

THE EFFECT OF PERCEIVED USEFULNESS , EASE OF USE AND SECURITY ON INTEREST IN USING BSI MOBILE SERVICES WITH TRUST AS INTERVENING VARIABLE (CASE STUDY ON UINSU MEDAN STUDENTS)

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Abstract: This study aims to analyze the effect of perceived usefulness, ease of use, and security on interest in using BSI Mobile services with trust as intervening variable. The number of respondents in this study were 100 students of UINSU Medan who did not have a BSI Mobile account. The method used to collect the data is by distributing questionnaires through the google form. Then the data were processed by SPSS Statistics Version 26. The result showed that perceived usefulness had a significant effect on interest, as can be seen from the value of α ($0,007 < 0,05$) and the value of t count $2,778 > t$ table 1,988. Ease of use had no effect on interest, as can be seen from the value of α ($0,718 > 0,05$) and the value of t count $0,362 < t$ table 1,988. Security had a significant effect on interest, as can be seen from the value of α ($0,007 < 0,05$) and the value of t count $2,781 > t$ table 1,988. Trust had a significant effect on interest, as can be seen from the value of α ($0,000 < 0,05$) and the value of t count $4,707 > t$ tabel 1,988. Perceived usefulness had a significant effect on interest through trust, as can be seen from the value of t count $3,605 > t$ table 1,661. Ease of use had a significant effect on interest through trust, as can be seen from the value of t count $2,501 > t$ table 1,661 and security has a significant effect on interest through trust as can be seen from the value of t count $3,306 > t$ tabel 1,661.

Keywords: *Perceived usefulness, ease of use, security, trust, interest, BSI Mobile*

1. Introduction

The development of digital technology has been increasing rapidly in recent times, thus triggering new innovations. Nowadays, all Islamic banks continued to innovate in terms of technology, especially in mobile banking services. One of the islamic banks that has implemented this innovation was Bank Syariah Indonesia (BSI) through an application called BSI Mobile.

Table 1. Total Downloads of M-Banking Applications at Islamic Banks in Indonesia.

No	M-Banking Applications	Total Downloads
1	BSI Mobile	5.000.000+
2	Aladin : Bank Syariah Digital	1.000.000+
3	Muamalat DIN	100.000+
4	BCA Syariah Mobile	100.000+
5	BTN Syariah Mobile Payment	100.000+
6	M – Syariah	50.000+

Source: Secondary Data Processed, 2022

From the table above, there is a huge difference in the number of users who have downloaded BSI Mobile application compared to other mobile banking. BSI Mobile has been downloaded by more than 5 million users on the “playstore” with a rating of 3.8 and 102,000

reviews. With a rating below 4, it means that there are still many customers who express dissatisfaction with this application.

Based on the results of interviews conducted by researchers with UINSU Medan students, there are still a number of complaints and obstacles so that they are less interested in using BSI Mobile, including like difficulties at the initial activation via BSI Mobile, lack of knowledge about Islamic banking, fear of the high fees, frequent errors when trying to log in to the application, there is still a risk of hacking the customer's personal data and several digital applications do not yet have a payment feature via BSI Mobile, also there is also no cash deposit feature in the application.

Many factors can affect customer interest in using mobile banking services, especially BSI Mobile. The most important construction in studies explaining behavioral intention for using mobile banking is perceived usefulness, ease of use, security and customer trust (Malaquias et al., 2018). Basically customers will be more interested in using mobile banking if the level of usefulness, ease of use, security and trust provided by the bank is in accordance with what the customer wants.

After reviewing the phenomena and research gaps in previous studies, the author is interested in conducting research with the title “The Effect of Perceived Usefulness , Ease of Use and Security on Interest in Using BSI Mobile Services with Trust as Intervening Variable (Case Study On UINSU Medan Students)”.

