The Effect of Self Service Technology and Service Quality Toward Customer Satisfaction of Bank Nagari Syariah Batusangkar Branch

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ABSTRACT

The purpose of this study was to analyze the effect of self service technology and service quality on customer satisfaction of Bank Nagari Syariah Batusangkar Branch. The research method uses a quantitative approach. The population of this study consisted of 970 people who used the M-Banking application with a sample of 91 people. The analysis technique uses multiple linear regression analysis. The results showed that the variables of self service technology and service quality simultaneously influenced customer satisfaction. Partially self service technology and service quality also affect customer satisfaction at Bank Nagari Syariah Batusangkar Branch which uses the M-Banking application. The results of this study will implement bank management to be able to improve service and quality in order to maintain customer satisfaction. Customer satisfaction is an important thing that banks must pay attention to in increasing customer trust. When customers are not satisfied with the services provided by the bank, it will reduce the bank's reputation.

Keywords: Self Service Technology, Service Quality, Customer Satisfaction

INTRODUCTION

Customer satisfaction is a person's feeling of pleasure or disappointment caused by the performance or results of a product that is felt and compared to his expectations (Setiawan, Minarsih, et al, 2016). Customers are said to be satisfied if the service performance they get is the same or exceeds what they expect, while feelings of disappointment will arise if the performance they get is not in accordance with what they expect. Customer satisfaction is something that is always held by companies related to financial services. However, making customers satisfied is not an easy job...
because customers tend to have higher demands, have expectations that are always more than what is provided by the service provider company (Andriyani & Ardianto, 2020).

The main factor affecting customer satisfaction is service quality, according to Lewis & Booms (2011) service quality as a measure of how good the level of service provided and able to materialize according to customer expectations. Meanwhile, according to Tjiptono (2011) the quality of service itself is determined by the company’s ability to meet customer needs and desires in accordance with customer expectations (Aprianti, Djasuro, & Dkk, 2017). There are five dimensions in service quality including Tangibles (physical evidence), Reliability, Responsiveness, Assurance (confidence), the last is Bank services that are firm but have attention to customers, namely empathy. Good service quality will have a positive impact on the success rate of bank in maintaining customer satisfaction.

The existence of this electronic service is another factor that affects customer satisfaction such as the ease of accessing a product using sophisticated technology, so that customers no longer need to come to the bank directly to make transactions or other payments. The service in question is Self Service Technology or abbreviated as SST. SST is a form of technology service provided by the bank to facilitate community access, thus enabling the community to produce their own services without relying on Bank employees (Kartono, Trihantana, et al, 2021). There are seven dimensions of SST, namely functionality, enjoyment, security or privacy, design, assurance, convenience and customization. The development of technology is increasingly advanced, customers can make transactions easily through several parts of SST including ATM machines, cash deposit machines, and the most popular one used today is Mobile Banking so that it provides satisfaction for customers.

Self service technology is a new innovation in the banking world, because its existence provides benefits and convenience for customers at certain banks. However, there are some customers of Bank Nagari Batusangkar Syariah branch, who still do not know and understand about SST because it is rarely discussed in telephone or other media, so the word SST sounds foreign and unknown to customers. Likewise with the services available on SST, customers do not know what services are on SST and also there are still many customers who do not understand how to operate SST services, this causes less customer interest in using SST so that it will have an impact on customer satisfaction.

