

The Effect of Service Quality on Customer Loyalty Through Perceived Value and Customer Satisfaction of Jakarta Mobile Banking Application

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ABSTRACT

Objectives: *This study aims to examine the form of service quality which has profound effects on the way customers interact with firms to create positive service outcomes i.e., service quality, perceived value, customer satisfaction, and customer loyalty. Therefore, the main objective of this study is to examine the service quality's impact on the user's perceived value, satisfaction, and loyalty in mobile banking.*

Methodology: *This study uses a quantitative research method. The data has been collected from 498 service users through the online survey.*

Finding: *Structural Equation Modelling is applied by using the PLS-SEM program to test the model. The study concluded that mobile banking service quality positively and significantly affects customer perceived value, customer satisfaction, and customer loyalty. Customer perceived value positively and significantly affects customer satisfaction, significantly but negatively affects customer loyalty, and customer satisfaction positively and significantly affects customer loyalty.*

Conclusion: *This research has differences and similarities with the results of previous studies. This difference is caused by several things such as regional characteristics and participating respondents. The characteristics and behavior of consumers are unique so there may be differences in the results of the research conducted. The research results obtained from the hypothesis prove that the greater the influence of service quality, the greater the perceived value of the mobile banking application, and better customer service quality decreases customer loyalty, better customer service will further increase customer satisfaction. Better perceived value will further increase customer satisfaction, and better customer satisfaction increases customer loyalty.*

Keywords: *Service Quality; Customer Satisfaction, Perceived Value; Structural Equation Modelling; Mobile Banking.*

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INTRODUCTION

In many areas of our lives, the coronavirus disease of 2019 (COVID-19) epidemic has had a significant influence. Millions of individuals have been infected with the new coronavirus illness (COVID-19) which has spread globally and resulted in both health issues and fatalities. Society has suffered as a result of the COVID-19 issue (Saratian et al., 2021). To prevent COVID-19 from spreading throughout Indonesia, the government has taken several actions. Social segregation, working from home, flight restrictions, social restrictions all around (PSBB), and lockdowns in some places are just a few of the government-enacted policies that have halted economic activity and disrupted supply chains as demand fell globally and across various industries. Trade, investment, tourism, and aviation will all be impacted. Business strategies will also alter. The banking industry has also developed e-banking channels to meet customer needs. One of the newest channels is mobile banking which offers a range of consumer financial services via information and communication technology (Sitorus et al., 2019).

Mobile banking (MB) is one of the latest innovations in the financial sector and it can bring practical benefits to both users and banks. Cashless transactions via mobile phones can improve banking efficiency and users' quality of life. Mobile banking is becoming a part of more and more people's daily lives, allowing them to pay, transact, check accounts, invest, link credit cards, and more (Zhou et al., 2021).

With the existence of e-banking in the banking industry, there will be consumer behavior in adapting to using e-banking. This treatment includes consumer satisfaction and consumer loyalty. Consumer behavior has changed in Indonesia with the rapid popularity of mobile devices, people have come to rely heavily on their mobile devices to carry out various activities. Underpinning this growth is the right technology and growing network capacity at more affordable costs. Rapid adoption has increased public consumption of various digital services (Pakurár et al., 2019).

The study was reviewed or rated by 10 banks (BRI, Mandiri, BCA, BNI, BTN, CIMB, Panin, OCBC, Danamon, and Permata Bank) to determine the impact of service quality on customer loyalty through perceived value and customer satisfaction. Customer loyalty is considered one of the key elements of a company's success. Loyalty can be interpreted as an attitude that refers to the individual's self-attachment or loyalty as a whole to a particular brand or company). Apart from that, loyalty can also defined as behavior that reflects the repeated purchase of a product or service from the same company, although other alternatives are available on the market. Perceived value is also known to influence user satisfaction. Many studies on customer loyalty have been conducted but those using service quality, perceived value, and customer satisfaction factors are still rare. Therefore, this research needs to be done to examine these variables.

