



## Implementation of *Technology Acceptance Model (TAM)*: Case Study on Generation Z in North Purwokerto Who Uses the BSI Mobile Application

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### Abstract

*The rapid advancement in technology and information is particularly prominent in the banking sector. This technology is essential in everyday life, especially among Generation Z, who are highly digitally literate and frequent users of digital banking services. Bank Syariah Indonesia has capitalized on this digital opportunity by providing a mobile banking service called BSI Mobile. Comprehending the factors that affect the utilization of mobile banking is vital for the banking sector. To elucidate the adoption of this technology, this research applies the Technology Acceptance Model (TAM). The aim of this study is to assess the extent to which perceived usefulness, perceived ease of use, and attitudes toward technology influence the adoption of BSI mobile banking among Generation Z in North Purwokerto. This research employed purposive sampling to gather a sample, with primary data gathered through online questionnaires distributed via Google Forms to 124 respondents. The research is quantitative, utilizing multiple linear regression analysis with the assistance of SPSS version 25.0 software. The findings indicate that perceived usefulness does not have a significant impact on the use of BSI mobile banking among Generation Z in North Purwokerto. However, the variable for perceived ease of use and attitude toward technology usage positively affects BSI mobile banking usage in this group. Furthermore, the independent variables collectively have a positive and significant impact on the dependent variable, demonstrated by the F-test result where  $F_{count} > F_{table}$  ( $36.946 > 2.68$ ) and a significant value ( $0.00 < 0.05$ ). The  $R^2$  is 48.0%, indicating that 48.0% of the variation in mobile banking usage is elucidated by the three independent variables: 1) perceived usefulness (X1), 2) perceived ease of use (X2), and 3) attitude toward technology usage (X3).*

**Keywords:** *Perceived Usefulness, Perceived Ease of Use, Attitude toward Technology Usage, Mobile Banking Usage, BSI Mobile.*

### Introduction

The swift advancement of information technology provides convenience for humans in various aspects of life, especially through the internet which is now dominant. As the need for digital access increases, internet usage in Indonesia continues to increase significantly every year. According to a survey conducted by

APJII (Indonesian Internet Service Providers Association), the number of internet users in Indonesia during the 2022-2023 period was 215.63 million, representing approximately 78.19% of the total population. It is projected that this number will rise to 221.56 million in 2024, resulting in a penetration rate of 79.5%. (apjii.or.id, 2024). The rapid development of the internet also has an impact on the business world, including the banking sector which is increasingly adopting digital technology in its services. Digital banking transformation is a solution in dealing with changes in people's behavior who prefer the convenience of online transactions.

Digital banking refers to the use of technology in banking services that are more efficient and competitive. This development is marked by the increasingly widespread use of electronic banking, internet banking, and online banking. This trend shows that digital channels are a key factor in building loyalty and growth for financial institutions. Banks in Indonesia are beginning to adapt digital-based services to meet customer needs. One of the banks that is active in digitalization is PT Bank Syariah Indonesia Tbk (BSI), which presents a mobile banking service called BSI Mobile. This application is designed to facilitate banking transactions, such as fund transfers, payments, and account opening online without having to come to a branch office (Fatmawati & Hidayat, 2022).

As a newly formed banking from the merger of several Islamic banks, BSI has shown significant growth in the last three years, especially among the younger generation such as Gen Z and millennials. The number of BSI Mobile users continues to increase, from 3.2 million people in 2021 to 5.18 million people in May 2023. In March 2024, the number of users of this application soared to 6.70 million people with a total transaction volume of 118.5 million times and a transaction volume of IDR 145.1 trillion (BSI, 2024). This development is influenced by changes in people's preferences that rely more on digital technology in transactions. Despite experiencing rapid development, BSI Mobile still faces various technical obstacles. Some users complained about problems such as slow applications, difficulties in face verification, and frequent system glitches. In May 2023, BSI Mobile's services experienced major disruptions due to a cyber attack that caused customers to be unable to transact

through mobile banking, ATMs, or tellers at branch offices. This incident shows the importance of strengthening the digital security system for banks to face increasingly complex cyber threats (Tambunan et al., 2023).