2. Literature Review

Perceived Usefulness

According to Wibowo (2008) explains that perceived usefulness is a person's response to usability which is interpreted as a measure when using a technology it is believed will bring benefits to the people who use it. From this definition it is known that perceived usefulness is a belief about the decision-making process. If someone feels that the system is useful then he will use it. Conversely, if someone believes that the information system is less useful then he will not use it.

Ease of Use

Ease of use is defined as the extent to which a person believes that using information technology will be easy and does not require much effort for the users (Davis, 1989). This perceived ease of use will have an impact on consumer behavior, if a person's perception of the ease of using the system is higher, then consumers will be increasingly interested in using this technology.

Security

Information security is a prevention against fraud and cheating in information systems, which is when the information has no physical meaning. From the customer's perspective, security is the ability to protect user information from things like theft and fraud that can occur in this online banking business (Zahid *et.al*, 2010). Banks as mobile banking service providers must provide technology to ensure the confidentiality of information from irresponsible parties. This mobile banking security must have monitoring which must always be improved so that customers are more comfortable and trust to use mobile banking services.

Trust

Trust is a person's desire to be responsive to the behavior of other people with the hope that the person will take certain actions against someone he can trust, without relying on his ability to control and supervise them. (Eid, 2011; Anderson & Weitz, 1989). Morgan and Hunt (1994) stated that trust is a very important foundation in building a successful relationship marketing.

From that definition, it can be known that trust is one of the factors that influence interest in using m-banking services so that the banking industry must form a positive attitude that can increase customer confidence in the applied technology. When a company is able to provide security, trust will be obtained from its customers. Thus customer trust becomes the main capital for companies to increase the quantity of purchases and customer interest in using a product.

Interest

Interest is a desire that appears in a person to a certain object which is then followed by pleasure to get satisfaction in using a technology. Interest relates to a person's motivation, something to learn, and can change depending on needs, experience, not congenital (Iriani, 2018). In simple terms, interest means a preference for an activity without any element of coercion.

Interest in the use of information technology has a correlation with companies, because to achieve a potential and effective benefit requires an information technology plan. Then the company must adopt the right information technology optimization and in accordance with the business strategy. The use of information technology by individuals also shows their acceptance to continue using or not using technology.

BSI Mobile

BSI Mobile is a mobile banking facility provided by Bank Syariah Indonesia (BSI) for customers to be able to access savings accounts and be able to make transactions online. This mobile banking can be accessed anytime and anywhere through each customer's smartphone device, both Android and iOS.

The features contained in BSI Mobile include: online account opening, fund transfers, purchases and payments, QRIS, cash withdrawals, E-Mas, Islamic services, and sharing, these features allow customers to easily distribute infaq, wakaf, and zakat at any time through the BSI Mobile application.

3. Research Method

The research method used in this study is a quantitative method. Quantitative method is a research that emphasizes the objective measurement aspects that occur in social phenomena. In order to be able to carry out measurements, every social phenomenon is described into several problem components, variables and indicators. Each specific variable is measured by giving a number symbol that varies according to the category of information associated with that variable. By using these number symbols, quantitative mathematical calculation techniques can be carried out so that generally accepted conclusions can be obtained in a parameter (Rahmani, 2016).

The population in this study was all UINSU Medan students, with a total 31,489 students, which was then used to be tested using the slovin formula so that the sample obtained were 100 student with the criteria who did not have a BSI Mobile account. The sample collection technique uses purposive sampling. The method used to collect the data is by distributing questionnaires through the google form. Then the data were processed with SPSS Statistic Version 26. The data analysis technique that used in this study was classical assumption test and hypothesis test.

4. Results and Discussion

4.1 Result

Respondents obtained in this study were 100 respondents. Descriptive analysis of the research data was carried out using IBM SPSS Statistic Version 26. The data analysis technique that used in this study was classical assumption test and hypothesis test.

