

Perceived Ease of Use, Perceived Usefulness and Perceived Trust on Behavior Intention to Use Mobile Banking

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Abstract

This study was conducted to determine the influence of Perceived Ease of Use, Perceived Usefulness, and Trust on the Intention to use m-banking technology among BRI bank customers, using the Technology Acceptance Model (TAM) developed by Davis in 1989. This study employs a quantitative method, focusing on a population of mobile banking users at BRI Bank in Kendari City. The sample was obtained using a sampling technique, where a questionnaire was distributed to 100 respondents. The data analysis technique uses Smart PLS. The results of the study show that Perceived Ease of Use, Perceived Usefulness, and Trust significantly influence the Behavior Intention to Use Mobile Banking, with a path coefficient that has a substantial impact on interest in using Mobile Banking at Bank BRI in Kendari City.

Keywords: *Behavior Intention to Use; Mobile Banking; Technology Acceptance Models.*

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INTRODUCTION

Currently, technological developments are increasingly evolving as supporting facilities used by humans in carrying out various activities. Currently, technology is an integral part of people's lives, giving rise to the concept of a digital society. The use of devices such as gadgets, smartphones, and browsers has now become a common vocabulary in society. This has encouraged other aspects to grow and develop, such as digital transactions and businesses. Currently, Indonesia is one of the countries with the highest internet usage, as evidenced by its high growth in internet usage (Rahma et al., 2022). The role of information technology in the banking world, especially in Indonesia, is essential and challenging to separate. Information technology is a crucial support system in the banking sector, as its role essentially drives the sector's advancement.

Advances in banking services are parallel to internet technology (online). Customers can conduct banking transactions online using communication tools such as computers, mobile phones, and landline phones from home, work, or other locations outside the actual bank. Automated Teller Machines (ATMs) and electronic banking (e-banking) are examples of online banking services. Currently, the banking business provides information technology (IT)-based services, one of which is the use of Mobile Banking (M-banking), to meet the

expectations of technological advancement. The evolution of mobile technology applied in the business world is known as mobile banking (Joni et al., 2022).

Mobile Banking (also known as M-Banking, SMS Banking, and similar services) is a service that enables users to perform balance checks, financial transactions, and payments using mobile devices. Mobile banking is currently mostly provided via SMS or mobile internet. Mobile banking services offer products such as SMS Banking, Mobile phone banking, and more. Mobile banking services are a modification of internet banking services that enable banks to connect with their customers remotely through an internet network (Fitria et al., 2021).

Mobile banking was first introduced by Excelcom at the end of 1995, receiving mixed responses. Mobile banking, commonly referred to as M-Banking, is a banking service provided by banks to support the smooth and easy conduct of banking activities. Mobile banking offers numerous advantages and benefits, enabling bank customers to conduct transactions at any time and from anywhere. The company has 15.46 million internet banking users and 24.21 million mobile banking users (Financial Services Authority, 2019). However, most bank customers still do not utilize this service, and many prefer to use ATMs or visit bank branches rather than mobile banking applications to conduct transactions or check their bank balances, even though this takes more time and effort. This fact is closely related to the level of customer acceptance of mobile banking applications (Wu & Peng, 2024).

The level of customer acceptance of mobile banking applications is thought to be influenced by various factors. Previous studies have noted that perceived ease of use and perceived usefulness influence customers' interest in using Mobile Banking. Perceived Ease of Use (PEU) is defined as the extent to which a person believes using a technology will be easy (Le et al., 2022). According to this concept, perceived usefulness is a perspective on the selection process. A person will use an information system if they think it is easy to use. Meanwhile, perceived usefulness refers to the subjective likelihood that potential users will utilize a particular application to enhance their work performance (Mokha & Kumar, 2021). This facilitated performance can result in better benefits, both physical and non-physical, such as faster results and more satisfying outcomes compared to not using the new technology product (Safari & Riyanti, 2023).

