MALIKI
ISLAMIC
ECONOMICS
JOURNAL

The Effect of Security, Convenience, and Effectiveness of Using BSI Mobile on Student Customers Satisfaction

Muhammad Gusti Farhan, Ade Ananto Terminanto*
UIN Syarif Hidayatullah Jakarta, Indonesia
*Corresponding Author: adeanantoterminanto@uinjkt.ac.id

Abstract:
This study aims to describe the extent to which the safety, convenience, and effectiveness of using BSI Mobile affect the level of customer satisfaction with transactions. A total of 100 customers who actively use the service were selected as research samples with purposive sampling techniques. Primary data obtained through the Likert scale questionnaire were analysed using Partial Least Squares (PLS) to test the research hypothesis. The results showed that there was a positive correlation between the three independent variables and the dependent variables. However, further analysis shows that only the security dimension contributes significantly to the increase in customer satisfaction. This finding has important implications for the bank in an effort to improve the quality of BSI Mobile services.

Keywords: Security, Convenience, Effectiveness, Customer Satisfaction, BSI Mobile

JEL Classification Code: D12, G21, L86, M31

1. Introduction

Bank Syariah Indonesia (BSI) Mobile users have experienced a significant increase, but still face major challenges in competing with other large banks in Indonesia that have a larger user base, such as Bank Mandiri, Bank Central Asia (BCA), and Bank Rakyat Indonesia (BRI). Until mid-2024, BSI Mobile recorded around 7.1 million active users with transactions that continue to grow (Bank Syariah Indonesia, 2024). However, compared to conventional banks that have been operating for a longer time and have more established services, the number of BSI Mobile users is still relatively small. This growth has had a positive impact on fee-based revenue, which is one of the important sources of revenue for banks (Bank Syariah Indonesia, 2024).

The services provided by BSI Mobile are very beneficial for customers, especially those who have a high level of mobility. The service includes a variety of financial and non-financial transactions, such as fund transfers, bill payments, and credit purchases, which provide convenience and convenience (Ramaadhan et al., 2024). With quick and easy access, customers can make various transactions anywhere and anytime without having to go to a physical branch. This service makes the daily life of customers, especially those who are busy and need practical solutions for financial matters. However, despite offering various conveniences, BSI Mobile is not free from technical problems that are often experienced by its users. One of the most frequent complaints is the problem of failed top-ups or transfers that cause the customer's balance to be deducted even

MALIKI ISLAMIC ECONOMICS JOURNAL

though the transaction is not successful (Pratowo, 2023). When this happens, customers are advised to immediately contact the bank so that the deducted balance can be returned after going through the verification process. Technical issues like these can cause inconvenience for customers who rely on BSI Mobile for their daily transactions.

The lack of cybersecurity causes BSI Mobile maintenance to last for days (CNN Indonesia, 2023). Several cases of fraud on behalf of BSI customer service have occurred, indicating a potential security risk for customers. In addition, network disruptions and problems with complicated activation systems make the user experience less than optimal. This inconvenience is further exacerbated by the difficulty of contacting customer service which is sometimes ineffective in resolving the problems faced by customers.

In the midst of these challenges, BSI Mobile needs to continue to innovate to improve the quality of the application and maintain its competitiveness. Users reported that the interface design of the BSI Mobile application was still inefficient and the transaction process seemed complicated (Sapitri et al., 2023). To remain relevant in an increasingly competitive market, BSI Mobile needed to focus on developing a more user-friendly app, with a more intuitive interface and a faster and easier transaction process.

The development of the application on BSI Mobile will certainly have a significant impact on the use of applications in banking. Although the number of BSI Mobile users is still smaller than that of other large conventional banks, the significant growth in recent years shows great potential in the Islamic digital banking services market (Hidayat et al., 2021). BSI Mobile also offers services based on sharia principles that are different from conventional banks, so it is interesting to analyze from the perspective of users who choose services based on religious values. Therefore, this study highlights how BSI Mobile is adopting digital technologies to meet the needs of different customers, and how this affects user satisfaction.

BSI Mobile offers features that are very useful for students. This application provides convenience in paying tuition fees without the need to queue at the counter. In addition, the app is equipped with advanced security systems, such as Personal Identification Number (PIN), biometric verification, and One Time Password (OTP), to ensure that customers' transactions and personal data remain safe (Bank Syariah Indonesia, 2019). These features are essential for college students who need a practical and secure solution for their financial transactions.

BSI Mobile also supports students in managing their personal finances through Islamic savings and investment facilities. Students can monitor balances, transaction history, and manage their expenses easily. With sharia principles applied in banking services, BSI Mobile helps students plan their financial future in accordance with Islamic values (Julianto & Helvira, 2022). As the largest Islamic bank in Indonesia, BSI also offers good customer service and various

attractive promotions, such as cashback and discounts, which provide additional benefits for young customers. BSI Mobile is a banking solution that is safe, convenient, and in accordance with the needs of students in the digital era.

