Service Quality to the Level of Customer Satisfaction and Loyalty at Banking in Surabaya Using the SEM Method

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ABSTRACT

Service quality in the banking sector has become a primary focus to ensure customer satisfaction and loyalty. This study aims to analyze the influence of service quality on customer satisfaction, customer satisfaction on customer loyalty, and service quality on customer loyalty at the Banking in Surabaya Branch. The sample obtained from the questionnaire consists of 160 customers. The data analysis technique used in this study is the SEM method, which analyzes the relationships between variables in a model. The SEM method also includes the role of a mediating variable, which is customer satisfaction, between service quality and customer loyalty. The results of this study indicate that service quality significantly impacts customer satisfaction, and customer satisfaction also significantly influences customer loyalty. Additionally, service quality has a direct impact on customer loyalty. Moreover, service quality indirectly affects customer loyalty through the mediating variable of customer satisfaction at the Banking in Surabaya Branch. The benefits of this research include developing business strategies for competitive advantage and strengthening the relationship between customers.

1. INTRODUCTION

The development of information technology has brought significant changes in the global business environment, one of which is in the banking sector. Service satisfaction evaluation is crucial during increasingly fierce competition to ensure that the services meet or exceed customer expectations. High customer satisfaction can contribute to the bank's profits and strengthen its position in the market. Therefore, understanding how customers assess the services they receive and identifying areas that need improvement is critical to the bank's long-term success. Service satisfaction evaluation is a strategic tool for optimizing services and increasing competitiveness in the digital era. (Merdekawati, 2023); (Alidha et al., 2024).

Service quality and customer satisfaction are key factors in achieving competitive advantage. Perceived quality and customer expectations are two essential constructs that positively and directly affect customer satisfaction (Christanto & Santoso, 2022). Therefore, banks must pay attention to service quality to create profitable long-term relationships with customers and to improve brand image in the market (Wahyudi et al., 2021). The quality of service has several aspects, such as tangibility, reliability, responsibility, assurance, and empathy (Suhendi & Sabihis, 2021). The first aspect is the physical aspect (tangible), which involves evaluating the physical elements the bank should have, such as buildings, office equipment, and communication facilities. The second aspect is reliability, which refers to the reliability of the bank in serving customers. To create good service reliability, it is necessary to have professional employees who can serve quickly and precisely, communicate clearly, and have extensive knowledge about bank products (Jaabir et al., 2022; Susriyanti et al., 2022). The third aspect is responsiveness, which assesses how bank employees are willing to serve customers quickly and responsively. The fourth aspect is assurance, which evaluates the belief that employees have good knowledge, skills, ethics, and behavior. The last aspect is empathy, which involves analyzing, understanding, and paying attention to specific bank customers' needs and financial situations.

The impact of customer satisfaction on customer loyalty has been extensively studied. Many findings show that if satisfaction exists, customers become loyal, and if customers are not satisfied, their loyalty is not guaranteed. Therefore, banks must pay special attention to customer satisfaction and service quality (Zouari & Abdelhedi, 2021). Customer satisfaction concerns what the customer expresses about their perception and expectations of the banking services obtained from the bank. Meanwhile, loyalty is related to what customers do after interacting with a banking service process (Marlius, 2018). This shows that service quality influences service loyalty, while customer satisfaction plays a mediator role (Hongdiyanto & Liemena, 2021). High quality of service can increase customer satisfaction levels so that customer loyalty can be easily achieved (Rane et al., 2023; Budiman, 2020).

Previous research (Runtunuwu et al., 2023) stated a positive and significant influence between customer satisfaction and loyalty (Nafiar, 2022; Satria et al., 2023). Revealed a positive and significant correlation between service quality and customer satisfaction. Research (Munfaqiroh et al., 2023; Pasianus, 2021) stated that customer satisfaction is proven to mediate the influence of service quality on customer loyalty. Satisfied customers will have a higher level of loyalty compared to dissatisfied customers. In addition, the longer the customer loyalty, the greater the company's profit. Service quality affects loyalty both directly and through customer satisfaction.