The model for this study is based on the Technology Acceptance Model (TAM) introduced by Davis (1989) to explain the factors influencing individuals' interest in using mobile banking. TAM aims to provide a parsimonious explanation of the determinants of users' adoption of information technology behavior, specifically about the acceptance of information technology itself (Davis, 1989). Previous research conducted by Kusumaningtyas & Wardani (2022) also suggests that ease of use and usefulness influence attitudes toward mobile banking use. Research conducted by Andini & Indrarini (2024) states that trust in mobile banking has a significant positive effect on interest in using mobile banking. In essence, trust in the use of technology remains low due to the prevalence of criminal acts in digital banking, commonly referred to as cybercrime. The most prevalent cybercrime today is mobile banking fraud. Based on previous studies, the researchers conducted a study located in Kendari City that focused on m-banking users at Bank BRI, one of the national banks with a large number of users. This study was conducted to examine the influence of

perceived ease of use (X1), perceived usefulness (X2), and perceived trust (X3) on customers' behavioral intention to use (Y) BRI m-banking in their daily transactions.

METHODOLOGY

This study uses a quantitative research approach. This type of research involves collecting data directly from the population to identify relationships between variables (Sugiyono, 2008), as well as distributing questionnaires using Google Forms. Independent Variables (X). Independent variables are variables that influence or cause changes or the emergence of dependent variables. The independent variables in this study are perceived ease of use (X1), perceived usefulness (X2), and perceived trust (X3).

The first independent variable in this study is perceived ease of use (X1), measured using a questionnaire with an interval scale. According to Joni et al. (2022), perceived ease of use is defined as the extent to which someone believes that using a technology will be effortless. They also explain that several factors influence the perception of ease of use, including feeling at ease when using technology to perform desired activities and being able to interact with Mobile Commerce technology without requiring much effort. The second independent variable in this study is the perception of usefulness (X2), which is measured using a questionnaire with an interval scale. According to Meileny & Wijaksana (2020), perceived usefulness is defined as the perception of usefulness, which measures the extent to which the use of a technology is believed to bring benefits to the person using it. Perceived usefulness is defined as the extent to which a person believes that using a particular system will improve their performance (Davis, 1985). The third independent variable in this study is perceived trust (X3), measured using a questionnaire with an interval scale. Trust is described as a cognitive action, such as an opinion or prediction that something will happen or that people will behave in a certain way; it is also affective, involving feelings, or conative, encompassing choices or desires (Andini & Indrarini, 2024). There is a physical separation in mobile banking services, where customers and bank staff cannot interact physically, creating a unique situation. Therefore, consumer trust is crucial for banks (Rahma et al., 2022).

The dependent variable in this study is the intention to use (Y), which is measured using a questionnaire with an interval scale. According to Bakhtiar et al. (2022), interest is one of the psychological aspects of humans that can encourage them to achieve goals. A person will be interested in using something if they consider it valuable and satisfying for their own needs. Interest means a strong tendency or desire for something. The term 'interest' is a trinity of personality aspects to describe the will, force that arises from within an individual to choose other similar objects.

Population is a generalization area consisting of objects or subjects that possess certain qualities and characteristics, as determined by the researcher, to be studied, and then conclusions are drawn (Sugiyono, 2010). The population in this study is all customers of Bank BRI in Kendari City. The study used 100 respondents, and the sample size was determined using the Slovin formula. The Slovin formula is one of the most popular sampling theories for quantitative research, typically used to determine the number of samples that must be representative so that the research results can be generalized and the calculations do not require a sample size table (Husen, 2023). This study uses primary and secondary data. Primary data is the main data in this study, obtained directly from respondents through the distribution of questionnaires to BRI bank customers who use m-

banking. Secondary data refers to information that has been collected and published by other parties, allowing it to be reused for specific purposes without the need to collect new data. The secondary data in this study were obtained from relevant previous research journals and articles, as well as other supporting sources.