In addition to technical challenges, user reviews on the Play Store also reflect various problems that are still faced by BSI Mobile customers. Some users experience difficulties in login, unresponsive fingerprint recognition, and failed face verification even though the camera is in good condition. This obstacle causes dissatisfaction and wastes customer time in using digital banking services. Therefore, system improvements and feature optimization are important so that BSI Mobile can provide better experience for its users. BSI, as one of the largest Islamic banks in Indonesia, continues to strive to improve its digital services to strengthen its position in the global Islamic banking industry. BSI's success in entering the list of Top 10 Global Islamic Banks in terms of market capitalization shows its competitiveness at the international level. However, this achievement must be balanced with improving service quality to maintain customer trust and expand market share.

In Purwokerto City, BSI has four branch offices that have the potential to develop digital banking services, especially because of the demographics of the population which are dominated by generation Z. Based on BPS 2020 data, generation Z is the largest age group in Indonesia with a proportion of 27.94% of the total population. In North Purwokerto, more than 14,000 people come from this generation, which is known as a group that is adaptive to new technologies. This potential is an opportunity for BSI to increase the adoption of its digital services in the region. The development of digital technology has changed the banking landscape in Indonesia. Digital banking transformation provides various conveniences for customers in online transactions. However, challenges such as system disruptions, cyberattacks, and suboptimal user experience are still obstacles that need to be addressed. By continuing to innovate and improve security, banks in Indonesia, including BSI, can provide digital banking services that are more efficient, secure, and in accordance with customer needs in the digital era.

Based on the above background, this study aims to analyze the influence of various factors on the use of BSI mobile banking in Generation Z in North Purwokerto. Specifically, this study aims to find out whether there is a partial influence between usage preferences on the use of BSI mobile banking, as well as to analyze the partial influence between convenience preferences on the use of BSI mobile banking. In addition, this study also aims to examine the partial influence between the attitude of technology use on the use of BSI mobile banking. Finally, this study will examine the simultaneous influence of usage preferences, convenience, and attitudes in the use of technology on the use of BSI mobile banking in Generation Z in North Purwokerto.

## **Literature Review**

### **Technology Acceptance Model (TAM)**

Technology Acceptance Model (TAM) is a theory developed by Davis (1989), who describes about the variables that refer to intention of consumer to use certain technology. This article explains that the user uses the info-based system, as well as the number of facts that affect the decision of the information system and when to use the info-based system (Hanggoìnò et al., 2022).

### **Usability Preferences**

Usability perception (perceived usefulness) is a state in which an individual believes that the use of a particular technology will improve its performance. According to Wibowo (2008:10-20), the perception of usefulness is the perception of usefulness which is defined as a measure in which the use of a technology is believed to bring benefits to the people who use it (Shomad & Purnomosidhi, 2013).

### **Convenience Preferences**

Perception of convenience is a measure of individual confidence in assessing the extent to which a system/technology can ease the user's efforts (Davis, 1989). Thus, ease of use will reduce the effort required for a person to learn technology (Desvronita, 2021).

## Attitude of Technology Use

Attitude is an evaluation of trust (belief) or positive or negative feelings from individuals when performing certain behaviors. Fishbein and Ajzen (1975) define attitudes (attitude) as the sum of the affection (feelings) that an individual feels to accept or reject an object or behavior and is measured by a procedure that places the individual in the Evaluative Scale which can be opposite (Zia, 2016).

## Use of Mobile Banking

In the Great Indonesian Dictionary, use is defined as a process, a way of making using something, using, according to Wahyuni and Waloejo (2020) in Rinaldi et al., (2020) use is a process of using that refers to something that is consistent. Especially those that focus on daily needs that are done in a wise way and can be done quickly to meet the needs and needs of consumers after going through various stages, including introduction of needs, searching for information and evaluating alternatives after use.

## Generation Z

According to the results of Sensus Penduduk in 2020, it was noted that the majority of the population of Indonesia were dominated by the Generation Z, where this generation was born from 1997 to 2012 (BPS, 2020). This system has a very high level of education, diversity, culture and use of technology (Christiani & Ikasari, 2020). Generation Z is a generation that is born at a time when digital era is very balanced, generation Z is also called "The future digital natives" (McDermott, 2010) or also known as generation which is balanced and very dependent on digital technology. Currently, the market share is making it a Z-type of market target that is very good because it can make its own choices.

