The Effect of Service Quality, Perceived Usefulness of Mobile Banking, and Customer Trust during Pandemic Covid-19 on Customer Loyalty through Customer Satisfaction in the Banking Sector

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Abstract

The Covid-19 pandemic is not only a global health problem but also has an impact on various sectors of the global economy, including the banking sector. One of the impacts of Covid-19 on the banking sector is a significant decrease in the number of customers. The decline was experienced by Bank BRI Unit Kota Tegal. The problem that occurs in this research is how to increase customer satisfaction and loyalty which will maintain the number of customers and have an impact on increasing the number of customers of Bank BRI Unit Kota Tegal. The variable data used in this study were obtained from two hundred and twenty customers of Bank BRI Unit Kota Tegal who were given questionnaire data containing questions. The data is then forwarded to be processed using the SEM analysis technique and then forwarded using the AMOS analysis tool. The results showed that the influence of the service quality variable on the customer satisfaction variable was 4,368 where this value was greater than 1.96 and also the p value was much smaller than 0.05, and the customer trust variable on the customer satisfaction variable was 3,218 where this value was greater. of 1.96 and also the p-value of 0.001 which is smaller than 0.05, the customer loyalty variable of 3.827 where this value is greater than 1.96, and also the p value is much smaller than 0.05. This means that service quality, customer trust, and customer satisfaction are factors that can maintain and influence the increase in the number of customers of Bank Rakyat Indonesia Tegal City Unit.

I. Introduction

Covid 19 pandemic caused all efforts not to be as maximal as expected (Sihombing and Nasib, 2020). The outbreak of this virus has an impact of a nation and Globally (Ningrum *et al*, 2020). The presence of Covid-19 as a pandemic certainly has an economic, social and psychological impact on society (Saleh and Mujahiddin, 2020).

The Covid-19 pandemic is not only a global health problem, but also has an impact on activities in various sectors. One of them is the banking sector. Banking activities in several countries are still running normally but are required to strictly implement health protocols. Bank BRI is one of the most familiar banking companies in Indonesia. In the second quarter of 2021, based on data from the Central Statistics Agency in 2021, the number of BRI customers increased during the pandemic, reaching 89 million customers or 43 percent of the total population. The increase in the number of BRI bank customers during this pandemic was due to the distribution of government aid funds required through

bank accounts, so many people created new accounts to get assistance from the government. This requires BRI bank to continue to provide services, innovations and breakthroughs to make it easier for customers to transact during the pandemic.

Table 1
Achievements of the BRI Customer Survey of Tegal City Unit Pre-Survey for 2019-2021

No.	Customer Statement	2019		2020		2021	
		Y	T	Y	T	Y	T
1	Transaction at Banking Hall	8	2	7	3	6	4
2	Transaction via ATM	6	4	7	3	8	2
3	Application M-Banking	5	5	7	3	8	2
4	Quality Customer Service	8	2	7	3	6	4
5	Providing Solutions to Customer Complaints	6	4	7	3	7	3
6	A lucky draw was held and certain prizes were given	8	2	7	3	7	3
7	Received recommendations from family or friends	6	4	7	3	8	2
8	Satisfied with the BRI Unit Tegal City	7	3	8	5	8	2

Source: Research, 2022.

Table 1 shows that there has been a decline in the quality of BRI Customer Service Services for the Tegal City Unit from 2019 to 2021. This is because the intensity of customers transacting in the banking hall has decreased the shift of customer transactions from conventional methods to digital methods is increasing. This can minimize direct interaction considering the increasingly widespread Covid-19 transmission. Kartika et al. (2020). One of the banking services during the pandemic is mobile banking services. The higher the perceived usefulness of mobile banking, the more satisfied and loyal customers will be with the bank used by Changchit et al. (2019); Malaquias & Hwang. (2019). This study aims to determine the effect of service quality, perceived usefulness of mobile banking, customer trust, on customer loyalty and satisfaction in the era of the covid-19 pandemic, which is focused on the BRI Bank Tegal City Unit.

II. Review of Literature

2.1 Customer

Consumer behavior is related to the decisions made by a person in determining the use of certain services or goods. According to Solomon et al. (2016), consumer behavior is an action or response shown by a consumer to his needs and desires by searching and using the required product so that he can then achieve satisfaction with the fulfillment of his needs. Rumondang et al. (2020) revealed that consumer behavior can be influenced by cultural, social and personal characteristics. Poh et al. (2013) stated that consumer behavior consists of several stages, namely the pre-purchase stage, the purchase stage and the post-purchase stage. Consumers will evaluate the products and services received. This assessment will then determine the satisfaction of the customer. Consumer satisfaction can affect consumers' decisions to return or switch to looking for other places (Firmansyah, 2018; Siregar, 2012).