Research Gap. This study combines the first research from Kusumawati and Rahayu (2019) which uses the independent variable experience quality, the intervening variable perceived value and customer satisfaction, and the dependent variable customer loyalty. The second reference used was from (Tuncer et al., 2021) which uses the independent variable experience quality, the intervening variable perceived value and customer satisfaction, and the dependent variable repurchase intention. This theoretical gap and combination of these two pieces of research resulted in the creation of a new independent variable. The variable of experience quality is replaced by service quality and the dependent variable repurchase intention is

replaced by customer loyalty while the intervening variables remain the same. The first research uses the food and beverage industry as respondents and the second research uses fitness center members as respondents. The object of this research is different from several previous studies, for example, Hamouda (2019) Omni-channel Banking in Tunisia as his research object, Abror (2019) used Islamic Banks in Malang Indonesia as his research object, (Ali et al., 2021) uses the hotel industry in Kurdistan as his research object, and Kusumawati & Rahayu (2019) used outdoors cafes in Malang, Indonesia. This research used 10 national banks in Indonesia as research objects and this has never been used by previous researchers with the same research topic. The research questions are structured as follows:

- 1) Does service quality influence perceived value?
- 2) Does service quality affect customer loyalty?
- 3) Does service quality affect customer satisfaction?
- 4) Does perceived value influence customer satisfaction?
- 5) Does perceived value influence customer loyalty?
- 6) Does customer satisfaction affect customer loyalty?

Aligning with the research questions the research objectives are to analyze the influence of service quality to perceived value, service quality to customer loyalty, service quality to customer satisfaction, perceived value to customer satisfaction, perceived value to customer loyalty, and customer satisfaction to customer loyalty.

LITERATURE REVIEW

Service Quality. Service quality is proposed based on a comparison between what should be offered and what is provided. It is generally conceptualized as the relative perceptual range between customer expectations and evaluations regarding experience using services (Setiyaningrum & Hidayat, 2016). The consumer's evaluation of the service performance received and how it compares to expectations is based not only on service attributes but also on consumer feelings and memories (Manajemen & Vi, 2016). Service quality is defined as the customer's overall impression of the relative effectiveness of the organization and its services. Service quality is influenced by two factors: service expectations and perceptions. If customers receive service that meets their expectations then they can be satisfied with the quality of service. Even when they receive service that exceeds expectations, customers still feel that they receive excellent service quality and vice versa. A business that provides exceptional customer service might have a competitive advantage that sets it apart from its rivals (Maulana, Nur, & Syah, 2018) (Maulana et al., 2018). The dimensions of service quality in services namely RATER (reliability, assurance, tangible, empathy, and responsiveness) (Novianti et al., 2018). According to (De Leon et al., 2020), service quality allows consumers to access services without requiring face-to-face contact with service provider employees). It is a concept that combines procedures related to the delivery of services and the results of these services. Dimensions include: assurance which represents the competence and reputation of a service provider; convenience has to do with whether customers can easily access the services your company offers; customization is the ability to understand customer wants and needs and shape the service through collaboration; functionality refers to reliability; usability and responsiveness; joy refers to the customer's opinion of using the system; security/privacy is related to customers' personal issues; and design refers to the layout of the entire system (De Leon et al., 2020).

Perceived Value. According to (De Leon et al., 2020), the best-known concept of perceived value is the perceived value (in terms of price-cost relationships) of customers. This concept compares the benefits of customer service and the cost of customer retention between buyers and sellers. According to (Pooya et al., 2020), perceived value provides organizations with relative price opportunities. Therefore, we trade value between cost and economic aspects without considering the social and emotional factors of the consumer. Perceived value is a key factor in the overall process of delivering the right product or service to the right customer at the right time. Perceived value is defined concerning value consumption theory and consists of 'relative preferences' that characterize the experience of interaction between a subject and an object. In this perspective, value is obtained after consuming the product or using the service. It is therefore based on real-world experience and includes a relational approach between companies (Berraies et al., 2017). Perceived value includes five theoretical value types: functional value, social value, emotional value, cognitive value, and conditional value. In essence, PV is a psychological appraisal that is not only present in the possession of a product or chosen product or service but is also attributed to its origin consumers themselves. Therefore, the perceived value of mobile banking services in this study is the overall perception of its benefits and the trade-offs required for its use (Berrais et al., 2017). Good service reflects the service customers receive (Chen & Lin, 2019). This study uses the following metrics to measure the variable 'perceived value': quality of service positively impacts the perceived value of mobile banking applications (De Leon et al., 2020). Recently perceived value is defined as how consumers evaluate a product or service and the overall utility received from products and services (Achmadi & Sutawidjaya, 2022).