Classic Assumption Test

The classical assumption test consists of : normality test, multicollinearity test, and heteroscedasticity test.

a. Normality Test

Table 2. Normality Test Results
One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		100
Normal Parameters ^{a,b}	Mean	,0000000
	Std. Deviation	,94143015
Most Extreme Differences	Absolute	,079
	Positive	,079
	Negative	-,057
Test Statistic		,079
Asymp. Sig. (2-tailed)		,128 ^c

a. Test distribution is Normal.

b. Calculated from data.

Source: Primary Data Processed by SPSS Statistic version 26, 2022

Based on one-sample kolmogorov smirnov test above, it can be seen that the distribution is normal.

b. Multicollinearity Test

Table 3. Multicollinearity Test Result

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	Perceived Usefulness	,384	2,604
	Ease of Use	,676	1,480
	Security	,447	2,238
	Trust	,295	3,392

Source: Primary Data Processed by SPSS Statistic version 26, 2022

Based on the table above, all independent variables have tolerance values > 0.10 and VIF values < 10, meaning that this regression model is free from multicollinearity.

c. Heteroscedasticity Test

Table 4. Heteroscedasticity Test Result
Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-,315	,717		-,439	,661
	Perceived Usefulness	,072	,073	,160	,992	,324
	Ease of Use	,030	,048	,077	,635	,527
	Security	-,097	,070	-,207	-1,385	,169
	Trust	,048	,064	,140	,760	,449

a. Dependent Variable: Abs_Res1

Source: Primary Data Processed by SPSS Statistic version 26, 2022

It can be seen from the significance value of all the independent variables in the table above is bigger than 0.05, it means that there is no heteroscedasticity.

Hypothesis Test

Table 5. Model Summary 1

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,840 ^a	,705	,696	,99742

a. Predictors: (Constant), Perceived usefulness, ease of use, security

Source: Primary Data Processed by SPSS Statistic version 26, 2022 It can be seen in the table Above that the value of the R-square is 0.705, this means that the independent variable affects the dependent variable by 70,5%. while the remaining 29,5% is influenced by other variables that are not included in this research. To find the value of $e1$ can be found using the formula $e1 = \sqrt{(1-0.705)} = 0.5431$

Table 6. Model Summary 2

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,855 ^a	,730	,719	,96105

a. Predictors: (Constant), Perceived usefulness, ease of use, security, trust

Source: Primary Data Processed by SPSS Statistic version 26, 2022

It can be seen in the table above that the value of the R-square is 0.730, this means that the independent variable affects the dependent variable by 73%. while the remaining 27% is influenced by other variables that are not included in this research. Meanwhile, to find the value of $e2$, it can be found using the formula $e2 = \sqrt{(1-0.730)} = 0.5196$.

Table 7. Path Coefficient^a Model 1

Coefficient ^a					
Model		Unstandardized Coefficients		Standardized Coefficients	Sig.
		B	Std. Error	Beta	
1	(Constant)	,063	1,149		,956
	Perceived Usefulness	,576	,101	,440	,000
	Ease of Use	,220	,073	,194	,003
	Security	,478	,101	,354	,000

a. Dependent Variable: Trust (Z)

Source: Primary Data Processed by SPSS Statistic version 26, 2022

Table 8. Path Coefficient^a Model 2

Coefficient ^a					
Model		Unstandardized Coefficients		Standardized Coefficients	Sig.
		B	Std. Error	Beta	
1	(Constant)	,957	1,107		,389
	Perceived Usefulness	,313	,113	,239	,007
	Ease of Use	,027	,074	,023	,718
	Security	,299	,108	,222	,007
	Trust	,463	,098	,462	,000

a. Dependent Variable: Interest (Y)

Source: Primary Data Processed by SPSS Statistic version 26, 2022

From the tables 7 and 8 of the path coefficient model, it can be seen the direct effect, the total effect and the indirect effect so that later this number will be used to draw conclusions from all hypotheses. The direct effect, indirect effect and total effect can be seen in the table below:

Table 9. Result of Effect

Variable	Std. error X to Z	Std. Error Z to Y	Direct Effect			Indirect Effect	Total Effect
			Beta X to Y	Beta X to Z	Beta Z to Y		
	Sp2	Sp3	(p1 ¹)	(p2)	(p3)	(p2×p3)	(p1 + (p2×p3))
Perceived Usefulness	0,101	0,098	0,239	0,440	0,462	0,20328	0,44228
Ease of Use	0,073	0,098	0,023	0,194	0,462	0,089628	0,112628
Security	0,101	0,098	0,222	0,354	0,462	0,163548	0,385548

According to Ghazali (2018) to determine whether the indirect effect (p2×p3) is significant or not, then carried out using the sobel test, with the following formula:

$$Sp2p3 = \sqrt{p3^2 \times SP2^2 + p2^2 \times SP3^2 + SP2^2 \times SP3^2}$$

Explanation :

p3² = Beta of the intervening variable to the dependent variable

Sp2² = Std.error of the independent variable to the intervening variable

p2² = Beta of the independent variable to the intervening variable

Sp3² = Std.error of the intervening variable to the dependent variable

Based on the Sp2p3 results obtained, we can find out the calculated t value:

$$t = \frac{p2p3}{Sp2p3}$$

If t count > from t table, then it can be said that the mediation coefficient is significant or it can be said that there is also an intervening effect.

4.2 Discussion

a. The Effect of Perceived Usefulness on Interest in Using BSI Mobile Services

Based on the results of the hypothesis testing at table 8, it can be concluded that perceived usefulness had a significant effect on interest in using BSI Mobile services, as can be seen from the value of α 0.007 < 0.05 and the t count was 2.778 > t table 1.988. (t tabel = t ($\alpha/2$; n-k-1) t = (0,05/2 ; 100-4-1) t = (0,025;95) = 1,985). This research is reinforced by previous research conducted by Anwar (2018) which states that perceived usefulness has a positive and significant effect on customers' decisions to use mobile banking services. This means that the higher the level of usefulness of BSI Mobile services, the interest of students to use BSI Mobile services will also increase. And if the level of usability of BSI Mobile services is lower, then students' interest in using BSI Mobile services will also be lower.

b. The Effect of Ease Of Use on Interest in Using BSI Mobile Services

Based on the results of the hypothesis testing at table 8, it can be concluded that ease of use had no effect on interest, as can be seen from the value of α (0,718 > 0,05) and the value of t count 0,362 < t table 1,988. This research is reinforced by previous research conducted by Sari (2019) which states that there is no effect of the ease of using mobile banking on customer interest. The rejection of this hypothesis is due to the fact that nowadays internet access is very easy to obtain anytime and anywhere, moreover it also competes with conventional banks and other Islamic banks.

c. The Effect of Security on Interest in Using BSI Mobile Services

Based on the results of the hypothesis testing at table 8, it can be concluded that security had a significant effect on interest, as can be seen from the value of α ($0,007 < 0,05$) and the value of t count $2,781 > t$ table $1,988$. This research is reinforced by previous research conducted by Shodiqin (2021) which states that security has a positive and significant effect on interest in using mobile banking. This means that when security in using BSI Mobile increases or decreases, this will affect the level of student interest in using BSI Mobile services.

d. The Effect of Security on Interest in Using BSI Mobile Services

Based on the results of the hypothesis testing at table 8, it can be concluded that trust had a significant effect on interest, as can be seen from the value of α ($0,000 < 0,05$) and the value of t count $4,707 > t$ table $1,988$. This research is reinforced by previous research conducted by Wahyuningsih (2021) which states that the trust variable has a positive and significant effect on customer interest.

e. The Effect of Perceived Usefulness on Interest in Using BSI Mobile Services through Trust as Intervening Variable