There are several studies on what factors encourage the use of BSI Mobile in generation Z including:

Research conducted by Mu'asiroh and Darwanto (2021), "Analysis of the Use of Mobile Banking in the Millennial Generation with the Technology Acceptance Model (TAM) Approach". Explaining the results of this study shows that the variables of usability, convenience, safety, experience and compatibility have a

positive and significant effect on the use of Mobile Banking in the millennial generation.

Fadlan and Dewantara (2019), "The Influence of Perception of Convenience and Perception of Usability on the Use of Mobile Banking". Explaining that there is a significant positive influence between the variables of perception of convenience and perception of usability on the use of mobile banking.

Nugroho & Pudjihardjo (2022). The title "The Influence of Perception of Convenience, Perception of Usability, Availability of Features and Financial Literacy on Consumer Preferences Using BSI Mobile". Explained that there is a significant positive influence between the variables of perception of convenience, availability of features and financial literacy on the preference for using BSI Mobile. Meanwhile, the variable of perceived usability did not have a significant effect on the preference for using BSI Mobile.

Hasyim, et. al. (2023), which is titled "The Decision to Use BSI Mobile is Reviewed from the Convenience, Usefulness and Security of Service Features in the Millennial Generation in the Solo Raya Region". Conclude that there is a significant positive influence between the convenience and benefit variables on the decision to use BSI Mobile. Meanwhile, the security variable showed no significant influence.

Aini et al., (2022) "The Influence of Perception of Convenience and Perception of Islamic Service Features on Customer Decision to Use Mobile Banking Bank Syariah Indonesia Jember Branch". Explaining the results of this study, it shows that there is a significant positive influence between the variables of perception of convenience and features of Islamic services on customers' decisions to use Mobile Banking Bank Syariah Indonesia Jember Branch.

Khoiriyah & Putra (2022), entitled "Analysis of the Influence Path of Transaction Decision Making through BSI Mobile". The results of this study concluded that there was a significant positive influence between trust and interest in using BSI Mobile. However, the safety and convenience variables did not have a significant influence on the decision to use BSI Mobile.

Salmah and Hakim (2021), "Income, Education, Perception of Convenience and Attitude as Mediation for the Decision to Use Sharia Mobile Banking". In his research, he explained that there is a significant influence between the perception of convenience and attitude towards the use of Mobile Banking sharia. Meanwhile, income and education have no effect on the use of Mobile Banking sharia.

Zaki (2022), "Pengaruh Attitude and Persepsi Keefektifan Terhadap Keputusan Penggunaan Mobile Banking di Kota Pariaman". Conclude that there is a positive influence between attitudes and perceptions of convenience on the decision to use the service Mobile Banking in Pariaman City. Wardani (2021), "Factors Influencing the Use of Mobile Banking (Case Study on Government Bank Customers)". Explaining that in his research there is a positive and significant influence between the influence of the positif and the significant influence between the use of the use, the ease of use and the attitude of use in the face of use mobile banking Government Bank.

Atarwaman (2022), "The Influence of Risk Perception, Usability, Trust and Convenience on the Attitude of Mobile Banking Use in Ambon City". Conclude that there is a positive and significant influence of secara positif and significantly between the perception of usability, the perception of trust and the perception of convenience. Mobile Banking. Meanwhile, the perception of risk has no effect on the use of Mobile Banking.

## Research Methods

This study uses a quantitative method, which is a type of research that involves the use of certain populations and samples with analytical instruments that focus on collecting data in the form of numbers. The analysis in this study uses a statistical approach to test the research hypothesis (Sugiyono, 2017). The research was conducted in North Purwokerto District, Banyumas. The research population is Generation Z who use the BSI *Mobile Banking* application in North Purwokerto. Samples were taken using a purposive sampling technique with certain criteria. According to Saunders et al. (2009), purposive sampling is a sample selection

technique based on certain considerations that are considered most appropriate to answer research questions. Because the population of Generation Z is very large, this study establishes several special criteria in the sampling procedure, namely:

1. Domiciled in North Purwokerto.
2. Bank Syariah Indonesia customers who have or have used the BSI Mobile application.
3. Age 17-27 years.