Bank customers are less satisfied with the services provided by the bank, this can be seen from the recognition of several customers observed. Customers are dissatisfied with the services provided by the bank, because the transaction process is long and the queue is quite long, especially when they want to pay tuition fees. In addition, there are several obstacles found when it is recommended to use the m-banking application, it turns out that the customer does not understand the function of each application feature due to the lack of literacy provided, so it requires me to still come directly to the bank concerned. Therefore, this condition should be a concern for the bank to increase the socialization of the use of m-banking.
Several related studies have been conducted, such as research by Mahrun (2020) which shows that self-service technology and service quality affect customer satisfaction by using the Erahn.id application. Then research (Febrianta & Indrawati, 2016) shows that the dimensions of service quality in using m-banking, namely assurance, convenience, efficiency, and easiness to operate, have a significant positive effect on customer satisfaction, but other dimensions, namely tangibles, reliability, and responsiveness, have no significant effect on customer satisfaction. Research conducted by (Delvi & Musfiroh, 2021) that service quality and trust affect customer satisfaction. Likewise, research conducted by (Wicaksono, Kumadji, et al, 2015) also shows the results that there is a significant effect of self-service technology variables on customer trust, satisfaction, and loyalty. Trust variables also have a significant effect on satisfaction.

RESEARCH METHODOLOGY

The research method uses a quantitative approach. Data is collected using a questionnaire or research instrument that has been tested for validity and reliability. The population in this study are registered customers who use the Mobile Banking application at Bank Nagari Batusangkar Syariah branch of 970 customers. The number of samples obtained was 91 customers determined using the slovin formula. The analysis technique uses multiple linear regression which is processed using the SPSS 26 program. Multiple regression analysis is a statistical technique used to understand the effect of SST and Service Quality variables on Customer Satisfaction. The purpose of this analysis is to determine how much influence the SST and Service Quality variables have on the Customer Satisfaction variable. Multiple regression analysis requires the fulfillment of several classical assumptions including normality test using kologrov-smirnov statistical technique on residuals and the absence of multicollinearity by conducting multicollinearity test.

The multiple regression equation is written in the form $Y = a + b1X1 + b2X2 + ... + bnXn$, where $Y$ is the dependent variable, $X$ is the independent variable, $a$ is a constant, and $b$ is the regression coefficient for each independent variable. The interpretation of the multiple regression model is done by looking at the regression coefficient and its significance. A good model will have a high $R^2$ value, indicating that the model is able to explain most of the variability in the data, then the t test is used to assess the significance of each regression coefficient and the F test is carried out for the amount of influence of the variables simultaneously on variable Y, namely customer satisfaction of Bank Nagari Batusangkar Syariah Branch.

RESULT AND DISCUSSION

Uji Asumsi Klasik

Uji Normalitas

The normality test was carried out using the Kolmogrov-Smirnov statistical technique. The normality test is carried out to determine whether the research data is
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normally distributed or not. A good normality test if the significant value > 0.05 then the data can be said to be normal. The results of the normality test obtained a significant value of 0.200 greater than 0.05 so it can be concluded that the data is normally distributed.

**Uji Multikolinearitas**

The multicollinearity test method is by looking at the Tolerance and Inflation Factor (VIF) values in the regression model, if the VIF value is less than 10 and the Tolerance value is more than 0.1, it can be concluded that a regression model is free from multicollinearity. The test results can be seen from the following table:

<table>
<thead>
<tr>
<th>Variabel</th>
<th>Tolerance</th>
<th>VIF</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SST</td>
<td>0.845</td>
<td>1.183</td>
<td>No multicollinearity</td>
</tr>
<tr>
<td>KL</td>
<td>0.845</td>
<td>1.183</td>
<td>No multicollinearity</td>
</tr>
</tbody>
</table>

Source: Data processed, 2023

Based on the table above, it can be seen in the VIF column that the VIF value < 10 and the Tolerance value > 0.1. So it can be concluded that the regression model is free from multicollinearity or there is no multicollinearity problem.

