

The Influence of Trust, Service Quality and Product Quality on Customer Satisfaction Using Mobile Banking

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Abstract— This research aims to determine the influence of trust, service quality, and product quality on customer satisfaction using mobile banking. This research uses primary data obtained through distributing questionnaires to Bankaltimtara customers as measured using a Likert scale. The data analysis technique used is validity test, reliability test, and hypothesis testing consisting of partial test (t test), simultaneous test (f test), and determination coefficient (R^2). The type of research is a quantitative research model. The data analysis method uses a multiple linear regression analysis model. The total research sample was 144 respondents. The research results show that partially the variables trust, service quality, and product quality have a positive and significant effect on customer satisfaction using mobile banking at Bankaltimtara in Samarinda. Stimulantly, the variables trust, service quality, and product quality have a significant positive effect on customer satisfaction using mobile banking at Bankaltimtara in Samarinda.

Keywords— Trust, Service Quality, Product Quality, Customer Satisfaction, Mobile Banking

I. INTRODUCTION

Along with the increasing dependence of society on technology, the industrial world is also required to continue to innovate to meet and satisfy the increasing needs and desires of the community. Many companies, including the banking sector, now rely on advanced technology to satisfy the needs of their consumers (customers). The banking industry provides several facilities, one of which is mobile banking.

Mobile banking, commonly referred to as M-banking, first appeared by Excelcom in late 1995. Mobile banking is an innovative banking service that allows customers to conduct various financial transactions without the need to visit a branch office or ATM. This system makes use of the mobile device like a smartphone, tablet, or iPad to access banking services directly and in real-time. With Mobile Banking, customers can easily manage their finances, make payments, fund transfers, and various other banking operations through the palm of their hands. This service not only saves time but also provides flexibility to customers to transact anytime and anywhere, as long as they are connected to the internet. Thus, mobile banking is an efficient and practical solution for answering banking needs in today's fast-paced digital era.

However, the success of mobile banking It doesn't just depend on the technology. According to Rangkuti (2013) [1], service quality and product quality have a close relationship; there will be no point in providing exceptional service if it is

not balanced with quality products that meet customer expectations. On the other hand, quality products will also be meaningless if they are not supported by extraordinary service and will make customers feel disappointed because they get bad service. Quality of service (service quality) is a comparison of service between reality and customer expectations; if the reality received is more than expected, then the service can be said to be of high quality and the customer will be satisfied; on the other hand, if the reality is less than expected, then the service is said to be of poor quality and the customer will be disappointed or dissatisfied. Meanwhile, product quality (product quality), that is, a product is said to be of high quality if it is in accordance with what is needed by the customer and is able to compete with similar products produced by competitors.

In achieving and maintaining customer satisfaction, banks need to make various efforts to increase customer trust. One of the strategies in this digital era is to utilize technology, especially through the application of mobile banking. Development and provision of services and products in mobile banking This is based on the bank's desire to build and strengthen customer trust. According to Nurdin et al. [2]. Trust is a belief from a certain party towards another party in the relationship between the two parties who are entrusted with fulfilling all obligations as expected.

In Indonesia, many banks are competing to launch the technology of mobile banking. One of them, the Provincial Government of East Kalimantan and North Kalimantan Province, officially changed its name to PT. BPD Kaltim Kaltara on December 15, 2017 (www.cnnindonesia.com), has the motto "to be the pride of East Kalimantan" and launched the Dg by bankaltimtara or Dgbankaltimtara application on April 6, 2020. After going through a thorough development and testing process, the app was unveiled in July 2021 to provide benefits for everyone to easily access banking and financial services. As more and more people use mobile phones to conduct banking transactions, the government's expectation to reduce the amount of cash (less cash society) will soon be realized. Therefore, banks are very interested in developing it. For banks, this service is considered a way to reduce the cost of funds (cost of funds).

Customers who have a high level of busyness consider that the mobile banking It is very needed and classified as important because it is very helpful in making a transaction in the midst

of their activities and busyness. But in fact, mobile banking This is still far from customer activity due to limited information about mobile banking along with its advantages. The limited information is due to the lack of socialization by the bank with customers, or customers do not understand what facilities are available in mobile banking. This can be proven by the fact that there are still many customers who prefer to queue at the bank. It can also be seen from the use of mobile banking. Bankaltimtara, namely the Dgbankaltimtara application on the Playstore, has only reached more than 100,000 users, with a total of more than 6 million customers, quoted in the article (zonakeuangan.com). It can be concluded that there are still many BPD Kaltimtara customers who have not used this application or do not know about it.