The way to find out the number of samples in this study is that the researcher uses the Wibisono formula to estimate the size of the population. The reason for using Wibisono's formula is because the number of populations is not clearly known (Ruhamak, 2018).

Information:

$n$  = Number of samples

$z_{\alpha / 2}$  = Table z value (the value obtained from the normal table on the confidence level with a 95% confidence of 1.96).

$\sigma$  = Population standard deviation (25% or 0.25, this is the standard provision)

$e$  = Sample recall error rate (margin of error in this study is 5%)

With this formula, the calculation is as follows:

$$n = \left( \frac{(1,96) \cdot (0,25)}{0,05} \right)^2$$

$$n = \left( \frac{(0,49)}{0,05} \right)^2$$

$$n = \frac{0,2401}{0,0025}$$

$$n = 96.04 \text{ (rounded to 97)}$$

Based on the results of the calculation de, using the Wibiso. formula, the number of people, the minimum number of people is 96 oirang. Which rounded up to 97 respondents that must be used for this produced 97 respondents.

The research variables consisted of independent variables (preferences for usability, convenience, and attitudes in the use of technology) and bound variables (the use of BSI Mobile Banking). Data was collected through online questionnaires, literature studies, and documentation. The data sources consist of primary data obtained directly from respondents and secondary data from previous literature and research. The Likert Scale is used in questionnaires to measure respondents' perception of research variables.

## Result and Discussion

### Result

#### Validity Test

Table 1. Validity Test

No Item	Instruments	Calculation value	Table values	Sig (2- tailed)	Information
<b>Usability Preferences (x1)</b>					
1	X1.1	0,682	0,1764	0,000	Valid
2	X1.2	0,706	0,1764	0,000	Valid
3	X1.3	0,672	0,1764	0,000	Valid
4	X1.4	0,640	0,1764	0,000	Valid
5	X1.5	0,594	0,1764	0,000	Valid
6	X1.6	0,557	0,1764	0,000	Valid
<b>Convenience Preferences (x2)</b>					
1	X2.1	0,482	0,1764	0,000	Valid
2	X2.2	0,581	0,1764	0,000	Valid
3	X2.3	0,569	0,1764	0,000	Valid
4	X2.4	0,543	0,1764	0,000	Valid
5	X2.5	0,631	0,1764	0,000	Valid
6	X2.6	0,602	0,1764	0,000	Valid
7	X2.7	0,493	0,1764	0,000	Valid
8	X2.8	0,550	0,1764	0,000	Valid
<b>Technology Usage Attitude (X3)</b>					
1	X3.1	0,615	0,1764	0,000	Valid
2	X3.2	0,560	0,1764	0,000	Valid
3	X3.3	0,625	0,1764	0,000	Valid
4	X3.4	0,592	0,1764	0,000	Valid
5	X3.5	0,643	0,1764	0,000	Valid
6	X3.6	0,543	0,1764	0,000	Valid

Use of <i>Mobile Banking</i> (Y)					
1	Y1	0,511	0,1764	0,000	Valid
2	Y2	0,553	0,1764	0,000	Valid
3	Y3	0,670	0,1764	0,000	Valid
4	Y4	0,635	0,1764	0,000	Valid
5	Y5	0,612	0,1764	0,000	Valid
6	Y6	0,699	0,1764	0,000	Valid
7	Y7	0,642	0,1764	0,000	Valid
8	Y8	0,563	0,1764	0,000	Valid

Source: Primary data processed by SPSS 25, 2024

It can be seen from the results of the validity test in table 1 above that all statement items used for the questionnaire in this study have a value of  $>$  table, which is based on the table with 124 respondents with a value of (0.1764). So it can be said that all statement items in each variable indicator, namely the variables of usability preference (X1), convenience preference (X2), attitude to use technology (X3) and *use of mobile banking* (Y) can meet valid criteria. Therefore, questionnaires can be included in the later analysis.