Customer Satisfaction. Consumer satisfaction is defined as the feeling of pleasure or disappointment a person feels from an evaluation of a service that an organization provides with what it expects (Setiyaningrum & Hidayat, 2016). According to (De Leon et al., 2020), customer satisfaction is critical to business processes, consumer satisfaction is the customer's understanding or attitude toward a product or service after using it (Pooya et al., 2020). Customer satisfaction is known to be an outcome of service quality and these outcomes can be positively related to the type of goods or services offered to customers (Khan et al., 2022). Customer satisfaction is the satisfaction that comes when customers meet their expectations of a product or service, a person's feeling of joy or disappointment after comparing the performance (outcome) of a set of thoughts with the expected performance (outcome). Consumers are dissatisfied when satisfaction falls short of customer expectations. On the other hand, when satisfaction matches customer expectations, it is said to be consumer satisfaction. Consumer satisfaction depends not only on the quality of products and services but also on the consumer's satisfaction with the services provided by service providers to service users (Muafa et al., 2020).

Customer loyalty. Customer loyalty is defined as a custom to protect a brand of goods or services consistently in the future which causes repetitive purchases to occur purchasing the same brand despite other marketing situations and activities have the potential for brand change (Manajemen & Vi, 2016). The success of a company goes hand in hand with the loyalty of the company's customers in the future. Customer loyalty is customer loyalty to a product/service which is characterized by deep feelings, commitment, and support for the product/service. The dimensions of customer loyalty are 1) Repeat purchases, 2) Purchases in larger quantities, 3) Visiting more often, 4) Providing recommendations to others, and 5) Showing resilience to

compete (Novianti, Endri, & Darlius, 2018). Professional literature is full of examples of customer loyalty with different definitions. The definition of customer loyalty is a behavioral response (i.e. purchase) that tends to be favored over time by decision-makers. Another definition of customer loyalty is understanding the relationship between customer engagement and repeat business, a strong and ongoing commitment to repurchase and use favorite products and services, and continuing to make repeat purchases of the same products and brands regularly. Positive customer feedback is used to demonstrate loyalty. Research shows that there is a relationship between service quality, customer satisfaction, and customer loyalty (Dam & Dam, 2021). Indicators of customer loyalty are reusability, recommended to others, will return again, and positive image.

Relationship Between Variables

The theoretical foundations of this research are based on Expectancy Confirmation Theory and Middle and End Chain Theory. According to the Middle and End Chain Theory, consumption motivation arises from cognitive relationships between product characteristics, consumption outcomes, and the value a person wants to achieve states in this theory, product qualifications can have functional and psychosocial consequences that can create a perception of personal value from these outcomes. Perceived value is the qualities derived from a higher-level structure that are direct antecedents of customer satisfaction and purchase intention. According to this model, there is a direct relationship between perceived value, customer satisfaction, and service quality (Tuncer et al., 2021). According to (Kusumawati & Rahayu, 2020), the study of customer perceived value, customer satisfaction, and customer loyalty variables adopted the attitude theory from Bagozzi (1992) which includes cognitive, affective, and behavioral results.