State-owned bank X is a banking institution that has consistently positioned itself as a leader in housing financing in Indonesia by providing a variety of financial services both conventionally and digitally. In various customer satisfaction surveys, State-owned bank X was recorded as having received a positive assessment. However, this high level of satisfaction does not necessarily reflect customer loyalty in the long run. Satisfaction is often temporary and does not always lead to ongoing relational commitments, especially in long-term services such as Home Ownership Loans (KPR). In the increasingly competitive dynamics of the banking industry and the acceleration of digital transformation, there is an urgent need to evaluate the extent to which State-owned bank X's service quality and digital innovation contribute to sustainably building customer loyalty. Customer loyalty is influenced by the level of satisfaction and the perception of service value, convenience in accessing digital services, and trust in the consistency and sustainability of services.

Meanwhile, most previous research on the gap between customer expectations and experiences has focused more on large-scale commercial banks with corporate and public service orientations. State-owned bank X has different characteristics, as it serves the lower middle-class retail segment and manages subsidized-based services. This context creates a unique dynamic of expectations and service needs, especially regarding access to housing financing and adaptation to inclusive digitalization. Unfortunately, studies that specifically evaluate the combination of the quality of conventional and digital services of State-owned bank X in shaping customer loyalty are still minimal. Therefore, this research is essential to fill this gap by holistically examining the relationship between State-owned bank X customer perception, satisfaction, and loyalty and its contribution to the sustainability of long-term relationships in the modern banking landscape.

Based on the explanation above, this study uses the SEM method to analyze the influence of service quality on customer satisfaction and loyalty. SEM is a statistical method used to test predictive relationships between constructs simultaneously, both directly and indirectly (Valentino et al., 2022). In addition, SEM can mediate the relationship between independent variables (service quality) and dependent variables (customer loyalty) through customer satisfaction mediation variables. This research contributes to understanding the factors that affect service quality, customer satisfaction, and loyalty. Therefore, it is hoped that this study can provide deeper insight for the management of State-owned bank X Surabaya on improving service quality to positively impact customer satisfaction and loyalty. The findings of this study can be used to formulate more effective strategies for enhancing the customer experience and maintaining long-term relationships with customers.

2. LITERATURE REVIEW

Service quality is a way for companies to continuously improve the quality of processes, products, and services. In addition, service quality is an effort to meet the needs and desires of consumers precisely according to their expectations (Komara et al., 2021). Service quality consists of several dimensions, namely (tangible), (reliability), (responsiveness), (assurance), and (empathy). Physical evidence is a major attraction for consumers because they are usually interested in what they see when they first consider buying a product. Consumers use their sense of sight to judge the quality of service. Therefore, this physical aspect must be considered to attract consumer interest and show the company's existence to external parties (Sofiati et al., 2018). Reliability is the ability of the company to precisely and quickly provide services according to its promise to be satisfactory. This includes meeting customer expectations, such as keeping promises, resolving problems, and minimizing mistakes (Veronica, 2017). Responsiveness is the ability or willingness of employees to help customers, provide services quickly and accurately, and convey transparent and efficient information. Assurance is the knowledge, courtesy, and ability of company employees to build consumer trust and provide protection against risks (Sugiyanto & Kurniasari, 2020). Empathy is giving sincere personal attention to the client by understanding their wishes. Companies are expected to have a deep understanding of their customers, understand their specific needs, and provide appropriate operational hours for the convenience of customers (Safitri et al., 2022).

Customer satisfaction is a feeling of pleasure or disappointment that arises from a comparison between the performance of the product or service received and the expectations it has (Rahmatu Zahra et al., 2023). Customer satisfaction occurs when consumers feel that their needs and desires are met according to expectations. Satisfaction is achieved when a product or service meets or exceeds customer expectations (Rahmi et al., 2023). So, customer satisfaction can be concluded as a feeling that arises after comparing the product's performance with the desired expectations.

Customer loyalty refers to the customer's loyalty to a financial institution, reflecting the duration of a mutually beneficial relationship between the two. Loyalty is manifested as evidence of emotions and feelings that drive repeat purchases (Budiman, 2020; Sudirman & Suasana, 2018).

