

ANALYSIS OF CUSTOMER RELATIONSHIP MANAGEMENT IN INFLUENCING CUSTOMER SATISFACTION AND LOYALTY OF BANK MUAMALAT INDONESIA IN TULUNGAGUNG

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Abstract

The paper aims to determine effect customer relationship management through affecting customer satisfaction and loyalty of Bank Muamalat Indonesia in Tulungagung. The study used an associative-quantitative method. The primary data was obtained from the questionnaire through Google Form and the secondary data was obtained from observing the office and bank websites. 100 customers of Bank Muamalat Indonesia in Tulungagung was chosen as sample. The data was processed by hypothesis test using IBM SPSS version 25. The results that (a) the customer relationship management has positive and significant effect on customer loyalty, (b) the customer relationship management has positive and significant effect on customer satisfaction, and (c) the customer satisfaction has positive and significant effect on customer loyalty.

Keywords: *Customer Relationship Management, Satisfaction, Loyalty*

Abstrak

Makalah ini bertujuan untuk mengetahui pengaruh customer relationship management melalui pengaruh kepuasan dan loyalitas nasabah Bank Muamalat Indonesia di Tulungagung. Penelitian ini menggunakan metode asosiatif-kuantitatif. Data primer diperoleh dari kuesioner melalui Google Form dan data sekunder diperoleh dari pengamatan website kantor dan bank. 100 nasabah Bank Muamalat Indonesia di Tulungagung dipilih sebagai sampel. Data diolah dengan uji hipotesis menggunakan IBM SPSS versi 25. Hasil penelitian bahwa (a) customer relationship management berpengaruh positif dan signifikan terhadap loyalitas pelanggan, (b) customer relationship management berpengaruh positif dan signifikan terhadap kepuasan pelanggan, dan (c) kepuasan pelanggan berpengaruh positif dan signifikan terhadap loyalitas pelanggan.

Kata Kunci: *Customer Relationship Management, Kepuasan, Loyalitas*

Introduction

The conditions of competition in the banking industry during the current Covid-19 pandemic are currently increasing. This is indicated by the number of banks competing to stay afloat. Increased competition has an impact on the high tendency of consumers to easily switch to other institutions (Mappatempo et al., 2011). In this intense competition, the main point that must be considered by Islamic banking companies is customer satisfaction. It can make customers loyal. Customer satisfaction and loyalty can be obtained from the services provided by Islamic banking companies to their customers (Windarwati et al., 2017).

To achieve competitive advantage is by taking focus on the customers by knowing who their customers are, what customers want, how their customers' needs are satisfied and other related factors. A marketing strategy based on efforts to create a relationship between the company and its customers is better known as Customer Relationship Management. CRM can be interpreted as a strategy on how to optimize profitability through the development of customer satisfaction. Customer Relationship Management is a strategy that focuses on all things related to customers (Ellitan & Anatan, 2006).

According to Armstrong and Kotler 2010 Customer Relationship Management (CRM) is a set of stages and processes that are preceded by companies to provide services and improve good relationships to customers to achieve customer satisfaction. It leads to achieve profit targets and company business goals (Pratama, 2019). Suparto and Darudiato, et al. (2011) stated that building a much better business can be done and achieved through a customer relationship management approach which can increase the better intensity of the relationship to its customers. Therefore, it is necessary to maximize the usability of customer relationship management to compete for market share and survive (Chadiq, 2015).

Customer Relationship Management (CRM) is also applied by PT. Bank Muamalat Indonesia (BMI), which is a Sharia-based banking company since 2010. The Tulungagung sub-branch office is a branch of Bank Muamalat Kediri. Bank Muamalat Kediri built a sub-branch in Tulungagung because of Tulungagung is an area that has good business potential, both individually and corporately. The company strives to

continuously improve the quality of their work by learning directly from each case encountered so that it hopes that the quality will also increase. However, there is a problem, that from the efforts that have been made by the BMI and its employees, the results showed are not all customers remain loyal to saving at BMI. Hence BMI implements Customer Relationship Management (CRM) as a communication strategy that aims to build customer loyalty in the long term. The existence of a maximum CRM implementation will make BMI still able to maintain customer loyalty.

