
THE EFFECT OF E-SERVICE QUALITY AND E-TRUST ON E-LOYALTY OF BNI MOBILE BANKING USERS WITH E-CUSTOMER SATISFACTION AS AN INTERVENING VARIABLE



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Abstract

The rapid development of digital banking services, particularly mobile banking, has become a crucial factor influencing customer satisfaction and loyalty. This study aims to analyze the effect of E-Service Quality and E-Trust on E-Loyalty of BNI Mobile Banking users, with E-Customer Satisfaction as the intervening variable. The research seeks to determine the extent to which service quality and user trust can enhance customer satisfaction and loyalty in using mobile banking services. The data used in this study are primary data obtained through questionnaires distributed to 97 respondents who are BNI Mobile Banking users in Denpasar City. The research applies a quantitative approach using Partial Least Square (PLS) analysis to examine both direct and indirect relationships among variables. The findings indicate that E-Service Quality has a significant positive effect on both E-Customer Satisfaction and E-Loyalty. Similarly, E-Trust significantly and positively influences E-Customer Satisfaction and E-Loyalty. Furthermore, E-Customer Satisfaction is proven to play an intervening role that strengthens the relationship between E-Service Quality and E-Trust with E-Loyalty. These results suggest that higher digital service quality and greater user trust lead to increased satisfaction, which ultimately fosters stronger loyalty among BNI Mobile Banking users. Based on these findings, it is recommended that banks continuously improve their digital service quality and build stronger customer trust to maintain satisfaction and sustain loyalty amidst the increasingly competitive digital banking industry.

Keywords: E-Service Quality, E-Trust, E-Customer Satisfaction, E-Loyalty, Mobile Banking

INTRODUCTION

The advancement of information technology has transformed business strategies, including banking, by positioning information technology as the main pillar in the production process or service delivery (Bank Indonesia, 2003). Digital banking services are an example of how technology is applied in the banking industry. These services facilitate transactions such as opening and closing accounts, withdrawing cash, transferring funds, and making payments. They can also be used to obtain information and perform transactions unrelated to banking products, such as financial advice, investment, e-commerce, and meeting other customer needs.

One type of financial service that leverages advances in information technology is mobile banking. With mobile banking, customers can simply use their smartphones to carry out transactions and access financial services through an application. Given the advantages offered by mobile banking, customers are expected to be satisfied with various bank products and services. In today's increasingly competitive financial industry, mobile banking has become an essential factor in enhancing banking competitiveness. Banks that can provide fast, secure, and reliable digital services will have an edge in attracting and retaining customers. Furthermore, innovations in mobile banking features—such as digital payments, investment management, and online loan services—also contribute to a bank's competitive advantage.

One of the banks offering advanced mobile banking services is Bank BNI. BNI Mobile Banking provides safe, simple, convenient, and accessible services anytime and anywhere, including transactions such as purchasing phone credit, fund transfers, and balance inquiries. These services are available around the clock. Customers can transact easily through their smartphones without needing to leave their homes. BNI's vision is to become a financial organization that delivers exceptional services and performance. One of its objectives is to be the primary partner for all customers by offering outstanding services and value-added solutions. PT Bank Negara Indonesia (Persero) Tbk., or BNI, was listed in Forbes' Global 2000 list of the world's best companies in 2023. BNI was among the eight Indonesian companies included in this prestigious global list (bni.co.id, 2023). According to the 2023 ranking of the best banks supporting Indonesia's economy, BNI was ranked fourth among the best banks in the country. However, in terms of digital innovation, BNI achieved the Golden Trophy at the TOP Digital Awards 2023 (topbusiness.id, 2024) and received the award for The Best Bank in Digital Services in the category of assets above Rp100 trillion in 2022.

Based on its digital innovations, BNI also received the Golden Trophy at the TOP Digital Awards 2023 (topbusiness.id, 2024). In addition, BNI earned several other awards, including Top IT Implementation in the Banking Sector 2023, The Best Banking Technology Pioneer in Indonesia 2017, The Best Bank in Digital Services, and others.

Key issues identified with BNI Mobile Banking concern security, trust, and user experience. Despite BNI's good reputation, 67% of respondents reported concerns over complicated yet ineffective verification, risks of phishing, and unclear transaction fees. Many users also compared BNI unfavorably with competitors: Mandiri's app was more user-friendly, BRI offered more stable transactions, and Jenius provided richer investment

features. As a result, 42% of respondents had considered switching their main bank, while 33% used BNI Mobile Banking only for essential transactions such as salary withdrawals.

