The Influence of Technology Accepted Model (TAM), Social Influence and Trust on Interest in Using Islamic M-Banking

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ABSTRACT

This study aims to determine the effect of Technology Accepted Model (TAM), Social Influence and Trust on Interest in Using Sharia M-Banking. The variables studied are "TAM, Social Influence and Trust on Interest in Using" as the object of the variable and "use of Sharia M-Banking domiciled in East Jakarta DKJ" as the object of observation. Primary data were collected from the results of collecting respondents' answers through the Google Forms questionnaire and supplemented with previous research and other literature. The results of the study showed that after being calculated using the assistance of Microsoft Excel and SmartPLS 3.0 programs, the technology accepted model (TAM) variable had a significant effect on interest in using Sharia M-Banking, the social influence variable had a significant effect on interest in using Sharia M-Banking, and the trust variable had a significant effect on interest in using Sharia M-Banking.
Keyword: *TAM (Perceived Ease of Use, Perceived Usefulness), Social Influence, Trust and Interest in Using*

INTRODUCTION

The high interest of the Indonesian people in electronic banking services, especially the use of Mobile Banking (M-Banking) is listed in banks including Bank BCA, Bank BNI, Bank Mandiri, and Bank BTN which have entered the list of the top 100 Indonesian websites on Alexa.com (Joni et al. 2022). Mobile phones are currently considered the right means to conduct financial transactions, thanks to their convenience, interactivity, and flexibility of use anytime and anywhere. Currently, bank customers have the ability to run banking services in seconds from any location. M-banking can be interpreted as the provision and accessibility of banking transactions and services through the help of mobile communications (Tiwari & Tiwari, 2020).

The emergence of the internet and other information and communication technologies has drastically changed people's lifestyles, especially in the mobile sector which continues to grow rapidly. According to the Indonesian Internet Service Providers Association (APJII), the total population of 278,696,200 people in 2023, there will be 221,563,479 internet users in Indonesia in 2024. According to the results of the 2024 APJII Indonesia internet penetration rate study, the internet penetration rate in this country is 79.5%, up 1.4% from the previous year. The application of digital technology in the banking sector has become an unavoidable necessity. Currently, customers are more likely to make transactions through technology than to meet officers directly. This is triggered by changes in people's behavior who are reluctant to visit banks because of problems such as traffic jams and other disturbances (Osly Usman & Yuyun Sulistyowati, 2019).

Figure 1. Use of Digital Banking Services in Indonesia

Source: Databooks Website

According to Bank Indonesia (BI) in April 2023, digital banking transactions in Indonesia are estimated to reach IDR 4,264.8 trillion or almost IDR 4.3 billion. This figure includes various types of digital banking transactions, especially those involving

online banking, text messaging, and mobile banking, which vary according to the Financial Services Authority (OJK) classification. The value of digital banking transactions in Indonesia fell by 20.1% in April 2022 and 11.8% in April 2023 compared to March 2023 (monthly). On the other hand, looking back five years earlier, the value of digital banking transactions nationally rose by 158% in April 2023 compared to April 2018.

The Islamic banking industry has experienced significant growth in recent years, especially in Indonesia. The government supports this progress by implementing laws related to Islamic banking, which are expected to drive national economic growth. Islamic banking is a financial institution based on sharia principles, and needs to be able to adapt to changing market dynamics. Bouwman et al. (2019) stated that the banking business model and infrastructure must be based on digitalization. If Islamic banks are unable to adapt to fintech developments, they risk losing customers in the long term. Therefore, Islamic banks need to take strategic steps to maintain the sustainability of their operations (Reza Pahlevi et al. 2023).

TEORETICAL

Tecnology Accepted Model (TAM)

TAM is a theoretical framework that is generally used to help understand how users accept technology, including in the context of understanding the acceptance and use of mobile money services. This model has been applied to test the adoption of various technologies, including mobile money services (Afful Ekow Kelly & Sellapan Palaniappan, 2023). According to research in the information systems literature, TAM is one of the best models for estimating user adoption and usage patterns. PU & PEOU are two different opinions that are taken into account by the model when determining user willingness to use a technology (Abdennebi, 2023). Davis first developed the technology acceptance model (TAM) to provide an explanation of the determinants of technology acceptance. In general, this concept can explain user behavior across a variety of technological systems and user populations that are based on theory (Davis, 1993). TAM is based on two basic concepts: perceived usefulness and perceived ease of use (Reza Pahlevi, 2023).

