing, 25(8), 652-661.

Chandio, A. F., Irani, Z., Abbasi, A. G., & Nizamani, H. A. (2021). Evaluating the role of perceived service quality in mobile banking adoption: A Pakistani case study. Journal of Retailing and Consumer Services, 61, 102577.

Cheng, Y., Liu, Y., & Qian, Z. (2020). The impact of mobile banking security on trust and user satisfaction. Journal of Global Information Management, 28(2), 123-143.

Chungu, C., & Phiri, J. (2024). Factors Affecting the Adoption of E-Banking on Customer Satisfaction in Developing Countries Based on the ES-QUAL Model: A Case of Investrust Bank. Open Journal of Business and Management, 12(3), 1744-1765.

Deng, Z., Lu, Y., Wei, K. K., & Zhang, J. (2010). Understanding customer satisfaction and loyalty: An empirical study of mobile instant messages in China. International Journal of Information Management, 30(4), 289-300.

Egala, S. B., Boateng, D., & Mensah, S. A. (2021). To leave or retain? An interplay between quality digital banking services and customer satisfaction. International Journal of Bank Marketing.

Hair, J., Black, W., Babin, B., & Anderson, R. (2013). Multivariate data analysis. Illustrated, revised. In: Pearson Education Limited Upper Saddle River.

Kumar, A., & Patel, S. (2022). The role of reliability in customer satisfaction and loyalty in mobile banking. Journal of Financial Services Marketing, 27(1), 42-54.

Malaquias, R. F., & Hwang, Y. (2019). Mobile banking use: A comparative study with Brazilian and US participants. International Journal of Information Management, 44, 132-140.

Mamakou, X. J., Zaharias, P., & Milesi, M. (2024). Measuring customer satisfaction in electronic commerce: The impact of e-service quality and user experience. International Journal of Quality & Reliability Management, 41(3), 915-943.

Mbama, C. I., & Ezepue, P. O. (2018). Digital banking, customer experience and bank financial performance: UK customers' perceptions. International Journal of Bank Marketing, 36(2), 230-255.

Mujinga, M. (2020). Online banking service quality: a South African ES-QUAL analysis. Responsible Design, Implementation and Use of Information and Communication Technology: 19th IFIP WG 6.11 Conference on e-Business, e-Services, and e-Society, I3E 2020, Skukuza, South Africa, April 6–8, 2020, Proceedings, Part I 19,

Pazarbasioglu, C., Mora, A. G., Uttamchandani, M., Natarajan, H., Feyen, E., & Saal, M. (2020). Digital financial services. World Bank, 54.

Raza, S. A., Shah, N., & Ali, M. (2019). Acceptance of mobile banking in Islamic banks: evidence from modified UTAUT model. Journal of Islamic Marketing, 10(1), 357-376.

Sampaio, C. H., Ladeira, W. J., & Santini, F. D. O. (2017). Apps for mobile banking and customer satisfaction: a cross-cultural study. International Journal of Bank Marketing, 35(7), 1133-1153.

Sekaran, U., & Bougie, R. (2010). Research methods for business: A skill-building approach (5th ed.).

Haddington: John Wiley & Sons.
Shankar, A., & Jebarajakirthy, C. (2019). The influence of e-banking service quality on customer loyalty: A moderated mediation approach. International Journal of Bank Marketing.
Sharma, P., & Sahi, G. K. (2020). The impact of service quality on customer satisfaction and loyalty in mobile banking. International Journal of Bank Marketing, 38(4), 857-876.
Sharma, G., & Malviya, S. (2011). Exploring the dimensions of mobile banking service quality. Review of Business and Technology Research, 4(1), 187-196.
Shirowzhan, S., Sepasgozar, S. M., Edwards, D. J., Li, H., & Wang, C. (2020). BIM compatibility and its differentiation with interoperability challenges as an innovation factor. Automation in Construction, 112, 103086.
Singh, R., & Sinha, S. (2021). The effects of technological reliability on customer satisfaction in mobile banking. Journal of Digital Banking, 5(3), 162-176.
Sucandra, R., & Rinnova, D. (2024). The Influence of Mobile Banking Service Quality on Customer Satisfaction at Bank Rakyat Indonesia Tanjung Karang Branch Office. International Journal of Economics, Business and Innovation Research, 3(02), 1145-1158.
Tam, C., & Oliveira, T. (2019). Does culture influence m-banking use and individual performance? Information & Management, 56(3), 356-363.
Wang, Y. S., Lin, H. H., & Luarn, P. (2021). Predicting consumer intention to use mobile service: An extension of the theory of planned behavior. International Journal of Mobile Communications, 19(2), 184-205.
Wu, J. H., Chen, Y. C., & Chung, Y. S. (2020). Service quality and customer satisfaction in mobile banking. Journal of Information Technology & People, 33(1), 1-18.
Yoon, H. S., & Occeña, L. G. (2019). Influencing factors of trust in consumer-to-consumer electronic commerce with gender and age. International Journal of Information Management, 48, 117-128.
Zhang, T., Lou, L., & Lin, J. (2022). Privacy and security concerns in mobile banking: Impacts on customer satisfaction and loyalty. Telematics and Informatics, 67, 101759