Chadiq (2015) stated that customer satisfaction has an impact on loyalty so that the number of customers owned can be maintained even though Rowley & Dawes found that the relationship between satisfaction and loyalty was unreasonable. The research conducted by Strauss & Neuhaus found that a number of customers who expressed satisfaction, still switched brands (Rowley & Dawes, 1999). Wibisono (2018) found that customer satisfaction was not able to be a mediating variable between the independent variables (Communication, Commitment and Trust) and the dependent (Customer Loyalty).

From the description above, researchers are encouraged to re-examine and develop similar research with the title "Analysis of Customer Relationship Management in Influencing Customer Satisfaction and Loyalty of Bank Muamalat Indonesia in Tulungagung".

Research Method

This research used a quantitative approach with associative type. The goal is directed at customer relationship management towards customer satisfaction and loyalty of The Tulungagung sub-branch office of Bank Muamalat Indonesia. The researcher used a non-probability sampling technique with the accidental sampling category. 100 customers involved in this research. They had been selected using calculations from Lemeshow. In the process of data collection, researchers used secondary data and primary data in the form of a questionnaire. Primary data was done by distributing questionnaires via a Google Form link. Meanwhile, secondary data collection was

conducted by conducting interview and observation at the office and through the official website of Bank Muamalat Indonesia KCP Tulungagung. To ensure the accuracy of the data, the researcher used validity test, reliability test, classical assumption test (normality test, multicollinearity test, heteroscedasticity test, linearity test), and statistical test (coefficient of determination test (R²), simultaneous test (F) T test, sobal test and hypothesis testing. Those are all using the IBM SPSS version 25 application program.

Research Result

1. Validity and Reliability Test

To test the validity and reliability of the instrument, the authors used an analysis application program SPSS version 22. For the level of validity, a significance test is carried out by comparing *r count* with *r table*. The magnitude of *df* can be calculated $100-2$ or $df = 98$ with alpha 0.05 obtained *r table* 0.196. If *r count* is greater than *r table* and the value of *r* is positive, then the question item is declared as valid.

Table 1. Instrument Validity Test Results

Variable	Question <i>r</i>	<i>r count</i>	<i>r table</i>	Note
CRM(X)	X1	0.838	0.196	Valid
	X2	0.812	0.196	Valid
	X3	0.850	0.196	Valid
	X4	0.789	0.196	Valid
	X5	0.833	0.196	Valid
	X6	0.794	0.196	Valid
	X7	0.790	0.196	Valid
	X8	0.825	0.196	Valid
	X9	0.771	0.196	Valid
	X10	0.848	0.196	Valid
	X11	0.775	0.196	Valid
	X12	0.767	0.196	Valid
	X13	0.757	0.196	Valid
	X14	0.746	0.196	Valid
	X15	0.755	0.196	Valid
Customer Satisfaction (Z)	Z1	0.832	0.196	Valid
	Z2	0.836	0.196	Valid
	Z3	0.833	0.196	Valid
	Z4	0.840	0.196	Valid

Customer Loyalty (Y)	Y1	0.824	0.196	Valid
	Y2	0.841	0.196	Valid
	Y3	0.852	0.196	Valid
	Y4	0.854	0.196	Valid

Table Source: Processed Data, SPSS 22, 2022

Table 2. Instrument Reliability Test Results

Variable	Reliability Coefficient	Cronbach Alpha	Information
CRM	15 Items	0.958	Reliable
Customer Satisfaction	4 Items	0.854	Reliable
Customer Loyalty	4 Items	0.863	Reliable

Table Source: Processed Data, SPSS 22, 2022

From the results of the reliability test, the coefficient value was above r count. Thus the variables (CRM, customer satisfaction and loyalty) was reliable.