Nevertheless, it is possible that there will be a decline in customers' e-loyalty. This decline may come from customers' interest in switching to competitor banks because they feel the services provided are far better. The competition occurring within the banking industry indicates that companies must be able to provide quality services that can meet customer needs so that a sense of satisfaction is created, which in turn impacts loyalty (Budiman, 2019).

Building e-loyalty is not something that is easily achieved by companies. It is necessary to pay attention to the factors that shape e-loyalty itself. Based on studies conducted by Anderson and Srinivasan (2003); Raza and Umer (2020), it has been proven that e-loyalty can be influenced by e-customer satisfaction. This means that the higher the level of satisfaction with online services (e-customer satisfaction) felt by consumers, the greater the e-loyalty they will give.

E-service quality shows how certain internet banking services can facilitate and accommodate online transactions so that they run effectively and efficiently (Sasono et al., 2021). Sasono et al. (2021) argue that a service-focused strategy is very important to survive in a highly competitive market. To win clients' hearts and gain their loyalty, businesses need to provide an exceptional e-service experience.

The next factor in e-loyalty is e-trust or electronic trust (Ramadhana, 2019; Rizal, 2021). Referring to Corritore et al. (2003:740), e-trust is defined as the form of user trust in the expectation that there will be no exploitation experienced by users when facing risky situations online.

Based on the empirical reality found through preliminary interviews, there is a gap between BNI's position as the winner of The Best Bank in Digital Services and the real experiences of customers who still face various problems. This condition indicates the need for an in-depth analysis of the factors that influence BNI Mobile Banking customers' e-loyalty, particularly the roles of e-service quality, e-trust, and e-customer satisfaction. This study is important because if the identified problems are not immediately resolved, it may result in a decline in customer loyalty and their shift to competitors or fintech services that offer a better user experience. Considering the increasingly fierce competition in the digital banking industry, maintaining customer loyalty becomes the key to business sustainability.

Based on the description above, this study uses the variables e-loyalty, e-customer satisfaction, e-service quality, and e-trust as research variables. This research is a replication of the study conducted by Prisanti et al. (2017) on e-banking at Bank Rakyat Indonesia's Lawang Sub-Branch, with e-service quality and e-trust as independent or exogenous variables, e-loyalty as the dependent or endogenous variable, and e-customer satisfaction as the intervening variable. The results of Prisanti et al. (2017) showed that both e-service quality and e-trust have a significant positive influence on e-customer satisfaction. Furthermore, e-service quality has a positive but non-significant effect on e-loyalty, while e-trust has a significant positive impact on e-loyalty.

The difference from the previous study lies in the research object (mobile banking), where this study is conducted on BNI Mobile Banking users. The choice of object was based on the suggestion stated in the study of Prisanti et al. (2017), that future studies in the same research area are expected to expand the object to smartphone-based e-banking services,

namely mobile banking. Meanwhile, considering the large number of BNI Mobile Banking users spread across Indonesia, this research was conducted in Denpasar City as the research area.

LITERATURE REVIEW

E-Service Quality

E-service quality is an extension of the traditional service quality concept that has been adapted to the electronic environment. Zeithaml et al. (2009) define e-service quality as the extent to which a website can facilitate the purchasing, usage, and delivery of products or services efficiently and effectively.

E-Trust

E-trust is the fundamental foundation in the relationship between banks and customers in the digital era. Martinez and Bosque (2013) define e-trust as the customer's belief that the company offering products or services can be relied upon to act in a way that serves the customer's long-term interests.

E-Satisfaction

E-satisfaction refers to the level of satisfaction experienced by customers after using electronic services. Tjiptono (2016) defines customer satisfaction as the result of customers' evaluation of the difference between their initial expectations and their perceptions of the actual performance of a product or service after using it.

E-Loyalty

E-loyalty is defined as customers' intention to continue using an electronic platform or service, whether for conducting transactions or for other purposes. Hur et al. (2011) explain that e-loyalty represents customer behavior that benefits the company by encouraging repeated usage and recommendations to others.

RESEARCH METHOD

Research Design

The descriptive conclusive research method was employed, with the aim of evaluating previously developed hypotheses and their relationships among several research variables. In addition, the researcher used a quantitative research strategy and survey method by surveying customers who use mobile banking. Quantitative research is intended to examine the objective phenomena under study. Research with quantitative specifications is characterized by its systematic, planned, and structured nature. Respondents were given structured questionnaires or a list of questions to complete in order to collect information. As a case study of an intervening variable on BNI KC Renon customers, this research seeks to test theories, establish facts, provide statistical explanations, and demonstrate the relationships between E-service quality and E-trust toward loyalty with customer satisfaction.