Many banking customers in Samarinda have not used mobile banking because they feel that mobile banking is something complicated. The complexity of transactions through mobile banking makes customers rethink the risk of making mistakes in transactions because, at the time of making transactions, the customer is not accompanied and assisted by teller officers. Customers are faced directly with a system that serves the transactions that customers want to make. A system that is considered complicated will usually not be used often by its users, even though the benchmark for accepting a system is seen from its use. A system that is used frequently indicates that it is more recognizable, easier to operate, and easier to use. The ability of customers to interact and know the procedures and ways of transactions is one of the things that can affect customer satisfaction using Mobile Banking itself.

The existence of limited information causes customers to lack understanding of mobile banking offered by the bank. Customers who are too busy with their daily affairs sometimes overlook the information on the services provided by the bank. In principle, customers consider services that are not popular among the surrounding circles, so these customers are not interested in looking for information about the bank's services. Even though the bank launched an application called Mobile Banking to save and make it easier for its customers. Customers prefer to queue at the bank rather than looking for information about the service Mobile Banking aforementioned.

II. LITERATURE REVIEW

Bank

According to Law of the Republic of Indonesia Number 10 of 1998 [8], Article 1 Paragraph 2 concerning Banking is a business institution that collects money from the community in the form of deposits, then distributes it back to the community in the form of credit or other forms to improve the standard of living. A bank is also defined as an intermediary that bridges between the owner of excess funds and those who need funds to be processed for the common welfare of the person whose use is in accordance with applicable regulations.

E-Banking

According to Afghani & Yulianti [3]. Banks offer services like Electronic Banking (E-Banking) to meet the needs of customers as an alternative medium to process banking

transactions without customers coming to banks or ATMs except for deposit and cash withdrawal transactions.

Mobile Banking

According to Nurastuti [4], mobile banking is a banking facility through mobile communication tools such as mobile phones, with the provision of facilities almost the same as ATMs except for cash.

Belief

According to Nurdin et al. [2], it is a belief from certain parties to other parties in the relationship between the two parties who are entrusted with fulfilling all obligations as expected.

Quality of Service

According to Indrasari [5], it is defined that service quality is basically centered on efforts to meet customer needs and desires as well as the accuracy of its delivery to match customer expectations.

Product Quality

According to Hair [6]. It is stated that the product that customers want, both tangible and intangible, is of high product quality, and whatever form it takes, as long as it can meet the wishes and needs of customers, we can say that it is a product.

Customer Satisfaction

According to Hananto [7], it is stated that customer satisfaction is the level of feelings of a bank's customers after comparing the bank's perceived performance with expectations before using the bank's services. Customer satisfaction can be created by companies by providing the best products and services for their customers.

Hypothesis

H1: It is suspected that trust has a positive and significant effect on customer satisfaction using mobile banking at Bankaltimtara Samarinda.

H2: It is suspected that the quality of service has a positive and significant effect on customer satisfaction using mobile banking at Bankaltimtara Samarinda.

H3: It is suspected that product quality has a positive and significant effect on customer satisfaction using mobile banking at Bankaltimtara Samarinda.

H4: It is suspected that trust, service quality, and product quality have a positive and significant effect on customer satisfaction using mobile banking at Bankaltimtara Samarinda.

III. METHODOLOGY

This research uses several analytical tools, namely descriptive analysis, validity and reliability test, classical assumption test, multiple linear regression test, coefficient of determination test (R²), as well as the F test and t test. The following is the regression equation in this research:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_nX_n + e$$

Information:

Y = Customer Satisfaction

A = Constanta

- B = Multiple linear coefficient
- X₁ = Belief
- X₂ = Quality of Service
- X₃ = Product Quality
- e = Standard error

IV. RESULT AND DISCUSSION

Result

In this research, a significance level or tolerable error rate (α) of 0.05 or 5% is used, and a one-tailed procedure is used because the hypothesis has been given a positive and negative direction. Therefore, the minimum limit (cut-off value) used in testing this hypothesis is 1.97705. As for testing this hypothesis, there are two criteria for drawing conclusions, with the following description:

- a. The decision that the research hypothesis that has been formulated is "rejected" when the t-count value found after the calculation is less than the predetermined cut-off value, namely 1.97705 (t-count < 1.97705) and is not significant if p values > 0.05.
- b. The decision that the research hypothesis that has been formulated is "accepted" when the t-count value found after the calculation is more than the predetermined cut-off value, namely 1.97705 (t-count > 1.97705) and significant if (p values < 0.05).