Digital banking services have a positive impact on student satisfaction, because of the ease it offers in transactions. The presence of digital services makes it easier for students to make various financial transactions, especially with features that allow transactions to be carried out instantly and without obstacles (Putri et al., 2024). State Islamic University (UIN) Syarif Hidayatullah Jakarta was chosen as a research sample because it is one of the largest Islamic universities in Indonesia with a significant number of students (Huda et al., 2016; Sururin et al., 2021). As an Islamic-based institution, UIN Syarif Hidayatullah Jakarta students tend to choose financial services according to sharia principles (Maryani & Yustini, 2018). Therefore, the use of BSI Mobile among them can represent how Islamic banking meets the needs of the younger generation in an Islamic academic environment.

BSI as the largest Islamic bank in Indonesia through the BSI Mobile application strives to compete with conventional banks in providing innovative digital banking services. However, despite significant growth in the number of BSI Mobile users, challenges such as technical constraints, cybersecurity, and user experience are still barriers to increasing competitiveness with conventional banks. In addition, from various studies that have discussed the development of digital banking in Indonesia, there is still a research gap and a lack of literature in understanding the factors that affect the adoption and satisfaction of users with digital Islamic banking services, especially in the context of BSI Mobile. Therefore, this research is important to understand how effective BSI Mobile is in meeting user needs, especially among UIN Syarif Hidayatullah Jakarta students who are one of the potential user segments.

2. Literature Review

Consumer behavior, as defined by Setiadi (2019), encompasses the actions exhibited by consumers when selecting and deciding to purchase and utilize alternative products or services. This definition underscores the complexity of consumer decision-making processes, which are influenced by various factors. Irwansyah et al. (2021) identify several key indicators that shape consumer behavior, namely cultural factors, social factors, personal factors, psychological factors and buyers.

Cultural factors, such as societal norms and values, play a pivotal role in shaping consumer preferences and purchasing decisions. Social factors, including peer influence and family dynamics, further complicate the decision-making landscape. Personal factors, such as age, income, and lifestyle, alongside psychological factors like motivation and perception, collectively contribute to a nuanced understanding of consumer behavior in the M-banking sector. This

MALIKI ISLAMIC ECONOMICS JOURNAL

comprehensive perspective on consumer behavior is essential for understanding how consumers interact with M-banking services and the implications for service providers aiming to enhance user engagement and satisfaction (Fianto et al., 2021).

Security is a paramount concern in the realm of M-banking, as highlighted by Raman & Annamalai (2011), who define it as the processes implemented by companies to safeguard and manage their data. The significance of security in fostering consumer trust cannot be overstated, as consumers are increasingly wary of potential data breaches and privacy violations. Heriyana (2020), identifies two security indicators, namely Security Guarantee, and Data Confidentiality.

Security guarantees, such as encryption and authentication protocols, are essential in building consumer confidence. Data confidentiality, on the other hand, pertains to the measures taken to protect sensitive information from unauthorized access (Maharsi & Fenny, 2007). The interplay between these security dimensions is crucial for M-banking providers, as they must navigate the delicate balance between offering convenient services and ensuring robust security measures to maintain consumer trust.

The concept of convenience in M-banking is intricately linked to user experience and technology acceptance. Mukhtisar et al., (2021) assert that user confidence in technology significantly influences the perceived ease of use of M-banking services. This assertion aligns with the Technology Acceptance Model, which posits that perceived ease of use and perceived usefulness are critical determinants of technology adoption.

Jogiyanto (2007) delineates several indicators of convenience in M-banking, including M-banking is easy to learn, It doesn't require much effort, M-banking is easy to use, Simple and flexible. The design and functionality of M-banking applications must prioritize user-centric features to enhance usability. The correlation between convenience and user satisfaction is evident, as a seamless user experience can lead to increased adoption rates and customer loyalty.

Effectiveness in the context of M-banking refers to the degree to which organizations achieve their predetermined goals. According to Sa'diyah & Marlena (2018), the level of success of an organization in achieving the goals that have been set is indicated by its level of effectiveness. There are five indicators that can be used to measure how effective M-banking services are in achieving goals (Sutrisno, 2007), namely Program understanding, On target, On time, Goal achievement, Real change.

A thorough examination of these indicators reveals that effectiveness is not merely about achieving quantitative targets but also encompasses qualitative outcomes, such as customer engagement and satisfaction (Sa'diyah & Marlena, 2018). The alignment of M-banking services with consumer needs and expectations is crucial for fostering a positive perception of effectiveness.

