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Customer satisfaction as a mediator between service quality and customer loyalty: a case study of Bank Central Asia

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Article Info

Abstract

Purpose – This study aims to examine the effect of service quality on customer satisfaction and the impact of customer satisfaction on customer loyalty among banking service users in Indonesia.

Design/methodology/approach – The population of this study consists of customers aged 18 years and above who use the mobile banking service provided by Bank Central Asia, one of the largest banking companies in Indonesia in terms of market capitalization. Purposive sampling was used to obtain a sample of 194 respondents who met the research criteria.

Findings – The results of this study indicate that the reliability, customer service and support, and responsiveness variables have a significant positive influence on customer satisfaction, while the privacy and security variable was found to have no significant impact on customer satisfaction. Additionally, customer satisfaction was found to have a significant positive effect on customer loyalty.

Research limitations/implications – The data for this study primarily came from East Java, Indonesia, highlighting the need for future research using longitudinal data to investigate the causal relationships between variables.

Practical implications – The findings of this study can provide valuable insights into the influence of electronic service quality on customer loyalty in the Indonesian banking industry. It offers banks a deeper understanding of consumer behavior and the crucial satisfaction factors that drive long-term decision-making in banking services.

Originality/value – This paper offers novelty by addressing the digitalization trend and competitive challenges faced by banking service providers in achieving customer satisfaction within the digital economic ecosystem. It specifically focuses on customers of Bank Central Asia, a leading banking company in Indonesia. The value of this paper lies in its insights for banking professionals, researchers, and policymakers in navigating the digital landscape and enhancing customer-centric digital banking services.

Keywords: Service quality, customer satisfaction, customer loyalty, digital banking.

Introduction

Technological advancements bring significant changes and progress in various sectors of human life. The use of technology plays a crucial role in the business world, becoming a necessity for companies to stay competitive. One business entity that harnesses technological advancements is

the banking sector. Over time, the banking business landscape in Indonesia has undergone changes. One driving factor behind these changes is the emergence of challenges due to the transformation of Indonesia's business ecosystem from conventional to digital. Not stopping at the shift towards a digital business ecosystem, several businesses from different sectors have found opportunities to collaborate and create an integrated business ecosystem using Application Programming Interface (API) technology. The banking sector needs to respond swiftly to the changes and challenges in the digital era. In 2021, the Financial Services Authority (OJK) issued new regulations related to digital banking business. These regulations, stated in POJK Number 12/POJK.03/2021, Chapter IV from Article 23 to Article 31, encompass the definition of digital banks, capital provisions, required governance competencies, and guidelines for providing prudent and sustainable digital banking services (Otoritas Jasa Keuangan Republik Indonesia, 2021)

The changing consumption patterns of Indonesian society, driven by the digital transformation accelerated by the COVID-19 pandemic, have urged digital banks to provide the best digital banking customer experience without direct physical contact. The growing global trend towards increased digitalization in banking, which was already well underway before the pandemic has been driven by the rapid advancements in technology and the changing preferences of customers seeking convenient and efficient banking services experience. Customer experience is a crucial aspect that organizations need to prioritize (Mansoor et al., 2020). In addition to the ability to deliver excellent customer experience, other research suggests that trust and loyalty are also vital factors in the digital service ecosystem (Haron et al., 2020). Ul Haq & Awan (2020) state that the primary foundation of banking services lies in the trust between the bank and its customers, aiming to provide high-quality banking services with low transaction costs. One medium used by banks to deliver quality service is through mobile banking technology. Banks must have the ability to understand the significant factors that influence customer satisfaction in using mobile banking services to maintain customer satisfaction and create customer retention (Jahan & Shahria, 2022).

The study conducted by Ul Haq & Awan (2020) in Pakistan aimed to explore the quality of e-banking services and its influence on customer loyalty based on satisfaction in using e-banking. The variables used by the researchers included reliability, privacy and security, website design, and customer service and support. The research findings indicate that the variables of reliability, privacy and security, website design, and customer service and support in e-banking services play significant roles in influencing customer satisfaction and loyalty. Reliability shows a positive impact on both e-banking satisfaction and e-banking loyalty. Privacy and security positively affect e-banking satisfaction but negatively affect e-banking loyalty. Website design is positively related to e-banking satisfaction, but insignificantly affects e-banking loyalty. Customer service and support, while sought by consumers for issue resolution, show a negative influence on e-banking satisfaction and loyalty. The mediating role of e-banking satisfaction between e-banking service quality and e-banking loyalty is insignificant, possibly due to the pandemic-induced changes in consumer behavior.