### Reliability Test

Table 2. Reliability Test

Variable	Cronbach Alpha	R critical = 0.60	Information
Usability Preferences (x1)	0,715	0,60	Reliable
Facilities (x2)	0,681	0,60	Reliable
Technology Usage Attitude (X3)	0,634	0,60	Reliable
Use of <i>Mobile Banking</i> (Y)	0,760	0,60	Reliable

Source: Primary data processed by SPSS 25, 2024

Based on the results of the reliability test in table 2 above, the Cronbach Alpha value in the usability preference variable (X1) produces a value of 0.715, the convenience preference variable (X2) produces a value of 0.681, the technology use attitude variable (X3) produces a value of 0.634 and the mobile banking use variable produces a value of 0.760. This shows that all items in this study are said to be reliable based on the Cronbach Alpha value  $>$  0.60. Which can later be used for further research.

**Normality Test**

Table 3. Normality Test

One-Sample Kolmogorov-Smirnov Test			
			Unstandardized Residual
N			124
Normal Parameters <sup>a,b</sup>	Mean		.0000000
	Std. Deviation		3.02132881
Most Extreme Differences	Absolute		.091
	Positive		.080
	Negative		-.091
Test Statistic			.091
Asymp. Sig. (2-tailed)			.013c
Monte Carlo Sig. (2-tailed)	Sig.		.243d
	99% Confidence Interval	Lower Bound	.232
		Upper Bound	.254
a. Test distribution is Normal.			
b. Calculated from data.			
c. Lilliefors Significance Correction.			
d. Based on 10000 sampled tables with starting seed 2000000.			

Source: Primary data processed by SPSS version 25, 2024

Based on the results of the normality test in table 3 above, it can be known that the Monte Carlo Sig value is known. (2-tailed) by  $0.243 > 0.05$ . From these results, it can be concluded that the data used is normally distributed and the researcher can proceed to the next stage.

**Multicollinearity Test**

Table 4. Multicollinearity Test

Coefficients <sup>a</sup>			
Type		Collinearity Statistics	
		Tolerance	VIF
1	X1	.425	2.353
	X2	.406	2.463
	X3	.718	1.392
a. Dependent Variable: Y			

Source: Primary data processed by SPSS version 25, 2024

From table 4, the results of the multicollinearity test show that the tolerance and VIF values in the use preference variables (X1) are  $0.425 > 0.10$  and  $2.353 < 10$ , in

the convenience preference variables (X2) of  $0.406 > 0.10$  and  $2.463 < 10$ , in the attitude of technology use (X3) of  $0.718 > 0.10$  and  $1.392 < 10$ . It can be concluded that there is no multicollinearity in the digital banking variable as evidenced by the Tolerance value of  $> 0.10$  and  $VIF < 10$ .

### Heteroscedasticity Test

Table 5. Heteroscedasticity Test

Coefficients <sup>a</sup>						
Type		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-3.518	2.328		-1.511	.133
	X1	-.099	.081	-.166	-1.225	.223
	X2	.096	.073	.184	1.321	.189
	X3	.202	.107	.197	1.889	.061

a. Dependent Variable: Abs\_RES

Source: Primary data processed by SPSS version 25, 2024

From table 5, the results of the heteroscedasticity test are known to have a sig. in the use preference variable (X1) of  $0.223 > 0.05$ , in the convenience preference variable (X2) of  $0.189 > 0.05$ , in the variable of technology use attitude (X3) of  $0.061 > 0.05$ . From these results, it can be said that there are no symptoms of heterokedasticity.

### Linearity Test

Table 6. Usability Preference Linearity Test

ANOVA Table							
			Sum of Squares	Df	Mean Square	F	Sig.
Y*X 1	Between Groups	(Combined)	1073.692	57	18.837	1.145	.297
		Linearity	473.812	1	473.812	28.791	.000
		Deviation from Linearity	599.880	56	10.712	.651	.950
	Within Groups		1086.165	66	16.457		
	Total		2159.857	123			

Source: Primary data processed by SPSS version 25, 2024.