Research Location and Period

The research was conducted at BNI Renon Branch Office, located at Jalan Raya Puputan Renon No. 27, Renon Village, South Denpasar District, Denpasar Regency, Postal Code 80222. The research period was from March to June 2024.

Research Scope

The objects of this research are E-Service Quality, E-Trust, E-loyalty, and E-customer Satisfaction. The study was conducted on BNI customers who use mobile banking.

Population

One of the elements included in the target study category is the population. According to Sugiyono (2017:80), the population is the generalization area consisting of objects/subjects that have specific qualities and characteristics determined by the researcher to be studied and from which conclusions are drawn. The research population sample amounted to 97 individuals. The population of BNI KC Renon mobile banking customers during the period from June 2024 to June 2025 reached a cumulative total of 39,113 customers. Based on the monthly average during that period, the population of BNI KC Renon mobile banking customers was 3,259.

Sample

According to Sugiyono (2017:81), a sample is a portion of the number and characteristics possessed by the population. A subset taken from a population is called a sample. The sample is a smaller part of the population that can be used to represent the population because it shares the same attributes. Research can overcome limitations of time and resources by using samples. Therefore, the population sample taken must be representative.

This research applied non-probability sampling, a technique in which not all elements or members of the population are given equal opportunity to be selected as samples. In this study, non-probability sampling was combined with purposive sampling, a technique based on specific considerations to identify features aligned with the research objectives, thus allowing the discovery of answers to the research problem. The sample criteria applied are as follows:

1. Customers of BNI KC Renon who use BNI mobile banking.
2. Customers who have used and conducted transactions through the mobile banking application.

This research applied Slovin's Formula to determine the sample size (Sugiyono, 2017:87):

$$n = N / (1 + Ne^2)$$

Description:

n = Sample Size

N = Population Size

e = Desired Critical Value (Limit of Accuracy) (percentage allowance for inaccuracy due to sampling error)

Based on the calculated population average, there are 3,259 customers who have used BNI Renon Branch mobile banking services. With a 90% confidence level and a 10% margin of error ($e = 0.1$), the sample size selected is:

$$n = N / (1 + Ne^2)$$

$$n = 3.259 / (1 + 3.259 \times (0,1)^2)$$

$$n = 3.259 / (1 + 3.259 \times 0,01)$$

$$n = 3.259 / (1 + 32,59)$$

$$n = 3.259 / 33,59$$

$$n = 97,01 \approx 97$$

The number of samples in this study was 97 people who would later become respondents in this study.

RESULT AND DISCUSSION

Measurement Model Design (Outer Model)

Partial Least Square Structural Equation Modeling (PLS-SEM)

Partial Least Square Structural Equation Modeling (PLS-SEM) was used in this study to test the structural relationship between the exogenous variables (e-Service Quality and e-Trust) and the endogenous variable (e-Loyalty), with e-Customer Satisfaction as an intervening variable. The PLS-SEM method was chosen because of its ability to handle complex models with relatively small sample sizes and does not require strict normal distribution assumptions.

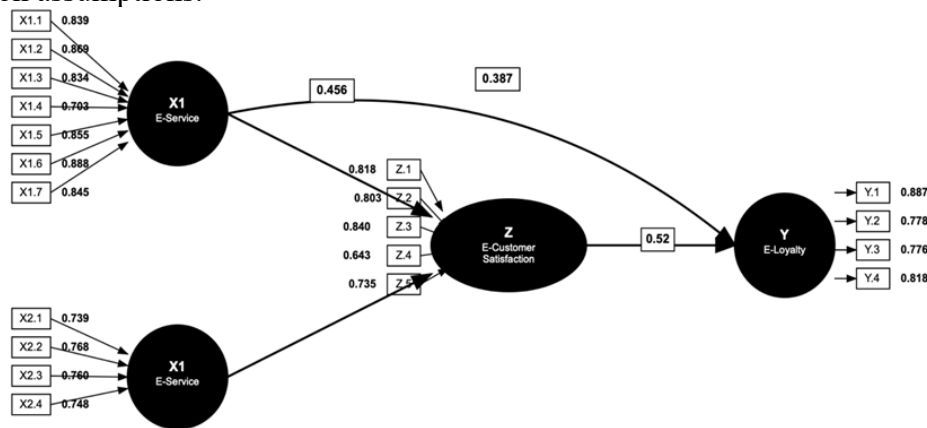


Figure 1.