2.2 Customer Loyalty

According to Ozkan et al. (2020) bank loyalty is a behavior shown by customers that reflects a preference for a particular bank. Bank customer loyalty is the commitment that customers have to use the services and products of the Bank repeatedly for a long period of time and is not affected by situations that can make customers switch to other banks. According to Boonlertvanich (2019), customer loyalty has two dimensions, namely attitude loyalty and behavioral loyalty. Lepojević & ukić (2018) state that customer loyalty is influenced by customer satisfaction, customer trust, customer commitment, and perceptions of service quality.

2.3 Customer Satisfaction

According to Dawit & Adem (2018) customer satisfaction is defined as the evaluation given by customers to certain bank products or services whether they have met their needs and prohibitions. Bogati & Vongurai (2018) state that customer satisfaction is formed by buying and consuming a product so that customers can make an assessment of the benefits and price aspects of the product consumed customer satisfaction is the feeling of satisfaction possessed by the customer for the assessment that has been made of the fulfillment of expectations carried out by the Bank.

2.4 Service Quality

Octabriyantiningtyas & Suryani (2019) explained that service quality is a level that is expected to meet the customer's wishes, until the company is able to fulfill that desire well, so that the company is considered to have good quality. Bank service quality is the extent to which the Bank's services are able to provide satisfaction to customers. Service quality is related to meeting customer needs and expectations through continuous improvement of the entire service process. According to Parasuraman in (Tjiptono, 2017), the service dimensions consist of tangible (direct evidence), reliability (reliability), responsiveness (quick response), assurance (certainty), empathy (empathy).

2.5 Perceived Usefulness of Mobile Banking

The development of technology and information requires new innovations in various sectors to make it easier for the public to obtain information or make transactions. One of them is in the banking sector. The creation is expected to facilitate communication between customers and the bank. The Theory of Reasoned Action (TRA) is a model introduced by Ajzen and Fishbein which is generally used to explain a behavior that is consciously carried out and intended (Davis et al., 1989). TRA has several factors, including behavioral intention or a person's interest in shaping a person's behavior, attitude or feelings regarding the formation of certain behaviors, and subjective norms or influences obtained from social pressure (Siregar, 2011). TRA was later developed into Theory of Planned Behavior (TPB). TPB can predict behavior and behavioral intentions. Technology Acceptance Model (TAM) is a model that describes attitudes and behavior of technology acceptance and adaptation of the TRA model developed by Ajzen and Fishbein (Davis et al., 1989).

(Changchit et al., 2019). Perception of the usefulness of mobile banking is one of the factors that encourage customers' intention to use mobile banking services. Perceived usefulness is one of the predictors of intention to use mobile banking technology in developing countries (Mostafa & Eneizan, 2018; Owusu et al., 2020) and attitudes about mobile banking itself (Elhajjar & Ouaida, 2019).

2.6 Customer Trust

Sitorus & Yustisia (2018) their research defines customer trust as the expectations and beliefs that customers have about the realization of services promised by certain banks. According to Agyei et al. (2020), trust has dimensions, namely, trust in the service provider, trust in regulator, economy-based trust, information-based trust.

2.7 Hypothesis

Service quality is one of the factors that can affect customer satisfaction Li et al., (2021). The dimensions of service quality have a significant effect on customer satisfaction. Hammoud et al. (2018). Based on the previous research, the first hypothesis in this study is:

H₁: Service Quality has a positive effect on Customer Satisfaction.

The use of mobile banking has an influence on customer satisfaction. Untilo et al. (2017). Marinkovic & Kalinic (2017) show that consumer satisfaction is driven by perceived usefulness of mobile commerce. The second hypothesis is:

H₂: Perceived Usefulness of Mobile Banking has a positive effect on Customer Satisfaction.

Dehghanpouri et al. (2020) show the results that customer satisfaction is significantly influenced by the quality of service received and trust. Marinkovic & Kalinic (2017) show that customer trust is able to encourage consumer satisfaction. The third hypothesis is:

H₃: Trust has a positive effect on Customer Satisfaction.

Customer satisfaction is one of the factors that influence customer loyalty Omoregie et al. (2019). Ing & Lin (2019) showed that satisfaction has a strong influence on loyalty. The fourth hypothesis is:

H₄: Customer Satisfaction has a positive effect on Customer Loyalty.

Omoregie et al. (2019) shows that loyalty is influenced by customer satisfaction. Thaker et al. (2018) showed that service quality moderated by satisfaction was able to increase customer loyalty. The fifth hypothesis is:

H₅: Service Quality has a positive effect on Customer Loyalty through Customer Satisfaction.

Research conducted by Xu & Tina (2018) shows that satisfaction has an effect on customer loyalty. While the research conducted by Thaker et al. (2018) shows that the use of mobile banking services has a positive effect on loyalty through customer satisfaction. Based on the previous research, the sixth hypothesis is:

H₆: Perceived usefulness of Mobile Banking has a positive effect on Customer Loyalty through Customer Satisfaction.