Relationship service quality and perceived value. Previous research on mobile services has shown that quality of service is positively correlated with perceived value. This is supported by studies conducted in China and Canada (Wang et al., 2019). According to research (Slack et al., 2021) on mobile banking users in India, there is a positive correlation between basic e-service quality and the perceived value of mobile banking. Therefore, the hypotheses that can be proposed in this study are:

H1: Service quality influences perceived value.

Relationship between service quality and customer loyalty. Service quality is comprised of tangibles, reliability, responsiveness, assurance, and empathy. The concept of service quality could be evaluated by corporate image, functional quality of service encounters, and the technical quality of the outcome previous studies have already confirmed the significant positive relationship between service quality and customer loyalty by utilizing customer satisfaction as the mediating variable (Fida et al., 2020). The previous study concluded that service quality is a significant factor in influencing customer loyalty through customer satisfaction as an intervening variable (Abror et al., 2020). The hypothesis can be written as follows:

H2: Service quality influences customer loyalty.

Relationship between service quality and customer satisfaction. The study results of Hult (2019) on the impact of mobile banking user response, service quality, intent, and satisfaction

in Oman are positive. A study of mobile phone services in Singapore, South Korea, and Canada found that service quality had a positive impact on customer satisfaction (Leon et al., 2020). Recent research shows a relationship between service quality, customer satisfaction, and customer loyalty (Dam & Dam, 2021). Service quality impacts guest satisfaction through providing service and performance (Ali, 2021). In the same year, a study concluded that service quality and customer perceived value of personal delivery services are important predictors of customer satisfaction (Uzir et al., 2021). Previous research (Kaihatu & Djati, 2016) and (Lolo, 2020a) have shown that service quality has a direct positive and significant impact on customer satisfaction.

H3: Service quality influences customer satisfaction.

Relationship between perceived value and customer satisfaction. Perceived Value has been generally defined as “the customers’ overall assessment of a product or a service utility based on their perception of what is received and what is given. Perceived quality is recognized as a driver of customer satisfaction (Hamouda, 2019). Customer-perceived value is known to have a relationship with customer satisfaction (Kusumawati & Rahayu, 2020). These previous studies have shown that perceived value has a positive impact on customer satisfaction. Service quality and customer perceived value of staff delivery services were significant predictors of customer satisfaction (Uzir et al., 2021). The following hypotheses are formulated:

H4: Perceived value influences customer satisfaction.

Relationship between perceived value and customer loyalty. There is a significant and positive link between perceived value and customer satisfaction (Hamouda, 2019). Customer perceived value has a positive and significant effect on customer loyalty. If the experience quality is increased, customer loyalty will also be improved (Kusumawati and Rahayu, 2019). Here is the hypothesis:

H5: Perceived value influences customer loyalty.

Relationship of Customer Satisfaction and Customer Loyalty. Satisfaction is measured by how well you meet customer expectations and loyalty is measured by how often customers make repeat purchases. Therefore, customer satisfaction is positively correlated with customer loyalty (Khan et al., 2022). The study conducted by (Dam & Dam, 2021) demonstrates the relationship between service quality, customer satisfaction, and loyalty. Customer satisfaction translates into a company's image and reputation, affecting customer loyalty. Here is the hypothesis:

H6: Customer satisfaction influences customer loyalty.