2. Classic assumption test

- **Normality test**

The normality test aims to test whether the confounding or residual variable regression model has a normal distribution (Ghozali, 2013). If the test of normality table using the Kolmogorov-Smirnov sig value > 0.05, then the data is declared as normally distributed (Uyanto, 2009). The results of the normality test using the Kolmogorov Smirnov Test approach in equations I and II can be seen in the following table:

Table 3. Kolmogorov-Smirnov Normality Test Value for Customer Relationship Management on Customer Satisfaction

Kolmogorov-smirnov . test	Unstandardized Residual
Kolmogorov-smirnov . value	0.088
Sig	0.395

Table Source: Processed Data, SPSS 22, 2022

Table 4. Kolmogorov-Smirnov Normality Test Value for Customer Relationship Management and Satisfaction with Customer Loyalty

Kolmogorov-smirnov . test	Unstandardized Residual
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Kolmogorov-smirnov . value	0.087
Sig	0.413

Table Source: Processed Data, SPSS 22, 2022

Based on the Kolmogorov Smirnov test, the residual data was obtained, it follows a normal distribution. Then based on the output results, the Kolmogorov Smirnov value was significant at $0.395 > 0.05$ and $0.413 > 0.05$. Thus, the residual data was normally distributed and the regression model had fulfilled the assumption of normality.

- **Multicollinearity Test**

The multicollinearity test aims to test whether there is a correlation between the independent (independent) variables in the regression model. Multicollinearity will occur if the tolerance value is 0.10 or equal to the VIF value 10 (Ghozali, 2013). The results of the multicollinearity test obtained in this study are as follows:

Table 5. Multicollinearity Test Between Customer Relationship Management

Variables (X) and Customer Satisfaction Variables (Z)

Model	Collinearity Statistics	
	Tolerance	VIF
1 (Constant)		
CRM	1,000	1,000

Table Source: Processed Data, SPSS 22, 2022

Table 6. Multicollinearity Test Values Between Customer Relationship Management Variables (X) and Satisfaction Variables (Z) on Customer Loyalty

Variables (Y)

Model	Collinearity Statistics	
	Tolerance	VIF
1 (Constant)		
CRM	.471	2.122
Satisfaction	.471	2.122

Table Source: Processed Data, SPSS 22, 2022

From the results of the multicollinearity test, the value of the variance inflation factor (VIF) for all variables was greater than 10, so it assumed that there was no multicollinearity between independent variables in the regression model.

- **Heteroscedasticity Test**

The heteroscedasticity test in this study also uses a regression model in this study using the Glejser test. This test aims to test whether in the regression model there is an inequality of variance from the residual of one observation to another observation. If the points in the graph form a certain pattern (wavy, widen, then narrow) then it indicates that heteroscedasticity has occurred, whereas if the points spread above and below the number 0 on the Y axis, then there is no heteroscedasticity (Ghozali, 2013).

Figure 1. Heteroscedasticity Value Between Customer Relationship Management Variables (X) and Customer Satisfaction Variables (Z)

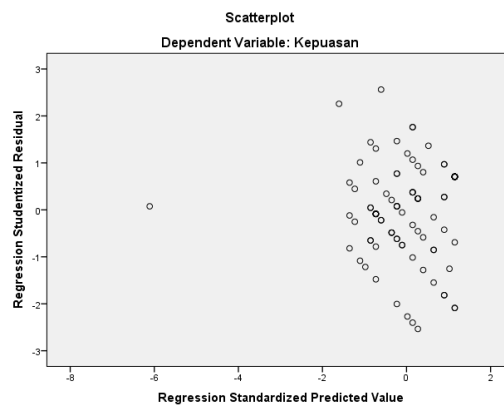
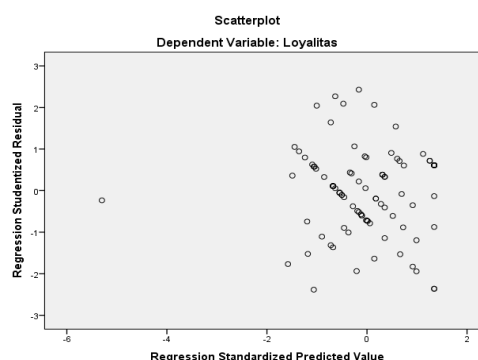