The results of research Ashraf et al. (2017) showed that customer satisfaction was able to mediate customer trust with an interest in saving again. Research Omoregie et al. (2019) shows that trust has a significant effect on loyalty. Based on the previous research, the sixth hypothesis is:

H₇: Trust has a positive effect on Customer Loyalty through Customer Satisfaction.

III. Research Method

This study used a descriptive quantitative approach, with data sources namely primary data and secondary data. Primary data is data collected by researchers directly from respondents in the form of service quality, perceived usefulness of mobile banking, customer trust, customer loyalty and customer satisfaction at BRI Unit Kota Tegal. The population in this study were customers of Bank BRI Unit Kota Tegal. The determination of the sample size in this study was carried out using the Rao formula because the total population was unknown (Fauzi, 2017). The data analysis technique was carried out by using validity and reliability tests and then using descriptive analysis of respondents' characteristics with the help of the SPSS version 25 program. Then using descriptive analysis of research variables that were tested using the Structural Equation Model (SEM) with the help of the AMOS 24 program.

IV. Results and Discussion

4.1 Descriptive Data Characteristics of the respondents

Table 2
Characteristics of the respondent

No	Variable	Classification	Total	Percentage
1	Gender	Male	135	61,4
		Female	85	38,6
2	Age	17-25 years	58	26,3
		26-35 years	117	53,2
		36-45 years	25	11,4
		46 -55 years	13	5,9
		56 years	7	3,2
3	Last education	SD/MI	0	0
		SLTP/SMP/MTS/Equivalent	0	0
		SLTA/SMA/SMK/MA/Equivalent	21	9,5
		Diploma (DI, D II , D III, D IV)	1	0,5
		S-1/Bachelor	171	77,7
		S-2/Master	23	10,5
		S-3/Doctoral	4	1,8
4	Work	Student/Student	35	15,9
		Civil Servant	15	6,7
		BUMN employee	55	25
		Private Employee	56	25,4
		Self Employed	14	6,4
		Fisherman	1	0,5
		Housewife	0	0
		Farmer	5	2,3
		Others:	39	17,8
5	What types of savings does	Simpedes	16	7,3
		Britama	204	92,7
6	How long have you been a	1 year	2	0,9
		2-4 years	41	18,6

	customer of Bank BRI	4-6 years	100	45,4
		6-8 years	50	22,8
		≥ 8 years	27	12,3
7	How much balance is in the savings	< Rp 1.000.000	4	1,8
		Rp 1.000.000 – Rp 3.000.000	8	3,6
		Rp 3.000.000 – Rp 10.000.000	65	29,6
		Rp 10.000.000 – Rp 25.000.000	104	47,3
		Rp 25.000.000 – Rp 50.000.000	26	11,8
		≥ Rp 50.000.000	13	5,9

Source: Research, 2022.

Table 2 shows that the number of male respondents is greater than the number of female respondents. The highest number of age customers is aged 26-35 years by 53.2% while the smallest number of age customers is aged 56 years by 3.2%. The education level of S-1/Bachelor occupies the largest percentage, which is 77.7%, followed by S-2/Master 10.5%, SLTA/SMA/SMK/MA/Equivalent 9.5%, while the smallest number of respondents is in Diploma (DI, D II, D III, D IV) by 0.5%. The majority of respondents work as private employees with a percentage of 25.4%, followed by the profession of BUMN employees by 25%, then other professions by 17.8%, while the student profession is 15.9%, the smallest number of professions occurs in the fishing profession by 0.5%. The type of savings owned by the respondents mostly used Britama savings with a percentage of 92.7% while Simpedese savings were only 7.3%. Then the majority of respondents became customers for 4-6 years by 45.4%. Then for the largest respondent's balance, Rp. 10,000,000 - Rp. 25,000,000, which is 11.8%. Meanwhile, the balance with the smallest percentage is 1.8%, which is < Rp 1,000,000.

4.2 Validity Test

Table 3
Test on Service Quality

Variables	Indicator	Correlations	Validity
Service Quality	SQ_1	0.730	Accepted
	SQ_2	0.711	Accepted
	SQ_3	0.736	Accepted
	SQ_4	0.706	Accepted
	SQ_5	0.696	Accepted
	SQ_6	0.764	Accepted
	SQ_7	0.738	Accepted
	SQ_8	0.765	Accepted
	SQ_9	0.749	Accepted
	SQ_{10}	0.741	Accepted
	SQ_{11}	0.750	Accepted
	SQ_{12}	0.731	Accepted
	SQ_{13}	0.728	Accepted
	SQ_{14}	0.766	Accepted
Perceived Usefulness of Mobile Banking	PU_1	0.801	Accepted