1. *Perceived Ease to Use*

   Gunawan et al. (2019) stated that perceived ease of use describes a state or someone feels when using a particular system without any effort at all (without effort). According to Davis (1989), PEOU is a person's belief that using new technology will not be difficult. This aspect significantly influences how people intend to adopt information technology in their behavior (Ramli et al. 2021).
2. *Perceived Usefulness*

Rekarti and Hertina (2014) explain that a person's perception of the usefulness of a technology is based on their perception that using the technology will grow their abilities. According to one meaning, PU is an evaluation of how much people believe that using technology is beneficial to them.

Social Influence

Social, also known as social norms, can be interpreted as individuals who consider that they need to adopt a new system. This can influence a person's belief that using a system can improve their image or status in their social environment. Furthermore, social influence aims to influence individuals who may be considering adopting behaviors that are accepted and chosen by others or their peers (Booranapim et al. 2021).

Trust

Trust is "the willingness of consumers to rely on and be open to the actions of certain parties in a particular process, with the expectation that the other party will adopt acceptable practices and be able to provide products and services according to their promises." A person's descriptive opinion about something is called trust. Trust may or may not evoke feelings and may be based on certain facts, perspectives, or beliefs (Ramli et al. 2021).

Intention to Use

Interest means "a strong desire for something" in common Indonesian vocabulary. When someone is interested in something, they pay attention to it and feel the need or desire to know more.. (Ramayulis, 2001: 84).

Rekarti and Hertina (2014) explain that interest in use is an intention that is often interpreted as a strong desire to help. If someone knows about an online site, they may want to take action related to the site, which will be enjoyable.
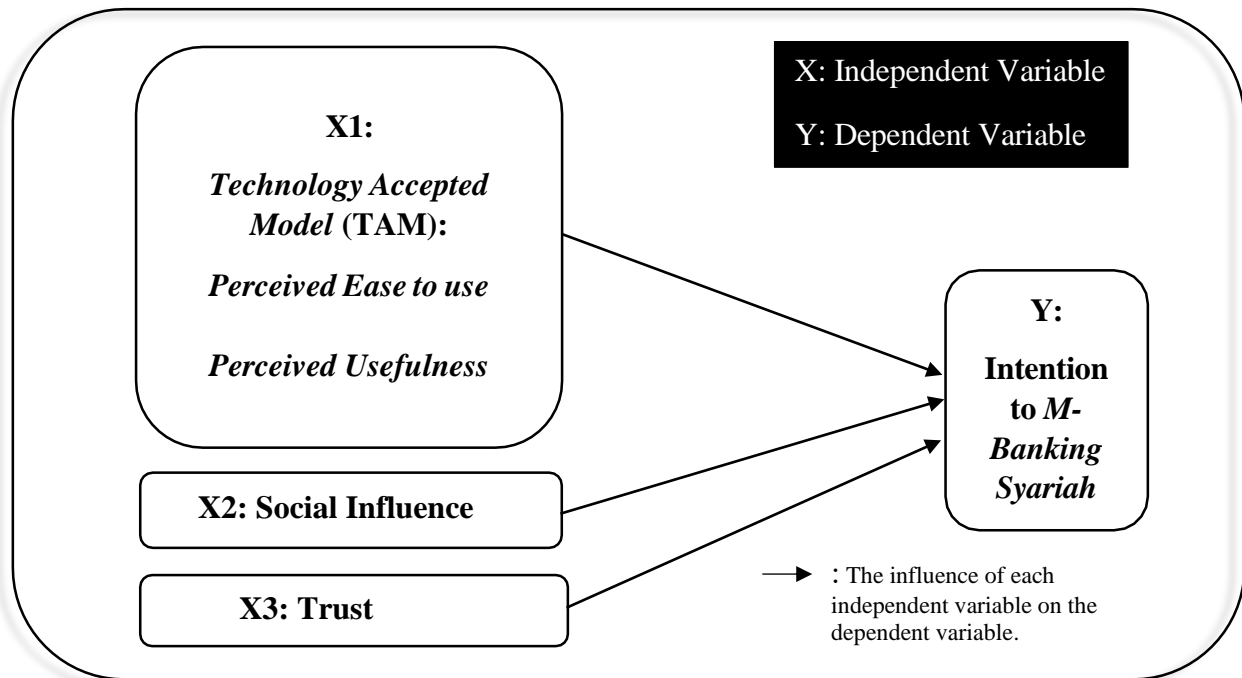
Figure 2. Framework
Source: processed by the author