The research conducted by Jahan & Shahria (2022) in Bangladesh aimed to identify the most influential factors on the level of satisfaction of young consumers towards using mobile banking. The variables used by the researchers were expense, security, relative advantage, responsiveness, and convenience. The expense variable had a positive significance in influencing satisfaction but was insignificant towards loyalty. The security variable had a positive significance in influencing satisfaction. The relative advantage variable which involves benefits gained by customers from using mobile banking, like social prestige and time efficiency had a positive significance in influencing satisfaction. The responsiveness variable had a positive significance in influencing satisfaction. The convenience variable which encompasses meeting consumer needs and the ease of daily usage had a positive significance in influencing satisfaction.

Another study by Jawaid et al. (2021) aimed to identify factors influencing customer satisfaction with Islamic banking services in Pakistan. The researchers used indicators of service quality, including assurance, reliance, empathy, tangibility, and responsiveness, as well as compliance as an additional factor affecting customer satisfaction. The assurance variable which refers to the sense of security fostered through verbal and non-verbal communication between the bank and customers to build trust had a positive significance on customer satisfaction. The

reliability variable which involves the strategy of how a bank can provide correct services, offer fast and secure transaction services had a positive significance on customer satisfaction. The tangible variable also had a positive significance on customer satisfaction. Tangible relates to the physical distribution of bank branches and communication facilities. The empathy variable had a positive significance on customer satisfaction. Empathy encompasses customer care services that positively influence customer satisfaction when banks prioritize information security, and bank staff and management are available to assist customers with their needs. The responsiveness variable had a positive significance on customer satisfaction. Responsiveness is how a bank emphasizes speed and accuracy as a competitive advantage. Efficient banking services meet or exceed customer expectations. Speed and accuracy, combined with meeting customer needs, are crucial factors in maintaining customer satisfaction.

Based on the research conducted by Ul Haq & Awan (2020), Jahan & Shahria (2022), and Jawaid et al. (2021), different findings have been reported regarding the influence of the customer support and services variable on customer satisfaction. The variable of customer service and support in the study by Ul Haq & Awan (2020) showed a significant negative impact on e-banking satisfaction. In contrast, the findings of the studies conducted by Jawaid et al. (2021) and Raza et al. (2020) indicated that the variable of customer service and support had a significant positive influence on customer satisfaction. Therefore, this study aims to discuss the research gap identified in these three journals. The current research is a modification of the study Ul Haq & Awan (2020). The main difference is that the previous study examined the variables of reliability, privacy and security, customer service and support, website design, and their impact on e-loyalty with the mediation of e-satisfaction. In this research, the variable of website design is replaced with the variable of responsiveness, which represents the level of assistance provided by the banking institution when customers face difficulties in using the provided services.

The research holds several benefits for both academia and the banking industry. First, it contributes to the existing body of knowledge by providing valuable insights into the impact of electronic service quality on customer satisfaction. Understanding the specific dimensions of service quality that significantly influence customer satisfaction is crucial for banks to enhance their service offerings and meet customer expectations in a highly competitive digital landscape. Second, the study sheds light on the relationship between customer satisfaction and customer loyalty, elucidating how a positive customer experience can lead to increased loyalty and retention. This understanding is vital for banks seeking to foster long-term relationships with their customers and ensure their continued patronage. The research serves as a valuable literature reference for future studies investigating the influence of electronic service quality on customer loyalty, with customer satisfaction acting as a mediating factor, within the Indonesian banking industry. It provides a foundation for researchers to expand upon and delve deeper into the complexities of customer satisfaction and loyalty in the digital banking realm.

Last, the findings of this research can assist banking institutions, particularly in the Indonesian context, in understanding consumer behavior and the factors that contribute to customer satisfaction. By gaining insights into these factors, banks can make informed decisions and tailor their services to meet customer expectations, ultimately fostering long-term customer relationships and loyalty.

Literature Review and Hypotheses

The Influence of E-Service Quality on Customer Satisfaction

Previous studies have found academic debates regarding the relationship between EBSQ (Electronic Banking Service Quality) and satisfaction (Haider et al., 2014; Shankar & Jebarajakirthy, 2019). The academic debate and contradiction arise because some argue that EBSQ is a source influencing customer satisfaction in e-banking (Shankar & Jebarajakirthy, 2019). Furthermore, other research indicates that m-banking services affect consumers' intention to continue using the system and are crucial for its success (Foroughi et al., 2019). Service quality dimensions precede customer satisfaction, and both responsiveness and assurance, along with direct evidence,

reliability, and empathy, significantly affect customer satisfaction (Slack et al., 2020). The relationship between customer orientation and service quality is important, particularly for companies where services are standardized, inseparable, and low in complexity (Black et al., 2014). Effective service quality can attract customers to engage in online purchases, while subpar quality can lead to customer dissatisfaction. Enhancing the service quality system is crucial for sustained business success (Pradnyadewi & Giantari, 2022).

