THE INFLUENCE OF SELF-SERVICE TECHNOLOGY AND CUSTOMER RELATIONSHIP MARKETING ON CUSTOMER LOYALTY MEDIATED BY CUSTOMER SATISFACTION

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Abstract: The purpose of this study is to explain the effect of self-service technology and customer relationship marketing on customer loyalty mediated by customer satisfaction. This research is quantitative research with an explanatory research approach. This research was conducted on customers who have an account at PT. Bank Central Asia, Tbk Tulungagung Branch, a minimum of three years is 82 respondents. Data collection uses questionnaires, documentation, and interviews with SmartPLS version 3.0 analysis tools. The result of the research shows that the direct influence of self-service technology influence on customer satisfaction and the influence of self-service technology on customer loyalty has a significant influence. The influence of customer relationship marketing on customer satisfaction and the influence of customer relationship marketing on customer loyalty has a significant influence. And, the effect of customer satisfaction on customer loyalty has a significant influence. The results of research for indirect influence, namely the influence of self-service technology on customer loyalty through customer satisfaction and influence customer relationship marketing to customer loyalty through customer satisfaction has mediation relationship. The next researcher needs to re-analyze self-service technology, customer relationship marketing as a variable that can increase customer loyalty in other companies that show different characteristics of the subjects of this study. Besides, it needs to be done on government bank customers who have certain characteristics, so that research can be generalized, namely to private companies or government companies.

Keywords: Self-Service Technology, Customer Relationship Marketing, Customer Satisfaction, Customer Loyalty

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The Banking Industry plays an important role in institutions as intermediaries that channel public funds into productive asset investments that will encourage the productivity of the real sector. The activity of a bank is to raise funds from the community and channel these funds to serve the interests of other people who need these funds to be...
used for productive activities so that banks and the community are two components that are partners and need each other. The form of community partnership with banks is a manifestation and attitude of customer loyalty to the bank. Satisfied and loyal customers will not hesitate to spread the news and positive things about banking products that are utilized (Akhtar et al., 2011) and need each other. The form of community partnership with banks is a manifestation and attitude of customer loyalty to the bank. As the opinion of Derakhshanfar and Hasanzadeh (2016), existing customer loyalty must be maintained because the cost of obtaining new customers is almost five times the cost of maintaining old customers.

Based on the research of Teimouri et al. (2016), obtained the fact that customer satisfaction plays the role of a mediator in the effect of service quality on customer loyalty, shows the relationship between customer satisfaction and customer loyalty. Customers experience varying degrees of satisfaction and dissatisfaction after using products or services according to the extent to which their expectations are met because satisfaction is an emotional state, their reaction after purchase can be anger, irritation, neutrality, and pleasure. Therefore, every transaction or new experience will influence customer satisfaction. Mohsan et al. (2011), suggest that satisfaction is positively correlated with loyalty. High customer satisfaction will result in high loyalty. Many banks believe in customer satisfaction as a guarantee of success in the future.

The success of a bank to create customer satisfaction is one of them by showing its best capabilities and services. However, other times are culture and habits. Likewise happened in the current technological era. Banking practitioners are increasingly realizing that they can no longer serve customers with limited capabilities. Banking application technology is called Self-Service Technology (SST), a banking service that utilizes digital technology to meet customer needs. Self-Service Technology (SST), is a technology intermediary that enables customers to produce their services without relying on employees, for example, Self-Service Technology that has developed to dates, such as Automatic Teller Machine (ATM), internet banking, mobile banking, video banking, phone banking, and SMS banking. Self-Service Technology (SST) services are developing because of the demand for services that can facilitate and facilitate banking activities and transactions without having to be limited by time and space.

PT. Bank Central Asia, Tbk. It is one of the leading banks in Indonesia that focuses on the banking business and realizes the importance of establishing and fostering good relations with customers to strengthen the relationship between customers and the company. This can be realized by implementing Customer Relationship Marketing. Stone and Woodcock (Gaffar, 2007), states Customer Relationship Marketing is how a company finds customers, tries to know customers, relates to customers, tries to convince customers, get what customers want, not only in the form of products but from every aspect related to customers.