Data analysis techniques

- **Validity Test.** A validity test is conducted to ensure that each item in the questionnaire accurately measures all variables studied in this research. The validation process can be carried out through expert judgment or preliminary testing to determine whether the questions in the questionnaire are relevant and suitable for the study's purpose. The method used is Corrected Item-Total Correlation with the assistance of SPSS. If the *r* hitung value is less than the *r* table value, then the item number is invalid. Conversely, if the *r* hitung value is greater than *r* tabel and the value is positive, then the item, question, or indicator is declared valid and can be used for further analysis.
- **Reliability Test.** For reliability testing in this study, Cronbach's Alpha was used to measure the internal consistency of the questionnaire. If the Cronbach's Alpha result is greater than 0.7, the instrument can be considered reliable, meaning that respondents provided consistent responses to the statements in the questionnaire. Two methods can be used to test reliability in PLS, namely Cronbach's alpha. Cronbach's alpha measures the lower limit of the reliability value of a construct and is considered reliable if the value is > 0.6 . The decision is based on whether the Alpha value exceeds 0.6, in which case the variable question is reliable, or if the Alpha value is less than 0.6, in which case the variable question is not reliable.
- **Classical Assumption Test.** The classical assumption tests in this study include normality tests, multicollinearity tests, and heteroscedasticity tests.

RESULTS AND DISCUSSION

Table 1. Validity Test

Variable	Indicator	R calculated	Information
Perceived Ease of Use	X1.1	0.662	Valid
	X1.2	0.656	Valid
	X1.3	0.754	Valid
	X1.4	0.652	Valid
	X1.5	0.658	Valid
	X1.6	0.660	Valid
Perceived Usefulness	X2.1	0.515	Valid
	X2.2	0.500	Valid
	X2.3	0.702	Valid
	X2.4	0.592	Valid
Trust	X3.1	0.594	Valid
	X3.2	0.686	Valid
	X3.3	0.692	Valid
	X3.4	0.505	Valid
Behavior Intention to Use	Y1.1	0.655	Valid

Source: Primary Data Analysis (2024)

From Table 1, it can be seen that the correlation coefficient of all questions has a calculated *r* greater than 0.195. Thus, it can be concluded that all items are valid. This means that all questions in the research instrument can be considered suitable as instruments for measuring research data.

Based on the summary of the reliability test results, as presented in Table 2, it can be seen that the Cronbach's Alpha value for each variable is greater than 0.6. Thus, all research variables are reliable. Therefore, the research variables can be used for further investigation.

Table 2. Reliability Test

Variable	Cronbach Alpha	Minimum	Info
Perceived ease	0.871	0.6	Reliable
Perceived usefulness	0.771	0.6	Reliable
Perception of trust	0.802	0.6	Reliable
Intended Use	0.852	0.6	Reliable

Source: Primary Data Analysis (2024)

Table 3. Descriptive Analysis

Variable	N	Minimum	Maximum	Mean	Std. Dev.
X1	100	2.17	4.00	3.3152	.44218
X2	100	2.00	4.00	3.4425	.41569
X3	100	2.00	4.00	3.3200	.44761
Y	100	2.00	4.00	3.3764	.50309

Source: Primary Data Analysis (2024)

Table 4. Normality Test with Kolmogorov Smirnov

		Unstandardized Residual
N		100
Normal Parameters	Mean	.000000
	Std. Deviation	.28849048
Most Extreme Differences	Absolute	.109
	Positive	.109
	Negative	-.057
Kolmogorov-Smirnov Z		1.089
Asymp. Sig. (2-tailed)		.187

Source: Primary Data Analysis (2024)

The normality test results show that the residuals of the regression analysis have an asymptotic significance of 0.187, which is greater than 0.05, indicating that the data is usually distributed.

Table 5. Multicollinearity Test

Model	Collinearity Statistics	
	Tolerance	VIF
Perceived Ease	0.342	2.921
Perceived Usefulness	0.453	2.208
Perception of Trust	0.537	1.861

Source: Primary Data Analysis (2024)

Table 5 shows that all independent variables have a VIF less than 10 and tolerance values greater than 0.10.