MALIKI ISLAMIC ECONOMICS JOURNAL

Furthermore, the ability to adapt and respond to changing consumer demands is indicative of an organization's effectiveness in the dynamic M-banking landscape.

Customer satisfaction is the buyer's perception of the relationship between what they do and the results they achieve Sari & Oswari (2020). Customer satisfaction indicators according to Tjiptono (2014) namely expectation match, interest in reusing, willingness to recommend.

Customer satisfaction highlights its multifaceted nature, encompassing both cognitive and emotional dimensions. The alignment of service delivery with consumer expectations is paramount in fostering satisfaction. Moreover, the willingness to recommend M-banking services to others serves as a vital indicator of consumer loyalty and advocacy, further emphasizing the importance of customer satisfaction in the competitive M-banking landscape (Fianto et al., 2021).

3. Research Methods

This study uses a quantitative-based approach. This can be seen from the approach of collecting data with a Likert scale questionnaire and analysing the data using Partial Least Squares (PLS) to test the research hypothesis. PLS was chosen because it was able to analyze structural models with a relatively small number of samples and did not require normal distribution assumptions. In addition, PLS is more flexible in handling models with reflective and formative indicators and can be used to test latent variable relationships simultaneously. This quantitative method aims to objectively measure the influence of the variables of security, convenience, and effectiveness of the use of the BSI Mobile application on customer satisfaction who are students at UIN Syarif Hidayatullah Jakarta.

According to Sugiyono (2016), population is defined as an entire territory or a group of objects or subjects that have certain qualities and characteristics determined by researchers for the purpose of observation, analysis, and drawing conclusions. This article uses the population of BSI customers who are active students of UIN Syarif Hidayatullah Jakarta. The students of UIN Syarif Hidayatullah Jakarta number as many as 32,000 active students (Universitas Islam Negeri Syarif Hidayatullah Jakarta, 2024). However, it is not known how many BSI customers are students of UIN Syarif Hidayatullah Jakarta so this study uses an unknown population.

A sample is a part of the population that has certain characteristics. The purpose of this sampling is to provide representation of the population thereby reducing time and cost. Purposive sampling is a sample selection method in which data sources are selected based on certain criteria that have been set (Sugiyono, 2016). By using this technique, researchers will more easily determine their research sample by determining certain criteria that the research sample

MALIKI ISLAMIC ECONOMICS JOURNAL

must meet. The criteria in this study are Bank Syariah Indonesia customers who are active students of UIN Syarif Hidayatullah Jakarta. Next is an equation for an unknown population (Lemeshow et al., 1997).

$$n = \frac{Z^2\, P(1-P)}{d^2}$$

$$n = \frac{(1.96)^2\, 0.5(1-0.5)}{0.1^2}$$

$$n = \frac{3.8416\,(0.25)}{0.01}$$

$$n = 96.04$$

Where:
n = number of samples
z = standard value 1.96
p = maximum Estimation 50% (0.5)
d = alpha (0.1) or sampling error 10%

$$Calculation: \left(\frac{(1.96)(0.25)}{0.05}\right)^2 = 96.04 = 100$$

Data collection was carried out through a survey by distributing questionnaires online using Google Form. Before use, the questionnaire instrument is tested for validity and reliability. The questionnaire includes 37 question items: 5 items for the security variable, 9 items for the convenience variable, 15 items for the effectiveness variable, and 8 items for the customer satisfaction variable.

Table 1: Operational Definition

Variable	Definition	Indicator	Measurement
Security (Heriyana, 2020; Raman & Annamalai, 2011)	Data control and security activities that a company can perform	Be confident in the security of your transactions using BSI Mobile.	Likert Scale
		Transactions using BSI Mobile are very accurate and reliable.	
		The information provided through the BSI Mobile service is guaranteed to be free from any form of manipulation.	
		During BSI Mobile transactions, there are no errors or data misuse.	
		Satisfied with customer data security on BSI Mobile.	

MALIKI ISLAMIC ECONOMICS JOURNAL

Convenience (Jogiyanto, 2007; Mukhtisar et al., 2021)	A person's trust in using technology will lead them to believe that the information system is easy to use, which will lead them to use it.	The service features available on BSI Mobile are easy to understand.	Likert Scale
		The services available on BSI Mobile do not confuse customers.	
		Convenience when registering and logging into the BSI Mobile application.	
		The service aspect of BSI Mobile is fast and requires no extra effort.	
		There were no difficulties using the BSI mobile application.	
		Smoothness when conducting various transactions using BSI Mobile.	
		BSI Mobile's comprehensive service features meet customer needs.	
		BSI Mobile can be used easily anywhere.	
		BSI Mobile can be easily used at any time.	
Effectiveness (Sa'diyah & Marlena, 2018)	The relationship between the output and the intended use of a technology is consistent with the results achieved. Effectiveness shows how accurately a company achieves its stated goals.	Know that the BSI Mobile service system must be accessed using an internet network.	Likert Scale
		Understand how to log in to the BSI Mobile application.	
		Learn about the services BSI Mobile offers.	
		PT BSI Tangerang Selatan employees have successfully educated you about BSI Mobile service facilities.	
		PT BSI Tangerang Selatan employees always provide information about the latest service features on BSI Mobile.	
		Experience the smoothness of BSI Mobile when conducting various transactions.	
		BSI Mobile provides a fast, precise, and efficient savings account opening service compared to opening a savings account in person at the bank.	
		BSI Mobile provides financial transaction services such as (bill payments, top-up credit, transfers) quickly and accurately.	