3. RESEARCH METHOD

This study uses the Structural Equation Modeling (SEM) method to analyze the direct and indirect influence between

variables (Lubis et al., 2020). SEM is a statistical technique that combines factor analysis and path analysis (Herokholiqi & Sidhi, 2018). Factor analysis is used to identify latent variables from several variables based on the correlation between these variables. These latent variables are constructs that are not directly measured but represented by correlating variables. Meanwhile, path analysis describes the relationship between variables using an arrow that shows the correlation coefficient. This path analysis can capture more complex relationships, including indirect relationships and mediation. SEM enables testing latent variables, overcoming regression deficiencies, and providing more accurate and efficient estimation in models with many dependent variables grouped (Teguh Iman Santoso et al., 2022). In this study, the diagram depicting the relationship between service quality, customer satisfaction, and customer loyalty is stated as follows:
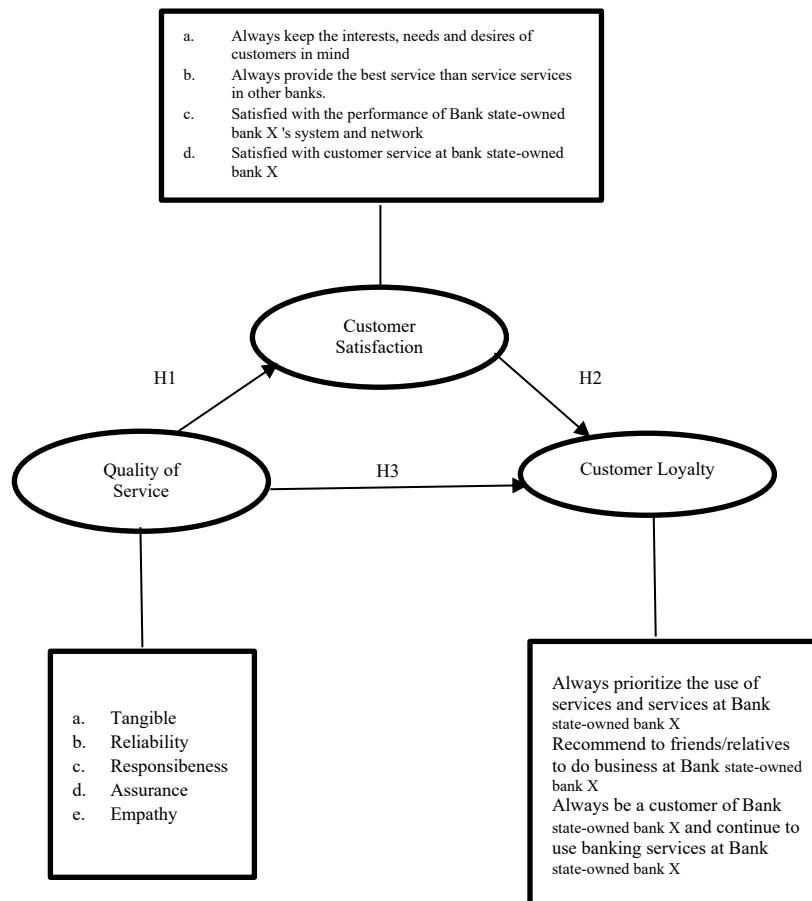

Figure 1. Research Outline

The hypotheses used in this study are

H1: *Service quality has a positive and significant effect on customer satisfaction of state-owned bank X customers.* → This hypothesis tests whether customers' perceptions of state-owned bank X 's service quality directly impact their satisfaction.

H2: *Customer satisfaction has a positive and significant effect on customer loyalty of state-owned bank X customers.* → This hypothesis tests whether customers who are satisfied with state-owned bank X 's services tend to have higher loyalty.

H3: *Service quality has a positive and significant effect on customer loyalty of Bank state-owned bank X customers.* → This hypothesis tests the direct effect of service quality on loyalty without the intermediaries of satisfaction.

H4: *Customer satisfaction mediates the relationship between service quality and customer loyalty of Bank state-owned bank X customers.* → This hypothesis assesses whether customer satisfaction is an intermediate variable that strengthens the relationship between service quality and loyalty.