Electronic service quality showed a favorable impact on the satisfaction of customers, their intentions to repurchase, and their word-of-mouth recommendations among online shoppers (Blut et al., 2015). Tsao et al. (2016) examined the influence of e-service quality on loyalty through the lens of online shopping experience in Taiwan. Their findings revealed that system quality and electronic service quality exerted notable impacts on perceived value, then which played a significant role in shaping online loyalty. The foundation of customer satisfaction in banking services lies in the initial trust between the bank and the consumer, with the aim of providing quality service at a lower transaction cost (Shankar & Jebarajakirthy, 2019). overall e-service quality yielded customer satisfaction and customer trust as its results. The findings indicated a positive influence of e-service quality on customer satisfaction. Much of the existing e-service quality research underscores that customer satisfaction is the primary factor affecting e-service quality, thereby reinforcing the significant correlation between e-service quality and customer satisfaction (Kitapci et al., 2014).

Reliability refers to the capacity of a banking institution to fulfill its responsibilities correctly and without errors. Ensuring the dependability of electronic services is a crucial requirement for successfully conducting online transactions, and reliability in service quality can have an impact on customer satisfaction (Bressolles et al., 2014). Banking institutions have high standardswith accuracy and security to maintain customer satisfaction and trust. Customers who use internet banking services feel satisfied and confident when the banking institution can guarantee security and take responsibility for the confidentiality of their personal data (Raza et al., 2020). A reliable reliability further enables Islamic banking to actively serve as a financial solution for customers, resulting in an increased level of customer satisfaction (Jawaid et al., 2021) Based on this explanation, the proposed hypothesis is:
H_1: Reliability has a positive influence on the level of customer satisfaction.

The variable of privacy and security has a positive significance on e-banking satisfaction. To enhance credibility and service quality, it is crucial to focus on assurance and security aspects on the service platform (Wang et al., 2015). A proficient website should incorporate privacy and security measures (Fortes & Rita, 2016). Consumers can confidently share personal information with e-banking platforms within certain limits. Policy about privacy and security is crucial for establishing a lasting connection between the company and customer's personal data (Dehghanpouri et al., 2020). Trust issues arise when companies fail to maintain consumer privacy and security. This failure directly affects the decrease in the level of e-banking satisfaction among consumers (Ul Haq & Awan, 2020). Based on this explanation, the proposed hypothesis is:
H_2: Privacy and security have a positive influence on the level of customer satisfaction.

The variable of customer service and support in e-banking services has a negative significance on e-banking satisfaction. Consumers expect that the issues they encounter while using banking services can be fully resolved assisted by customer service and support (Ul Haq & Awan, 2020). Based on this explanation, the proposed hypothesis is:
H_3: Customer service and support have a positive influence on the level of customer satisfaction.

The variable of responsiveness has a positive significance in influencing satisfaction. Quick and responsive responses provided by banking service operators when consumers encounter issues in using mobile banking are crucial for enhancing customer satisfaction (Jahan & Shahria, 2022). Based on this explanation, the proposed hypothesis is:
H_4: Responsiveness has a positive influence on the level of customer satisfaction.

The Influence of Customer Satisfaction on Customer Loyalty

Customer loyalty can be achieved by providing higher levels of satisfaction. Satisfaction leads to loyalty and has a positive impact on customer behavior. For example, satisfaction in banking services can result in increased reuse of the offered services and higher customer loyalty (Giao et al., 2020). Customer satisfaction strongly affects loyalty, driven by service quality's impact on satisfaction and subsequent loyalty (Ayo et al., 2016). Satisfied customers are more inclined to enhance their service usage and recommend services to others, making customer retention not only profitable but also an effective strategy for acquiring new customers (Biscaia et al., 2017).