MALIKI ISLAMIC ECONOMICS JOURNAL

		BSI Mobile is able to respond quickly to any obstacles or problems during transactions.	
		The BSI Mobile service has been successful in minimizing the number of customers who visit the bank in person.	
		BSI Mobile's functions are in accordance with the application's intended use.	
		BSI Mobile is very effective for conducting transactions.	
		The quality of BSI Mobile services has improved and is better than before the merger.	
		The information provided by BSI Mobile is clearer than before the merger.	
		Able to play a direct role in technological advancement through BSI Mobile services.	
Satisfaction (Sari & Oswari, 2020)	The buyer's perception of the suitability or mismatch between the results achieved and the sacrifices made.	BSI Mobile's service performance met expectations.	Likert Scale
		BSI Mobile services are very easy to use.	
		BSI Mobile services are capable of providing the best service.	
		Interested in using BSI Mobile services in the future.	
		Interested in continuing to use BSI Mobile for transactions.	
		Satisfied with the ease of service provided by BSI Mobile.	
		Interested in recommending BSI Mobile products and services to others.	
		Preferring to conduct transactions through BSI Mobile rather than other M-banking features.	

Note: Data processed by author

The instrument in this journal is a questionnaire measured using the likert scale, which is useful for assessing the opinions, perceptions, and attitudes of individuals or groups towards social phenomena (Sugiyono, 2016). The available answer scales include strongly disagree, disagree, average, agree, strongly agree, which allows respondents to express their level of agreement gradually.

In this study, the test of research instruments uses two main techniques, namely validity test and reliability test. The validity test in this context refers to

MALIKI ISLAMIC ECONOMICS JOURNAL

the validity or accuracy of the data (Juliandi et al., 2018). The researcher utilized SPSS software by applying a bivariate analysis method, namely Pearson correlation. Pearson correlation measures the relationship between two variables, usually between each item and the total scale. As for the reliability test, it is used to measure the extent to which trust can be placed in the data. The researcher uses SPSS software by applying the scale-reliability analysis method; two-tailed. To assess whether a data is reliable or not, researchers can refer to the Cronbach Alpha score on the SPSS. The data is said to be reliable if Cronbach Alpha is > 0.70.

The data was analyzed using PLS through SmartPLS software, which allows structural model analysis to measure the relationship between latent variables (Hair et al., 2021; Sabol et al., 2023). This analysis technique tests two models, namely the first outer model test which involves convergent validity in which the measurement model based on the correlation between the score of the item or component and the reflective measure is considered high if the filling factor is more than 0.70, the validity of discrimination using cross-loading to assess the reflective measurement model of indicators with a recommended AVE value greater than 0.50, and a reliability composite that takes into account the factor load of each indicator where a CR value greater than 0.7 is generally considered to indicate good reliability for the construct (Ghozali, 2021).

The second model test, the Innner Model, which measures the impact between variables with the value of the R-squared coefficient where the higher the R-square, the better the model is in explaining the relationship between variables, Q-squared with the criteria $Q^2 > 0$ indicates that the model has good predictive power or predictively relevant and $Q^2 \leq 0$ indicates that the model does not have predictive power or predictive relevance, as well as a pathway to assess the significance and predictive relevance of the relationship between independent variables and variables bound to GoF assessments < 0.1: Poor fit model, GoF between 0.1 - 0.25: Medium fit, GoF between 0.25 - 0.36: Good fit, GoF > 0.36: Excellent fit (Ghozali, 2021).

It can be concluded that all indicators have a good level of reliability in measuring their respective variables, so they can be applied as a measurement tool in this study. These techniques ensure that the data used in the journal meets the requirements of validity and reliability, and allow for the interpretation of variable relationships with a robust approach.

4. Finding and Discussion

The respondents in this study are BSI customers in the UIN Syarif Hidayatullah Jakarta area and have used BSI Mobile services. Then the respondents were grouped based on certain characteristics as shown in table 1. The sample in this study amounted to 100 respondents, with the majority of 62 respondents being women, and the remaining 38 respondents being men. Based

**MALIKI
ISLAMIC
ECONOMICS
JOURNAL**

on age distribution, the dominant group (61%) came from the young group with the age of 17-22 years, and the remaining 38% were from the age group of 23-26 years and 1% of the age group over 31 years.