Based on the statement above it can be concluded that if PT. Bank Central Asia, Tbk wants to maintain an overall increase in customers and must pay attention to several important things, namely Self-service Technology and Customer Relationship Marketing so that it will increase customer satisfaction and customer loyalty. PT. Bank Central Asia, Tbk, in providing the best service for customers is proven by the rank of “Excellent” at the 2017 Excellent Service Experience Award (ESEAward) event. In obtaining this award, BCA was assessed from various aspects, starting from service performance in branch offices to assessment from the customers themselves, regarding customer experience consisting of customer experience, customer mood experience, to the problem-solution experience (Tribunnews, 2017).

There has been a lot of research into the success of Self-service Technology (SST) in various business fields. Howard and Worboys (2003), stated that technology-based Self-service Technology (SST) has benefited customers and producers. Speed and convenience in obtaining service are benefits for customers while decreasing service costs is a benefit for the company. Based on the research of Buell et al. (2010), obtained the fact that internet banking has not become the customer’s choice of access because of frequent connection access failures. The results of the study from
Howard and Worboys (2003) and Buell et al (2010), led to inconsistencies. The research gap is the reason for the need for further research to answer the existing inconsistencies.

Based on the background of the problems supported by existing theories and complemented by the results of previous research and facts, the authors point to further study of the relationship between Self-service Technology, and Customer Relationship Marketing to customer satisfaction and customer loyalty.

By doing this research, it is expected that the application of technologies such as Self-service Technology and building relationships with customers through Customer Relationship Marketing is expected to create customer loyalty moderated by customer satisfaction.

LITERATURE REVIEW

Customer Loyalty

Zeithaml et al. (1996), explained that one can measure loyalty by looking at the number of customers who continue to buy from the company because of the positive attitude that the product produces for them. Loyalty is therefore defined as attitude and behavior (Baumann et al., 2011). As a result, two dimensions can measure customer loyalty, namely, attitude and loyalty attitudes. Customer Loyalty can generally be defined as customer loyalty to a product or service provided by a bank. Bloemer et al. (1998), in their research, emphasized the importance of forming customer loyalty as a basis for banks to survive and face competition. The measurement of customer loyalty uses indicators from Bhat and Darzi (2016), which are repurchase intention, emotional psychology, recommendation, and cooperation.

Customer Satisfaction

Mohsan (2011), revealed that satisfaction is the whole of the customer’s attitude or behavior towards the service provided, or an emotional reaction to the difference between what the customer expects and what is received, regarding the fulfillment of some needs, desires, or goals. Customer satisfaction is a full-time evaluation where alternatives are chosen at least equal to or exceed customer expectations (Engel et al., 1990). The indicators of customer satisfaction in this study refer to the theories presented by Amin et al (2013) and Ganguli and Roy (2010), which are service satisfaction, product satisfaction, conformity of hope, and not a disappointment.

Customer Relationship Marketing

Gronroos in Palmatier (2008), reveals that customer relationship marketing is a process of obtaining, maintaining, and developing profitable customers and requires a clear focus on the attributes of a service that can produce value to customers so that it can generate loyalty. Customer Relationship Marketing is a marketing business that aims to create and maintain lasting relationships between companies and customers that are beneficial to both parties. (Rapp and Collins, 1990). Indicators in the Customer Relationship Marketing variable use indicators from Ndubisi (2005), Which Are Trust, Competence, Commitment, Communication, And Conflict Handling.

Self-Service Technology

Self-service Technology according to Meuter et al., (2000), namely as a technology interface that enables consumers to produce a service independently and direct consumer involvement. Self-service technology is a connecting technology that allows customers to process services independently and free from direct service by employees of service providers. The measurement of the self-service technology variable uses indicators from Meuter et al., (2000), which are ease, usability, time, and own control.