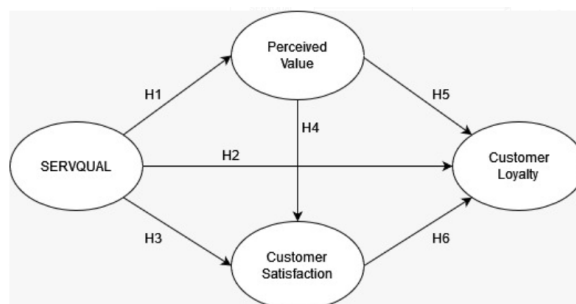


Figure 1. Theoretical Framework

METHOD

The nature of this study is basic research (fundamental research) with the purpose being to identify theory-based theoretical and empirical models of service quality, perceived value, customer satisfaction, and customer loyalty (Space, 2013). This research is a questionnaire survey and information is collected from the respondents by questionnaire. The questionnaire was designed using a Likert Scale where respondent indicates the degree of agreement and disagreement with various statements about some attitude, object, person, or event. The original Likert scale contains five symmetrical and balanced points, strongly disagree, disagree, neither agree nor disagree, agree, and strongly agree (Tuncer et al., 2021). The unit of analysis used in this study is people who use mobile banking in their daily lives while the unit of observation is banking transactions. Conducted surveys are included in cross-sectional studies. Each study subject was observed only once and the status of the variable of interest was measured. Statements in the questionnaire are measured using a semantic difference scale point 5 measure with an interval data type. In this study, the population of mobile banking users in Jakarta city is unknown so the formula to determine the sample size is based on the Lemeshow formula. The sampling technique used by the authors is non-probabilistic sampling. Non-probabilistic sampling methods use an approach in which samples are selected based on the subjective judgment of the researcher rather than using random selection. Each member of the population has a known probability of being selected based on the criteria of being a resident of Jakarta and having a minimum number of active mobile banking users. This study uses the Lemeshow formula to calculate the sample results in a minimum sample size of 384 mobile banking users in Jakarta. Partial Least Structural Equation Modeling (SEM) was utilized in the data analysis. According to (Saratian et al., 2021), SEM is an analytical method that enables the evaluation of several connections at once. These connections are developed between one or more independent variables and one or additional dependent factors. Partial Least SEM (PLS-SEM) overcomes the following obstacles: 1) large sample size; 2) data is normally distributed; 3) reflective construct indicators; and 4) trigger factors (errors). arises when the program fails to produce results due to a lack of model identification (Karyatun et al., 2023).

RESULTS AND DISCUSSION

Results

This study uses component/variance-based structural equation modeling to answer research problems related to the effect of service quality based service quality on perceived value and

its impact on mobile banking user satisfaction and loyalty in Jakarta. The testing steps were carried out to fulfill the partial least squares SEM (PLS-SEM) modeling both in the data collection process and data processing using SmartPLS 3.3.2. The model in this study was designed using a hierarchical component with a reflective measurement model consisting of 4 constructs (service quality, perceived value, customer satisfaction, and customer loyalty). Respondents in this study were dominated on the age range of 24-34 years, female gender, the amount of money transacted per month was 1,000,000 rupiah to 10,000,000 rupiahs, the number of mobile banking applications owned by 1-2 banks, and the bank most selected is BCA.

Measurement Model. The analytical calculation shows the relationship between the manifest variables in each latent variable. Computational model analysis includes testing the validity and reliability of the dimensions and indicators used to measure the variables constructed from the survey. The computational model analysis will show discriminant validity by taking the square root of the Average Extracted Variance (AVE). The suggested value should be greater than 0.5 with a load factor (> 0), and combined Validity and Reliability values were built (Cronbach's Alpha > 0.70). The indicator concludes that the dimensions and indicators are classified as valid and reliable. The indication of the calculations is stated below:

Table 1. Goodness of Fit Model

Variable	AVE	Composite Reliability	Cronbach's Alpha	R ²	Q ²
CL	0,773	0,902	0,902	0,728	0,620
CS	0,695	0,779	0,774	0,727	0,359
PV	0,756	0,838	0,836	0,272	0,266
SERVQUAL	0,645	0,825	0,814		

From the above table, the R² value indicates that the criterion is classified as strong and also has a high Q² value which concludes that the proposed model supported by empirical research is classified as fit. The value of AVE > 0.5 shows that all the variables of the proposed model are classified to meet the criteria of discriminant value. The composite reliability value and Cronbach's alpha for each variable are > 0.70 , concluding that all the proposed research variables in the external model are classified as valid and reliable and the model also indicates that the result is classified as fit (Karyatun et al., 2023).