Based on table 6 above, the sign obtained is 0.950, meaning that this is a greater significance than a ( $0.950 > 0.05$ ), so the use preference and the use of BSI

mobile banking in generation Z in North Purwokerto has a linear relationship or linear pattern

Table 7. Convenience Preference Linearity Test

ANOVA Table							
			Sum of Squares	Df	Mean Square	F	Sig.
Y * X2	Between Groups	(Combined)	1735.326	95	18.267	1.205	.293
		Linearity	617.151	1	617.151	40.704	.000
		Deviation from Linearity	1118.175	94	11.895	.785	.806
	Within Groups		424.531	28	15.162		
	Total		2159.857	123			

Source: Primary data processed by SPSS version 25, 2024

Based on table 7 above, the sign obtained is 0.806, meaning that this is a greater significance than a ( $0.806 > 0.05$ ), so between the preference for convenience and the use of BSI mobile banking in generation Z in North Purwokerto has a linear or linear relationship.

Table 8. Linearity Test of Technology Usage Attitude

ANOVA Table							
			Sum of Squares	Df	Mean Square	F	Sig.
Y*X 3	Between Groups	(Combined)	1006.126	9	111.792	11.046	.000
		Linearity	916.677	1	916.677	90.577	.000
		Deviation from Linearity	89.449	8	11.181	1.105	.365
	Within Groups		1153.731	114	10.120		
	Total		2159.857	123			

Source: Primary data processed by SPSS version 25, 2024.

Based on table 8 above, the sign obtained is 0.365, meaning that this is a greater significance than ( $0.365 > 0.05$ ), so the attitude of using technology and the use of BSI mobile banking in generation Z in North Purwokerto has a linear or linear relationship.

## Multiple Linear Regression Analysis

Table 9. Multiple Linear Regression Analysis

		Coefficients				
		Unstandardized Coefficients		Standardized Coefficients		
Type		B	Std. Error	Beta	t	Sig.
1	(Constant)	-11.712	3.676		-3.186	.002
	X1	.058	.128	.046	.456	.649
	X2	.267	.115	.241	2.333	.021
	X3	1.099	.169	.506	6.519	.000

a. Dependent Variable: Y

Source: Primary data processed by SPSS version 25, 2024

The results of the multiple linear regression test in table 9 show that the value of the multiple linear regression constant is -11.712, while the value of the regression coefficient in the X1 variable (Usability Preferences) is 0.058, in the X2 variable (Convenience Preferences) is 0.267, and in the X3 variable (Technology Use Attitude) is 1.099. Based on this formulation, it can be concluded that: a) A constant value of -11.712 indicates that if the variables Utility Preferences (X1), Convenience (X2), and Technology Usage Attitudes (X3) are considered constant or 0, then mobile banking usage (Y) is valued at -11.712. b) The regression coefficient value in the variable X1 (Usability Preferences) of 0.058 means that every 1% increase in X1 (Usability Preferences) will lead to an increase in mobile banking (Y) of 0.058. c) The regression coefficient value of the X2 variable (Convenience Preferences) of 0.267 means that every 1% increase in X2 (Convenience Preferences) will lead to an increase in mobile banking usage (Y) by 0.267. d) The regression coefficient value of the X3 (Technology Usage Attitude) variable of 1.099 means that every 1% increase in X3 (Technology Usage Attitude) will lead to an increase in the use of mobile banking (Y)mobile banking (Y) at 1,099.

From the description above, it can be concluded that the variable of attitude towards the use of technology has the highest regression output among the variables of use preference and convenience preference, this shows that the

variable of attitude towards the use of technology has the most dominant influence because a positive attitude can affect the use of mobile banking.