Table 6. Heteroscedasticity Test

Model	T	Sig.
Perceived Ease	-0.789	0.432
Perceived Usefulness	1.647	0.103
Perception of Trust	-1.143	0.256

Source: Primary Data Analysis (2024)

Based on Table 6, it can be seen that the p-value of each independent variable is greater than 0.05. Thus, it can be concluded that the regression model proposed in this study does not exhibit heteroscedasticity.

Based on Table 7, the regression model obtained is as follows:

$$Y = -0.260 + 0.399X_1 + 0.179X_2 + 0.167X_3 + e$$

Table 7. Regression Test Results

Relationship between variables	Regression Coefficient Standards (BETA)	T Calculated	Sig-t
Constants	-0.260	-0.948	0.345
Perceived ease with intention to use	0.399	3.968	0.000
Perceived usefulness with interest in use	0.179	2.053	0.043
Perception of trust with interest in use	0.167	2.083	0.040

Source: Primary Data Analysis (2024)

Discussion

Perceived ease has a positive effect on interest in using mobile banking.

The results of the regression analysis show that the regression coefficient weight between the perception of ease of use and interest in using mobile banking is 0.000 with a p-value of 0.000 ($0.000 < 0.05$). Perceived ease of use is defined as the extent to which a customer believes that using a technology, such as mobile banking, is easy for users to apply. This indicates a positive and significant relationship between perceived ease of use and the intention to use mobile banking, supporting H1. Specifically, the higher the level of ease, the greater the customer's interest in using mobile banking. These results align with previous studies conducted by Kusumaningtyas & Wardani (2022) and Fitria et al. (2021), which showed that the Cronbach's alpha values for the research variables, specifically the perception of ease of use, were greater than or equal to 0.60. Therefore, their studies concluded that the perception of ease of use has a positive and significant influence on the intention to use mobile banking.

Perceived usefulness has a positive effect on interest in using mobile banking.

The results of the regression analysis indicate that the regression coefficient weight between perceived usefulness and interest in using mobile banking is 0.043 with a p-value of 0.043 ($0.043 < 0.05$). This indicates a positive and significant influence of perceived usefulness on the intention to use mobile banking, supporting H2, meaning that as the level of perceived usefulness increases, customers' interest in using mobile banking also increases. These results align with the research conducted by Safari & Riyanti (2023) and Ismail & Purwani (2021), which showed that Perceived Usefulness influences the intention to use Mobile Banking with a path coefficient of 0.230, a t-statistic value of $2.371 > 1.96$, and a p-value of $0.000 < 0.05$. Thus, their study concluded that the construct of perceived usefulness has a positive and significant influence on the intention to use mobile banking.

Perceived trust has a positive effect on interest in using mobile banking.

The results of the regression analysis show that the regression coefficient weight between trust perception and interest in using mobile banking is 0.040 with a p-value of 0.040 ($0.040 < 0.05$). This indicates a positive and significant influence of perceived trust on the intention to use mobile banking, meaning that H3 is supported, i.e., the higher the level of trust, the greater the customers' interest in using mobile banking. These results align with the findings of Putra & Sari (2020) and Rozi & Ziyad (2019), who stated that perceived trust has a positive and significant influence on the intention to use mobile banking.

CONCLUSION

Based on the research conducted, it can be concluded that there is a positive and significant relationship between perceived ease of use and interest in using the system. This means that the better customers' perception of the ease of use of mobile banking, the greater their interest in using it will be. There is a positive and significant relationship between perceived usefulness and usage interest. This means that the better customers' perception of the usefulness of mobile banking, the higher their interest in using it will be. There is a positive and significant relationship between perceived trust and interest in usage. This means that the better customers' perception of the trustworthiness of mobile banking, the higher their interest in using it will be.

The limitations of this study are related to the small sample size, as the respondents were only from Kendari City, and only two types of variables were used. Therefore, further research can be conducted using a larger population from other regions outside Kendari City and by adding other variables, such as moderating and mediating variables, to strengthen the results of this study.

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