To analyze the factors that affect customer satisfaction with the quality of service and customer loyalty, this research collected data through a survey by distributing questionnaires to customers of state-owned bank X Surabaya. The answers to the

questionnaire questions used a Likert scale of 1 to 5, where a score of 1 stated "strongly disagree," and 5 stated "strongly agree." For the convenience of researchers in taking samples, if the population is large and the exact number is unknown, this study uses the formula of Snedecor and Cochran (1967) to draw the number of samples with the proportion approach below (Syukri, 2014):

$$n = \frac{z^2\ p(1-q)}{e^2} \tag{1}$$

Information:

n: sample size

z: standard score for the selected α

e: margin of error, which is the expected or determined amount of error

p: the proportion that must be present in the population,

Q: 1-P

So, the sample to be taken is calculated as follows:

$$n = \frac{1{,}96^2\ (0{,}9)(0{,}1)}{(0{,}05)^2} \tag{2}$$

$$n = 138{,}29 = 138 \tag{3}$$

Based on the calculation above, a score of 138 was obtained. So, in this study, at least 138 valid respondents are needed for a sample.n

The variables used in this study are service quality as an independent variable, customer satisfaction as a mediator variable, and customer loyalty as a dependent variable. The service quality variables have 5 indicators: tangible, reliability, responsiveness, assurance, and empathy. Here are the details of the questionnaire questions on each variable:

TABLE 1 | Research Instruments

Variable	Item	Item Statement	Source (Author & Year)
Quality of Service (Tangible)	BF1	Customer service is neat, clean, not excessive, and wears work clothes (appropriate uniform)	(Jayanti, 2019)
	BF2	Convenient and clean banking transaction room	
	BF3	Availability of facilities such as brochures, free Wi-Fi, mobile ATM m-banking, toilets, and waiting chairs.	
Quality of Service (Reliability)	KH1	Customer service serves customers quickly and precisely according to customer wishes	(Rohman, 2017)
	KH2	Customer service provides accurate information to customers	
	KH3	Customer Service can overcome blocked data	
Quality of Service (Responsiveness)	DT1	Customer service is always ready and responsive in responding to every customer complaint	
	DT2	Fast customer service in the transaction service process	
	DT3	Customer service is fast in serving customer complaints through the telephone line.	
Quality of Service (Assurance)	J1	Customer service has extensive knowledge of bank products and is calm when responding to customer complaints.	(Andalusi, 2018)
	J2	Customer service can create a good relationship with customers	
	J3	Customer service is polite and respectful to customers.	
Quality of Service (Empathy)	E1	Customer service always uses friendly gestures and expressions.	(Alawiyah, 2021)
	E2	Customer service from start to finish is smooth without obstacles.	
	E3	Security can direct customers precisely according to customer goals.	
Customer Satisfaction	KN1	I am satisfied with state-owned bank X customer service.	(Intan & lucky, 2022)
	KN2	Customer service always prioritizes the interests, needs, and desires of customers.	
	KN3	Customer service at PT Bank Tabungan Negara is the best among other banks.	
	KN4	I am satisfied with the performance of the system and network at the Surabaya State Savings Bank.	
Customer Loyalty	LN1	I continue to prioritize the use of services at the State Savings Bank.	(Syariah et al., 2023)
	LN2	I recommend that friends and relatives do business at the State Savings Bank.	
	LN3	I will continue to be a customer and use banking services at Bank Tabungan Negara.	

Source: Data Processed (2024)

4. RESULTS AND DISCUSSION

4.1. RESULTS

In this study, the research instruments used include demographic variables, such as age and gender, that can affect the analysis results. The table below presents the demographic statistics of the respondents, which provides an overview of the characteristics of the respondents in this study as follows:

TABLE 2 | Respondent Demographic Statistics (n = 160)

Variable	Item	Frequency	Percentage
Age	Young Age (21-25 years)	103	64,34%
	Middle Age (26-30 years)	42	26,25%
	Old Age (31-35 years)	15	9,38%
Gender	Male	66	41,3%
	Female	94	58,8%

Source: Data Processed (2024)

Table 2 shows that most respondents who came to the Bank STATE-OWNED BANK X Surabaya Branch were women (58.8%) aged 21-25 (64.34%).

