

# The Analysis of Customer Behavior of Bank SUMUT in Non-Cash Transactions with New SMS Banking Service

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## ABSTRACT

Bank of SUMUT in 2016 launched the New SMS Banking service. This service is very much needed in the midst of the increasing trend of non-cash payments and the e-commerce industry. Various socializations and promotions have been carried out so that customers use the New SMS Banking service. However, the average number of transactions per customer through the New SMS Banking service tends to be stagnant and even has decreased over the last few months in 2017. The purpose of this study is to analyze the factors that influence the customer's desire to use the New SMS Banking service and formulate alternative strategies that can be implemented by Bank SUMUT to optimize this service. The type of research is correlational research. The questionnaires were distributed by purposive sampling to hundred customers from three Coordinator Branch Offices of the Bank SUMUT. The analysis showed that 41.5% of the attitude towards New SMS Banking was influenced by the Benefits of Use, Ease of Use, Risk of Use, Costs of Use, Personal Ability, Suitability of Lifestyle, and Bank Credibility. All of these variables simultaneously have a significant effect on the Attitude towards New SMS Banking. However, partially, the variable Self Ability does not have a significant partial effect on Attitudes towards New SMS Banking. Attitudes towards New SMS Banking affect customer interest in using New SMS Banking.

**Keywords:** Technology Acceptance Model, Theory of Reasoned Action, SMS-Banking, Consumer Attitude.

## BACKGROUND

This New SMS Banking service can be used for financial and non-financial transactions. This service provides convenience for customers in conducting banking transactions because they no longer need to memorize the SMS Banking command format. This application can be used by customers for various transactions, ranging from paying electricity, PDAM Tirtanadi bills, transferring funds, topping up credit and others without having to come to an ATM or cash service office of Bank Sumut. This service is of course also very compatible with the non-cash movement that is being promoted by the government. For Bank of North Sumatra, this Mobile Banking service is expected to increase operational income for Bank of North Sumatra in addition to credit interest. Mobile Banking can increase fee-based income and is a tool to support the expansion of Third Party Funds (DPK) strategies, because electronic/mobile transactions can encourage existing and prospective customers to save and deposit funds in the bank.

Various socialization and educational activities have been carried out by Bank Sumut to introduce and direct customers and prospective customers to use this mobile banking service, including providing rewards for Customer Service officers who actively participate in socializing, activating, and providing user experience to customers for New SMS

Banking services. This program aims to increase the number of customers who use the New SMS Banking service and increase the number of transactions. Customers who actively use the New SMS Banking service are also given periodic prizes, where every time they make a transaction through the New SMS Banking service, the customer will get points according to the points mechanism. Customers with the highest points are awarded attractive prizes. This program aims to increase the number of transactions through the New SMS Banking service per customer.

However, the number of transactions and the number of customers using the New SMS Banking service, which has increased, does not necessarily indicate that the average number of transactions per customer has also increased. On the other hand, if it is averaged (the number of transactions divided by the number of customers using the New SMS Banking service), it is found that the average number of transactions per customer tends to stagnate and even experience a decline in the last few months.

The average transaction per customer from 2016 to 2017 did not

increase, but stagnated and even decreased. The dominant type of transaction used is only balance notification. Daily balance check transactions and transfers to other banks occur in small average amounts. Purchase transactions through the New SMS Banking service occurred more frequently in 2016 than in 2017, while other transactions, such as Interbank Transfers, Bill Payments, and others occurred in very small average amounts (less than 1). In other words, the average customer almost never uses the New SMS Banking service to make Interbank Transfer transactions, Bill Payments, and others.

The conditions mentioned above are not in line with the current trend, where non-cash transactions and e-commerce are booming and growing rapidly. This means that customers who have registered as users of the New SMS Banking service do not use this service for non-cash transactions. Customers still prefer other alternative transaction modes even though there are various features and conveniences in the New SMS Banking service. Therefore, researchers are interested in conducting research on customer behavior in adopting New SMS Banking technology.