Based on the table 9 above, it can be seen whether the indirect effect shown by the multiplication coefficient ($p2 \times p3$) = 0.20328 is significant or not, then it is tested with the sobel test. After being tested using the formula that has been listed above, the value of $Sp2p3$ = $0,0739670555$. In accordance with the results of $Sp2p3$, then it can be known the calculated t value = $3,605$. From these results it was found that the t count value is $3.605 > t$ table 1.661 (t table = $n-k = 100-4 = 96$ at a significant 0.05). So it can be concluded that perceived usefulness had a significant effect on interest through trust. These results are reinforced by research conducted by Kharismawan & Widyanto (2016) which states that perceived usefulness has a positive effect on interest in transactions through trust as an intervening variable.

f. The Effect of Ease of Use on Interest in Using BSI Mobile Services through Trust as Intervening Variable

Based on the table 9 above, it can be seen whether the indirect effect shown by the multiplication coefficient ($p2 \times p3$) = $0,089628$ is significant or not, then it is tested with the sobel test. After being tested using the formula that has been listed above, the value of $Sp2p3$ = $0,040723282$. In accordance with the results of $Sp2p3$, then it can be known the calculated t value = $2,501$. From these results it was found that the t count value is $2,501 > t$ table $1,661$. So it can be concluded that ease of use had a significant effect on interest through trust. These results are supported by the results of research conducted by Tolabi (2021) which states that perceptions of convenience affect interest in using mobile banking through trust.

g. The Effect of Security on Interest in Using BSI Mobile Services through Trust as Intervening Variable

Based on the table 9 above, it can be seen whether the indirect effect shown by the multiplication coefficient ($p2 \times p3$) = $0,163548$ is significant or not, then it is tested with the sobel test. After being tested using the formula that has been listed above, the value of $Sp2p3$ = $0,0669261451$. In accordance with the results of $Sp2p3$, then it can be known the calculated t value = $3,306$. From these results it was found that the t count value is $3,306 > t$ table $1,661$. So it can be concluded that security had a significant effect on interest through trust. This research is reinforced by the results of research conducted by Shodiqin (2021) which states that trust as an intervening variable has a positive and significant effect on security on customers' interest in using mobile banking services.

5. Conclusion and Suggestion

5.1. Conclusion

- a. The result of the analysis showed that perceived usefulness had a significant effect on interest in using BSI Mobile services, as can be seen from the value of α ($0,007 < 0,05$) and the value of t count $2,778 > t$ table 1,988.
- b. The result of the analysis showed that ease of use had no effect on interest in using BSI Mobile services, as can be seen from the value of α ($0,718 > 0,05$) and the value of t count $0,362 < t$ table 1,988.
- c. The result of the analysis showed that security had a significant effect on interest in using BSI Mobile services, as can be seen from the value of α ($0,007 < 0,05$) and the value of t count $2,781 > t$ table 1,988.
- d. The result of the analysis showed that trust had a significant effect on interest in using BSI Mobile services, as can be seen from the value of α ($0,000 < 0,05$) and the value of t count $4,707 > t$ table 1,988.
- e. The result of the analysis showed that perceived usefulness had a significant effect on interest in using BSI Mobile services through trust as intervening variable, as can be seen from the value of t count $3,605 > t$ table 1,661.
- f. The result of the analysis showed that ease of use had a significant effect on interest in using BSI Mobile services through trust as intervening variable, as can be seen from the value of t count $2,501 > t$ table 1,661.
- g. The result of the analysis showed that security had a significant effect on interest in using BSI Mobile services through trust as intervening variable, as can be seen from the value of t count $3,306 > t$ table 1,661.

5.2. Suggestion

- a. For Bank Syariah Indonesia (BSI) as a provider of BSI Mobile services, this research can be used as material for evaluation and input in order to improve the quality of BSI Mobile services
- b. In further research, other independent variables can be added so that this research can be more extensive, such as feature availability, risk perception, quality, customer knowledge, or others. And it is expected to take more respondents when conducting research on matters that may influence customer interest in using BSI Mobile.

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