RESEARCH METHODS

The purpose of the study is to obtain accurate and reliable news about the impact of TAM, Social Influence, and Trust on Interest in Using Islamic M-Banking. This study uses a quantitative approach, which is a type of research that uses several numbers in the entire process of data collection and analysis. This study uses Microsoft Excel to organize the data collected for this study and save the data as comma-separated values (CSV), which are then analyzed using SmartPLS from the structural equation model (SEM).

Population and Sample

The term "population" describes the entire group or set of items that have certain characteristics and become the subject of research. Population can be people, objects, events, or other components that are the focus of research. A total of 250 respondents who routinely use Syariah M-Banking in the East Jakarta DKJ area became the research population.

A small portion of the population is selected as a sample to reflect the entire population. The method used is purposive sampling with non-probability sampling. Purposive sampling is the process of selecting samples based on certain characteristics or qualities that match the features or attributes of a previously determined population. (Sugiarto, 2022). The researcher chose this technique because he wanted to obtain

samples that met the standards required for research purposes. The qualifications required are:

1. People living in the East Jakarta DKJ area

2. Aged 23-50 years

3. Actively using the Syariah M-Banking application

Place and time of research

This research location was conducted online by distributing questionnaires via Google Form in the East Jakarta DKJ area for people who actively use the Syariah M-Banking application. The research period is estimated to be carried out for approximately 1 (one) month, starting from May - June 2024.

Data Processing and Analysis Techniques

In this technique must consider the ideas collected in the framework and contain the necessary data. This study uses primary data as its type of data. The primary data used is data collected directly from respondents by sending questionnaires to them.

Data Analysis Methods

This study uses Structural Equation Modeling (SEM), which focuses on variance-based methods, especially Partial Least Square (PLS). PLS is the main analysis tool, and the SmartPLS 3.0 application is used to conduct this analysis. This explanatory research aims to test the hypothesis about the relationship or influence between variables X and Y by conducting in-depth data analysis. This study found three (three) exogenous structures and one (one) endogenous structure. The independent variables (X) include perceived ease, perceived usefulness, community influence, and trust. Exogenous constructs cannot be predicted by other constructs in the model. The tendency to utilize mobile banking services is the dependent variable (Y) on the other hand, the endogenous structure is a structure that is predicted by one or more exogenous structures and can only be causally associated with the endogenous structure.

1. Outer Model Testing

  a. Validity Test
   - *Convergent Validity*
   - *Discriminant Validity*

  b. Reliability Test

   - *Composite Reliability*

2. Inner Model Testing

a. R Square

b. Path Coefficients

c. Goodness of Fit (GoF)

Hypothesis Testing

Hypothesis testing is carried out after the completion of the reliability test, convergent validity, and discriminant validity. In this case, the value of the internal model or path coefficient functions as a measure of the level of significance in hypothesis testing and the Bootstrapping method is used to carry out the significance test, as explained by Hudin & Riana (2016).

According to Latan & Ghozali, when testing the hypothesis, With $\alpha = 0.05$, the T statistic value is considered significant at the 95% level. The T value of the 95% significance table is 1.96. The T statistic value determines whether the hypothesis is accepted or rejected; if the value is greater than 1.96, the hypothesis is accepted; if less than 1.96, the hypothesis is rejected (Perdana et al. 2018). Verification of the P-Value is another method for conducting hypothesis testing. If the exogenous variable has a significant effect and the P-Value is less than 0.05, then Ha is accepted and H0 is rejected. In the same context, Ha is rejected and H0 is accepted if the P-Value is greater than 0.05, indicating that the exogenous variable has no significant impact.