4.1 Outer Model

Measurement Evaluation (Outer Model) consists of a Validity and Reliability Test. The validity test consists of the convergent, average variance extracted (AVE), and discriminant validity tests. The convergent validity test shows that the values of question items that measure the same concept have a high correlation (Kuswati et al., 2021). The table used for the convergent validity test is the outer loading table as follows:

TABLE 3 | Convergent Validity

Variable	Dimension	Outer Loading
Quality of Service (X)	Tangible	0.770
	Reliability	0.822
	Responsiveness	0.846
	Assurance	0.877
	Empathy	0.822
Customer Satisfaction (Z)	KN1	0.801
	KN2	0.872
	KN3	0.882
	KN4	0.802
Customer Loyalty (Y)	LN1	0.728
	LN2	0.858
	LN3	0.824

Source: Data Processed (2024)

Table 3 shows that each variable of service quality, customer satisfaction, and loyalty has an outer loading value of > 0.7. This indicates that these variables have met the convergent validity test. Thus, all variables in this study can be used for further analysis. Next is the Average Variance Extracted (AVE) Test, which calculates the average value of extracted variance. The following AVE values in the table are as follows:

TABLE 4 | Average Variance Extracted

	AVE Scores
Tangible (X1)	0.555
Reliability (X2)	0.704
Responsiveness (X3)	0.742
Assurance (X4)	0.751
Empathy (X5)	0.728
Customer Satisfaction (Z)	0.706
Customer Loyalty (Y)	0.648

Source: Data Processed (2024)

Table 4 shows that each indicator in the service quality variable has a value in AVE > 0.5. Furthermore, customer satisfaction and loyalty > 0.5. So, the convergence validity evaluation was met. Then there is the Discriminant Validity Test. In this study, discriminant validity was tested using cross-loading values. An indicator is declared to meet discriminant validity if

the cross-loading value of the indicator variable is higher than that of other variables. Here are the cross-loading values for each indicator:

TABLE 5 | Validity Discrimination

	Tangible	Responsiveness	Empathy	Assurance	Reliability	Customer Satisfaction	Customer Loyalty
BF1	**0.883**	0.533	0.531	0.535	0.534	0.552	0.439
BF 2	**0.868**	0.605	0.448	0.467	0.497	0.553	0.452
BF 3	**0.363**	0.163	0.052	0.014	0.075	0.091	0.149
DT1	0.602	**0.872**	0.537	0.568	0.559	0.618	0.578
DT2	0.566	**0.816**	0.493	0.570	0.501	0.565	0.389
DT3	0.434	**0.829**	0.457	0.549	0.447	0.463	0.417
E1	0.499	0.455	**0.836**	0.569	0.419	0.547	0.449
E2	0.435	0.518	**0.846**	0.577	0.498	0.556	0.517
E3	0.470	0.555	**0.901**	0.627	0,.497	0.573	0.452
J1	0.532	0.558	0.645	**0.833**	0.608	0.569	0.468
J2	0.450	0.643	0.562	**0.899**	0.600	0.489	0.380
J3	0.447	0.538	0.577	**0.867**	0.534	0.549	0.456
KH1	0.553	0.498	0.495	0.540	**0.849**	0.572	0.489
KH2	0.444	0.560	0.473	0.625	**0.859**	0.473	0.416
KH3	0.471	0.479	0.435	0.551	**0.852**	0.444	0.402
KN1	0.528	0.575	0.553	0.545	0.504	**0.801**	0.477
KN2	0.528	0.556	0.582	0,576	0.496	**0.872**	0.530
KN3	0.526	0.584	0.565	0.540	0.540	**0.882**	0.607
KN4	0.484	0.494	0.479	0.415	0.415	**0.802**	0.630
LN1	0.345	0.315	0.382	0.377	0.317	0.468	**0.728**
LN2	0.457	0.541	0.497	0.477	0.484	0.575	**0.858**
LN3	0.409	0.458	0.437	0.351	0.417	0.565	**0.824**

Source: Data Processed (2024)

Table 5 shows that the indicator variables are higher than other variables, such as DT1 with a value of 0.872, DT2 with a value of 0.816, and DT3 with a value of 0.829, against the value of responsiveness, which is more excellent than E1 with a value of 0.455, E2 with a value of 0.518, and E3 to the value of responsiveness.