Convergent validity and Composite Reliability. Convergent validity states that the manifest variable must be highly correlated, measured by the rule of thumb, namely the loading factor value > 0.7 and the Average variance extracted (AVE) value > 0.5 (Hair, 2022). The reliability test uses composite reliability (CR) to test the accuracy, consistency, and construct measurements. This is assessed by the rule of thumb, namely the CR value must be above 0.7 (Hair, 2022). Based on Table 3, all loading factor values are > 0.7 , except SQ1 to SQ4 have a value of 0.6. However, (Hair et al., 2021) stated that this value is still acceptable as AVE > 0.5 , and CR > 0.7 made all variables meet convergent validity.

Discriminant validity. After the convergent validity test, the HTMT method is used to test the discriminant validity. According to (Hair Jr et al., 2022), validity aims to guarantee each (reflective) construct has a stronger relationship with its indicator than the others. Discriminant validity is satisfied when the value between the variables is between 0 and 9. Table 1 shows that

the value of discriminant validity is between 0 and 9 so it is proven that all the variables used in this study meet the requirements of discriminant validity.

Table 2. Discriminant Validity

	CL	CS	PV	SQ
CL	0,879			
CS	0,723	0,833		
PV	0,553	0,828	0,870	
SQ	0,789	0,605	0,521	0,682

The calculation model used in this research is to calculate the latent variables against the dimensions which is expressed that the validity of the dimensions is to measure the research variables. The following table shown below is to shows the results of the calculation model analysis of each of the latent variables with the dimensions.

Table 3. Loading Factor Between Latent Variables and Dimensions

	Outer loadings	Standard deStandard Aviation (STDEV	T-Statistics
CL1 <- CL	0,884	0,016	55,397
CL2 <- CL	0,896	0,012	73,568
CL3 <- CL	0,912	0,012	73,992
CL4 <- CL	0,823	0,026	32,157
CS1 <- CS	0,717	0,039	18,409
CS2 <- CS	0,880	0,020	44,373
CS3 <- CS	0,892	0,013	67,351
PV1 <- PV	0,919	0,011	81,248
PV2 <- PV	0,898	0,014	61,987
PV3 <- PV	0,785	0,028	27,796
SQ1 <- SQ	0,614	0,054	11,294
SQ2 <- SQ	0,662	0,051	12,872
SQ3 <- SQ	0,657	0,051	12,924
SQ4 <- SQ	0,679	0,030	22,864
SQ5 <- SQ	0,748	0,026	28,357
SQ6 <- SQ	0,749	0,029	25,519
SQ7 <- SQ	0,655	0,036	18,251

The estimated value of the path analysis in the structural model is supposed to be significant. This value of significance can be obtained from the bootstrapping procedure. The significance of the hypothesis value can be observed from the value of the parameter from the coefficient and the significance value of the T-statistics from the bootstrapping algorithm report. To understand the significance or insignificant of the value, it can be seen from the T-table of alpha 0.05 (5%) = 1.96. Then, T-tables are to be compared with the Tcounts (T-statistics) as explained below.

Table 4. Hypothesis Test Result

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics ((O/STDEV))	P values
CL1 <- CL	0,884	0,883	0,016	55,397	0,000
CL2 <- CL	0,896	0,896	0,012	73,568	0,000
CL3 <- CL	0,912	0,912	0,012	73,992	0,000
CL4 <- CL	0,823	0,823	0,026	32,157	0,000
CS1 <- CS	0,717	0,716	0,039	18,409	0,000
CS2 <- CS	0,880	0,880	0,020	44,373	0,000
CS3 <- CS	0,892	0,892	0,013	67,351	0,000
PV1 <- PV	0,919	0,919	0,011	81,248	0,000
PV2 <- PV	0,898	0,898	0,014	61,987	0,000
PV3 <- PV	0,785	0,785	0,028	27,796	0,000
SQ1 <- SQ	0,614	0,609	0,054	11,294	0,000
SQ2 <- SQ	0,662	0,657	0,051	12,872	0,000
SQ3 <- SQ	0,657	0,651	0,051	12,924	0,000
SQ4 <- SQ	0,679	0,681	0,030	22,864	0,000
SQ5 <- SQ	0,748	0,749	0,026	28,357	0,000
SQ6 <- SQ	0,749	0,748	0,029	25,519	0,000
SQ7 <- SQ	0,655	0,655	0,036	18,251	0,000