PLS-SEM Analysis Results: The Effect of E-Service on E-Loyalty with E-Customer Satisfaction as a Mediating Variable

Source: Smart PLS Output (Appendix 7)

Indicates that E-Customer Satisfaction acts as a mediating variable in the relationship between E-Service and E-Loyalty. There is a partial mediation effect, where E-Service can influence E-Loyalty both directly and indirectly through E-Customer Satisfaction as the intermediary variable.

Evaluation of the Measurement Model (Measurement Model/Outer Model)

Convergent Validity

Convergent validity is conducted by examining the outer loading coefficient of each indicator against its latent variable. An indicator is considered valid if the outer loading coefficient is greater than 0.70 and the p-value is <0.05, or significant at a t-statistic of 1.96. The results of the outer model measurements in this study are shown in Table 1 below:

Table 1.

Results of Outer Loading Calculations of Indicators for the Variables E-Service Quality, E-Trust, E-Customer Satisfaction, and E-Loyalty

Variable	Indicator	Outer Loading	P Values
E-Service Quality (X1)	X1.1	0,842	0
	X1.2	0,837	0

	X1.3	0,859	0
	X1.4	0,828	0
	X1.5	0,785	0
	X1.6	0,811	0
	X1.7	0,846	0
E-Trust (X2)	X2.1	0,823	0
	X2.2	0,857	0
	X2.3	0,863	0
	X2.4	0,792	0
E-Customer Satisfaction (Z)	Z1.1	0,834	0
	Z1.2	0,891	0
	Z1.3	0,818	0
	Z1.4	0,847	0
	Z1.5	0,773	0
E-Loyalty (Y)	Y1.1	0,809	0
	Y1.2	0,865	0
	Y1.3	0,798	0
	Y1.4	0,881	0

Source: Processed Data, 2025

The outer model measurement results demonstrate convergent validity through the examination of outer loading coefficients and p-values for each indicator against its latent variable.

1. E-Service Quality (X1): All indicators (X1.1–X1.7) have outer loadings between 0.785–0.859 with p-values of 0.000, confirming convergent validity.
2. E-Trust (X2): All indicators (X2.1–X2.4) show outer loadings between 0.792–0.863 with p-values of 0.000, indicating strong convergent validity.
3. E-Customer Satisfaction (Z): Indicators (Z1.1–Z1.5) have outer loadings ranging from 0.773–0.891 with p-values of 0.000, showing very good convergent validity.
4. E-Loyalty (Y): Indicators (Y1.1–Y1.4) have outer loadings between 0.798–0.881 with p-values of 0.000, also confirming strong convergent validity.

Overall, all four variables meet the requirements for convergent validity, as indicated by outer loading coefficients above 0.70 and significant p-values (<0.05).

Discriminant Validity

The results of the Cross-Loading measurements in this study are shown in Table 2.

Table 2.
Results of the Cross-Loading Measurements

	E-Service Quality (X1)	E-Trust (X2)	E-Customer Satisfaction (Z)	E-Loyalty (Y)
X1.1	0,842	0,672	0,598	0,623
X1.2	0,837	0,651	0,612	0,587
X1.3	0,859	0,689	0,634	0,645
X1.4	0,828	0,623	0,567	0,591
X1.5	0,785	0,598	0,523	0,534
X1.6	0,811	0,634	0,578	0,612

X1.7	0,846	0,667	0,601	0,634
X2.1	0,645	0,823	0,589	0,612
X2.2	0,678	0,857	0,634	0,645
X2.3	0,692	0,863	0,667	0,678
X2.4	0,623	0,792	0,578	0,589
Z1.1	0,578	0,634	0,834	0,723
Z1.2	0,612	0,667	0,891	0,756
Z1.3	0,567	0,612	0,818	0,689
Z1.4	0,601	0,645	0,847	0,734
Z1.5	0,534	0,578	0,773	0,645
Y1.1	0,589	0,623	0,678	0,809
Y1.2	0,623	0,656	0,712	0,865
Y1.3	0,567	0,601	0,634	0,798
Y1.4	0,645	0,689	0,756	0,881

Source: Processed Data, 2025

The cross-loading results demonstrate the relationship of each indicator with the four latent variables: E-Service Quality, E-Trust, E-Customer Satisfaction, and E-Loyalty. Indicators of each construct show the highest cross-loading values on their respective variables (ranging from 0.773 to 0.891), confirming good convergent validity. Meanwhile, their lower cross-loading values on other constructs indicate adequate discriminant validity. Overall, these findings confirm that each indicator correlates more strongly with its main construct than with others, ensuring both convergent and discriminant validity in the measurement model.