The reliability test consists of composite reliability. The Composite Reliability Test tests the reliability value of indicators on a variable with a value of > 0.7 (Oktajuviansa & Setiawan, 2023).

TABLE 6 | Composite Reliability

	Composite reliability (rho_c)
Tangible	0.770
Responsiveness	0.877
Empathy	0.896
Assurance	0,901
Reliability	0.889
Customer Satisfaction	0.906
Customer Loyalty	0.846

Source: Data Processed (2024)

Table 6 shows that each indicator in the service quality variable has a composite reliability value > 0.7. Then, customer satisfaction and loyalty have a value greater than 0.7. Thus, each research variable in the model is satisfied with the reliability of the construct.

4.2 Inner Model

Structural model testing in the SEM-PLS method describes the relationship or correlation between latent variables and constructs measured in the measurement model. This structural model can be explained using several statistical tests, namely the Path Coefficient Test and the R-Square Test, to describe the relationship between variables in the model.

The structural model of SEM-PLS based on the hypothesis is shown in Figure 2. Meanwhile, the T-statistic result of the hypothesis is shown in Table 7 below:

TABLE 7 | T-Statistic

Variable	T-Statistic
The quality of service has a significant effect on customer satisfaction at the Bank STATE-OWNED BANK X Surabaya Branch.	20.690
Customer satisfaction significantly affects customer loyalty at the Bank STATE-OWNED BANK X Surabaya Branch.	4.384
Service quality has a significant effect on customer loyalty at the Bank STATE-OWNED BANK X Surabaya Branch	2.639

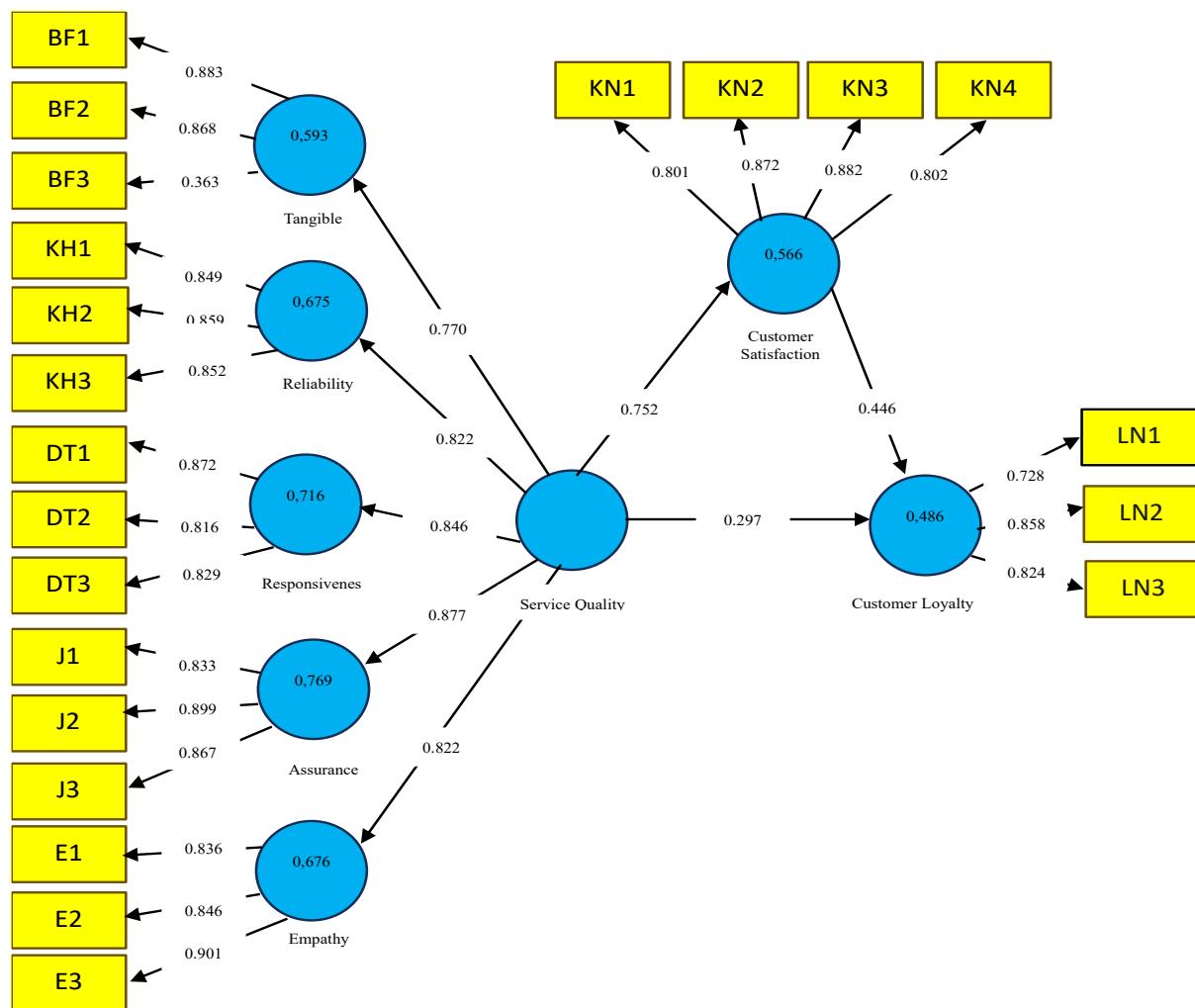Source: Data Processed (2024)