TABLE 1. Multiple Linear Regression Analysis Test Results

Coefficients ^a						
Type	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	2.032	1.303		1.560	0.121
	Belief	0.158	0.053	0.207	2.987	0.003
	Quality of Service	0.142	0.049	0.232	2.897	0.004
	Product Quality	0.178	0.039	0.368	4.605	0.000

a. Dependent Variable: Customer Integrity

Based on the table above, the regression equation in this study is as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e$$

$$Y = 2.032 + 0.158 X_1 + 0.142 X_2 + 0.178 X_3 + 1.303$$

TABLE 2. Simultaneous Significant Test Results (F)

ANOVA ^a						
Type	Sum of Squares	Df	Mean Square	F	Sig.	
1	Regression	105.092	3	35.031	22.733	0.000B
	Residual	215.734	140	1.541		
	Total	320.826	143			

a. Dependent Variable: Customer Integrity
b. Predictors: (Constant), Product Quality, Trust, Service Quality

Based on the results of calculating the coefficient of determination in the table above, an R or correlation value of 0.572, or 57.2%, is obtained, which means that the level of relationship between the independent (free) variable and the dependent (bound) variable is at a strong level (in the interval 0.600–0.799). Table 1 above also illustrates the coefficient of determination (R square) value of 0.313, which means that

31.3% of the variables Work Motivation, Use of Information Technology, and Internal Control Systems are influenced by other factors not included in this research.

TABLE 3. Correlation Coefficient Test Results (R) and Determination Coefficient Test Results (R²)

Model Summary				
Type	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.572a	0.328	0.313	1.241

a. Predictors: (Constant), Product Quality, Trust, Service Quality

Discussion

Based on the results of the hypothesis testing that has been carried out by the author, starting from the variables of trust (X₁), service quality (X₂), and product quality (X₃) with a total of 144 respondents.

Trust Affects Customer Satisfaction

Based on the results of statistical tests that have been carried out on the first hypothesis (H₁), the results of the study show that trust has a positive and significant effect on customer satisfaction using Bankaltimtara Samarinda mobile banking. This is in accordance with the results of the t-test in table 1. The significance value between the trust variable and the customer satisfaction variable is 0.003, which means it is smaller than the predetermined error rate of 0.05 or the t-count > t-table 2.987 > 1.977. The statistical value of F-count shows a figure of 22.733, which means greater than the F-table by 2.67 (22.733 > 2.67), and the determination test value (*Adjusted R Square*) is 0.313, or 31.3%, then H₁ is accepted and H₀ is rejected. The better customer trust using Bankaltimtara mobile banking in Samarinda, the better it will increase customer satisfaction.

Service Quality Affects Customer Satisfaction

Based on the results of statistical tests that have been carried out on the first hypothesis (H₁), the results of the study show that the quality of service has a positive and significant effect on customer satisfaction using Bankaltimtara Samarinda mobile banking. This is in accordance with the results of the t-test in table 1. The significance value between the service quality variable and the customer satisfaction variable is 0.004, which means less than the predetermined error rate of 0.05 or the t-count > t-table 2.897 > 1.977. The statistical value of F-count shows a number of 22.733, which means greater than the F-table by 2.67 (22.733 > 2.67), and the determination test value (*Adjusted R Square*) is 0.313, or 31.3%, then H₁ is accepted and H₀ is rejected. The higher the quality of customer service using Bankaltimtara mobile banking in Samarinda, the higher the customer satisfaction.

Product Quality Affects Customer Satisfaction

Based on the results of statistical tests that have been carried out on the third hypothesis (H₃) obtained, the results of the study showed that product quality had a positive and significant effect on customer satisfaction using Bankaltimtara Samarinda mobile banking. This is in accordance with the results of the t-test in table 1. The significance value between the organizational culture variable and the employee performance variable is 0.000, which means it is smaller than the predetermined error

rate of 0.05 or the t-count $>$ t-table $4.605 > 1.977$. The statistical value F-count shows a number of 22.733, which means greater than F-table by 2.67 ($22.733 > 2.67$), and the determination test score (Adjusted R Square) is 0.313, or 31.3%, then H3 is accepted and H0 is rejected. The more product quality customers use bankaltimtara mobile banking in Samarinda, the more customer satisfaction will increase.

V. CONCLUSION

Based on the results of research and discussion on the influence of trust, service quality, and product quality on customer satisfaction using mobile banking at Bankaltimtara in Samarinda through the distribution of questionnaires to customers who use Bankaltimtara mobile banking or DG by Bankaltimtara, the following conclusions are obtained:

1. Trust partially has a significant positive effect on customer satisfaction using Bankaltimtara's mobile banking. This means that the better the trust given to customers, the more satisfied customers will feel.
2. Service quality partially has a positive and significant effect on customer satisfaction using Bankaltimtara's mobile banking. This means that the better the quality of service provided to customers, the more customer satisfaction will increase in transactions using mobile banking.
3. Product quality partially has a positive and significant effect on customer satisfaction using Bankaltimtara's mobile banking. This means that the better the quality of the products provided or offered to customers, the more customer satisfaction will increase in transactions using mobile banking.
4. Trust, service quality and product quality together or simultaneously have a significant positive effect on

customer satisfaction in using Bankaltimtara mobile banking. This shows that the better the trust, service quality, and product quality provided, the more customer satisfaction will increase using Bankaltimtara's mobile banking.

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