	PU$_2$	0.757	Accepted
	PU$_3$	0.775	Accepted
	PU$_4$	0.793	Accepted
	PU$_5$	0.767	Accepted
	PU$_6$	0.749	Accepted
	PU$_7$	0.784	Accepted
Customer Trust	CT$_1$	0.742	Accepted
	CT$_2$	0.700	Accepted
	CT$_3$	0.756	Accepted
	CT$_4$	0.770	Accepted
	CT$_5$	0.754	Accepted
	CT$_6$	0.763	Accepted
	CT$_7$	0.777	Accepted
	CT$_8$	0.771	Accepted
	CT$_9$	0.783	Accepted
	CT$_{10}$	0.736	Accepted
	CT$_{11}$	0.715	Accepted
Customer Satisfaction	CS$_1$	0.804	Accepted
	CS$_2$	0.782	Accepted
	CS$_3$	0.794	Accepted
	CS$_4$	0.806	Accepted
Customer Loyalty	CL$_1$	0.757	Accepted
	CL$_2$	0.805	Accepted
	CL$_3$	0.777	Accepted
	CL$_4$	0.757	Accepted
	CL$_5$	0.780	Accepted
	CL$_6$	0.775	Accepted
	CL7	0.745	Accepted
	CL$_8$	0.785	Accepted

Source: Research, 2022.

Based on the results of the validity test in table 3 shows that all items valid because the calculated r value is greater than r table = 0.132.

4.3 Reliability Test
Source: Research, 2022.

Based on table 4 shows that all variables used in this study have a Cronbach Alpha value greater than 0.7, so it can be concluded that all variables used in this study are reliable and can be used as a tool measuring.

Table 4
Reliability Test

Variable	Cronbach Alpha	Cut-off	Information
Quality Service	0.935	0.7	Reliable
Perceived Usefulness of Mobile Banking	0.889	0.7	Reliable
Customer Trust	0.923	0.7	Reliable
Customer Satisfaction	0.807	0.7	Reliable
Customer Loyalty	0.904	0.7	Reliable

4.4 Variance Exctracted (AVE)

In this analysis the percentage of AVE in the indicator set of latent constructs is a summary of the convergent indicators, the AVE is shown in the table as follows, namely:

Table 5
Variance ExctractedTest

Variable	Variance Exctracted	Cut off Value	Description
Quality Service	0.508	0.5	Reliabel
Perceived Usefulness of Mobile Banking	0.535	0.5	Reliabel
Customer Trust	0.522	0.5	Reliabel
Customer Satisfaction	0.511	0.5	Reliabel
Customer Loyalty	0.540	0.5	Reliabel

Source: Research, 2022.

The results of the AVE test on all variables used in this study, namely service quality, perceived usefulness of mobile banking, customer trust, customer satisfaction and customer loyalty have an AVE value above 0.5 so that it can be said to have met the Variance Extracted requirements.

4.5 Confirmatory Factor Analysis

Confirmatory factor analysis which aims to confirm several dominant factors for the formation of variables in the group. At this stage the information obtained can be said that a dimension or a set of factors confirms the emergence of indicators which are latent variables, which confirms that the dimension appears as a dimension in a set of indicators that cannot be separated. If the results of data processing show a value that meets the requirements, then the proposed research hypothesis can be accepted. The details of testing the research hypothesis are then discussed in stages based on the proposed hypothesis.

4.6 Exogenous Person Construct

At this stage where it is one of the important factor analysis stages, namely confirmation of the exogenous construct which aims to test or find out the uni-dimensionality of the dimensions of the occurrence of each latent variable.

Table 6
Exogenous Goodness of Fit Criteria Evaluation

Criteria	Cut off Value	Results	Evaluation
Chi – Square	≤ 512,056	540,202	Marginal Fit
Probability	≥ 0,05	0,006	Marginal Fit
RMSEA	≤ 0,08	0,028	Good Fit
CMIN/DF	≤ 2,00	1,172	Good Fit
GFI	≥ 0,90	0,871	Marginal Fit
AGFI	≥ 0,90	0,852	Marginal Fit
TLI	≥ 0,90	0,978	Good Fit
CFI	≥ 0,90	0,979	Good Fit

Source: Research, 2022.

The table above shows that overall it produces a number above critical, which means that this model can be said to be suitable. The model is good enough because the goodness of fit index criteria as a whole are already included in the good fit category, especially the RMSEA value which is smaller than 0.08 so there is no need to make model improvements.

4.7 Endogenous Person Construct

The endogenous construct in this study has the meaning to test the unidimensionality of the dimensions that make up each latent variable/construct.

Table 7
Feasibility Test Results

Criteria	Cut off Value	Results	Evaluation
Chi – Square	≤ 70,993	54,023	Good Fit
Probability	≥ 0,05	0,435	Good Fit
RMSEA	≤ 0,08	0,009	Good Fit
CMIN/DF	≤ 2,00	1,019	Good Fit
GFI	≥ 0,90	0,961	Good Fit
AGFI	≥ 0,90	0,943	Good Fit
TLI	≥ 0,90	0,999	Good Fit
CFI	≥ 0,90	0,999	Good Fit

Source: Research, 2022.