Customer satisfaction is the outcome of customer encounters throughout the purchasing journey, and it has a pivotal influence on shaping customers' subsequent actions, such as online repurchasing and loyalty (Pereira et al., 2016). Customer satisfaction has a positive influence on customer loyalty. Satisfaction that influences loyalty is demonstrated by the extent to which customers show repeated purchasing behavior towards a seller or service provider (Kotler et al., 2018). When customers are satisfied with online financial service providers, they become accustomed to using and dedicated to internet banking services. As a result, they become loyal customers who demonstrate loyalty by trying out other products offered by the banking institution. Good service quality leads customers to consider factors such as reliability, managing personal expectations, and making informed decisions to continue using banking services in the long run (Raza et al., 2020). Based on this explanation, the proposed hypothesis is:

H_5: Customer satisfaction has a positive influence on the level of customer loyalty.
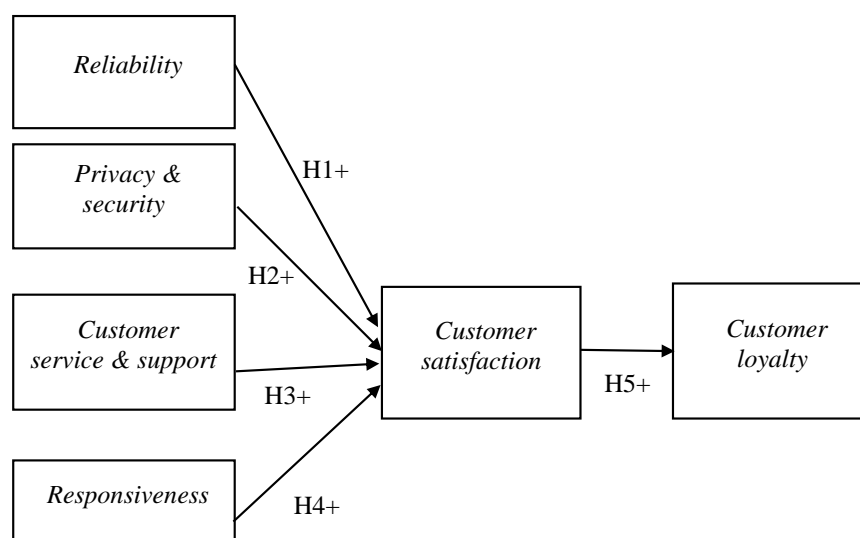

Figure 1. Research Model

Research Methods

This study is classified as a quantitative research because it involves measurable data through surveys. The population used in this study consists of individuals who are users of BCA mobile banking services and have actively used the services more than once in the past month. According to (Hair et al., 2018), the minimum sample size that can be used should be at least five to ten times the number of indicators or questions in the questionnaire. In this study, there are a total of 18 indicator questions, so the required sample size would be 180 respondents. The final number individuals who participated in this research and filled out the questionnaire completely was 194 respondents. The data in this study were taken through a survey conducted by distributing online questionnaires using Google Forms to discover how respondents experience while using mobile banking services regarding the services quality, satisfaction and loyalty.

There were six variables used in this study, and each of them measured using three items which were developed by Ul Haq & Awan (2020) and Jawaid et al. (2021) with modification. The items used are shown in Table 1.

Table 1. Item Measurement

Variables	Items	Source
Reliability	1. The mobile banking service I use provides accurate and reliable services as promised. 2. I am able to obtain accurate transaction details through mobile banking services. 3. With the support of the mobile banking application, I receive banking services that meet my needs.	Ul Haq & Awan (2020)
Privacy and security	1. My personal information is protected by the banking institution I use. 2. My financial information is safeguarded by the banking institution I use. 3. The banking institution I use has the necessary capabilities to ensure the security of my data.	Ul Haq & Awan (2020)
Customer service and support	1. The customer service and support of the banking institution provide information that I can understand. 2. The customer service and support of the banking institution are always willing to assist me with any issues related to using banking services. 3. The customer service and support personnel have sufficient knowledge to help me resolve the problems I encounter.	Ul Haq & Awan (2020)
Responsiveness	1. The banking institution promptly responds to my issues and resolves them according to my expectations. 2. The banking institution follows up when issues cannot be immediately resolved. 3. The banking institution assists me in making decisions when selecting the banking services I need.	Jawaid et al. (2021)
Customer satisfaction	1. Overall, I am satisfied with the banking services I use. 2. I am happy to receive banking services that align with my financial needs. 3. I am satisfied with the use of mobile banking during the pandemic.	Ul Haq & Awan (2020)
Customer loyalty	1. I would recommend the banking services I use to others. 2. I intend to continue using the banking services I use. 3. I continue to use the banking services I use, even though I am aware that other companies offer better services.	Ul Haq & Awan (2020)

Results and Discussion

Respondent Characteristics

In the study, the questionnaire was distributed to respondents online. Out of the 206 collected respondents, a classification was conducted to facilitate the examination of respondent characteristics. It was found that 12 respondents were not users of the BCA mobile banking application, resulting in a total of 194 respondents who met the criteria.