**Uji t**

The test statistics basically test the significance of the regression coefficients of the independent variables individually in explaining the variation in the dependent variable. The t test hypothesis (partial) suggests that, there is a partially significant effect of the independent variables consisting of self service technology (X1) and service quality (X2) on the dependent variable, namely customer satisfaction (Y). The following are the results of the analysis calculations carried out partially:

<table>
<thead>
<tr>
<th>No</th>
<th>Variabel</th>
<th>Sig.</th>
<th>Alpha</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Self Service Technology</td>
<td>0,000</td>
<td>0,05</td>
<td>Signifikasi</td>
</tr>
<tr>
<td>2</td>
<td>Kualitas Layanan</td>
<td>0,000</td>
<td>0,05</td>
<td>Signifikasi</td>
</tr>
</tbody>
</table>

Source: Data processed, 2023

Based on the table above, it can be obtained from partial testing, the interpretation can be stated that: First, the Self Service Technology variable partially affects customer satisfaction, where the calculation results obtained the t-count value for the SST variable of 6.427 which is greater than the t-table of 1.987 with a probability value of 0.000 smaller than 0.05. Second, the Service Quality variable partially affects Customer Satisfaction, where the calculation, the t-count value for the service quality variable is
2.776 which is greater than the t-table 1.987 with a probability value of 0.007 smaller than 0.05.

**Uji F**

This test was conducted to determine the simultaneous influence of the independent variables consisting of self service technology (X1) and service quality (X2) on the dependent variable, customer satisfaction (Y). The test results obtained the following results:

<table>
<thead>
<tr>
<th>f-hitung</th>
<th>f tabel</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>37,302</td>
<td>3,10</td>
<td>0,000</td>
</tr>
</tbody>
</table>

Based on the results of the analysis that has been carried out, the f-count value is 37.302 which is greater than the f-table of 3.10 with a significant level of 0.000. So it can be said that, there is a significant influence of the independent variables consisting of self service technology (X1) and service quality (X2) variables on the dependent variable, namely customer satisfaction (Y) simultaneously or together.

**The Coefficient of Determination (R²)**

The coefficient of determination shows the contribution of the independent variables to the Y variable which is seen from the magnitude of the R square value, the results of this test can be seen in the following table:

<table>
<thead>
<tr>
<th>Model Summary</th>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>.677&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.459</td>
<td>.447</td>
<td>.600</td>
</tr>
</tbody>
</table>

Based on the results of the above analysis, the adjusted R square value is 0.447. So it can be concluded that the amount of influence of self service technology variables and service quality on customer satisfaction variables is only 44.7%, while the remaining 55.3% is influenced by other variables not examined in this study.

**Multiple Linear Regression Analysis**

Multiple linear regression analysis was carried out with the aim of knowing the effect of self service technology (X1) and service quality (X2) variables on customer satisfaction (Y) and to determine the relationship between the independent variable and
The dependent variable where there will be a possible positive and negative relationship determined by the regression direction coefficient value which symbolizes the letter b, if b is positive then the relationship is positive too, meaning that the higher (higher) the value of X, the higher the value of Y, and vice versa. These results can be seen in the following table:

Tabel 5
Multiple Linear Regression Analysis Output Results

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td>Beta</td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>2,668</td>
<td>1,250</td>
<td>.548</td>
</tr>
<tr>
<td></td>
<td>SST</td>
<td>.378</td>
<td>.059</td>
<td>.548</td>
</tr>
<tr>
<td></td>
<td>KL</td>
<td>.160</td>
<td>.058</td>
<td>.237</td>
</tr>
</tbody>
</table>

Source: Data processed, 2023

Based on the table above, it can be seen that the constant value (α value) is 2.668, and for SST (β value) is 0.378 while KL (β value) is 0.160. So that the multiple linear regression equation can be obtained as follows:

\[
Y = a + b_1X_1 + b_2X_2 + e
\]

\[
Y = 2,668 + 0.378X_1 + 0.160X_2 + e
\]

Interpretation of the results based on the above equation as follows: 1) The constant value of 2.668 means that if the independent variables studied, namely self service technology (X1), service quality (X2) are constant, then customer satisfaction will still have a value of 2.668. 2) The regression coefficient value of the self service technology variable (X1) is 0.378, which means that it will affect customer satisfaction (Y) assuming the service quality variable (X2) is constant. This means that an increase in the SST level will be followed by an increase in customer satisfaction of 37.8%. 3) The regression coefficient of the service quality variable (X2) is 0.160. This means that it will affect customer satisfaction (Y) assuming the SST variable (X2) is constant. Then customer satisfaction will change or will increase with a numerical number of 0, 160. In terms of elasticity, it can be interpreted that an increase in the level of service quality will be followed by an increase in customer satisfaction by 16%.