Table 2: Characteristics Respondent

Classification	Description	Total
Gender	Male	38
	Female	62
Age	17 - 22 years	61
	23 - 26 years	38
	17 - 30 years	0
	> 31 years	1
BSI Customers	Yes	100
	No	0
Long time being a customer before merger until merger into BSI	< 1 years	29
	1 –2 years	25
	3 – 4 years	22
	>5 years	24
Before becoming a BSI customer	BSM	20
	BNIS	20
	BRIS	19
	Not all of them	41
Using BSI Mobile	Yes	100
	No	0
The respondents were UIN Syarif Hidayatullah Jakarta students	Yes	100
	No	0

Note: Data processed by author

Based on the length of time they have been BSI customers, there are 29 respondents who have been BSI customers for less than one year. Meanwhile, 25 respondents have become BSI customers for a period of one to two years. The number of respondents who became BSI customers during the 3 until 4 years period reached 22 respondents, while 24 respondents had been BSI customers for more than five years. Furthermore, from a demographic perspective, the respondents were BSI customers before the merger and formation of BSI, table 2 shows that the respondents in this study, 20 respondents were customers of Bank Syariah Mandiri (BSM), 20 more respondents were customers of Bank Nasional Indonesia Syariah (BNIS), and around 19 respondents were customers of Bank Rakyat Indonesia Syariah (BRIS) while the remaining 41 respondents were customers who had just joined after the merger and the formation of BSI.

Table 3: Validity Test Result

Indicators	Sig Value (2-tailed)	Result
Security		
Security (1.1)	0.001	Valid
Security (1.2)	0.001	Valid
Security (1.3)	0.001	Valid
Security (1.4)	0.001	Valid
Security (1.5)	0.001	Valid
Convenience		
Convenience (2.1)	0.001	Valid
Convenience (2.2)	0.001	Valid
Convenience (2.3)	0.001	Valid
Convenience (2.4)	0.001	Valid
Convenience (2.5)	0.001	Valid
Convenience (2.6)	0.001	Valid
Convenience (2.7)	0.001	Valid
Convenience (2.8)	0.001	Valid
Convenience (2.9)	0.001	Valid
Effectiveness		
Effectiveness (3.1)	0.001	Valid
Effectiveness (3.2)	0.001	Valid
Effectiveness (3.3)	0.001	Valid
Effectiveness (3.4)	0.001	Valid
Effectiveness (3.5)	0.001	Valid
Effectiveness (3.6)	0.001	Valid
Effectiveness (3.7)	0.001	Valid
Effectiveness (3.8)	0.001	Valid
Effectiveness (3.9)	0.001	Valid
Effectiveness (3.10)	0.001	Valid
Effectiveness (3.11)	0.001	Valid
Effectiveness (3.12)	0.001	Valid
Effectiveness (3.13)	0.001	Valid
Effectiveness (3.14)	0.001	Valid
Effectiveness (3.15)	0.001	Valid
Satisfaction		
Satisfaction 1	0.001	Valid
Satisfaction 2	0.001	Valid
Satisfaction 3	0.001	Valid
Satisfaction 4	0.001	Valid
Satisfaction 5	0.001	Valid
Satisfaction 6	0.001	Valid

Satisfaction 7	0.001	Valid
Satisfaction 8	0.001	Valid

Note: Data processed by author

The initial trial was conducted on 20 respondents to assess the validity of each question in the questionnaire. This validity test involves correlation analysis using the Sig (2-Tailed) score (Field, 2018). In SPSS, this value is calculated automatically based on the correlation value and sample size. Table 3 shows that the value of Sig (2-Tailed) < 0.05, then the correlation is considered significant, and can reject the null hypothesis (no correlation) (Ghozali, 2018).

Table 4: Reliability Test Result

Variable	Cronbach Alpha	N of Items	Result
Security	0.931	5	Reliable
Convenience	0.942	9	Reliable
Effectiveness	0.963	15	Reliable
Satisfaction	0.921	8	Reliable

Note: Data processed by author

The reliability test was carried out to evaluate the consistency of the research instrument. The reliability of a research instrument is considered adequate if the cronbach alpha value exceeds 0.60 (Ghozali & Latan, 2015). Based on table 4, it can be identified that cronbach's alpha values for safety, convenience, and effectiveness provide reliable results. These findings indicate that each question in this research instrument is able to produce consistent data, so that if the question is asked again, it is likely to get a relatively similar answer to the previous answer (Taherdoost, 2018).