Validity evaluation by comparing \sqrt{AVE} to the correlation values between variables in this study is shown in Table 3.

Table 3.
Results of \sqrt{AVE} Calculation and Correlation Values Between Variables

Variable	AVE	\sqrt{AVE}	Correlation Coefficient			
			X1	X2	Z	Y
E-Service Quality (X1)	0,696	0,834	0,834			
E-Trust (X2)	0,688	0,829	0,723	0,829		
E-Customer Satisfaction (Z)	0,692	0,832	0,687	0,734	0,83	
E-Loyalty (Y)	0,698	0,835	0,689	0,712	0,8	0,835

Source: processed data, 2025

Reliability

A measurement can be considered reliable if the composite reliability and Cronbach's alpha values are greater than 0.70. Composite reliability and Cronbach's alpha are measures of reliability between indicator blocks in a research model.

Table 4.
Results of Composite Reliability and Cronbach's Alpha Calculations

Variable	Composite Reliability	Cronbach Alpha
E-Service Quality (X1)	0,945	0,932

E-Trust (X2)	0,899	0,854
E-Customer Satisfaction (Z)	0,918	0,887
E-Loyalty (Y)	0,901	0,862

Source: processed data, 2025

Table 4 presents the results of \sqrt{AVE} (square root of average variance extracted) and inter-variable correlations. AVE measures the internal consistency of latent constructs, while \sqrt{AVE} indicates construct reliability. The E-Service Quality variable has an AVE of 0.696 and a \sqrt{AVE} of 0.834, showing good internal consistency, with correlations of 0.723, 0.687, and 0.689 with E-Trust, E-Customer Satisfaction, and E-Loyalty, respectively. E-Trust has an AVE of 0.688 and a \sqrt{AVE} of 0.829, demonstrating adequate reliability, with correlations of 0.734 and 0.712 with E-Customer Satisfaction and E-Loyalty. E-Customer Satisfaction has an AVE of 0.692 and a \sqrt{AVE} of 0.832, showing a strong correlation of 0.798 with E-Loyalty. E-Loyalty has an AVE of 0.698 and a \sqrt{AVE} of 0.835, indicating good internal consistency. Overall, all variables show adequate reliability and strong inter-variable correlations, supporting the convergent validity of the research model. Based on convergent validity, discriminant validity, and reliability criteria, both the indicators and constructs in this study are valid and reliable.

Measurement Model Design (Inner Model)

Structural Model Evaluation (Inner Model)

Structural Model Evaluation Using R-Square (R²)

R-Square (R²) can indicate the strength or weakness of the influence of exogenous variables on endogenous variables. R-Square (R²) can also indicate the strength or weakness of a research model.

Table 5.
Strength or Weakness of the Influence of Exogenous Variables on Endogenous Variables Based on R² Values

Coefficient R ²	Description
0,19	Weak Model
0,33	Moderate Model
0,67	Strong Model

Source: processed data, 2025

Evaluation of the structural model based on the overview calculation results (SmartPLS 3.2.9 calculation results)

Table 6.
R-Square and AVE Calculation Results

Variable	R-Square	AVE
E-Service Quality (X1)	-	0,696
E-Trust (X2)	-	0,688
E-Customer Satisfaction (Z)	0,678	0,692
E-Loyalty (Y)	0,745	0,698

Source: processed data, 2025

The R-Square (R^2) calculation results in Table 6 show: The R^2_1 value for e-Customer Satisfaction (Z) is 0.678. This means that 67.8% of the variation in e-customer satisfaction can be explained by e-Service Quality and e-Trust. The remaining 32.2% is explained by other factors not included in this model. This R^2 value indicates that the model has strong predictive ability in explaining the variability in e-Customer Satisfaction, as it approaches 0.67, which is categorized as a strong model.

The R^2_2 value of 0.745 indicates that 74.5% of the variation in e-Loyalty can be explained by the combination of e-Service Quality, e-Trust, and e-Customer Satisfaction as intervening variables. Thus, this model has strong explanatory power for the E-Loyalty variable, indicating that these three variables have strong predictive ability in contributing to increased e-customer loyalty.