The model is good enough because the goodness of fit index criteria as a whole are already included in the good fit category, especially the RMSEA value which is smaller than 0.08 so there is no need to make model improvements.

4.8 Full Measurement Confirmatory Factor Analysis

The next step is to measure the dimensions that can produce the overall latent variables in the research model. The latent variables and constructs used have fulfilled the valid criteria.

Table 8
Full Model Goodness of Fit Index Test

Criteria	Cut off Value	Results	Evaluation
Chi – Square	≤ 962,593	1034,157	Marginal Fit
Probability	≥ 0,05	0.001	Marginal Fit
RMSEA	≤ 0,08	0.027	Good Fit
CMIN/DF	≤ 2,00	1,159	Good Fit
GFI	≥ 0,90	0.832	Marginal Fit
AGFI	≥ 0,90	0.813	Marginal Fit
TLI	≥ 0,90	0.972	Good Fit
CFI	≥ 0,90	0.974	Good Fit

Source: Research, 2022.

The model is good enough because the goodness of fit index criteria as a whole are already included in the good fit category, especially the RMSEA value which is smaller than 0.08 so there is no need to make model improvements. The results of the chi-square test for all models calculated 1034,157, still below the 5% significance level, which is

255,602, and the chi-square table with 220. The probability value is 0.001 higher than the desired probability is 0.05. The CMIN/DF value is below 2.00 (required CMIN/DF value), which is 1.159. The GFI value is 0.832, which is less than 0.90, which is the desired GFI value. The AGFI value is smaller than the required AGFI value of 0.90, which is 0.813. The TLI value is 0.972, which is greater than the desired TLI value of 0.90. The CFI value of 0.974 is greater than 0.90, the required CFI value, and the RMSEA value of 0.027, which is less than 0.08, the required RMSEA value.

4.9 SEM Assumption Test

The next step is to analyze the SEM assumption test to evaluate the suitability of the model through a theoretical study based on the goodness of fit criteria which are explained as follows:

a. Data Normality

The next data test is to analyze the level of normality of the data used in the study. The assumption of data normality must be met so that the data obtained can be further processed for SEM modeling. Univariate and multivariate data used in this analysis can be tested for normality. The next data test is to analyze the level of normality of the data used in the study. The assumption of normality of the data must be met so that the data can be further processed for SEM modeling. This univariate normality test can be done by looking at the skewness value of the data used, if the CR value on the skewness data is between ± 2.58 and a significance level of 0.01, then the research data used can be said to be normal. Normality test can be done by looking at the skewness value of the data used (is there a CR value above ± 2.58 at the 79th significance level of 0.01).

b. Univariate Outlier Test

Outliers are observaons with both univariate and multivariate extreme values that arise because of the unique combination of characteristics they have and look very different from other observations. Testing whether there are univariate outliers is done by analyzing the Zscore value of the research data used. If the zscore value is greater than ± 3.0, it is classified as an outlier. This univariate outlier test uses the help of the SPSS 17 program.

c. Multicollinearity and Singularity Test

The determinant of the sample covariance matrix needs to be observed to determine whether there is multicollinearity or singularity in the combination of variables. If both of these things happen, it means that the data cannot be used.

Determinant of sample covariance matrix = .000000000008431969

The results above show that the value of the sample covariance matrix is determined to be far from zero. This can be explained by the fact that the research data used does not contain multicollinearity and singularity, so the data can be used. There is no singularity problem because the value of the Determinant of sample covariance matrix is greater than 0 absolute so that the data in this study is feasible to use. Because if the value is absolute 0 and there is a singularity problem, a warning will appear in the amos software and the data cannot be run, while the data in this study can be run on amos, which means the data has met the requirements to pass the singularity test.

d. Regression Weight

Hypothesis testing uses SEM to process research data by analyzing regression values. This test aims to answer the hypothesis in this study or to analyze the structural model relationships. The level of significance of the relationship between variables is indicated by the value of the critical ratio (CR) and the probability value, the significance of each relationship between variables is carried out for statistical tests of processing results with SEM. The following figures and tables show the process of statistical testing carried out.