Figure 2. Heteroscedasticity Test Value Between Customer Relationship Management Variables (X) and Satisfaction Variables (Z) on Customer Loyalty Variables (Y)



Based on the scatterplot graph above, that there was a clear pattern and points that spreaded above and below the number 0 on the Y axis. It concluded that there was no

heteroscedasticity in the regression model. The test results using the Glejser test are as follows:

Table 7. Glejser Test Results – Regression Equation I

Model	t	Sig.
1 (Constant)	-.387	.699
CRM	1.905	.060

Table Source: Processed Data, SPSS 22,

Table 8. Glejser Test Results – Regression Equation II

Model	t	Sig.
1 (Constant)	.666	.507
CRM	.775	.440
Satisfaction	-.251	.803

Table Source: Processed Data, SPSS 22,

Based on the heteroscedasticity test with the Glejser test, the Sig value was greater than the 0.05 significance level consequently there was no heteroscedasticity.

- **Linearity Test**

The linearity test is used to measure whether the specifications of the model used correct. Whether the function used in an empirical study should be linear, quadratic or cubic. With the linearity test, it will be obtained confirmation whether the empirical model should be linear, quadratic or cubic (Ghozali, 2013). This linearity test aims to determine whether Customer Relationship Management and Customer Satisfaction have a significant linear relationship or not to Customer Loyalty assuming the value of Sig. on Deviation from Linearity is greater than the significance level = 0.05. Here are the results of the Linearity test:

Table 9. Linearity Test Results – Customer Relationship Management on Customer Loyalty

		F	Sig.
Loyalty * CRM	(Combined)	4.448	.000
Between Groups	linearity	77,834	.000
	Devation from Linearity	.779	.730

Table Source: Processed Data, SPSS 22, 2022

Table 10. Linearity Test Results – Customer Satisfaction with Customer Loyalty

		F	Sig.
Loyalty *	(Combined)	18,586	.000
Satisfaction	linearity	124.797	.000
Between Groups	Devation from Linearity	.884	.510

Table Source: Processed Data, SPSS 22, 2022

Based on the table above, each Sig. on Deviation from linearity was 0.730 and 0.510. This value was greater than the significance level = 0.05. This showed that customer satisfaction partially had a linear relationship toward the loyalty.

3. Statistic test

- **Coefficient of Determination Test (R^2)**

The coefficient of determination (R^2) is used to determine the magnitude of the influence of the independent variable on the dependent variable through multiple linear regression. In this study, the coefficient of determination shows the level of relationship between the Customer Relationship Management variable and satisfaction with the customer loyalty variable. The range of values of R^2 (R Square) is 0-1 (0 R^2 1). If the value of R^2 is close to 1 (one), it means that the greater the independent variable can explain the dependent variable (Imam Ghozali, 2013). Here are the results of the Linearity test:

Table 11. Results of the Coefficient of Determination Test for R^2 (test 1)

Model	R	R Square	Adj. R Square	Std. Error of the estimate
1	.773 ^a	.597	.589	1.365

Table Source: Processed Data, SPSS 22, 2022

Table 12. Results of the Coefficient of Determination of R^2 (test 2)

Model	R	R Square	Adj. R Square	Std. Error of the estimate
1	.727 ^a	.529	.524	1,448

Table Source: Processed Data, SPSS 22, 2022

From the table above, the correlation coefficient R on test 1 was 0.773 and test 2, the value of the correlation coefficient R was 0.727. By this result, there was a strong relationship between the independent variables. While the value of the coefficient of determination on test 2 (R^2) = 0.589, it means that the independent variable contributes to influence the dependent variable by 58.9%, the remaining 41.1% was influenced by other variables outside the model and the coefficient of determination (R^2) = 0.529 which explained that the independent variable contributes affect the dependent variable by 52.4%, the remaining 47.6% was influenced by other variables outside the model.