Figure 2. Hypothesis Result of the Structural Equation Model

In Figure 2 and Table 7, the hypothesis that service quality has a positive and significant effect on customer satisfaction of state-owned bank X customers is accepted, with the t-statistic value of 20.690, which is greater than the t-table value of 1.96. The positive relationship between service quality and customer satisfaction is shown by a coefficient value of 0.752. The service quality indicator variable shows the highest value in the assurance indicator, with a value of 0.877. This service quality indicator includes three statement items, namely: (1) customer service can create good relationships with customers, (2) customer service is polite and respectful to customers, and (3) customer service always provides friendly gestures & expressions during service. This study's results align with research by Intan & Lucky (2022), which shows a significant influence between service quality and customer satisfaction at PT. Bank Danamon Indonesia, Ranotana Branch Tbk, and are also in line with research by Winata (2023), which shows a positive and significant influence between the quality of waiter service, facilities, and location on guest satisfaction at the Mutia Garden Restaurant Medan.

The hypothesis that customer satisfaction has a positive and significant effect on customer loyalty of state-owned bank X customers is accepted, with the t-statistic value of 4.384, which is greater than the t-table value of 1.96. The positive relationship between customer satisfaction and loyalty is shown by the coefficient value of 0.446. The customer satisfaction variable shows the highest value in the KN 3 indicator (customer satisfaction in statement no. 3) with a value of 0.882. This indicator includes one statement item: (1) customer service that provides the best service at other banks. The results of this study are in line with research by Octavia (2019), which shows that there is a significant influence between customer satisfaction and customer loyalty at PT. Bank Index Lampung, and also in line with research by Pelayanan & Marketing (2017), which shows that there is a positive and significant influence between customer satisfaction and customer loyalty at the BRI high cliff branch.

The hypothesis of sthatervice quality has a positive and significant effect on customer loyalty of state-owned bank X

customers is accepted, with the t-statistic value of 2.639, which is greater than the t-table value of 1.96. The positive relationship between service quality and customer loyalty is shown by a coefficient value of 0.297. The customer loyalty variable shows the highest value in the LN 2 indicator (Customer Loyaltythatcustomer loyalty in statement no. 2) with a value of 0.858. This indicator includes one statement item:customer loyaltyitem:(1) I will recommend to friends and relatives to do business at Bank Tabungan Negara. The results of this study are in line with research conducted by MasadahMasadah et al. (2020), which shows a significant influence between service quality and customer loyalty at Sharia Banks in Jombang Regency, and also in line with research by Syamsul Alam et al. (2022), which shows a significant influence between service quality and customer loyalty at PT. Bank Mandiri KC Kartini Makassar.