### Conceptual Framework

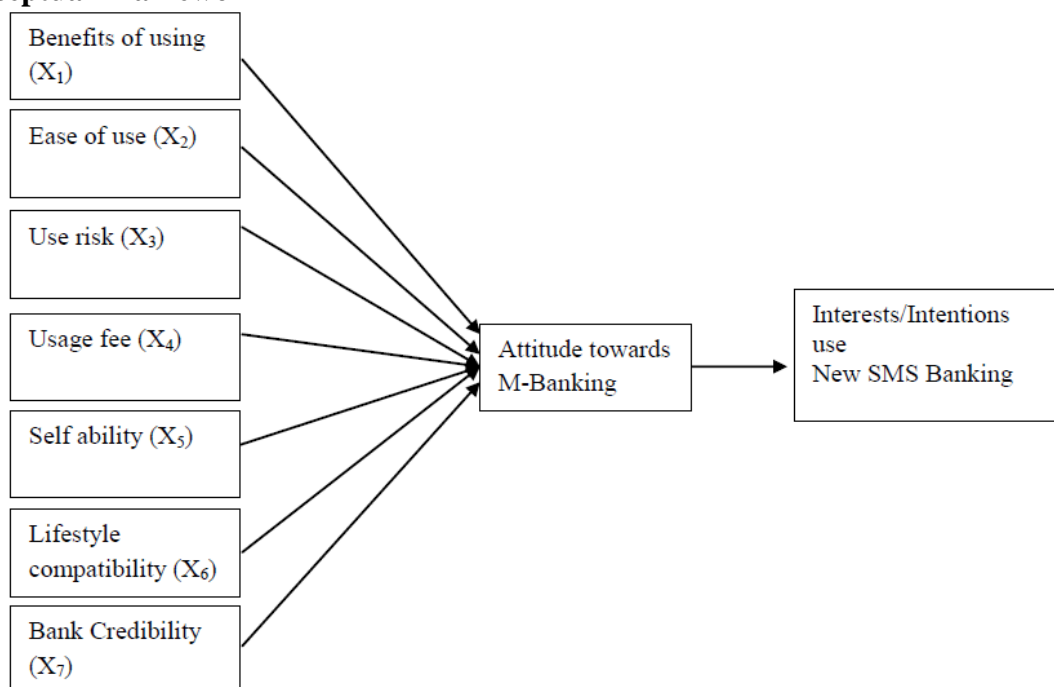


Figure 1. Conceptual Framework

**Hypothesis I:**

The variables of benefit of use, ease of use, risk of use, cost of use, self-ability, suitability of lifestyle, and credibility of the Bank have an influence on attitudes towards New SMS Banking, both combined and partially.

**Hypothesis II:**

Attitudes towards New SMS Banking have an influence on interest in using New SMS Banking.

**RESEARCH METHODS**

This type of research is a correlational study, which examines whether or not there is a relationship between independent variables, namely the benefits of use, ease of use, risk of use, cost of use, self-efficacy, and lifestyle suitability on the dependent variable of attitude towards M-Banking, and there are whether or not there is a relationship between the attitude variable towards M-Banking and the interest in using M-Banking, so that it can be used as a factor in the decision to carry out the M-Banking strategy of Bank

Sumut. This research was conducted at Bank Sumut, Medan City Coordinator Branch, Siantar City Coordinator Branch, and Padangsidempuan City Coordinator Branch. The population in this study were all North Sumatran Bank customers who had registered as M-Banking users, amounting to 42,577 people. Sampling was carried out by purposive sampling, in which the respondents selected were customers who had registered as M-Banking users but had never used M-Banking for financial transactions, to find out their attitude towards M-Banking Bank of North Sumatra and whether there was any effect on M-Banking on the desire to use it (Intention to Use) in the future. In accordance with the above calculation, the sample size in this study was 100 people by dividing the sample into 3 (three) groups based on area. The results of the analysis of the processing of data collected through questionnaires to 30 (thirty) initial respondents outside of the respondents who will be questioned about the data to be analyzed as a result of this study. From the questionnaire, validity and reliability tests were conducted.