- **Simultaneous Test (F)**

The F test is carried out with the aim of knowing how far all the independent variables together can affect the dependent variable (Anton Bawono, 2006). In this study, the F test was conducted to determine how far the variables influence communication, commitment, and satisfaction, on the customer loyalty variable. The independent variable is significantly affect the dependent variable together if the value of Sig. is smaller than 0.05 (Ghozali, 2013). From the tests carried out, the following table is obtained:

Table 13. F Test Results

Model	Sum of Aquare	df	Mean Square	F	Sig.
1 Regression	268,048	.2	.134,024	71,880	.000 ^b
Residual	180,862	97	1.865		
Total	448,910	99			

Table Source: Processed Data, SPSS 22, 2022

Based on the result test in table, the results of the F test in this study had a coefficient value of 71.880 with a significance value of 0.000 < 0.05. This result means that the independent variable (customer relationship management) simultaneously had a positive and significant influence on customer loyalty.

- **T Uji test**

The t-test is used to show how far the influence of one explanatory/independent variable individually in explaining the variation of the dependent variable (Ghozali, 2013). The results of the t-test obtained are as follows:

Table 14. Results of Partial Influence Statistics Test (T test) 1

Model	Unstd. B	Std. Coefficients		t	Sig.
		Std. Error	Beta		
1 (Consta	2,542	1.222		2,080	.040
CRM	.073	.025	.273	2,911	
Satisfac	.559	.095	.551	5.868	

Table Source: Processed Data, SPSS 22, 2022

Based on the SPSS output of the partial effect test in test 1, it is concluded that:

Customer relationship management(X) had a t-count value of 2.911 > t-table 1.660 and a significance value of 0.004 at a 5% alpha coefficient. Because the significant value < 0.05, this means that customer relationship management had a positive and significant effect on customer satisfaction.

Customer satisfaction (Z) had a t-count value of 5.868 > t-table 1.660 and a significance value of 0.000 at a 5% alpha coefficient. As a result the significant value < 0.05, this means that customer satisfaction had a positive and significant effect on customer loyalty.

Table 15. Results of Partial Influence Statistics Test (T test) 2

Model	Unstandardized		Std	t	Sig.
	B	Std.			
1 (Constant)	4.668	1,208		3,865	.000
CRM	.191	.018	.727	.000	.000

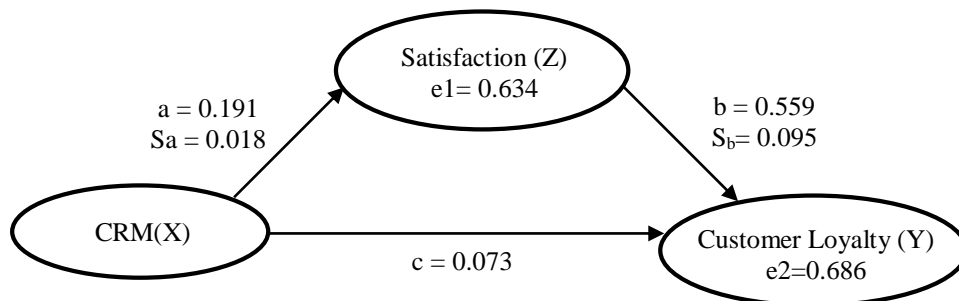
Table Source: Processed Data, SPSS 22, 2022

Slightly different from the results in the partial effect test of test 2, the variable of customer relationship management (X) had a t count value of 10,485 > t table 1.660 and a significance value of 0.000 at a 5% alpha coefficient. As a result the significant value

<0.05, this means that customer relationship management had a positive and significant effect on customer satisfaction.