The assessment of the reflective indicator model in this study includes evaluation steps such as convergent validity tests, discriminatory validity, and composite reliability (Ghozali & Latan, 2015). A general guideline that is often used to assess the validity of convergence comes from the value of the loading factor, which should be equivalent to or exceed 0.7 in order to be considered to have confirmatory properties (Abdillah & Hartono, 2015).
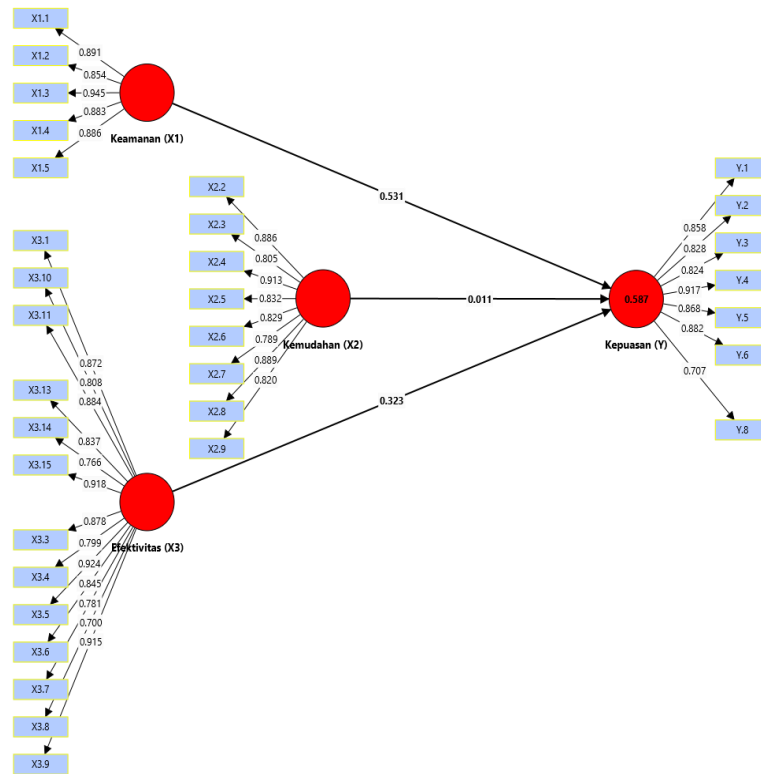
MALIKI
ISLAMIC
ECONOMICS
JOURNAL

Figure 1: Outer Loading Stage

Figure 1 shows the loading factor value above 0.7. Therefore, it can be concluded that the construct on each variable has been tested to be valid and can be used to continue the next calculation.

Table 5: Loading Factor Result

Indicator	Security	Convenience	Effectiveness	Satisfaction
X1.1	0.891			
X1.2	0.854			
X1.3	0.945			
X1.4	0.883			
X1.5	0.886			
X2.2		0.886		
X2.3		0.805		
X2.4		0.913		
X2.5		0.832		
X2.6		0.829		
X2.7		0.789		
X2.8		0.889		
X2.9		0.820		
X3.1			0.872	
X3.10			0.808	

X3.11			0.884	
X3.13			0.837	
X3.14			0.766	
X3.15			0.918	
X3.3			0.878	
X3.4			0.799	
X3.5			0.924	
X3.6			0.845	
X3.7			0.781	
X3.8			0.700	
X3.9			0.915	
Y.1				0.858
Y.2				0.828
Y.3				0.824
Y.4				0.917
Y.5				0.868
Y.6				0.882
Y.8				0.707

Note: Data processed by author

The convergent validity of the measurement model is measured through the evaluation of the correlation between the item score or component score estimated by the SmartPLS 4 software. Table 5 shows that the output of the outer loading value of all variables, namely the correlation between the construct and the variable, has fulfilled the convergence validity because it has a loading factor value > 0.7. A reflective measure is considered high if the correlation exceeds 0.7 with the constructed being measured (Ghozali & Latan, 2015).

Table 6: Discriminant Validity Result

Variable	Effectiveness	Security	Convenience	Satisfaction
Effectiveness	0.843			
Security	0.545	0.892		
Convenience	0.813	0.640	0.846	
Satisfaction	0.622	0.715	0.614	0.843

Note: Data processed by author

The validity test of discrimination is carried out to ensure that the concepts of each latent variable are different from each other (Ghozali, 2018). The model will have good discriminatory validity if the maximum loading value on each latent variable is different from the loading value of other latent variables.