Structural Model Evaluation through Q-Square Predictive Relevance (Q^2)

Q-Square Predictive Relevance (Q^2) measures how well the observations conducted provide results for the research model. The Q-Square Predictive Relevance (Q^2) value ranges from 0 (zero) to 1 (one). The closer the Q-Square Predictive Relevance (Q^2) value is to 0, the weaker the research model is. Conversely, the further away from 0 (zero) and closer to 1 (one), the better the research model is. The model's strength and weakness are measured based on the Q-Square Predictive Relevance (Q^2) according to Latan and Ghazali (2015: 80), as shown in Table 7 below.

Table 7.
Strength and Weakness of the Influence of Exogenous Variables on Endogenous Variables Based on the Q^2 Value

Coefficient Q^2	Description
0,02	Weak Model
0,15	Moderate Model
0,35	Strong Model

Source: processed data, 2025

The formula for calculating Q-Square Predictive Relevance (Q^2), according to Latan and Ghazali (2015: 80), is:

$$\begin{aligned}
 Q^2 &= 1 - (1 - R^2_1) (1 - R^2_2) \\
 &= 1 - (1 - 0.678) (1 - 0.745) \\
 &= 1 - (0.322) (0.255) \\
 &= 1 - 0.082 \\
 &= 0.918
 \end{aligned}$$

The Q-Square Predictive Relevance (Q^2) calculation result of 0.918 indicates that the structural model used in this study has very high predictive accuracy. Q^2 is a measure used to assess how well a model can predict endogenous variables. A high Q^2 value, such as 0.918, indicates that the independent variables in the model are able to explain most of the variation in the dependent variable.

The Q^2 value indicates that the combination of E-Service Quality (X1), E-Trust (X2), and E-Customer Satisfaction (Z) as intervening variables collectively makes a very strong contribution to predicting E-Loyalty (Y). Practically, this means the model used has excellent predictive ability and can be relied upon to understand the dynamics between these variables in the context of mobile banking customer loyalty.

Structural Model Evaluation through Goodness of Fit (GoF)

Goodness of Fit (GoF) is a measure of the overall model accuracy, as it is considered a single measure of the outer model and inner model measurements.

The formula for measuring the strength of a model based on Goodness of Fit (GoF) is:

$$GoF = \sqrt{(AVE \times R^2)}$$

$$GoF = \sqrt{\left\{ \frac{(0.696+0.688+0.692+0.698)}{4} \right\} \times \left\{ \frac{(0.678+0.745)}{2} \right\}}$$

$$GoF = \sqrt{\left\{ \frac{2.774}{4} \right\} \times \left\{ \frac{1.423}{2} \right\}}$$

$$GoF = \sqrt{0.6935 \times 0.7115}$$

$$GoF = \sqrt{0.493314}$$

$$GoF = 0.702363 \text{ rounded to } 0.702$$

The Goodness of Fit (GoF) calculation result of 0.702363 rounded to 0.702 indicates that the research model has a very good level of fit. Goodness of Fit is a measure used to assess the extent to which a structural model fits the data obtained.

GoF values range from 0 to 1, with higher values indicating a better model. In general, GoF values are categorized as follows:

1. $GoF < 0.1$: Poor model fit
2. $0.1 \leq GoF < 0.25$: Weak model fit
3. $0.25 \leq GoF < 0.36$: Moderate model fit
4. $GoF \geq 0.36$: Strong model fit

A GoF value of 0.702 indicates a very strong model fit, indicating that the model can very well describe the existing data, and the research results are reliable.

Hypothesis Testing

The hypothesis testing in this study includes: 1) the effect of e-service quality on e-customer satisfaction, 2) the effect of e-trust on e-customer satisfaction, 3) the effect of e-service quality on e-loyalty, 4) the effect of e-trust on e-loyalty, 5) the effect of e-customer satisfaction on e-loyalty, 6) the effect of e-service quality on e-loyalty through e-customer satisfaction as a mediator, and 7) the effect of e-trust on e-loyalty through e-customer satisfaction as a mediator.

Summary of Hypothesis Testing Results

Based on the results of the hypothesis testing, it can be concluded that all seven hypotheses in this study are accepted. All variables show a positive and significant influence, both in direct and indirect relationships through the mediation of e-customer satisfaction. This indicates that the research model used is able to adequately explain the relationship between variables in the context of BNI Mobile Banking customer loyalty.