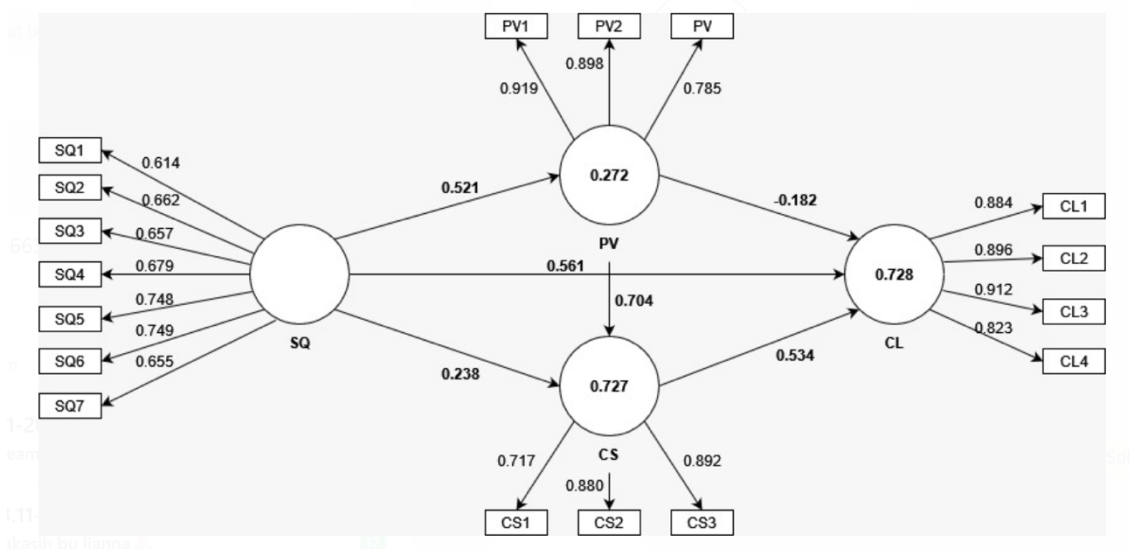


Figure 3. Hypothesis Testing Result

Table 5. The Result of Hypothesis Testing

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
CS -> CL	0,534	0,537	0,056	9,576	0,000
PV -> CL	-0,182	-0,186	0,050	3,634	0,000
PV -> CS	0,704	0,702	0,025	28,125	0,000
SQ -> CL	0,561	0,561	0,036	15,581	0,000
SQ -> CS	0,238	0,241	0,029	8,198	0,000
SQ -> PV	0,521	0,523	0,045	11,674	0,000

Figure 3 and Table 5 show that the path coefficient of service quality to perceived value is 0,521 with T statistic 11,674 > 1,96 and p-value 0,000 < 0,005 proving that service quality positively and significantly influences perceived value (hypothesis H1 is accepted). Meanwhile, service quality has a negative and significant effect of -0.182 with a T statistic of 3,634 > 1.96 and a p-value of 0.00 > 0.05 (hypothesis H2 is accepted but negative). With the same analysis, service quality on customer satisfaction, the perceived value on customer satisfaction, perceived value on customer loyalty, and customer satisfaction on customer loyalty has a positive and significant effect with a T statistic > 1.96 and p-value < 0.05 so that it can be concluded that H3, H4, H5, and H6 are accepted.

Discussion

The influence of service quality on perceived value. The testing result shows that service quality positively and significantly influences perceived value with T statistic 11,674 > 1,96 and p-value 0,00 < 0.05 with original value 0.521. This condition indicates that better customer service quality improves customer perceived value. This is in accordance with research conducted on residents in China and Canada regarding travel agency services (Wang et al., 2019) and also with research conducted by Slack et al. (2021) on mobile banking users in India which shows that there is a positive correlation between the quality of basic electronic services and the perceived value of mobile banking.