### Hypothesis Test

Table 10. Partial Test Results (t-Test)

Coefficients						
Type		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-11.712	3.676		-3.186	.002
	X1	.058	.128	.046	.456	.649
	X2	.267	.115	.241	2.333	.021
	X3	1.099	.169	.506	6.519	.000

a. Dependent Variable: Y

Source: Primary data processed by SPSS version 25, 2024

Based on table 10 above, X1 is 0.453, X2 is 2.333, and X3 is 6.519, while the table is 1.979930. The following is an analysis of the t-test between usability preferences, convenience preferences, and attitudes in the use of technology towards the use of mobile banking in generation Z in North Purwokerto: a) In the usability preference variable (X1), it is known that the tcal value is 0.456 < ttable 1.979930 and the sig value. 0.649 > 0.05, which shows that usability preferences do not have a significant effect on the use of mobile banking in generation Z in North Purwokerto, so H0 is accepted, and Ha is rejected. b) In the convenience preference variable (X2), the calculation value is 2.333 > t-table 1.979930 and the sig. 0.021 < 0.05, which shows that the convenience preference has a significant effect on the use of mobile banking in generation Z in North Purwokerto, so H0 is rejected, and Ha is accepted. c) In the variable of attitude towards technology use (X3), the calculation value is 6.519 > ttable 1.979930 and the sign. 0.000 < 0.05, which shows that the attitude of using technology has a significant effect on the use of mobile banking in generation Z in North Purwokerto, so H0 is rejected, and Ha is accepted.

Table 11. Simultaneous Test Results (Test F)

ANOVAa						
Type		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1037.061	3	345.687	36.946	.000b
	Residual	1122.797	120	9.357		
	Total	2159.857	123			
a. Dependent Variable: Y						
b. Predictors: (Constant), X3, X1, X2						

Source: Primary data processed by SPSS 25, 2024.

Based on table 11 above, 36,946 were obtained. For Ftable, 2.68 was obtained. This shows that  $F_{cal} > F_{table}$  ( $36.946 > 2.68$ ). Thus, it can be concluded that  $H_0$  is rejected, and  $H_a$  is accepted, which means that the variables of usability preference, convenience preference and attitude of technology use simultaneously have a significant effect on the dependent variable, namely the use of mobile banking.

Table 12. Determination Coefficient Test Results (Adjusted R Square)

Model Summary				
Type	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.693a	.480	.467	3.05886
a. Predictors: (Constant), X3, X1, X2				

Source: Primary data processed by SPSS version 25, 2024

Based on the data in table 12 above, it was found that the value of the determination coefficient was 0.693 (69.3%) which means that the independent variables, namely the preference for usability, preference for convenience and attitude of technology use, have a strong relationship with the bound variable, namely the use of mobile banking. Furthermore, it is known that the R Square value of 0.480 (48.0%) means that the variables of usability preference, convenience preference and attitude of technology use can affect the use of mobile banking in generation Z in North Purwokerto by 48.0%, while the remaining 52.0% is influenced by other variables that are not included in this study.

## Discussion

### The Effect of Usability Preferences on the Use of Mobile Banking

The use of mobile banking in Generation Z in North Purwokerto is influenced by various factors, one of which is usability preference, which refers to the extent to which technology or applications can provide benefits and convenience in daily life. Mobile banking is considered useful if it can provide time efficiency, ease of transactions, and easy access. In the Technology Acceptance Model (TAM) theory, perceived usefulness is the main factor in determining whether someone will continue to use the application. However, although many respondents find BSI mobile banking useful, this perception of usability does not necessarily influence increasing its use, as many do not feel that they need the service for daily transactions.

Based on the results of multiple linear regression and t-test, it was obtained that the usability preference (X1) did not have a significant influence on the use of mobile banking in generation Z in North Purwokerto. The tcount value for usability preference was 0.456, smaller than the ttable (1.979), and the significance level of 0.649 was greater than 0.05, which shows that usability preference has no partial effect on mobile banking usage. This contrasts with previous research that showed a significant influence of usability preferences on the use of mobile banking. Differences in respondent's characteristics and habits of using technology are important factors influencing the acceptance of mobile banking applications, although the benefits are recognized, if they are not in accordance with practical needs or habits, then usability preferences do not drive an increase in their use.

### The Effect of Convenience Preferences on the Use of Mobile Banking

The development of information technology, especially in terms of internet access and the use of mobile banking, has changed the way humans interact with banking services, including BSI mobile banking. Generation Z, which has a high adaptability to new technologies, is greatly influenced by the preference for convenience in the adoption of mobile banking. In the Technology Acceptance Model (TAM) theory, perceived ease of use is the main factor in determining a person's

intention to adopt technology. The easier it is to use technology, the more likely it is to be accepted by users, which in turn encourages the use of BSI mobile banking.

