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Research Paper

# The Effect of e-Banking Facilities on Customer Loyalty at BRI Unit Simpang Limun with Customer Satisfaction as an Intervening Variable

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#### **ABSTRACT**

PT Bank Rakyat Indonesia (Persero) TBK has been successful in getting a lot of customers because it can make loyalty to them. Maintaining the number of existing customers is generally more advantageous than trying to obtain new customers since it will spend a lot of more money in obtaining new customers than maintaining the existing ones. There are some factors which influence this company in creating loyalty and increasing its customers' satisfaction. One of them is the technological advances of electronic banking. One of the attempts of BRI in maintaining its customers is by improving and increasing the quality of electronic banking and it seems that it is successful since most of its customers are still loyal to be its clients although there is a little bit decreasing and dissatisfactory in them. The objective of the research was to find out and to analyse the influence of electronic banking on customer loyalty and its effect on their satisfaction at PT Bank Rakyat Indonesia (Persero) TBK. The population is all generally customers of BRI who have transacted for 1 years addition to payroll customers was 252 customers of PT Bank Rakyat Indonesia (Persero) TBK and 155 of them were used as the samples, taken by using slovin formula. The data were gathered by conducting a survey, using descriptive qualitative method and distributing questionnaires and analyzed by using path analysis with an SPSS software program. The result of research showed that e-banking facilities have a positive and significant effect on satisfaction, e-banking facilities directly affects the loyalty, customer satisfaction and significant positive effect on customer loyalty and customer satisfaction is not able to mediate between e-banking facility with customer loyalty.

*Keywords:* electronic banking, customer satisfaction, customer loyalty.

#### INTRODUCTION

Nowadays, the banking competition is very tight and this makes the bank tries to create a strategy to survive in the face of competition. The banking strategy to win the competition is one of them by making their customers loyal. In the Banking industry, Customer Loyalty is a One proof

of the evidence brought Banking Able to compete to provide the Best Service. BRI is one of the bank that has managed to get many customers, its can show that BRI is able to complete.

A loyal customer is an asset. One of the key to maintaining customes is to provide satisfaction, and satisfaction can be obtained through has been used is owned banks such as electronic banking.

Changes in the behaviour of users of banking products and services make the banking change too. A fundamental change is a shift from the Banking industry from traditional becomes electronic banking (ebanking). The facility of e-banking has answer the demands of customers Who wants Fast, Secure, Convenient, inexpensive, Quantity are Available 24 hours and can be accessed Anywhere.

In this study, the factors that able to maintain customer loyalty are customer satisfaction and have used e-banking facilities. The better facilities, convenience and services of e-banking. increasingly affect satisfied customers will have an impact on customer loyalty. This is supported by several studies conducted by Indah (2016) showing that e-banking variables and service quality have a significant effect on loyalty. Yusnaini (2009) also found the quality of internet banking has a significant effect on customer satisfaction and has a significant impact on customer loyalty. In addition Pinontoan (2013) showed that operates simultaneously and partial, e-banking, Services quality, communication, and trust have significant positive effect on customer loyalty.

But contradictory Research Hasandoust et al (2017) show the journal that have used e-banking no significant effect Satisfaction And not have a significant influence customer loyalty. Abdullah (2015) on his journal that path analysis showed system availability and privacy do not have a significant effect if tested partially and simultaneously from the quality of internet banking service to customer satisfaction.

Based Explanation Of Introduction, researchers are interested in conducting research that is outlined in the form of thesis with the title "The effect of e-banking facilities on customer loyalty with customer satisfaction as an intervening variable "based on Background it is explained through the Framework concept described below:

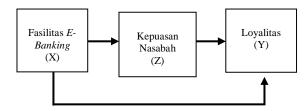


Figure 1: Framework CONCEPT

#### LITERATURE REVIEW

## Has used e-banking

Facilities of e-banking was created to facilitate the review of work expenses Transaction Banking And Reduce As well as increasing of service quality Based Technologies and information so that can provide Excellent Service Without Boundaries Without Time and Space constrained so that the Customer can transact Without Must Come to banks has been used. E-banking is a prayer One Services Bank services which allows the customer to review Obtaining information through communication and conduct banking transactions through Internet networks and Non-Bank is The Only organizes services Banking through the internet, so the establishment and activities the Internet is just not Bank allowed (Bank Indonesia, 2012).

Tampubolon (2005) electronic banking services is one of the bank services that allows customers to obtain information, communicate and conduct banking transactions though the network, and is not a bank that only provides banking service through the internet.

#### **Customer satisfaction**

Satisfaction is feeling happy or disappointed someone who appears after comparing the performance (results) of the product that is thought of expected. If the performance is below expectations, the customer is not satisfied, if the performance meets expectations, the customers satisfied and if the performance exceeds the customer's expectations, they are very satisfied or happy (Kotler and Keller, 2009). Satisfaction measurement is a assessment of customers regarding how well a service or product can meet needs,

including the services received from the purchase stage to the consumption or post-purchase stage (Narteh 2015).