METHOD

This research is quantitative research with an explanatory research approach. This research is done to customers of PT. Bank Central Asia is 82 respondents in the city of Tulungagung. The criteria that have been determined in the study population are: Age of respondents is at least seventeen years and above; Already a customer of PT. Bank Central Asia, Tbk Tulungagung Branch for e’ 3 years.
and is included in group 1 (K1) customers: As a Self-service Technology user (ATM, SMS Banking, Mobile Banking or Internet Banking).

According to Zuriah (2007), said that samples are often defined as part of the population. Another definition expressed by Sugiyono (2008), that the sample is part of the number and characteristics possessed by the population. By studying the sample, researchers will be able to draw conclusions that can be generalized to the study population. This study using a probability sampling method with a simple random sampling technique. Data collection uses questionnaires, literature reviews, and interviews. Effect test results between variables using version 3.0 SmartPLS application analysis.

RESULTS

Data were analyzed using Partial Least Square (PLS). There are two evaluation models in this test that is the outer model and the inner model. In the outer model test, there are three stages of convergent validity, discriminant validity, and composite reliability. Convergent validity with reflexive indicators can be seen from the correlation between indicator scores with a variable score. Individual indicators are considered reliable if they have a correlation value above 0.50. A discriminant validity test is also done by assessing the validity of the variables of the AVE value. The model is said to be good if the AVE of each variable is greater than 0.50.

Table 1. Characteristics of Respondents

| Category     | Frequency | Percentage of Total |
|--------------|-----------|---------------------|
| Gender       |           |                     |
| Male         | 65        | 65                  |
| Female       | 35        | 35                  |
| Age          |           |                     |
| 17-24        | 7         | 7                   |
| 25-34        | 29        | 29                  |
| 35-49        | 42        | 42                  |
| 50-64        | 15        | 15                  |

Table 2. Convergent and Discriminant Validity Test

| Indicators | Outer Loadings | AVE  |
|------------|----------------|------|
| SST1       | 0.941          | 0.845 |
| SST2       | 0.902          |      |
| SST3       | 0.907          |      |
| SST4       | 0.927          |      |
| CRM1       | 0.946          | 0.847 |
| CRM2       | 0.883          |      |
| CRM3       | 0.937          |      |
| CRM4       | 0.909          |      |
| CRM5       | 0.926          |      |
| KN1        | 0.897          | 0.815 |
| KN2        | 0.934          |      |
| KN3        | 0.883          |      |
| KN4        | 0.896          |      |
| LN1        | 0.892          | 0.776 |
| LN2        | 0.868          |      |
| LN3        | 0.889          |      |
| LN4        | 0.875          |      |
The result of the convergent validity test in Table 2 shows that outer loadings of all indicators have a value above 0.50. The result of discriminant validity test also shows that all indicator AVE value is above 0.50. Thus, it can be concluded that the indicators have met the requirements of convergent validity and discriminant validity. Besides the validity test, the variable reliability test is measured by two criteria, namely composite reliability and Cronbach’s alpha from each indicator measures the variables. The variable is considered reliable if the value of composite reliability and Cronbach’s alpha above 0.70.

Table 3. Composite Reliability Test

| Variable              | Cronbach’s Alpha | Composite Reliability |
|-----------------------|------------------|-----------------------|
| Self-service Technology| 0.939            | 0.956                 |
| Customer Relationship | 0.955            | 0.965                 |
| Marketing             |                  |                       |
| Customer Satisfaction | 0.924            | 0.946                 |
| Customer Loyalty      | 0.904            | 0.933                 |

The output results can be seen in Table 3 below. Results show that the value of composite reliability and Cronbach’s alpha of self-service technology (X1), customer relationship (X2), customer satisfaction (Zn), and customer loyalty (Y) were all above 0.70. In this research model, there are two dependent variables, namely satisfaction (Z), and loyalty (Y). The coefficient of determination (R2) of each dependent variable can be presented in Table 4 below.