Based on the results of multiple linear regression and t-test, it was found that convenience preference (X2) had a significant influence on the use of BSI mobile banking in generation Z in North Purwokerto. The tcount value for convenience preferences was 2.333, which was greater than the ttable (1.979), and the significance level of 0.021 which was smaller than 0.05 showed that convenience preferences had a positive and significant effect. These results are in line with TAM theory and previous research that states that ease of use increases interest in adopting the technology. In Islamic principles, convenience is also a core value that reflects the love and wisdom of Allah SWT, which is in line with the convenience provided by BSI Mobile in increasing the efficiency of using technology for Muslims.

### **The Influence of Technology Usage Attitudes on the Use of BSI Mobile Banking in Generation Z in North Purwokerto**

Attitudes towards the use of technology play an important role in the adoption of mobile banking, including the BSI Mobile application. Based on the theory of the Technology Acceptance Model (TAM), attitudes towards technology are formed from the perception of usability and ease of use. Generation Z, who are highly adaptive to technology, will have a positive attitude towards BSI Mobile if the app is able to meet their needs by providing real convenience and benefits. When a mobile banking app like BSI Mobile manages to provide an experience that meets their expectations, a positive attitude towards the app will be stronger and encourage increased use of the service.

Based on the results of multiple linear regression calculations and t-tests, it is known that the attitude of using technology (X3) has a significant influence on the use of BSI mobile banking in generation Z in North Purwokerto. The tcount value of 6.519 is greater than the ttable (1.979), with a significance level of 0.000 which is less than 0.05, proving that the attitude of using technology has a positive influence on the use of mobile banking. The results of this study are in line with previous research which stated that attitudes towards technology have a significant effect on the use of

mobile banking. In Islam, a cautious attitude in making decisions, as reflected in the Qur'an verse Surah Al-Hujurat verse 6, is also relevant in choosing technology products or services, including the BSI Mobile application.

### **Simultaneous Influence of Usability Preferences, Convenience Preferences and Attitudes in the Use of Technology**

The rapid development of information technology has changed the way people interact with banking services, especially mobile banking such as BSI Mobile. In this case, the Technology Acceptance Model (TAM) theory explains the important role of perceived usefulness, perceived ease of use, and attitude toward using technology adoption. Generation Z in North Purwokerto tends to be more receptive to mobile banking services if they feel that the application provides real benefits such as time efficiency and ease of transactions. A high preference for convenience, i.e. the belief that technology is easy to use, reinforces the perception of usability, which then forms a positive attitude towards technology and increases the use of applications.

The results of the hypothesis test show that the preference for usability, preference for convenience, and attitude of technology use have a simultaneous effect on the use of BSI Mobile by Generation Z in North Purwokerto. Regression testing showed a strong relationship with an R coefficient of 0.693 (69.3%) and an influence of 48.0% on the use of mobile banking. Although usability preferences are not partially significant, the contribution of other variables amplifies the overall impact. This research supports the TAM theory, which states that factors such as ease of use, usability, and attitude influence a person's decision to adopt and use technology, including mobile banking.

### **Conclusion**

Based on the results of testing and data analysis, this study produces several conclusions. First, the variable of usability preference partially did not have a significant effect on the use of BSI mobile banking in generation Z in North Purwokerto. Differences in respondent characteristics and habits in using services affect attitudes to accept technology. Although mobile banking services offer

various benefits, this does not affect their interest in using them if respondents do not need the service yet. Second, the convenience preference variable partially had a significant effect on the use of mobile banking, which showed that ease of use made users more open and more likely to accept the technology.

Third, the variable attitude towards partial technology use also has a significant influence on the use of BSI mobile banking in generation Z in North Purwokerto. Generation Z shows a positive attitude towards BSI Mobile services, which pays attention to the factors that affect customer attitudes and interests, thus encouraging them to use this application. Fourth, the results of this study show that the preference for usability, preference for convenience, and attitude of technology use have a simultaneous effect on the use of BSI mobile banking by generation Z in North Purwokerto.

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