MALIKI ISLAMIC ECONOMICS JOURNAL

Table 7: Cross Loading Result

Indicator	Security	Convenience	Effectiveness	Satisfaction
X1.1	0.891	0.509	0.436	0.596
X1.2	0.854	0.522	0.327	0.576
X1.3	0.945	0.609	0.573	0.694
X1.4	0.883	0.603	0.446	0.635
X1.5	0.886	0.600	0.615	0.675
X2.2	0.585	0.886	0.727	0.601
X2.3	0.434	0.805	0.581	0.389
X2.4	0.608	0.913	0.812	0.602
X2.5	0.466	0.832	0.680	0.489
X2.6	0.581	0.829	0.640	0.488
X2.7	0.479	0.789	0.548	0.469
X2.8	0.640	0.889	0.793	0.592
X2.9	0.488	0.820	0.669	0.466
X3.1	0.475	0.681	0.872	0.539
X3.10	0.432	0.694	0.808	0.466
X3.11	0.504	0.715	0.884	0.558
X3.13	0.395	0.676	0.837	0.480
X3.14	0.329	0.625	0.766	0.389
X3.15	0.472	0.761	0.918	0.594
X3.3	0.477	0.714	0.878	0.557
X3.4	0.454	0.601	0.799	0.457
X3.5	0.532	0.724	0.924	0.608
X3.6	0.475	0.710	0.845	0.561
X3.7	0.472	0.634	0.781	0.505
X3.8	0.419	0.652	0.700	0.468
X3.9	0.491	0.712	0.915	0.566
Y.1	0.539	0.607	0.597	0.858
Y.2	0.675	0.441	0.481	0.828
Y.3	0.527	0.498	0.395	0.824
Y.4	0.712	0.573	0.624	0.917
Y.5	0.588	0.576	0.532	0.868
Y.6	0.654	0.559	0.617	0.882
Y.8	0.470	0.329	0.352	0.707

Note: Data processed by author

Based on table 6 and table 7, it can be seen that each security construct shows a higher value in each indicator compared to the other constructs. This phenomenon reflects that the security variable shows good discriminatory validity (Kock & Lynn, 2012).The same thing can also be observed in the ease construct, where each indicator has a higher construct value compared to other

MALIKI ISLAMIC ECONOMICS JOURNAL

indicator constructs. This fact indicates that the convenience variable has good discriminatory validity.

The results of the effectiveness variable also showed a high construct value in each indicator compared to other constructs. This gives an indication that the effectiveness variable has good discriminatory validity. Furthermore, in the satisfaction variable, it can be seen that the indicator value is higher than the construction value of other indicators. This states that the satisfaction variable also produces good discrimination validity.

Table 8: AVE Score Result

Variable	Average Variants Extracted
Security	0.796
Convenience	0.716
Effectiveness	0.711
Satisfaction	0.710

Note: Data processed by author

From table 8, it can be seen that the value of Average Variants Extracted (AVE) on all variables exceeds 0.5, so it can be concluded that these variables have good discriminatory validity (Ghozali & Latan, 2015).

Composite Reliability (CR) is used to measure the true reliability of a construct and is more optimal in assessing the internal consistency of the construct (Ghozali & Latan, 2015). On the other hand, Cronbach Alpha (CA) is used as the minimum limit on the reliability of a construct. The reliability criteria can be seen from the CR and CA values of each construct. The reliability level of a construct is considered high if it has a CR above 0.7 and a CA above 0.6 (Hair et al., 2013).

Table 9: CR & CA Result

Variable	Cronbach Alpha	Composite reliability
Security	0.936	0.951
Convenience	0.943	0.953
Effectiveness	0.966	0.969
Satisfaction	0.931	0.945

Note: Data processed by author

All CR values shown in table 9 exceed the threshold of 0.7. In addition, all CA values also exceeded the threshold of 0.6. It can be concluded that the CR and CA values show that each construct in this study has a good level of reliability (Hair et al., 2013).

MALIKI ISLAMIC ECONOMICS JOURNAL

Table 10: Inner Model Test

R-Square Result		R-Square
Satisfaction		0.587
Q-Square Result		**Q2**
Satisfaction		0.503
Goodness of Fit Test Result	**Saturated Model**	**Estimated Model**
SRMR	0.120	0.120
NFI	0.373	0.373

Note: Data processed by author

Based on the value in table 10, it can be seen that the R-Square value for satisfaction is 0.587, indicating a moderate model because the R-Square value exceeds 0.25. These results indicate that as much as 58% of the variation in the satisfaction variable can be explained by the variables of safety, convenience, and effectiveness. Meanwhile, the remaining 42% is influenced by other variables that are not explained in this study. Then Q2 shows a value > 0, so the model has good predictive power. Furthermore, in table 11, it can be seen that the Standardized Root Mean Square Residual (SRMR) value is 0.120 > 0.10 and the Normed Fit Index (NFI) value is 0.373 < 0.90, indicating that this model is appropriate. Thus, it can be concluded that the model used in this study has a good degree of compatibility and is reliable to test the research hypothesis (Ghozali, 2018).