Table 4. R-Square

| Variable            | Coefficient of Determination (R-Square/ R²) |
|---------------------|-------------------------------------------|
| Customer Satisfaction| 0.856                                     |
| Customer Loyalty    | 0.928                                     |

Based on the test in Table 4, it is known that the value of R2 for the variable customer satisfaction is 0.856 and customer loyalty is 0.928. The R2 value of the customer satisfaction variable is categorized as a moderate to strong model (Ghozali and Latan, 2012), meaning that the variable customer satisfaction can be explained by the variables of self-service technology, customer relationship, and customer loyalty by 85.6%. While the remaining 14.4% is explained by other variables outside the model.

The R2 value of the customer loyalty variable is 0.928 and is categorized as a strong model (Ghozali and Latan, 2012), meaning that customer loyalty variables can be explained by the variables of self-service technology, customer relationship, and customer satisfaction by 92.8%. While the remaining 7.2% is explained by other variables outside the model.

To measure how well the observed values are generated by the model and also the parameter estimation, it is necessary to calculate Q-square (Q2) as follows:

\[
Q^2 = 1 - (1 - R_1^2) (1 - R_2^2)
\]

\[
= 1 - (1 - 0.856) (1 - 0.928)
\]

\[
= 1 - 0.010
\]

\[
= 0.99
\]

Based on the results of the above calculations, it can be concluded that this research model is categorized as a strong model, meaning that 99.0% of customer loyalty variables can be predicted by variables such as self-service technology, customer relationship marketing, and customer satisfaction, and 1% explained by other variables, not this research model.

Table 5. The Goodness of Fit Model (GoF)

| Variable            | R²   | Communality |
|---------------------|------|-------------|
| Self-service Technology | 0.845 |             |
| Customer Relationship | 0.847 |             |
| Marketing           |      |             |
| Customer Satisfaction | 0.856 | 0.815       |
| Customer Loyalty    | 0.928 | 0.776       |
| Average             | 0.892 | 0.820       |
GoF = \sqrt{(AR^2 \times A. Communlity)}
= \sqrt{(0.892 \times 0.820)}
= 0.855

Based on the calculation of goodness of fit, it can be concluded that the inner model in this study generally has a large predictive value, meaning that the model has a high ability to explain empirical data in this study.

Path Coefficients

Hypothesis 1: Self-service Technology has a significant effect on Customer Satisfaction

The results of data analysis show that self-service technology affects customer satisfaction. The result of the t-statistic is 3.013 which means that it is greater than the t-table which is equal to 1.96. Besides, the p-value is 0.003 which means less than the significance value of 0.05. Thus, H1 is statistically accepted. The path coefficient value has a positive value of 0.515, the value indicates that self-service technology has a positive effect on customer satisfaction.

Hypothesis 2: Customer Relationship Marketing has a significant effect on Customer Satisfaction

The results of data analysis show that customer relationship marketing affects customer satisfaction. The result of the t-statistic is 3.013 which means that it is greater than the t-table which is equal to 1.96. Besides, the p-value is 0.003 which means less than the significance value of 0.05. Thus, H1 is statistically accepted. The path coefficient value has a positive value of 0.422, a positive sign on that value indicates that customer relationship marketing has a positive effect on customer satisfaction.

Hypothesis 3: Customer Satisfaction has a significant effect on Customer Loyalty

Based on the results of statistical calculations, the effect of customer satisfaction on customer loyalty shows that the t-statistic value is more than the t-table value (3.814 > 1.96) and p-value (0.000) less than 0.005. Thus it can be concluded statistically that customer satisfaction has an effect on customer loyalty and shows if H3 is accepted. The path coefficient value is 0.439, the value indicates that...
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customer satisfaction has a positive effect on customer loyalty.

Hypothesis 4: Self-service Technology has a significant effect on Customer Loyalty

Based on the results of statistical calculations, the effect of self-service technology on customer loyalty shows that the t-statistic value is more than the t-table (2.220 > 1.96) and p-value (0.027) less than 0.005. Thus it can be concluded that **H4 is accepted**, that is self-service technology affects customer loyalty. The path coefficient value is 0.253, a positive sign on that value indicates that self-service technology has a positive effect on customer loyalty.