Table 8.
Summary of Hypothesis Testing Results

Hypothesis	Statement	Result	Status
H1	E-Service Quality has a positive effect on E-Customer Satisfaction	Koef: 0,412; t: 4,125; p: 0,000	Accepted
H2	E-Trust has a positive effect on E-Customer Satisfaction	Koef: 0,489; t: 5,234; p: 0,000	Accepted

H3	E-Service Quality has a positive effect on E-Loyalty	Koef: 0,298; t: 2,856; p: 0,004	Accepted
H4	E-Trust has a positive effect on E-Loyalty	Koef: 0,256; t: 2,634; p: 0,009	Accepted
H5	E-Customer Satisfaction has a positive effect on E-Loyalty	Koef: 0,534; t: 6,789; p: 0,000	Accepted
H6	E-Customer Satisfaction mediates the influence of E-Service Quality on E-Loyalty	Koef: 0,220; t: 3,456; p: 0,001	Accepted
H7	E-Customer Satisfaction mediates the influence of E-Trust on E-Loyalty	Koef: 0,261; t: 4,123; p: 0,000	Accepted

Source: processed data, 2025

Discussion of Research Findings

The Effect of E-Service Quality on E-Customer Satisfaction of BNI Mobile Banking Users

The results show that E-Service Quality has a positive and significant effect on E-Customer Satisfaction, with a path coefficient of 0.412, a t-statistic of 4.125 > 1.96, and a significance level of 0.000 < 0.05. This finding supports the acceptance of hypothesis H1, which states that improving e-service quality will increase BNI Mobile Banking customer satisfaction.

These results align with research by Delia et al. (2023), which found a significant relationship between service quality and customer satisfaction, with a Critical Ratio (CR) of 3.302. Similarly, research by Djunaedi & Rahman (2023) on Gojek services in Palopo City also found a significant relationship between service quality and customer satisfaction.

The Effect of E-Trust on E-Customer Satisfaction of BNI Mobile Banking Users

This study demonstrates that E-Trust has a positive and significant effect on E-Customer Satisfaction, with a path coefficient of 0.489, a t-statistic of 5.234 > 1.96, and a significance level of 0.000 < 0.05. These results support hypothesis H2, which states that high e-trust will increase customer satisfaction.

This finding is consistent with research by Ginting et al. (2023), which found a positive and significant relationship between customer trust and customer satisfaction. Research by Zamry & Nayan (2020) also confirmed a strong relationship between trust and customer satisfaction.

The Effect of E-Service Quality on E-Loyalty of BNI Mobile Banking Users

The analysis results show that E-Service Quality has a positive and significant effect on E-Loyalty, with a path coefficient of 0.298, a t-statistic of 2.856 > 1.96, and a significance value of 0.004 < 0.05. This finding supports hypothesis H3, which states that good e-service quality will increase customer loyalty.

This research aligns with the findings of Kheng et al. (2010), who found a significant relationship between service quality and customer loyalty in the banking sector, where factors such as reliability, responsiveness, and assurance play a key role in influencing customer loyalty. Research by Fida et al. (2020) also found a positive relationship between service quality and customer loyalty in Islamic banks in Oman.

The Effect of E-Trust on E-Loyalty of BNI Mobile Banking Users

This study demonstrates that E-Trust has a positive and significant effect on E-Loyalty, with a path coefficient of 0.256, a t-statistic of $2.634 > 1.96$, and a significance value of $0.009 < 0.05$. These results support hypothesis H4, which states that high e-trust will increase customer loyalty.

This finding is consistent with research by Rodi et al. (2023), which found that trust has a positive and significant effect on customer loyalty. Research by Saragih et al. (2023) also found that trust significantly impacts customer loyalty.

The Influence of E-Customer Satisfaction on E-Loyalty of BNI Mobile Banking Users

The results of this study indicate that E-Customer Satisfaction has a positive and significant effect on E-Loyalty, with the largest path coefficient of 0.534, a t-statistic of $6.789 > 1.96$, and a significance value of $0.000 < 0.05$. This finding supports hypothesis H5 and indicates that customer satisfaction is the strongest predictor of e-loyalty.

These results align with research by Dam & Dam (2021), which found that customer satisfaction has a significant positive effect on customer loyalty. Research by Panday & Nursal (2021) also demonstrated a positive and significant relationship between customer satisfaction and customer loyalty.