4.2.1 Path Coefficient

Path coefficient analysis effectively identifies and measures a model's direct and indirect influence between variables. Direct influence occurs when one variable affects other variables directly, while indirect influence occurs through mediating variables (Shajitha et al., 2015). The direct impact has been explained in the explanation above by the first hypothesis (H1) up to the third hypothesis (H3), while the indirect influence (fourth hypothesis, H4) can be described in the table as follows:

TABLE 8 | Indirect Influence

Indirect Influence	Coefficient of Influence
Service Quality (X)→Customer Satisfaction (Z)→Customer Loyalty (Y)	$0.752 \times 0.446 = 0.336$

Source: Data Processed (2025)

Table 8 shows the mediating relationship between service quality and customer loyalty of state-owned bank X customers. The effect of customer satisfaction as a mediator of service quality on customer loyalty is 0.336, more significant than the effect of service quality on customer loyalty without customer satisfaction, which is 0.297. This indicates that the fourth hypothesis (H4) has been met. The results of this study are in line with research conducted by Lantang & Keni (2022), which shows a significant influence of customer satisfaction mediating the relationship between service quality and customer loyalty at a bank in Jakarta, and also in line with research conducted by Karuniawan & Santika (2023), which shows a significant influence of customer satisfaction mediating the relationship between service quality and customer loyalty of a bank in the regional development of Bali, Branch Office of Kamboja Denpasar.

4.2.2 R-Square

The structural model is tested by evaluating the R-squared value as an indicator of the model's goodness-of-fit. The inner or structural model is tested to observe the relationship between variables. The following are the significance and R-squared values of the research model:

TABLE 9 | R-Square Value

Variable	R-square
Customer Satisfaction (Z)	0.566
Customer Loyalty (Y)	0.486

Source: Data Processed (2025)

Table 9 shows the R-square value of service quality to customer satisfaction (Z) of 0.566%. Meanwhile, the R-squared value of service quality to customer loyalty (Y) through customer satisfaction (Z) is 0.486%.

4.2. DISCUSSION

To improve service quality, customer satisfaction, and customer loyalty, state-owned bank X needs to develop a service development strategy. Figure 2 shows that the variable of the service quality indicator with the lowest value is found in the

physical evidence indicator, especially in the BF 3 statement item, which has the lowest value compared to other indicators. This question concerns "the availability of facilities such as brochures, free Wi-Fi, mobile banking ATMs, toilets, and waiting seats." Therefore, it is necessary to carry out a development strategy such as increasing infrastructure facilities, namely increasing the number of facilities, such as more seats in the waiting area or ATM and mobile banking devices in strategic locations. Then, periodic maintenance is done by setting a routine schedule to inspect and maintain physical facilities so that they are always in good condition and ready to be used by customers.

Furthermore, the customer satisfaction variable with the lowest score is found in the KN 1 question item. This question is related to "*I am satisfied with the customer service of state-owned bank X.*" Therefore, it is necessary to carry out a development strategy, such as developing good service standards and ensuring that each customer service provider provides consistent, responsive, and friendly service.

Then, the customer loyalty variable with the lowest score is found in question item LN 1. This statement is related to "I continue to prioritize the use of services and services at the State Savings Bank." Therefore, it is necessary to carry out development strategies such as organizing loyalty and reward programs for loyal customers and providing incentives for new customers to create good customer relationships (Fajar Nugraha Permana & Asmai Ishak, 2023).

5. CONCLUSION

This study aims to analyze the relationship between service quality, satisfaction, and customer loyalty of state-owned bank X and evaluate the role of satisfaction as a mediator in these relationships. The analysis results show that all hypotheses submitted are proven to be significant. Service quality has been proven to have a direct effect on customer satisfaction and loyalty, as well as having an indirect influence on loyalty through satisfaction. These findings confirm that satisfaction is crucial in building state-owned bank X customer loyalty, especially in long-term banking services like housing financing.

6. LIMITATION AND IMPLICATION

The practical implication of this research is the importance of improving the quality of services as a whole. state-owned bank X must strengthen its customer experience-based strategy to maintain and increase loyalty. Meanwhile, suggestions for further research include the development of a model that incorporates other variables such as *trust*, *switching barriers*, or *perceived value* as moderators or mediators, as well as a longitudinal approach to understanding the dynamics of customer perception over time. The research can also be expanded by considering customer segmentation and Sharia values-based approaches to strengthen relevance in Indonesian banking.

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