Table 2. Respondent Characteristics

User of BCA mobile banking application services (mobile banking)	Amount	Percentage
Yes	194	94,17%
No	12	5,83%
Total	**206**	**100%**

Source: Primary data processed, 2023

Among this total, 55.64% or 133 respondents were aged between 18 and 30 years, 16.52% or 29 respondents were aged between 31 and 45 years, and 27.85% or 32 respondents were aged between 46 and 60 years. So it can be concluded that the majority of BCA mobile banking respondents fall between the age range of 18 to 30 years.

Table 3. Respondent Characteristics

Age	Amount	Percentage
18 – 30	133	55,63%
31 – 45	29	16,52%
46 – 60	32	27,85%
Total	**194**	**100%**

Source: Primary data processed, 2023

Validity, Reliability, and Descriptive Statistics Test

It was found in this study that all measurements of the variables were considered reliable. Based on Table 4, it can be observed that each indicator in the variables used in the study has a Pearson correlation value greater than 0.5 and a significance level of less than 0.05. Furthermore, it was found that each variable, namely reliability, privacy and security, customer service and support, responsiveness, customer satisfaction, and customer loyalty, can be considered reliable as they have Cronbach's alpha values greater than 0.6. Based on the overall results of the validity and reliability tests, it can be concluded that the measurement tool designed to test the hypotheses has met the requirements, and the questionnaire can obtain data from respondents.

Table 4. Research Indicator Validity and Reliability Test Results

Variabel	Indikator	Pearson Correlation	Significance	Cronbatch's alpha	Result
Reliability (A)	A1	0.864	0.000		Valid
	A2	0.865	0.000	0,838	Valid
	A3	0.884	0.000		Valid
Privacy and security (B)	B1	0.921	0.000		Valid
	B2	0.932	0.000	0,904	Valid
	B3	0.895	0.000		Valid
Customer service and support (C)	C1	0.904	0.000		Valid
	C2	0.911	0.000	0,882	Valid
	C3	0.884	0.000		Valid
Responsiveness (D)	D1	0.811	0.000		Valid
	D2	0.868	0.000	0,795	Valid
	D3	0.848	0.000		Valid
Customer satisfaction (E)	E1	0.906	0.000		Valid
	E2	0.906	0.000	0,872	Valid
	E3	0.867	0.000		Valid
Customer loyalty (F)	F1	0.855	0.000		Valid
	F2	0.786	0.000	0,746	Valid
	F3	0.835	0.000		Valid

Source: Primary data processed, 2023

Measurement Model Test

In the Structural Equation Model (SEM), the measurement model depicts the relationship between latent variables and their indicators. The measurement model stage is conducted to test the validity and reliability of the measurement tools used in the study. The analysis of the measurement model is performed using the Confirmatory Factor Analysis (CFA) method on all the indicators of the variables in the study. The measurement model should meet the criteria of Goodness of Fit Index to be considered suitable for further analysis. The results of the Goodness of Fit Index test are:

Table 5. Measurement Model Test Result

Index	Criteria Goodness of Fit	Value	Result
CMIN/DF	CMIN/DF ≤ 2	1,556	Good fit
RMSEA	RMSEA ≤ 0,08	0,054	Good fit
GFI	GFI ≥ 0,9	0,912	Good fit
CFI	CFI ≥ 0,95	0,976	Good fit
NFI	NFI ≥ 0,9	0,937	Good fit
TLI	TLI ≥ 0,9	0,966	Good fit

The CMIN/DF value, as assessed by Hair et al. (2010), is considered a normal fit if it is ≤ 3 and a good fit if it is ≤ 2. In this research model, the obtained CMIN/DF value is 1.556, indicating a good fit. The recommended value for RMSEA, according to Hair et al. (2010), in this study is ≤ 0.08 to be categorized as a good fit. In this research model, the obtained RMSEA value is 0.054, indicating a fit. The Goodness of Fit Index (GFI) value, as evaluated by Hair et al. (2010), is considered a good fit if it is ≥ 0.9. In this research model, the obtained GFI value is 0.912, indicating a good fit. The Comparative Fit Index (CFI) value, according to Hair et al. (2010), is considered a good fit if it is ≥ 0.95. In this research model, the obtained CFI value is 0.976, indicating a good fit. The Normed Fit Index (NFI) value, as evaluated by Hair et al. (2010), is considered a good fit if it is ≥ 0.9. In this research model, the obtained NFI value is 0.937, indicating a good fit. The Tucker-Lewis Index (TLI) value, according to Hair et al. (2010), is considered a good fit if it is ≥ 0.9. In this research model, the obtained TLI value is 0.966, indicating a good fit.