Hypothesis 5: Customer Relationship has a significant effect on Customer Loyalty

The influence of customer relationship marketing on customer loyalty based on Table 5.12 has a statistical value of 2.510 which means more than the value of the t-table (1.96) and the p-value has a value of 0.012 which means less than the significance value (0.05 ) Thus it can be concluded that **H5 is accepted**, that is customer relationship marketing affects customer loyalty. The path coefficient value is 0.297, a positive sign on that value indicates that customer relationship marketing has a positive effect on customer loyalty.

Hypothesis 6: Customer Satisfaction mediates the effect of Self-service Technology on Customer Loyalty

The results of data analysis showed that the t-statistic value of the effect of self-service technology on customer loyalty which was mediated by customer satisfaction was 2.377 and the significance level (p-value) was 0.018. Given the t-statistic value 1.96 and the p-value <0.05, then it is stated to be significant, so it can be concluded that customer satisfaction can mediate the effect of customer relationship marketing on customer loyalty. Thus, **H6 is accepted**. That is without customer satisfaction, self-service technology is not able to influence customer loyalty.

Hypothesis 7: Customer Satisfaction mediates the effect of Customer Relationship Marketing on Customer Loyalty

The results of data analysis show that the path coefficient of the influence of customer relationship marketing on customer loyalty mediated by customer satisfaction has a positive value of 0.090 with a value of 2017 t-statistic and a significance level (p-value) of 0.044. Given the t-statistic value > 1.96 and the p-value <0.05 then it is stated to be significant, so it can be concluded that customer satisfaction can mediate the effect of customer relationship marketing on customer loyalty. Thus, **H7 is accepted**. That is without customer satisfaction, customer relationship marketing is not able to influence customer loyalty.

DISCUSSION

The Effect of Self-service on Customer Satisfaction

Self-Service Technology is a technology intermediary that allows consumers to produce their services without depending on employees, for example, ATMs, banking services through the internet (Ram. The results of the study show that self-service technology influences customer satisfaction. Because the value of t-statistics is positively indicated that the effect of self-service technology on customer satisfaction is positive. This means that the higher the self-service technology results in higher customer satisfaction. This can be interpreted that customer satisfaction can increase if customers use good self-service technology. This shows that the self-service technology owned by PT. Bank Central Asia, Tbk Tulungagung Branch can influence customer satisfaction.
Based on the value of outer loading on the self-service technology variable, it shows all indicators, namely ease of use, usability, time savings, and self-control meet the requirements of outer loading. Indicators that have the highest coefficients on the self-service technology variable are time savings. This proves that the customers of PT. Bank Central Asia, Tbk Tulungagung Branch when using self-service technology can save a lot of time to transact, especially when in times of urgency so that it gives a strong influence to increase customer satisfaction.

Based on the value of outer loading on the variable customer satisfaction shows all indicators, namely, service satisfaction, product satisfaction, suitability expectations and does not disappoint to meet the requirements of outer loading. The highest indicator in the variable customer satisfaction is the conformity of expectations. This shows that the suitability of expectations is an important parameter in increasing customer satisfaction. This means that the higher the self-service technology owned by the customer, the higher the customer satisfaction. This is felt by the customers of PT. Bank Central Asia, Tbk Tulungagung Branch where customers can use a well-owned self-service technology (Lupiyando, 2013).

The results of this study are not in line with the research studies of Buell et al. (2010) obtained the fact that internet banking has not become the customer’s choice of access because of the frequent connection failure, so that Internet Banking does not affect customer satisfaction. The results of this study have answered the existing inconsistencies from the research of Howard and Worboys (2003) and Buell et al. (2010).