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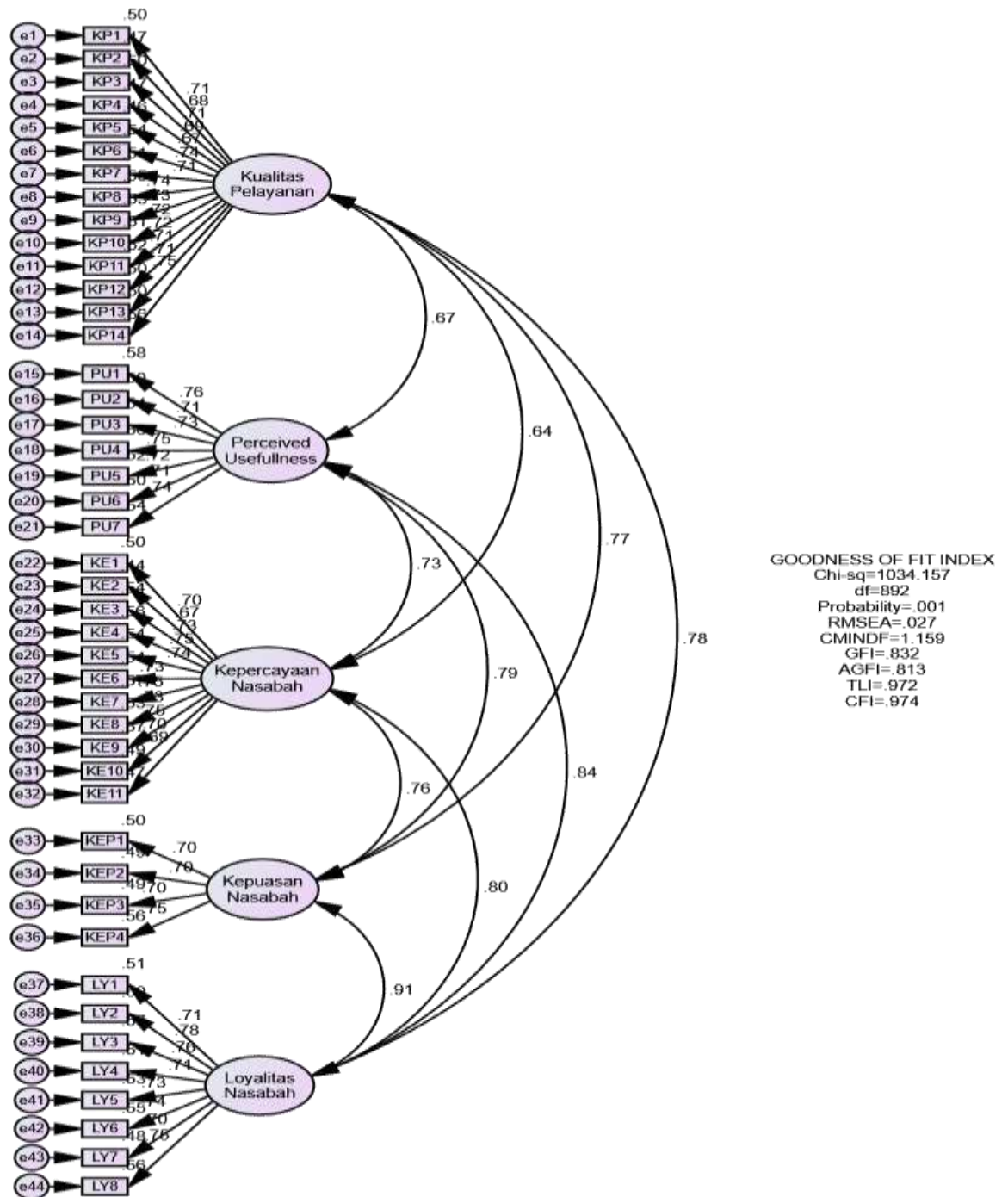

Figure 1. Results of the Structural Equation Model Test

The analysis of the hypothetical data is seen from the standardized regression weight which shows the coefficient of influence between the following table variables:

Table 9
Regression Weight Test for Equation Modeling Structural Analysis

			Estimate	SE	CR	P	Label
Customer Satisfaction	<---	Service Quality	.394	.090	4.368	***	par_40
Customer Satisfaction	<---	PerceivedUsefulness	.316	.088	3.580	***	par_41
Customer Satisfaction	<---	Customer Trust	.322	.100	3.218	.001	par_42
Customer Loyalty	<---	Service Quality	.154	.077	1.995	.046	par_43
Customer Loyalty	<---	PerceivedUsefulness	.235	.076	3.086	.002	par_44
Customer Loyalty	<---	Customer Trust	.180	.082	2.179	.029	par_45
Customer Loyalty	<---	Customer Satisfaction	.468	.122	3.827	***	par_46

Source: Research, 2022.

In the final test results of the overall model in the table above, the equations of the mathematical model in the form of the Structural Equation Model (SEM) can be written as follows:

$$Y_1 = 0,395X_1 + 0,316X_2 + 0,322\ X_3 \qquad R^2 = 0,763$$
$$Y_2 = 0,154X_1 + 0,235X_2 + 0,180X_3 + 0,468X_4 \qquad R^2 = 0,883$$

e. Coefficient of Determination Test

The coefficient of determination (R^2) generated from the structural equation model was used to express the sum of the effects exerted on the dependent variable of the independent variable associated with each path, and the following results were obtained:

Table 10
Coefficient of Determination Test (Squared Multiple Correlation)

	Estimate
Customer Satisfaction	.763
Customer Loyalty	.883

Source: Research, 2022.