Partial Least Squares Predict Test

Figure 2 depicts the conceptual framework based on the relationship between variables on SmartPLS 4 for Windows.
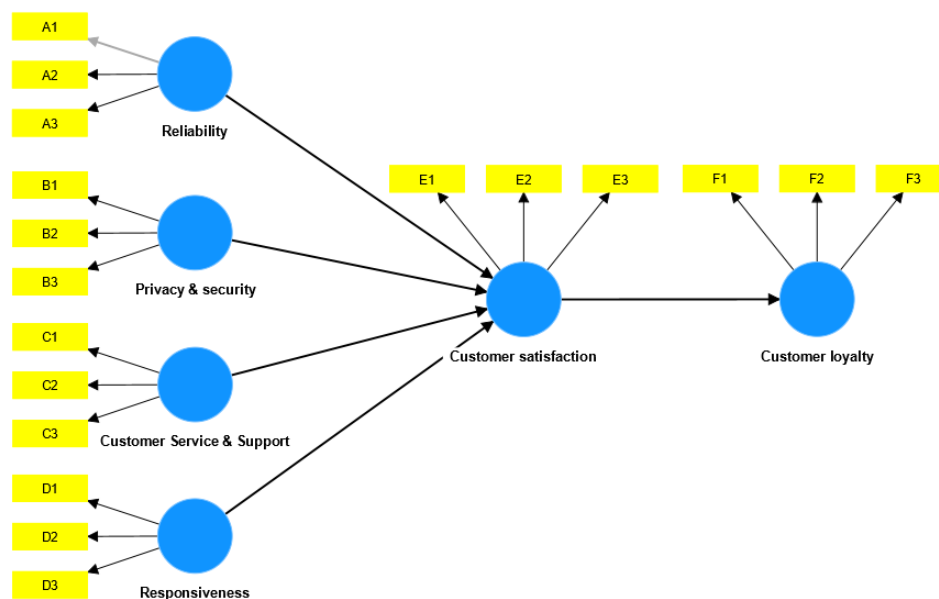
Figure 2. Smart PLS 4 Model

The evaluation of the PLS model can also be performed through Q2 predictive relevance. This technique can present a synthesis of cross-validation and fitting function with predictions from observed variables and estimations of construct parameters using blindfolding procedure (Latan & Ghozali, 2015). A Q2 value > 0 indicates that the model has predictive relevance, and if Q2 < 0, it indicates the model lacks predictive relevance. Q2 predictive relevance values of 0.02 indicate weak, 0.15 indicate moderate, and 0.35 indicate strong predictive relevance. In this research, the obtained Q2 predict indicate moderate to strong predictive relevance. Contrasting the outcomes of PLS-SEM provides insights into whether using a theoretically established pathway model enhances (or at least doesn't deteriorate) the predictive capability of the existing indicator data. When compared to the LM findings, the PLS-SEM results are expected to show a reduced prediction error (Shmueli et al., 2016). In this research, PLS predict test result indicate moderate predictive capability.

Table 6. PLS Predict Test Result

	Q²predict	PLS-SEM_RMSE	PLS-SEM_MAE	LM_RMSE	LM_MAE
E1	0.553	0.400	0.291	0.412	0.287
E2	0.560	0.438	0.316	0.437	0.318
E3	0.396	0.456	0.324	0.447	0.301
F1	0.378	0.564	0.423	0.604	0.430
F2	0.461	0.371	0.256	0.377	0.266
F3	0.276	0.711	0.531	0.733	0.514

Structural Model Test

The next testing is to examine the structural model, which aims to test the hypotheses. The goodness of fit can be measured to assess the adequacy of the structural model.

Table 7. Structural Model Test Result

Index	Criteria Goodness of Fit	Value	Result
CMIN/DF	CMIN/DF ≤ 2	1,45	Good fit
RMSEA	RMSEA ≤ 0,08	0,049	Good fit
GFI	GFI ≥ 0,9	0,919	Good fit
CFI	CFI ≥ 0,95	0,981	Good fit
NFI	NFI ≥ 0,9	0,944	Good fit
TLI	TLI ≥ 0,9	0,972	Good fit

The CMIN/DF value, according to Hair et al. (2010), is considered a good fit if it is ≤ 2 and a normal fit if it is ≤ 3. In this research model, the obtained CMIN/DF value is 1.45, which indicates a good fit. The RMSEA value, recommended by Hair et al. (2010) for this study, is ≤ 0.08 to be classified as a good fit. In this research model, the obtained RMSEA value is 0.045, indicating a good fit. The Goodness of Fit Index (GFI) value, as assessed by Hair et al. (2010), is considered a good fit if it is ≥ 0.9. In this research model, the obtained GFI value is 0.919, indicating a good fit. The Comparative Fit Index (CFI) value, according to Hair et al. (2010), is considered a good fit if it is ≥ 0.95. In this research model, the obtained CFI value is 0.981, indicating a good fit. The Normed Fit Index (NFI) value, according to Hair et al. (2010), is considered a good fit if it is ≥ 0.9. In this research model, the obtained NFI value is 0.944, indicating a good fit. The Tucker-Lewis Index (TLI) value, as assessed by Hair et al. (2010), is considered a good fit if it is ≥ 0.9. In this research model, the obtained TLI value is 0.972, indicating a good fit.