**RESULTS AND DISCUSSION**

**Multiple Linear Regression Analysis and Hypothesis Testing**

**Table 1: The Value of the Coefficient of Determination and Correlation Coefficient 1**

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.644 <sup>a</sup>	.415	.371	2.347
a. Predictors: (Constant), X7, X4, X6, X2, X1, X3, X5				

1. The value of the coefficient of determination (R Square) is 0.415. This means that 41.5% of Attitudes towards New SMS Banking are influenced by Benefits of Use, Ease of Use, Risk of Use, Cost of Use, Self-Ability, Lifestyle Suitability, and Bank Credibility. While 58.5% is influenced by other variables outside the variables used in this study.
2. The correlation coefficient (R) of 0.644 indicates that there is a strong relationship between Benefits of Use, Ease of Use, Risk of Use, Cost of Use, Self-Ability, Lifestyle Suitability, and Bank Credibility on Attitudes towards New SMS Banking.

**Simultaneous Hypothesis Test Results (Test F)**

**Table 2: F 1 Test Results**

ANOVA <sup>b</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	359.906	7	51.415	9.333	.000 <sup>a</sup>
	Residual	506.844	92	5.509		
	Total	866.750	99			
a. Predictors: (Constant), X7, X4, X6, X2, X1, X3, X5						
b. Dependent Variable: Y1						

The F-count value in Table 6.19 is 9.333 while the F-table value with (0.05,df1,df2) is (0.05,2,219) the F-table value = 2.110. Because the F-count > F-table (9.333 > 3.037), Ho is rejected and H1 is accepted. This means that there is a significant relationship simultaneously or jointly between Benefits of Use, Ease of Use, Risk of Use, Cost of Use, Self-Ability, Lifestyle Suitability, and Bank Credibility towards Attitudes towards New SMS Banking.

### Results of Partial Hypothesis Testing (t-test)

Table 3: t 1 test results

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.946	2.083		.454	.651
	X1	.244	.075	.274	3.232	.002
	X2	.167	.075	.199	2.217	.029
	X3	.337	.104	.298	3.233	.002
	X4	-.236	.115	-.192	-2.058	.042
	X5	-.037	.091	-.040	-.412	.681
	X6	.183	.090	.179	2.038	.044
	X7	.183	.088	.178	2.080	.040

a. Dependent Variable: Y1

1. The distribution table for t at = 5% with degrees of freedom (df) = n – k – 1, where n is the number of samples and k is the number of independent variables, the value of df = 100 – 7 – 1 = 92, so the value of t table of 1,986.
2. From the SPSS output, the t-count variable (X1) is 3.232, (X2) is 2.217, (X3) is 3.233, (X4) is -2.058, (X5) is -0.412, (X6) is 2.038, and (X7) of 2,080.
3. For the X1 variable, the t-count > t-table with a Sig value less than 0.05, then Ho is rejected and H1 is accepted, meaning that partially or individually there is a significant influence between the X1 variable on the Y1 variable.
4. For the X2 variable, the t-count value > t-table with a Sig value less than 0.05, then Ho is rejected and H1 is accepted, meaning that partially or individually there is a significant effect between the X2 variable on the Y1 variable.
5. For the X3 variable, the t-count value > t-table with a Sig value less than 0.05, then Ho is rejected and H1 is accepted, meaning that partially or individually there is a significant influence between the X3 variable on the Y1 variable.
6. For the X4 variable, the -t-count > t-table with a Sig value less than 0.05, then Ho is rejected and H1 is accepted, meaning that partially or individually there is a significant effect between the X4 variable on the Y1 variable. .
7. For the X5 variable, the value of -t-count < t-table on a variable with a Sig value greater than 0.05, then Ho is accepted and H1 is rejected, meaning that partially or individually there is no significant effect between the X5 variables. to the Y1 variable.
8. For the X6 variable, the t-count value > t-table with a Sig value less than 0.05, then Ho is rejected and H1 is accepted, meaning that partially or individually there is a significant effect between the X6 variable on the Y1 variable.
9. For the X7 variable, the t-count > t-table with a Sig value less than 0.05, then Ho is rejected and H1 is accepted, meaning that partially or individually there is a significant influence between the X7 variable on the Y1 variable.