The researcher concludes that customer satisfaction or dissatisfaction is the difference / gap between expectations before purchase and the performance or results felt after the purchase.

### Loyalty

Kotler and Keller (2009) reveal that loyalty is a firm commitment to buy back or subscribe to selected products or services in the future even though situational influences and marketing efforts have the potential to cause consumers to switch to other products. Simatupang (2015) Loyalty is the attitude of the debtor in determining his choice to keep using the product or service of a company.

#### **HYPOTHESIS**

The research hypothesis is as follows:

- 1. Facility of e-banking has positive and significant effect on the Customer Satisfaction BRI Unit Simpang Limun.
- 2. Facility of e-banking has positive and significant effect on the Customer Loyalty BRI Unit Simpang Limun.
- 3. Customer satisfaction has a positive and significant effect on customer loyalty at BRI Unit Simpang Limun.
- 4. E-banking facilities have a positive and significant effect on customer loyalty through customer satisfaction at BRI Unit Simpang Limun.

#### **RESEARCH METHODS**

#### The type of Research

The type of research used is descriptive quantitative research. Quantitative descriptive research includes collecting data to test hypotheses or answer questions about the final status of the research subject (Kuncoro, 2013). The nature of the research is explanatory research. Explanatory research is a study that intends to explain the position of the variables studied and the relationship between one variable and another (Sugiyono, 2009).

## **Population and Sample**

The population in this study were all users of e-banking facilities except payroll customers at PT Bank Rakyat Indonesia (Persero) TBK. Unit Simpang Limun Unit who had been customers for 1 (one) year in 2017 as many as 252 customers. The sample in this study used Slovin formula with an inaccuracy rate of 5%. The number of samples used in the study after rounding results was 155 people.

#### **Research methods**

This research was conducted in two ways, namely descriptive analysis and path analysis using SPSS.

#### **RESULT AND DISCUSSION**

Path analyst has 2 sub-structure models

#### 1. Model Sub Structure I

## 1.1 Normality test

Variable normality testing is used to determine whether the research data is normally distributed or not good by using the normality test or with a graph approach with the following results:

Table 1 Kolmogorov Smirnov test model I

Table 1 Rolling	orov pimirinov tes	t mouel i			
One-Sample Kolmogorov-Smirnov					
	Residual				
		unstandardized			
N		155			
Normal Parametersa, b	mean	.0000000			
	Std. Deviation	.37039355			
The most extreme	The most extreme Absolute				
difference	Positive	0,046			
	Negative	050			
Kolmogorov-Smirnov Z	0.617				
Asymp. Sig. (2-tailed)	.840				
A. testing is a normal distribution.					
b. Calculated from data.					

The results show that the Asymp Sig (2-tailed) value is 0.840. The Kolmogorov Simonov test on a data is said to be normally distributed if the Asymp Sig (2-tailed) value is greater than 0.05. The test results can be said that the data in this study proved to be normally distributed, so that the data in this study can and is worthy of use.

#### 1.2 Heteroscedasticity Test

In this study, it will be seen whether the model used is free from heteroscedasticity using the Glejser test.

Table 2 Test Glejser Model I

	14510 2 1 050 510 501 1110 401 1					
Co	oefficientsa					
Mo	odel	standardized coefficients	T	Sig.		
		Beta				
1	(Constant)		2.666	0.009		
	E-Banking	100	-1.238	.218		
A. Dependent Variable: Res2						

In the Table it can be seen that the significant value on the e-banking facility variable is 0.218. In Glejser testing it is said that the model does not occur heteroscedasticity if a significant value is greater than 0.05. In testing the Glejser, it is done by absorbing the regression value. Thus, because the significant value is 0.218> 0.05, it can be said that the model in this study did not occur heteroscedasticity.

# 1.3 The coefficient of determination sub Structure I

The influences of the variables have been used e-banking Customer Satisfaction is shown in Table 3 below:

Table 3 Coefficient of Determination Model I

Model Summaryb						
Model	Model R R Square Adjusted R Std. erro					
Square Estimate						
	.697a	0.486	0,483	0.37160		
A. Predictors: (Constant), E-Banking						
b. Dependent Variable: Customer Satisfaction						

The results can be seen that the value of the determination coefficient (R2) is 0.483. This value is obtained from the results of regression testing and produces an adjusted R square value of 0.483. These results indicate that e-banking facilities are able to provide satisfaction for customers by 48.3%, while the remaining 51.7% is influenced by other variables not examined in this study. These results indicate that e-banking facilities are able to provide maximum contribution, and are able to provide a level of satisfaction for BRI customers in BRI Unit Simpang Limun Medan.