The value of the coefficient of determination of customer satisfaction is 0.763, which means that service quality, perceived usefulness of mobile banking and customer trust have an effect of 76.3% on customer satisfaction while the rest is influenced by other variables outside this study.

The value of the coefficient of determination of customer loyalty is 0.883, which means that service quality, perceived usefulness of mobile banking, customer trust and customer satisfaction have an effect of 88.3% on customer satisfaction while the rest is influenced by other variables outside of this study.

f. Direct Effect, Indirect Effect, and Total Effect

Table 11
Tests of Direct Effect and Indirect Effect and Total Effect

Variable	Direct Effect	Indirect Effect	Total Effect
Customer Trust in Customer Satisfaction	0,283	0,000	0,283
Trust in Customer Loyalty	0,160	0,134	0,294
Perceived Usefulness of mobile banking on Customer Satisfaction	0,341	0,00	0,341
Perceived Usefulness of mobile banking on Customer Loyalty	0,256	0,161	0,417
Service Quality on Customer Satisfaction	0,360	0,00	0,360
Customer Service Quality on Customer Loyalty	0,142	0,171	0,313
Customer Satisfaction with Customer Loyalty	0,473	0,000	0,473
Customer Loyalty on Customer Satisfaction	0,000	0,000	0,000

Source: Research, 2022.

Customer trust affects customer loyalty significantly indirectly through perceived risk 0.134. Perceived use fullness of mobile banking affects customer loyalty indirectly through the perceived risk of 0.161. Service quality affects customer loyalty indirectly through the perceived risk of 0.171.

g. Hypothesis Testing

Table 12
Conclusion of Hypothesis Testing Hypothesis

Test	Hasil Uji	Results
H_1: Service Quality has a positive effect on Customer Satisfaction.	CR = 4,368 > 1,645 P = 0,000 < 0,05	Accepted
H_2: Perceived Usefulness of Mobile Banking has a positive effect on Customer Satisfaction.	CR = 3,580 > 1,645 P = 0,000 < 0,05	Accepted
H_3: Customer Trust has a positive effect on Customer Satisfaction.	CR = 3,218 > 1,645 P = 0,000 < 0,05	Accepted
H_4: Customer Satisfaction has a positive effect on Customer Loyalty.	CR = 1,995 > 1,645 P = 0,000 < 0,05	Accepted
H_5: Service Quality has a positive effect on Customer Loyalty through Customer Satisfaction.	CR = 3,086 > 1,645 P = 0,000 < 0,05	Accepted
H_6: Perceived Usefulness of Mobile Banking has a positive effect on Customer Loyalty through Customer Satisfaction.	CR = 2,179 > 1,645 P = 0,000 < 0,05	Accepted
H_7: Customer Trust has a positive effect on Customer Loyalty through Satisfaction Customer.	CR = 3,827 > 1,645 P = 0,000 < 0,05	Accepted

Source: Research, 2022.

4.10 Sobel Test

Sobel test analysis was used to examine the effect of mediation on the model. Sobel test was conducted by testing the effect of the independent variable on the dependent variable through the mediating variable. The following are the results of the Sobel test in this study:

a. The Influence of Service Quality Has a Positive Effect on Customer Loyalty through Customer Satisfaction

Customer Satisfaction mediates the effect of Service Quality on Customer Loyalty because the Sobel test statistic value is 2.885 or greater than 1.98 and also the probability value is 0.004 or less than 0.05.

b. The Effect of Perceived Usefulness of Mobile Banking has a Positive Effect on Customer Loyalty through Customer Satisfaction

Customer Satisfaction mediates the effect of Perceived Usefulness on Customer Loyalty because the Sobel test statistic value is 2.622 or greater than 1.98 and also the probability value is 0.009 or less than 0.05.

c. The Influence of Customer Trust Has a Positive Effect on Customer Loyalty through Customer Satisfaction

Customer Satisfaction mediates the effect of Customer Trust on Customer Loyalty because the Sobel test statistic value is 2.466 or greater than 1.98 and also the probability value is 0.014 or less than 0.05.