The results of the study by Djajanto et al. (2014), stated that self-service technology has a significant effect on customer satisfaction. This means that the self-service technology used has a large impact on customer satisfaction. The greater the convenience of service with the technology used, the higher customer satisfaction. Self-service technology in the form of technology services that also provide security has a significant influence on customer satisfaction (Makarem et al., 2009).

Effect of Customer Relationship Marketing on Customer Satisfaction

Customer relationship marketing (CRM) cannot be separated from customer satisfaction, customer satisfaction is a feeling of pleasure or disappointment someone who appears after comparing the performance (results) of products that are thought of the expected performance. If performance is below expectations, customers are not satisfied. If performance meets expectations, customers are satisfied. If performance exceeds expectations, customers are very satisfied or happy (Kotler and Keller, 2009).

The results showed that customer relationship marketing had a significant effect on customer satisfaction. Because the value of the t-statistic marked positive indicates the effect of customer relationship marketing on customer satisfaction is positive. This means that higher customer relationship marketing results in higher customer satisfaction. This can be interpreted that customer satisfaction can increase if customers have good customer relationship marketing. This shows that PT. Bank Central Asia, Tbk shows that customer relationship marketing owned by customers can influence the satisfaction of its customers.

Based on the value of outer loading on the customer relationship marketing variable shows all indicators, namely, trust, competence, commitment, communication, conflict handling meets the requirements of outer loading. The indicator that has the highest coefficient in the customer relationship marketing variable is competence. This means PT. Bank Central Asia, Tbk The Tulungagung branch has knowledge that can provide input according to customer needs. This means that the higher the customer relationship marketing that is owned by PT. Bank Central Asia, Tbk Tulungagung Branch resulted in higher customer satisfaction.

Effect of Customer Satisfaction on Customer Loyalty

Customer satisfaction is a feeling of pleasure or disappointment someone who appears after comparing the performance (results) of products that
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are thought of as the expected performance. If performance is below expectations, customers are not satisfied. If performance meets expectations, customers are satisfied. If performance exceeds expectations, customers are very satisfied or happy (Kotler and Keller, 2009).

The results of the study show that customer satisfaction has a significant effect on customer loyalty. This can be seen from the results of positive t-statistics that indicate the effect of customer satisfaction on customer loyalty. This means that higher customer satisfaction results in higher customer loyalty. This can be interpreted that loyalty can increase if the customer has high satisfaction. This shows that the satisfaction possessed by the customers of PT. Bank Central Asia, Tbk Tulungagung Branch can influence loyalty.

Based on the value of the outer loading on customer loyalty shows all indicators, namely, repurchase, emotional psychological, the recommendation to others, and cooperation. The highest indicator of variable customer loyalty is psychological emotional. This shows that emotional psychology is an important parameter in increasing customer loyalty. This means that the higher customer satisfaction possessed by customers results in higher customer loyalty. This is felt by the customers of PT. Bank Central Asia, Tbk Tulungagung Branch where customers can use self-service technology properly to increase customer loyalty.

Effect of Customer Relationship Marketing on Customer Loyalty

Customer relationship marketing or known in English customer relationship marketing (CRM) is a process of obtaining, maintaining, and developing profitable customers and requires a clear focus on the attributes of a service that can produce value to customers so that it can generate loyalty (Gronroos in Palmatier, 2008).

The results of the study show that customer relationship marketing can increase customer loyalty. The t-statistic results show a positive number, which indicates the effect of customer relationship marketing on loyalty is positive. This means that higher customer relationship marketing results in higher customer loyalty. Therefore, it can be concluded that the two variables have a fairly strong relationship. Customer relationship marketing with its indicators, namely trust, competence, commitment, communication, and conflict handling can have an impact on customer loyalty with its indicators, that are repurchase, emotional psychological, recommend to others, and cooperation.