Hypothesis Test

Hypothesis testing can be conducted when the measurement model and structural model used meet the requirements. The purpose of testing is to examine and evaluate the influence between variables. The influence is indicated by significant or non-significant results in the structural model. Hypotheses are accepted when the critical ratio value for each variable is ≥ 1.98 and the p-value is ≤ 0.05.

Table 8. Hypothesis Test Result

Hipotesis	Pengaruh	Std. Estimate	C.R	P-Value	Keterangan
H1	A → E	0,064	2,224	0,026	Significant. Hypothesis supported
H2	B → E	0,055	0,979	0,328	Not significant. Hypothesis not supported
H3	C → E	0,084	3,072	0,002	Significant. Hypothesis supported
H4	D → E	0,108	2,759	0,006	Significant. Hypothesis supported
H5	E → F	0,124	10,087	0,000	Significant. Hypothesis supported

Source: Primary data processed, 2023

In Table 8, it is shown that out of the 5 hypotheses, 4 hypotheses are significant and supported, namely H1, H3, H4, and H5. However, H2 is not significant and not supported due to having a critical ratio value lower than 1.96, thus not meeting the criteria.

The testing results for first hypothesis (H1) aimed to demonstrate a significant relationship between reliability and customer satisfaction. This is supported by the positive standardized estimate value of 0.064, a critical ratio value greater than 1.96 (2.224), and a p-value less than 0.05 (0.026). These results confirm the support for H1. The findings of this study align with earlier research conducted by Ul Haq & Awan (2020) and Jawaid et al. (2021), which also supported first hypothesis. This indicates that users of BCA's mobile banking services are satisfied because the provided services by the banking institution are reliable. The reliability of banking services is demonstrated by the accuracy and consistency of the provided services matching the promised offerings. Specifically, it refers to customers being able to obtain accurate transaction details through mobile banking services. Higher levels of service reliability correspond to increased customer satisfaction when using mobile banking.

The testing results for second hypothesis (H2) aimed to show a significant relationship between privacy and security and customer satisfaction. However, the results showed that the standardized estimate value was positive (0.055), but the critical ratio value was less than 1.96 (0.979), and the p-value was greater than 0.05 (0.328). These findings indicate that H2 is not supported. This study's results contradict previous research conducted by Ul Haq & Awan (2020), Jahan & Shahria (2022), and Jawaid et al. (2021), which supported second hypothesis. This suggests that users of BCA's mobile banking services do not consider privacy and security aspects as factors influencing their level of satisfaction. Privacy and security refer to the company's capacity to safeguard personal and financial information. Similar results were found in a study by M.K & Ramayah (2017) which found that user trust in internet banking did not increase proportionally as they felt their privacy was well protected. The good reputation of banks in Malaysia with strong privacy policies also instills confidence in privacy matters. Therefore, an increase in privacy perceptions does not significantly affect user trust in internet banking.

The testing results for third hypothesis (H3) aimed to demonstrate a significant relationship between customer service and support and customer satisfaction. The findings showed a positive standardized estimate value (0.084), a critical ratio value greater than 1.96 (3.072), and a p-value less than 0.05 (0.002), indicating that H3 is supported. This aligns with a study conducted by Jawaid et al. (2021), which found a significant positive influence of customer service and support on satisfaction. However, it contradicts the findings of a study by Ul Haq & Awan (2020), which reported a significant negative influence of customer service and support on satisfaction. This demonstrates that users of BCA's mobile banking services are satisfied with the assistance and support provided by the company's customer service team. Effective customer service and support are considered favorable when they provide understandable information and will assist customers with any issues related to banking services. To provide such information, customer service personnel also need to have good product knowledge. The better the quality of service and assistance provided by customer service and support, the higher the level of customer satisfaction in using mobile banking.