Discussion

The results of testing the SST variable (X1) partially on customer satisfaction (Y) show that SST has an effect on customer satisfaction (Y). This proves that the SST variable is one of the factors that affect customer satisfaction. So the better the SST provided to customers, it will also increase customer satisfaction. SST in this study has 4 items, namely design, convenience, customization and assurance. Based on these 4 items, all have a positive and significant effect, but the highest model value of SST is in
the assurance item of 52 respondents strongly agreeing, this shows that the sense of security and trust felt by customers (assurance) is one of the dominant items in forming the SST variable. The item design mode value of 49 respondents strongly agreed, this shows that respondents "agree" with the SST facility in the form of an application that has an attractive appearance for customers. The customization item has a mode value of 48 respondents agreeing, this shows that respondents "agree" to the SST facility in the form of an application according to the wishes of the customer. So the results of this study support the results of research by Ludfi et al (2014) that SST significantly affects customer satisfaction. Lin and Hsieh's research (2011) that SST positively affects satisfaction..

The results of testing the service quality variable (X2) partially on satisfaction (Y) show that service quality has an effect on customer satisfaction (Y). This proves that the service quality variable is one of the factors that affect customer satisfaction, so the better the quality of service provided to customers, it will also increase customer satisfaction. In the service quality variable there are 5 items, namely tangibles, reliability, responsiveness, assurance and empathy. All items have a positive and significant effect on customer satisfaction so that the better the tangible evidence, reliability, responsiveness, assurance and empathy will increase customer satisfaction. The mode value of the highest item of service quality is found in the tangibles item (real evidence) of 52 respondents strongly agreed, where tangibles are found in appearance facilities, courtesy and neatness of employees. This shows that the employees of Bank Nagari Syariah Batusangkar Branch in providing services to customers in the form of physical evidence are quite good.

The empathy item has a mode value of 51 respondents strongly agreeing, indicating that respondents "agree" with the empathy of Bank employees who are seen in the form of patience, responsiveness, concision and treating customers with care. The assurance item has a mode value of 48 respondents stated that they agreed, indicating that the respondents "agreed" with the assurance and certainty provided by the Bank consisting of courtesy and trust given to customers. The responsiveness item has a mode value of 46 respondents agreeing, indicating that respondents "agree" with the responsiveness of Bank employees, which consists of employees providing services accurately, responsively, and being available to help customers. The reliability item has a mode value of 51 respondents agreed, this shows that respondents "agree" with the reliability of Bank employees which consists of employees not making mistakes and providing fast and precise service to customers. So the results of this study support the results of research by Suryadharma and Yasir et al (2013) which state that service quality has a positive and significant effect on customer satisfaction.

CONCLUSION

Based on the results of data analysis and discussion of the effect of self-service technology and service quality on customer satisfaction at Bank Nagari Syariah
Batusangkar branch, using multiple linear regression analysis methods, it can be concluded as follows:

1. Self service technology partially affects customer satisfaction, this is evidenced by the obtained tcount > ttable value or 6.427 > 1.987. And the assurance item in the form of trust and security is the dominant item in forming the SST variable.

2. Service quality variables partially affect customer satisfaction, this is evidenced by the obtained tcount > ttable value or 2.776 > 1.987. As well as tangibles items in the form of facilities, appearance, courtesy and neatness of employees are the dominant ones in forming service quality variables.

3. Self service technology and service quality variables simultaneously have the same effect on customer satisfaction, this is evidenced by the obtained value of fcount > ftabel or 37.302 > 3.10. The dominant item of willingness to recommend both products, facilities and services is a variable shaper of customer satisfaction.

REFERENCES


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