# 2. Model Sub Structure II2.2 Normality test

Variable normality testing is used to determine whether the research data is normally distributed or not good by using the normality test or with a graph approach with the following results:

Table 4 Kolmogorov Smirnov Test Model II

One-Sample Kolmogorov-Smirnov					
		Residual			
N		155			
Normal Parametersa, b	Mean	.0000000			
	Std. Deviation	.31818519			
The most extreme	Absolute	0.059			
difference	Positive	0,044			
	Negative	059			
Kolmogorov-Smirnov Z	0.732				
Asymp. Sig. (2-tailed)	0.657				
A. testing is a normal distribution.					
b. Calculated from data.					

Table 4 shows that the Asymp Sig (2-tailed) value is 0.657. From this value that is significantly greater than 0.05, it can be concluded that the model in this study has fulfilled the requirements of the classical assumption that is normally distributed.

## 2.2 Heteroscedasticity Test

In heteroscedasticity testing for Sub Structure II, it can be seen whether the model in this study is also free from these symptoms. To see the presence or absence of these symptoms, the following researcher presents them in Glejser testing in the following Table:

Table 5 Glejser Test Model II

Co	Coefficientsa						
Model		standardized coefficients	T	Sig.			
		Beta					
1	(Constant)		0.325	0,746			
	E-Banking	049	438	0.662			
	Customer satisfaction	0.198	1.778	0.077			
Α.	A. Dependent Variable: Res3						

The table shows that the significant value obtained by the e-banking facility variable is 0.662 and the customer satisfaction variable is 0.077. To be able to determine a model it is said to be free from symptoms of heteroscedasticity provided that a significant value must be greater than 5% or 0.05. From the results of these tests, it can be concluded that the model in this study is free from symptoms of heteroscedasticity because a significant value is greater than 0.05.

# 2.3 Coefficient of Determination Sub Structure II

In testing the second sub-structure, researchers want to see whether the formation of loyalty is really influenced by

e-banking facilities and customer satisfaction. The results of testing sub structure II can be seen as follows:

**Table 5 Coefficient of Determination Model II** 

Model Summaryb						
Model	Model R R Square Adjusted R Std. error					
Square Estimate						
1 .776a .603 0,597 0.32027						
A. Predictors: (Constant), Customer Satisfaction, E-Banking						
b. Dependent Variable: Customer Loyalty						

The table shows that the test results of the determination coefficient are 0.597. This value is obtained from Adjusted R Square of

0.597. The value obtained indicates that the influence provided by e-banking facilities and customer satisfaction on customer loyalty is 59.7%. This value is obtained from the multiplication of the value of Adjusted R Square 0.597 x 100%. This value provides maximum distribution which shows that e-banking facilities and customer satisfaction can make customers loyal. While the remaining 40.3% is influenced by other factors not examined in this study.

# 3. Hypothesis Test

# H1: Facility of e-banking has positive and significant effect on the Customer Satisfaction BRI Unit Simpang Limun

Seeing results for sub Structure I, then a partial test performed as follows:

Table 6 Partial significant test Model 1

Coefficientsa							
Model Coefficients u		s unstandardized standardized coefficients		T	Sig.		
E		В	Std. Error	Beta			
1	(Constant)	0,137	0.333		0.411	.681	
E-Banking .942 0.078 0.697 12.037 0,00						0,000	
A.	A. Dependent Variable: Customer Satisfaction						

Table 6 shows that the significant value of the e-banking facility variable is 0,000. To see the influence between the variables of e-banking facilities and customer satisfaction is to compare the results of significant output with a confidence level of 5% (0.05).

Partial test results, it can be seen that a significant value of 0,000 is smaller than 0.05. Because the significant value is smaller than 0.05, it can be concluded that e-banking facilities have a significant effect. These results can also be concluded that the effect of e-banking on customer satisfaction has a positive impact, which can be seen from the beta coefficient of 0.697.

So the presence of e-banking facilities can have a good impact on the company, namely increasing customer

satisfaction. From the results of the partial test in Table 6, the equation of sub-structure I can be seen as follows:

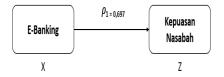


Figure 2 Results of Model Sub Structure I

Customer satisfaction = 0697 E-Banking

# H2: Facility of e-banking has positive and significant effect on the Customer Loyalty BRI Unit Simpang Limun

Seeing the results of Sub Structure II, whether e-banking facilities can affect customer loyalty, it can be done by the following partial testing:

Table 7 Partial Test Model II

Coefficientsa							
Model		Coefficients unstandardized		standardized coefficients	t	Sig.	
		В	Std. Error	Beta			
1	(Constant)	0.092	0,287		0.319	.750	
	E-Banking	.540	0.094	.409	5.732	0,000	
	Customer satisfaction	.424	.070	.434	6,080	0,000	
A.	A. Dependent Variable: Loyalitas Nasabah						