The testing results for fourth hypothesis (H4) aimed to demonstrate a significant relationship between responsiveness and customer satisfaction. The findings showed a positive standardized estimate value (0.108), a critical ratio value greater than 1.96 (2.759), and a p-value

less than 0.05 (0.006), indicating that H4 is supported. This aligns with studies conducted by Jahan & Shahria (2022) and Jawaid et al. (2021), which also found support for fourth hypothesis. This demonstrates that users of BCA's mobile banking services are satisfied with the quick and responsive support provided by the company. The bank promptly responds to customer issues and meets their expectations in resolving service-related problems. Additionally, the bank follows up when issues cannot be resolved immediately. Thus, the bank assists customers in making decisions regarding their banking service preferences. The higher the level of responsiveness provided, the higher the level of customer satisfaction in using mobile banking.

The testing results for fifth hypothesis (H5) aimed to demonstrate a significant relationship between customer satisfaction and customer loyalty. The findings showed a positive standardized estimate value (0.124) and a critical ratio value greater than 1.96 (10.087), indicating support for H5. This aligns with studies conducted by Ul Haq & Awan (2020) and Jahan & Shahria (2022), which also found support for fifth hypothesis. This demonstrates that the satisfaction of BCA's mobile banking users influences their long-term loyalty towards using the service. Customer satisfaction is reflected in the joy experienced by customers when receiving banking services that meet their financial needs. Customer loyalty is indicated by customer behavior, such as intending to recommend the banking service to others and maintaining a commitment to using the same banking service, even when aware of better alternatives. The higher the level of customer satisfaction, the higher the level of customer loyalty demonstrated in their long-term service usage.

Theoritical Implication and Managerial Implication

This study was conducted by modifying the research by Ul Haq & Awan (2020). The previous research model examined the variables of reliability, privacy and security, customer service and support, website design, and their impact on e-loyalty with the mediating variable of e-satisfaction. However, in this study, the researcher replaced the variable of website design with the variable of responsiveness provided by the banking institution when customers encounter difficulties in using the provided services.

For theoretical implications, the research findings align with earlier studies conducted by Ul Haq & Awan (2020), indicating that reliability, customer service and support, and responsiveness have a significant positive impact on customer satisfaction. Additionally, customer satisfaction has a significant positive impact on customer loyalty. The difference from earlier research was found in the privacy and security variable, which was found to be insignificant in relation to customer satisfaction. Privacy and security do not affect customer satisfaction because experienced internet users feel more familiar with security technology, resulting in lower concerns about their privacy as they believe that the security features of mobile banking services are sufficient to protect their privacy. Therefore, trust in online companies and the presence of robust security features can influence users to comfortably disclose personal and financial information.

For managerial implications, this research provides recommendations for banking companies to continuously provide the best service quality and prioritize customer satisfaction to maintain their loyalty. The services offered should be reliable and relevant, keeping up with the current era's developments and the existing business ecosystem. To drive customer satisfaction in mobile banking services, companies should prioritize and continuously enhance reliability by making sure features like balance information, transactions, and bill payments accurately meet customer needs. By doing so, companies can provide a convenient and tailored transaction experience that meets customer expectations. While privacy and security do not directly affect customer satisfaction in this context, companies should allocate resources to other areas of service improvement, such as user experience, convenience, and additional value-added services. Furthermore, focusing on customer service and support is crucial as customers expect prompt assistance when facing difficulties or problems. Providing multiple channels for customer service, like telephone, WhatsApp, and dedicated smartphone applications, can enhance accessibility and customer satisfaction. Responsiveness is also key, as promptly addressing and resolving customer concerns significantly affects satisfaction levels. By taking the initiative to provide proactive and improved services, companies can deliver the best customer experience. Continually analyzing

customer needs and preferences will allow companies to accurately determine the specific service products or features that contribute to customer satisfaction. Ultimately, by fostering and maintaining high levels of customer satisfaction, companies can cultivate customer loyalty, leading to long-term usage and positive recommendations to others.

Conclusion and Future Direction

The objective of this study was to investigate the relationship between service quality, customer satisfaction, and customer loyalty among banking service users in Indonesia. However, there were several limitations in this study that can be addressed by future researchers. First, the sample size was limited to 194 respondents mainly from East Java, Indonesia. Future researchers are encouraged to use a larger sample size and include participants from diverse industrial contexts. Second, this study focused on four variables to measure service quality: reliability, privacy and security, customer service and support, and responsiveness. Future researchers can explore more specific variables to assess service quality in the banking sector, such as the user-friendliness of applications, transaction speed, and quality of application features. Additionally, future studies can consider incorporating additional variables that may influence customer satisfaction and loyalty, such as brand reputation and pricing. Furthermore, research can be extended to other banking or financial sectors to compare the impact of service quality variables on customer satisfaction and loyalty.

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