### Effect of Independent Variable (Y1) on Dependent Variable (Y2)

Table 4: Value of Coefficient of Determination and Coefficient of Correlation 2

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.668 <sup>a</sup>	.447	.441	1.346

a. Predictors: (Constant), Y1

1. The value of the coefficient of determination (R Square) is 0.447. This means that 44.7% Interest in Using New SMS Banking is influenced by Attitudes towards New SMS Banking. While 55.3% is influenced by other variables outside the variables used in this study.
2. The correlation coefficient (R) of 0.668 indicates that there is a strong relationship between Attitudes towards New SMS Banking and Interest in Using New SMS Banking.

### Results of Partial Hypothesis Testing (t-test)

Table 6.22: T test results 2

Model	t	Sig.	Model
1	(Constant)	13.930	.000
	Y1	8.893	.000

1. The distribution table for t at = 5% with degrees of freedom (df) = n – k – 1, where n is the number of samples and k is the number of independent variables, the value of df = 100 – 1 – 1 = 98, so the value of t table of 1,984.
2. From the results of the SPSS output, the t-count variable (Y1) is 8.893.
3. For the Y1 variable, the t-count > t-table with a Sig value less than 0.05, then Ho is rejected and H1 is accepted, meaning that partially or individually there is a significant influence between the Y1 variable on the Y2 variable.

### CONCLUSION

Based on the results of research and discussion in the previous chapter, it can be concluded as follows:

1. Attitudes towards New SMS Banking are influenced by Benefits of Use, Ease of Use, Risk of Use, Cost of Use, Self-Ability, Lifestyle Suitability, and Bank Credibility, with a coefficient of determination (R Square) of 0.415 which means that the variables of Benefits of Use, Ease of Use, Usage Risk, Usage Fee, Self-Ability, Lifestyle Suitability, and Bank Credibility were able to explain 41.5% of the changes in

- the Attitude to New SMS Banking variable and the remaining 58.5% was influenced by other factors not examined in the study.
2. The results of simultaneous hypothesis testing (F test) show that the variables of Benefits of Use, Ease of Use, Risk of Use, Cost of Use, Self-Ability, Lifestyle Suitability, and Bank Credibility together have a significant effect on Attitudes towards New SMS Banking.
3. Based on the partial test (T test), the Self-Ability variable has no significant effect partially on Attitudes towards New SMS Banking.
4. Based on the partial test (T test), the variables of Benefits of Use, Ease of Use, Risk of Use, Cost of Use, Suitability of Lifestyle, and Bank Credibility have a significant partial effect on Attitudes towards New SMS Banking.
5. Statistical data analysis on the effect of Attitude towards New SMS Banking on Interest in using New SMS Banking resulted in an R-square (R<sup>2</sup>) value of 0.447 which means that the Attitude towards New SMS Banking variable is able to explain 44.7% of the changes in the variable Interest using New SMS Banking and the remaining 55.3% are influenced by other variables not examined in this study.
6. Attitude towards New SMS Banking has a significant effect on customer interest in using New SMS Banking at Bank Sumut. These results prove that the attitude of the Bank of North Sumatra customers will affect the customer's desire to use the New SMS Banking of Bank Sumut. The desire of Bank Sumut customers to use the New SMS Banking of Bank Sumut will be greatly influenced by the attitude of Bank Sumut customers themselves in viewing the product.

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