Effect of Self-service Technology on Customer Loyalty through Customer Satisfaction

Based on the results of data analysis that has been done, this study found that customer satisfaction has a mediating role in the relationship of self-service technology to customer loyalty. Therefore,
it can be concluded that the three variables have a fairly strong relationship, where self-service technology and customer satisfaction have a high value. That is, the value of self-service technology with its indicators, namely ease of use, usability, time savings, and control alone can have an impact on customer loyalty with indicators, namely repurchase, emotional psychological, recommend to others, and cooperation through customer satisfaction with indicators, that are service satisfaction, product satisfaction, expectancy, and does not disappoint. It can be concluded that customer satisfaction can mediate the relationship of self-service technology with customer loyalty.

**Effect of Customer Relationship Marketing on Customer Loyalty through Customer Satisfaction**

Based on the results of data analysis that has been done, this study found that customer satisfaction has a mediating role in the relationship of customer relationship marketing influence on loyalty. The role is found in the form of full mediation, which means that the independent variable is not able to significantly influence the dependent variable without going through / involving mediator variables (Baron and Kenny 1986). In this study, it was found that customer relationship marketing can influence loyalty directly, but when mediated by customer satisfaction, customer relationship marketing can still influence customer loyalty so that the mediating role of customer satisfaction is full mediation. It can be concluded that the role of customer relationship marketing can have a positive impact on customer loyalty and can also have a positive impact on customer satisfaction.

**CONCLUSIONS**

Self-service technology has a positive impact on customer satisfaction. The results of this study indicate that self-service technology with indicators The ease of use, usability, time savings, control itself, can make customers feel the effect of self-service technology at PT. Bank Central Asia, Tbk Tulungagung Branch. Customer relationship marketing has a positive impact on customer satisfaction. The results of these studies have shown that along with increasing customer relationship marketing activities, it will also increase customer satisfaction at PT. Bank Central Asia, Tbk Tulungagung Branch. Customer satisfaction has a positive impact on customer loyalty. The results of this study indicate that customer satisfaction with indicators of service satisfaction, product satisfaction, expectancy, and do not disappoint can make customers respond to the results of customer loyalty. Self-service technology has a positive impact on customer loyalty. Increasing self-service technology can increase customer loyalty. The results of the study show that indicators of repurchase, emotional psychology, recommending to others, and cooperation can make customers respond to customer perceptions of customer loyalty to self-service technology products of PT. Bank Central Asia, Tbk. Customer relationship marketing has a positive impact on customer loyalty. An increase in customer loyalty can increase customers by first carrying out customer relationship marketing activities. The results of this study indicate that customer relationship marketing that is translated into activities that provide timely and reliable information and information provided is accurate, and banks can resolve real conflicts, and discuss solutions openly when problems arise that are carried out by PT. Bank Central Asia, Tbk can encourage customers to be loyal to the products/services of PT. Bank Central Asia, Tbk. Customer satisfaction can mediate the relationship of self-service technology with customer loyalty. The results of this study indicate that the strategy of self-service technology through customer satisfaction will be directly proportional to the customer loyalty of PT. Bank Central Asia, Tbk. Customer satisfaction can mediate customer relationship marketing relationships with customer loyalty. The results of these studies have shown that the increase in the customer relationship marketing strategy through customer satisfaction will be directly proportional to the increase in customer loyalty at PT. Bank Central Asia, Tbk.
RECOMMENDATIONS

This research is expected to add references to those who will conduct further research on the effects of self-service technology, customer relationship marketing, satisfaction, and loyalty in different banking services. Indicators of the variable self-service technology at PT. Bank Central Asia, Tbk. Tulungagung Branch that provides services, which has the highest value is time savings. It is hoped that PT. Bank Central Asia, Tbk can continue to develop its self-service technology services so that it can make it easier for customers who do not have a lot of time to transact at branch offices and can provide convenience in transactions. The company must always maintain and maintain interactions with customers or prospective customers. This is done so that it can create customer awareness of the products/services offered which then grow into a sustainable bond as the basis of the relationship between the company and the customer. Different research objects and scopes will give different research results. Future studies are expected to be able to expand the object of research, use a wider population scope, as well as more samples to provide increasingly specific results.

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