Results and Discussion

1. Outer Model Testing

a. Validity Test
   - Convergent Validity

The measurement of the correlation between constructs and latent variables is used to evaluate convergent validity. The optimum standardized factor loading value of more than 0.70 indicates the validity of the conceptual measure of the indicator. Figures below 0.5 will be removed from the model, but standardized factor loading values above 0.5 are still acceptable (Khotimah, 2018). The validity test is not only seen from the factor loading value but also from the AVE value which indicates the validity of the test if it is more than 0.5.

Table 2. Outer Loadings

	TAM (X1)	PS(X2)	KP(X3)	MM (Y)
KP1			0.825	

KP2			0.870	
KP3			0.846	
KP4			0.801	
M2				0.828
M3				0.797
M4				0.828
M5				0.807
PK3	0.717			
PK4	0.746			
PK6	0.767			
PKG1	0.739			
PKG3	0.752			
PKG4	0.791			
PKG6	0.747			
PS1		0.847		
PS2		0.781		
PS3		0.804		

Source: processed by the author with SmartPLS 3.0

It can be seen from the following table results that all indicators are above 0.70 (green), which allows for further testing.

Validity testing is not only seen from the factor loading value but also from the AVE value which indicates the validity of the test if it is more than 0.5.

Table 3. Value Averance Variant Extracted

Variable	AVE
TAM (X1)	0.565
Social Influence(X2)	0.658
Trust (X3)	0.699
Interest to use (Y)	0.664

Source: processed by the author with SmartPLS 3.0

It can be seen from the table above that all variables have an AVE value of more than 0.5 (green), which allows for continued testing with additional variables.

- *Discriminant Validity*

By comparing the root mean square of the variance extracted (AVE) of each construct with the correlation it has with other constructs in the model, also

known as the Fornell and Larcker test, one can evaluate the discriminant validity of the model (Pardomuan & Ade, 2022).

Table 4. Fornell Lacrker

Variabel	Trust	Interest to use	Social Influence	TAM
Trust	0.836			
Interest to use	0.703	0.815		
Social Influence	0.575	0.632	0.811	
TAM	0.655	0.774	0.584	0.752

Source: processed by the author with SmartPLS 3.0

It can be seen from the table data above that the correlation between latent variables (values below the main diagonal) is smaller than the initial AVE value (values above the main diagonal).

b. Reliability Test

• *Composite Reliability*

According to Sholihin and Ratmono, reliability can be assessed using the latent variable coefficient value. Reliability criteria can be seen in two aspects, namely composite reliability and Cronbach's alpha coefficient. Both must be greater than 0.70 to meet the standard (Khotimah, 2018).

Table 5. Composite Reliability and Cronbach's Alpha

Variable	Cronbach's Alpha	Composite Reliability
TAM	0.872	0.901
Social Influence	0.741	0.852
Trust	0.856	0.903
Intention to use	0.832	0.888

Source: processed by the author with SmartPLS 3.0

From the following data it is clear that each construct has a Cronbach's alpha coefficient and a composite reliability value of more than 0.70. This indicates that there is a strong dependence on the project.

2. Inner Model Testing

a. R Square

One of the coefficients that forms the endogenous structure is the R-squared value. The R-squared value is often classified as strong (0.67, 0.33, and 0.19), with 0.19 considered weak. The level of influence of the predictor variable on the affected variable is expressed as the coefficient of determination (adjusted by R-squared). One way to assess the significance of the influence of the independent latent variable on the dependent latent variable is to look at the change in the R-squared value.