The influence of customer service on customer loyalty. The testing result shows that service quality positively and significantly influences perceived value with T statistic 9.576 > 1,96 and p-value 0,00 < 0.05 with original value 0.534. This condition indicates that better customer service quality improves customer customer loyalty. This research supports research conducted by Fida et al. (2019) showed that service quality influences customer satisfaction and customer loyalty to selected main products in Islamic banking institutions, and research conducted by Abror et al. (2019) on customers of Islamic banks in West Sumatra, Indonesia.

The influence of service quality on customer satisfaction. The testing result shows that service quality positively and significantly influences customer satisfaction with T statistic 8.198 > 1,96 and p-value 0,00 < 0.05 with original value 0.238. This indicates that better customer service will further increase customer satisfaction. Research results that are similar to this research are research conducted by (De Leon et al., 2020b) which states that self-service technology influences perceived quality and customer service in mobile banking applications, also in accordance with the results of research conducted by Dam & Dam (2020) on customers who bought goods at supermarkets in Ho Chi Minh City, Vietnamese. Other research was conducted by Ali (2021) on Online Meeting Platforms where service quality influences

customer satisfaction. Other research was conducted by Ali (2021) on Online Meeting Platforms where service quality influences customer satisfaction. One other study that is in line with this research is research conducted by (Lolo, 2020b) on Pertamina in South Sulawesi Province.

The influence of perceived value on customer satisfaction. The testing result shows that service quality positively and significantly influences perceived value with T statistic $28,125 > 1,96$ and p-value $0,00 < 0,05$ with original value 0.704. This indicates that better-perceived value will further increase customer satisfaction. This research strengthens the results of research conducted by Hamouda (2019) which shows that perceived value influences customer satisfaction on Omni-channel Banking in Tunisia, and research conducted by (Kusumawati & Rahayu, 2020a) on natural outdoor cafes in Malang West of Java.

The influence of perceived value on customer loyalty. The testing result shows that perceived value negatively and significantly influences customer loyalty with T statistic $3,634 > 1,96$ and p-value $0,00 < 0,05$ with original value -0.182. This indicates that better perceived will further decrease customer satisfaction. (Hamouda, 2019b). This research is not in accordance with previous research because the influence of perceived value on customer loyalty is negative, whereas the influence of research conducted by Hamouda (2019) and Kusumawati & Rahayu (2020) is positive.

The influence of customer satisfaction on customer loyalty. The testing result shows that perceived value positively and significantly influences customer loyalty with T statistic $9,576 > 1,96$ and p-value $0,00 < 0,05$ with original value 0,534. This indicates that better perceived will further increase customer loyalty. This study strengthens a previous research conducted by (Khan et al., 2022b) which concluded that customer satisfaction and loyalty have a strong association. The same research was also conducted by Dam & Dam (2021) which concluded that customer satisfaction influences customer loyalty.

CONCLUSION

This research has produced a research model that built a novelty from previous studies conducted by Kusumawati and Rahayu (2020). The research results obtained from the hypothesis prove that the greater the influence of service quality, the greater the perceived value of the mobile banking application, and better customer service quality decreases customer loyalty, better customer service will further increase customer satisfaction. Better perceived value will further increase customer satisfaction, and better customer satisfaction increases customer loyalty.

It is suggested to the 10 banks to pay attention to the service quality factor, especially in the aspect of adding an interesting additional function considering the indicator in the statement that has the lowest mean is the statement "The mobile banking application has an interesting additional function." The bank should pay attention to these factors to increase customer satisfaction using mobile banking applications.

It is also suggested to the 10 banks to pay attention to the perceived value factor, especially in the aspect of user assessment considering the indicator in the statement which has the lowest mean with the statement "I assess the mobile banking application that I have is very good, it is suggested that paying attention to these factors can increase customer satisfaction of application users mobile banking".

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