Thus, the path coefficient values in the two regression models were described in the path analysis model as follows:

Figure 3. Path Analysis Result Model



• **Sobel Test**

Sobel test is a test to determine whether the relationship through a mediating variable is significantly capable of being a mediator in the relationship. In this test examines whether the effect of the intervening variable generated on the path analysis is significant or not. The Sobel test requires the assumption of a large sample size and the value of the mediation coefficient is normally distributed (Ghozali, 2013).

The t-count value showed 10.461 which was greater than the t-table with a significance level of 0.05, which was 1.660. So it can be concluded that the mediation coefficient of 0.106 was significant, which means that there was a mediating effect. Customer satisfaction can mediate the influence of customer relationship management on customer loyalty.

Discussion

1. The Influence of Customer Relationship Management on Customer Loyalty

The path analysis that has been carried out results in a positive correlation between the variable of customer relationship management and the customer loyalty variable.

The value shown in the path coefficient is 0.073 or 7.3%. Based on these results indicate that customer relationship management has a positive and significant effect on customer loyalty by 7.3%. Fahira (2020) also found that customer relationship management has a positive and significant effect on customer loyalty at sub-branch office of Bank BNI Syariah in Banda Aceh. The customer relationship management conducted by sub-branch office of Bank Muamalat Indonesia in Tulung Agung is also able to realize and increase customer loyalty. Customer expectations can be realized to increase customer loyalty.

2. The Influence of Customer Relationship Management on Customer Satisfaction

The results of the path analysis test show that there is a positive influence of the CRM variable on the Customer Satisfaction variable which has a path coefficient value of 0.191 or 19.1%. CRM is proven to be successful in making customers feel satisfied with the services of Bank Muamalat Indonesia KCP Tulungagung. These results have similarities in research Wahyuningsih (2021) CRM variable has a positive and significant effect on customer satisfaction at the J&T Express Slawi Service Company.

3. The Customer Satisfaction has a positive and significant effect on Customer Loyalty

The results of the path analysis test with a coefficient of 0.559 or 55.9%. This shows that the variable of customer satisfaction with overall indicators has an effect on Customer Loyalty. These results support the research conducted by Yonata, et al., (2020) states that there is a significant influence between service quality and customer satisfaction on customer loyalty.

4. The influence of Customer Relationship Management and customer satisfaction on customer loyalty with customer satisfaction as an intervening variable

The results of this study indicate that customer satisfaction is able to mediate between CRM variables and customer loyalty with a mediation coefficient of 0.106 or 10.6% significant. Which means that customer satisfaction can mediate the influence of customer relationship management on customer loyalty. Contrary to findings (Wibisono, 2018) who are not able to make the satisfaction variable as a mediating variable between customer relationship management and customer loyalty.

Conclusion

From the results of the analysis and discussion in the description above, the results of the first t test are obtained, on customer loyalty with a coefficient value of 0.073 with a significance level of 0.004 and a coefficient value of 0.191 with a significance level of 0.000 on customer satisfaction. Customer satisfaction has a positive and significant effect on customer loyalty, it is known from the results of the first t test, the coefficient value is 0.559 with a significance level of 0.000 less than 0.05, this indicates that customer satisfaction has a positive and significant effect on customer loyalty. The results of the path analysis test, for the CRM variable, the t-count value is 10.461 which is greater than the t-table with a significance level of 0.05, which is 1.660. the mediation coefficient of 0.106 is significant, which means there is a mediating effect.

Customer satisfaction can mediate the influence of customer relationship management on customer loyalty. The customer relationship management has a positive and significant effect on customer satisfaction and loyalty of Bank Muamalat KCP Tulung Agung. The customer relationship management needs to be implemented so that customers are satisfied with the performance of the institution, besides that this is the most dominant element affecting customer loyalty so that customers do not run away. Further researchers need to add other independent variables that are expected to affect customer loyalty outside or related to the satisfaction variable.

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