Table 6. R Square

Variable	R Square
Interest to use	0.688

Source: processed by the author with SmartPLS 3.0

The results show the R Square value of 0.688, which indicates that the results are considered strong.

b. Path Coefficients

Path coefficients are useful statistical tools for indicating the direction of the relationship between variables, regardless of whether the expected direction is positive or negative. The path coefficient value is between -1 and 1, while the negative coefficient value is between -1 and 0 (Ghozali, 2016)

Table 7. Path Coefficients

Variable	Trust	Interest to use	Social Influence	TAM
Trust		0.278		
Interest to use				
Social Influence		0.192		
TAM		0.480		

Source: processed by the author with SmartPLS 3.0

From the results of the table above, it can be seen that the trust variable on the interest variable has a value of 0.278, the social influence variable on the interest variable has a value of 0.192, and the TAM variable on the interest variable has a value of 0.480. Therefore, the direction of each relationship between the trust variable, social influence and TAM on the interest variable is positive.

c. Goodness of Fit (GoF)

The total structural model is evaluated using the goodness of fit (GoF) metric. A specific metric that evaluates the combined performance of the measurement model

and the structural model is the GoF index. The square root of the product of the average R2 value of the model and the similarity index produces the GoF value. The GoF number has three interpretations: 0.1 for a small GoF, 0.25 for a medium GoF, and 0.36 for a large GoF. The range is from 0 to 1 (Edalmen & Ngadimin, 2020).

Table 8. Gof (R Square)

Variable	R Square	R Square Adjusted
Interest to use	0.688	0.684

Source: processed by the author with SmartPLS 3.0

The results of the table above show that the influence of exogenous variables on endogenous variables simultaneously falls into the moderate category, namely 0.688.

Hypothesis Testing

Hypothesis testing is carried out after the completion of the reliability test, convergent validity, and discriminant validity. In this case, the value of the internal model or path coefficient functions as a measure of the level of significance in hypothesis testing and the Bootstrapping method is used to carry out the significance test, as explained by Hudin & Riana (2016).

According to Latan & Ghozali, when testing the hypothesis, With α = 0.05, the T statistic value is considered significant at the 95% level. The T value of the 95% significance table is 1.96. The T statistic value determines whether the hypothesis is accepted or rejected; if the value is greater than 1.96, the hypothesis is accepted; if less than 1.96, the hypothesis is rejected (Perdana et al. 2018). Verification of the P-Value is another method for conducting hypothesis testing. If the exogenous variable has a significant effect and the P-Value is less than 0.05, then Ha is accepted and H0 is rejected. In the same context, Ha is rejected and H0 is accepted if the P-Value is greater than 0.05, indicating that the exogenous variable has no significant impact.

Table 9. T Statistic and P-Value

Variable	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
TAM -> Interest to use	0.480	0.476	0.065	7.367	**0.000**

Social influence -> Interest to use	*0.192*	*0.194*	*0.058*	*3.290*	***0.001***
Trust -> Interest to use	*0.278*	*0.280*	*0.064*	*4.334*	***0.000***

Source: processed by the author with SmartPLS 3.0

Based on the image above, if the T-statistics value is > 1.96 and the P-Value < 0.05, it can be concluded that:

1. *The T-statistic value for the TAM variable is 7,367 > from 1.96 and the P-Value value is 0.000 < from 0.5, it can be concluded that the TAM variable has a significant influence on the variable of interest so that H_1 is accepted and H0_1 is rejected.*
2. *The T-statistic value of the social influence variable is 3,290 > from 1.96 and the P-value is 0.001 < from 0.5, concluding that the social influence variable has a significant influence on the variable of interest so that H_2 is accepted and H0_2 is rejected.*
3. *The T statistic value for the trust variable is 4.334 > 1.96, and the P value is 0.000 < 0.5, concluding that the trust variable has a significant influence on the variable of interest so that H_3 is accepted and H0_3 is rejected.*

5. Conclusion

It can be concluded as follows based on the research findings and discussions in the previous chapter:

1. *TAM has a positive and significant influence on the interest variable. This means that if the TAM variable is increased by 1 point, then the public's interest in using the Sharia M-Banking application will increase by 0.480 percent, so that H_1 is accepted and H0_1 is rejected.*
2. *Social influence has a positive and significant influence on the interest variable by using this, meaning that if there is an increase in the social influence variable by 1 point, it will result in an increase in public interest in using the Sharia M-Banking application by 0.192 percent. so that H_2 is accepted and H0_2 is rejected.*
3. *Trust has a positive and significant influence on the interest variable by using this, meaning that if there is an increase in the trust variable by 1 point, it will result in an increase in public interest in using the Sharia M-Banking application by 0.278 percent. so that H_3 is accepted and H0_3 is rejected.*

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