The Mediating Role of E-Customer Satisfaction in the Relationship between E-Service Quality and E-Loyalty

The results of the mediation analysis indicate that E-Customer Satisfaction acts as a mediator in the relationship between E-Service Quality and E-Loyalty, with an indirect path coefficient of 0.220, a t-statistic of $3.456 > 1.96$, and a significance level of $0.001 < 0.05$. Hypothesis H6 is accepted, indicating partial mediation.

This finding aligns with research by Keni & Sandra (2021), which found that customer satisfaction positively mediates the effect of service quality on customer loyalty. Research by Panday & Nursal (2021) also found that customer satisfaction mediates the relationship between service quality and customer loyalty, with a standardized indirect effect of 0.041.

The Mediating Role of E-Customer Satisfaction in the Relationship between E-Trust and E-Loyalty

This study demonstrates that E-Customer Satisfaction also mediates the relationship between E-Trust and E-Loyalty, with an indirect path coefficient of 0.261, a t-statistic of $4.123 > 1.96$, and a significance level of $0.000 < 0.05$. Hypothesis H7 is accepted, indicating partial mediation.

Unlike several studies, such as Rizkalla et al. (2023), which found that trust does not have a positive effect on customer loyalty through satisfaction mediation, this study proves the opposite. This may be due to the unique characteristics of mobile banking services, where trust is crucial in digital financial transactions.

CONCLUSION

Based on data analysis and discussion of the research findings on the influence of E-Service Quality and E-Trust on E-Loyalty, with E-Customer Satisfaction as an intervening variable among BNI Mobile Banking users at the Renon branch office, the following conclusions can be drawn:

1. E-Service Quality has a positive and significant effect on E-Customer Satisfaction among BNI Mobile Banking users. The results show a path coefficient of 0.412, a t-statistic of 4.125, and a significance level of $0.000 < 0.05$. This suggests that the better the quality of electronic services provided by BNI Mobile Banking, the higher the customer satisfaction.
2. E-Trust has a positive and significant effect on E-Customer Satisfaction among BNI Mobile Banking users. The results show a path coefficient of 0.489, a t-statistic of 5.234, and a significance level of $0.000 < 0.05$. This means that the higher the customer's e-trust in BNI Mobile Banking, the higher the customer satisfaction.
3. E-Service Quality has a positive and significant effect on the e-Loyalty of BNI Mobile Banking users. The results show a path coefficient of 0.298 with a t-statistic of 2.856 and a significance value of $0.004 < 0.05$. This means that the better the e-service quality of BNI Mobile Banking, the higher the customer loyalty.
4. E-Trust has a positive and significant effect on the e-Loyalty of BNI Mobile Banking users. The results show a path coefficient of 0.256 with a t-statistic of 2.634 and a significance value of $0.009 < 0.05$. This means that the higher the customer's e-trust in BNI Mobile Banking, the higher the customer loyalty.
5. E-Customer Satisfaction has a positive and significant effect on the e-Loyalty of BNI Mobile Banking users. The results of the study showed a path coefficient of 0.534 with a t-statistic of 6.789 and a significance level of $0.000 < 0.05$. The results indicate that higher e-customer satisfaction with BNI Mobile Banking will increase e-customer loyalty.
6. E-Customer Satisfaction mediates the effect of E-Service Quality on E-Loyalty among BNI Mobile Banking users. The analysis showed an indirect path coefficient of 0.220 with a t-statistic of 3.456 and a significance level of $0.001 < 0.05$. This means that E-Customer Satisfaction plays a role in the influence of E-Service Quality on E-Loyalty among BNI Mobile Banking users at the Renon Branch Office. E-Customer Satisfaction acts as a partial mediator, bridging part of the relationship between E-Service Quality and E-Loyalty. This indicates a direct effect of e-service quality on e-loyalty, which is not fully mediated by e-customer satisfaction.
7. E-customer satisfaction mediates the effect of e-trust on e-loyalty among BNI Mobile Banking users. The analysis results show an indirect path coefficient of 0.261 with a t-statistic of 4.123 and a significance level of $0.000 < 0.05$. This indicates that e-customer satisfaction plays a role in the effect of e-trust on e-loyalty among BNI Mobile Banking users at the Renon Branch Office. E-customer satisfaction acts as a partial mediator, bridging part of the relationship between e-trust and e-loyalty. This indicates a direct effect of e-trust on e-loyalty, which is not fully mediated by e-customer satisfaction.

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