From the test results obtained a significant value for the e-banking facility variable on loyalty is 0,000. Thus the hypothesis in this study is acceptable, because the significant value for the variable customer satisfaction with loyalty is 0,000 less than 0.05 or can be accepted with a 95% confidence level. Then the influence provided by e-banking facilities is positive, which can be seen from the beta coefficient value for the e-banking facility variable towards loyalty is 0.540. This means that e-banking facilities that have been provided by the company can have a positive influence in shaping customer loyalty at BRI Unit Simpang Limun

# H3: Customer satisfaction has a positive and significant effect on customer loyalty at BRI Unit Simpang Limun

The test results obtained significant value for the variable customer satisfaction with loyalty is 0,000. Thus the hypothesis in this study is acceptable, because the significant value for the variable customer satisfaction with loyalty is 0,000 less than 0.05 or can be accepted with a 95% confidence level. Then the influence given by customer satisfaction is positive, which can be seen from the beta coefficient value for the variable customer satisfaction with loyalty is 0.424. It means that the satisfaction felt by customers can have a positive influence in shaping customer loyalty at PT Bank BRI Simpang Limun.

# H4: E-banking facilities have a positive and significant effect on customer loyalty through customer satisfaction at BRI Unit Simpang Limun

IF Seen From calculations Sub Structure I, the effect of e-banking on customer satisfaction is equal to 0.697. In testing Sub Structures II the influence given by customer satisfaction on loyalty is 0.434, then  $(0.697 \times 0.434 = 0.302)$ . When compared the direct effect with the indirect effect is (0.409 > 0.302). Then it can be concluded that there is no effect of e-banking facilities on loyalty through customer satisfaction. This is because the e-

banking facility variable is able to influence customer loyalty. The value of the direct influence given by e-banking facilities on loyalty is equal to 0.409, while the indirect effect or influence provided by e-banking facilities on loyalty through satisfaction is 0.302. Thus the hypothesis in this study is rejected, with the result that the satisfaction variable is not able to mediate between the variables of e-banking facilities on customer loyalty of Bank BRI Simpang Limun.

Based on the test results Sub Structure II, then can formed Equations and model as follows:

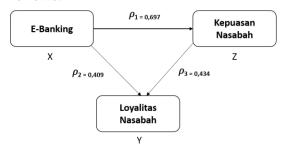


Figure 3 Results Model II Model:

Loyalty = 0409 + 0434 E-banking Customer Satisfaction

#### **CONCLUSION**

- 1. Facility of e-banking has positive and significant effect on the Customer Satisfaction BRI Unit Simpang Limun.
- 2. Facility of e-banking has positive and significant effect on the Customer Loyalty BRI Unit Simpang Limun.
- 3. Customer satisfaction has a positive and significant effect on customer loyalty at BRI Unit Simpang Limun.
- 4. Customer satisfaction is not able to mediate between e-banking facilities and the loyalty of customers at BRI Unit Simpang Limun.

#### **SUGGESTION**

 BRI needs to review any elements or shortcomings that make customers still reluctant to use e-banking facilities or feel unsatisfied for users who have used BRI ebanking facilities so that they can provide customers with a far more satisfying feeling such as the menu display user friendly and

- more responsive application. BRI also needs to improve its security system so that it can guarantee that customers using internet banking are free from cyber crime attacks.
- 2. BRI should pay attention to the availability and completeness of the facilities owned, there are still menus that are not yet available in all e-banking facilities. For example, for the PDAM payment menu, which is currently only available on the ATM machine menu, so that when the customer is on the way, he cannot make payments from SMS banking and Internet Banking. Another example for top up e-money (Brizzi) menu still needs balance activation via the BRI EDC menu, and there are still a number of other menus that are not yet available.
- 3. In order to increase customer loyalty more, BRI needs to improve policies in using mobile banking (SMS banking), as customers do not need to pay a fee to deduct credit when transacting using SMS banking, and increase the limit of transactions. In the future, it will be taken into consideration by BRI to provide toll-free call center services.
- 4. There is a lot of convenience provided by BRI in financial transactions, one of which is e-banking facilities. In order to improve the quality of e-banking services, BRI needs to improve overall control in each sector both from the security, network and service sectors to create a sense of security, comfort and satisfaction for users.
- 5. For further researchers, it is expected to be able to examine more deeply the digital banking problem that developed in the digital era 4.0 with other variables not examined by researchers today such as the development of digital money, e-money such as Brizzi owned by BRI and electronic wallets or accounts mobile phones which are often known as e-wallets such as My QR are owned by BRI but currently merge into Link Aja which is a combination of all e-wallet products of all state-owned banks.

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