4.10 Effects between Variables

a. The Influence of Service Quality on Customer Satisfaction

The results show that service quality has an influence on customer satisfaction, this is in line with research (Boonlertvanich, 2019) which shows that service quality has a direct or indirect impact on customer satisfaction. The results of this study also support research conducted (Abror et al., 2020) which shows that the service quality of an Islamic bank in West Sumatra has an effect on customer satisfaction.

b. Effect of Perceived Usefulness of Mobile Banking on Customer Satisfaction

The results showed that the Perceived Usefulness of Mobile Banking had no effect on customer satisfaction. Factors that affect the perceived usefulness of mobile banking are due to customer age, technology stuttering, network, and application disturbances. Older customers who have difficulty using technology do not download the mobile banking application. In addition, the mobile banking and network applications experienced errors that disrupted customer performance in conducting transactions. The results of this study are not in line with research conducted by (Priya et al., 2018) which shows that the perceived usefulness of mobile banking for bank customers in India affects customer satisfaction. Mobile banking helps increase customer productivity by reducing costs and saving time. The results of this study are also supported by research conducted by (Mulia et al., 2020) which shows that the perceived usefulness of mobile banking affects customer satisfaction. Technological advances in the banking world such as the creation of mobile banking will increase customer satisfaction because it helps customers make financial transactions.

c. The Influence of Customer Trust on Customer Satisfaction

The results of the study indicate that customer trust has an effect on customer satisfaction. This is in line with research conducted by (Suariedewi & Suprapti, 2020) which shows that the trust of bank customers in Bali has a positive effect on customer satisfaction in the use of mobile banking. The results of this study are also supported by research (Geebren et al., 2021) which shows that customer trust affects bank customer satisfaction in Libya. Customers have high expectations of comfortable, safe and appropriate services so that if bank services are in accordance with customer expectations, it will cause customers to trust and increase customer satisfaction. In addition, customer confidence regarding bank security in saving customer money will also affect customer satisfaction.

d. The Influence of Service Quality on Customer Loyalty

The results showed that service quality had an effect on customer loyalty. This is in line with research conducted by (Jumawan, 2018) that service quality affects loyalty. Loyalty is achieved because the services applied are of good quality. The results of this study are also supported by research conducted (Xu & Tina, 2018) which shows that service quality affects loyalty. The quality of service that continues to increase will have an impact on customers so that the level of customer loyalty will also increase.

e. The Effect of Service Quality on Customer Loyalty with Customer Satisfaction as an Intervening Variable

The results showed that service quality had an effect on customer loyalty through customer satisfaction. In line with the research conducted (Fathoni et al., 2016) which states that service quality can have a positive effect on customer satisfaction and loyalty. The results of this study are in line with research conducted by Abror et al., (2020) which says that service quality has a positive influence on customer satisfaction.

f. The effect of Perceived Usefulness of Mobile Banking on Customer Loyalty with Customer Satisfaction as an Intervening Variable

The results show that the Perceived Usefulness of Mobile Banking has an effect on customer loyalty through customer satisfaction. This is in line with research conducted (Riptiono & Styarini, 2020) which shows that the influence of language trust will have a positive and significant effect on the Perceived Usefulness of Mobile Banking. The results of this study are also supported by research conducted by Syahniar, et al., (2018) which says that the perception of convenience has a positive and significant effect on the satisfaction of a customer.

g. The Effect of Customer Trust on Customer Loyalty with Customer Satisfaction as an Intervening Variable

The results showed that there was a mediating effect between customer trust and customer loyalty through customer satisfaction. The results of this study are in line with research conducted by Lie et al., (2019) showing that customer satisfaction mediates customer trust with customer loyalty. Consumer trust has a positive contribution to customer satisfaction so that it will increase the level of loyalty. The results of the study are also supported by research (Sitorus & Yustisia, 2018) which shows that customer satisfaction mediates customer trust with customer loyalty. Customer trust in the bank regarding financial matters that have an impact on customer satisfaction regarding the

money management system thereby increasing customer loyalty to keep their money in the bank.

V. Conclusion

The quality of service provided by the BRI Unit Kota Tegal determines customer satisfaction in conducting banking transactions. The better the quality of service provided by the bank, the higher the customer satisfaction will be. The perceived usefulness of mobile banking determines customer satisfaction in conducting transactions through the mobile banking application (BRIMO). The higher the level of trust held by the customer, the higher the satisfaction possessed by the customer. The higher the level of satisfaction owned by the customer, the higher the loyalty of the customer. Service quality that affects customer satisfaction is able to determine customer loyalty. Perceived usefulness of mobile banking that affects customer satisfaction is able to determine customer loyalty. The higher customer loyalty will increase customer satisfaction which will then increase the perceived usefulness of mobile banking owned by customers. Customer loyalty can be increased through customer satisfaction which is influenced by customer trust. The higher the customer trust, the higher the customer satisfaction, which in turn will increase the loyalty of the customer.

Future Research

Based on the research limitations that have been found in the field, this research with the theme of customer loyalty can be developed further. Future research is expected to reveal things that were not answered in this study by taking into account the limitations of existing research. Further research can develop a research framework by changing or adding research variables so that research findings regarding customer loyalty can be more varied.

Further research can also pay more attention to the characteristics of respondents if the research continues to use the perceived usefulness of mobile banking variable. For example, by giving the age criteria of the respondent with a young age because young people are more familiar with the use of mobile banking. Further research can also expand the scope of the population used in the study. Suppose the population is from several banks so that the research results can be generalized more broadly.

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