Table 11: Output Path Coefficient

Interaction	Original Sample	Sample Mean	Standard Deviation	T-Statistics	P-values
Security -> Satisfaction	0.531	0.535	0.104	5.119	0.000*
Convenience -> Satisfaction	0.011	0.035	0.222	0.050	0.960
Effectiveness -> Satisfaction	0.323	0.301	0.263	1.230	0.219

Note: Data processed by author, * indicates significant at 5% level of significance

The original sample value is 0.531, which means that the safety has a positive variable relationship with satisfaction because the original sample value shows above 0. A p-value of 0.000, which is smaller than 0.05, along with a t-test value of 5.119 that exceeds 1.96, indicates a significant influence. Based on the results of this analysis, it can be concluded that the relationship between the security and satisfaction variables is positive, and there is a significant influence of security on satisfaction.

Analysis of respondents' answers shows that most agree with the security aspect, with an average of 42.6%, despite concerns about data confidentiality. This shows that errors and misuse of data in BSI Mobile security are important to customers and affect their satisfaction. In the aspect of security assurance, respondents were also satisfied, but security could still be improved. Lee (2009) and Ul Haq and Awan (2020) states that security is the most important factor in

MALIKI
ISLAMIC
ECONOMICS
JOURNAL

internet banking services that can increase customer trust. Therefore, the higher the level of security provided by BSI Mobile, the higher the level of customer satisfaction (Li et al., 2021).

The original sample value showed a number of 0.011, then the p-value showed a figure of 0.960. In addition, the t-test score obtained was 0.050. Based on the results of the analysis, it can be concluded that convenience has a positive variable relationship with satisfaction, but there is no significant influence on convenience on customer satisfaction in using BSI Mobile services.

The original sample value of 0.116 indicates a positive relationship between convenience and satisfaction. The majority of respondents, with an average agreement of 53.67%, gave a positive response to the convenience variable. However, several indicators show a low response rate, indicating that the convenience offered by BSI Mobile is not optimal. The conclusion of this study states that convenience does not have a significant effect on satisfaction, so increasing the ease of use of BSI Mobile will not have an impact on satisfaction levels (Jou et al., 2023; Shadiba Maharani et al., 2024).

The value of the original sample is 0.323. The p-value is 0.219. In addition, the t-test value is 1,230. The results of the analysis that can be concluded are that there is a positive variable relationship direction on effectiveness on satisfaction and there is no significant influence on effectiveness on customer satisfaction when transacting using BSI Mobile.

The original sample value of 0.323 indicates that effectiveness has a positive relationship to satisfaction with a positive response from respondents averaging 48.2%. However, several indicators with low response rates, especially in the aspect of smooth transactions, cause customer dissatisfaction with BSI Mobile services (Nawangwulan & Renny, 2024). This finding is in line with previous researches Muladi (2021) which shows that most customers have not fully utilized BSI Mobile services and prefer to transact directly at the bank. This study concluded that the level of effectiveness did not have a significant impact on satisfaction, with an impact of only 32.3%, while 67.7% was caused by other factors.

5. Conclusions

This study aims to reveal the transaction capabilities of student customers through security, convenience, and effectiveness of use on BSI Mobile. This study assigned 100 respondents with a purposive sampling technique through the PLS approach. The results of the research on the Influence of Security, Convenience, and Effectiveness of the Use of BSI Mobile on Transaction Customer Satisfaction (Case Study of BSI Customers with UIN Syarif Hidayatullah Jakarta Student Status), the results showed that security has a significant effect on customer satisfaction, where the higher the level of security provided, the higher the customer satisfaction in using BSI Mobile. On the other hand, convenience and

effectiveness do not have a significant effect on customer satisfaction. In other words, increasing the convenience and effectiveness of using the application will not have an impact on increasing customer satisfaction in the campus area of UIN Syarif Hidayatullah Jakarta.

Academics in the field of Islamic Banking are advised to utilize the BSI Mobile application in their daily activities and provide education to the public about the importance of switching to an Islamic economic system. Future research is expected to add additional variables and enrich references to present more comprehensive information about the factors that influence customer satisfaction. Bank Syariah Indonesia in the UIN Syarif Hidayatullah Jakarta campus area is expected to consider the results of this study as valuable input to improve and maximize the BSI Mobile system to increase customer satisfaction.

References

Abdillah, W., & Hartono, J. (2015). *Partial Least Square (PLS): Alternatif Structural Equation Modeling (SEM) Dalam Penelitian Bisnis* (22nd ed.). Penerbit Andi.

Bank Syariah Indonesia. (2024). *BSI Mobile Ujung Tombak untuk Tingkatkan Penetrasi Digital & Layanan Keuangan Terintegrasi*.

CNN Indonesia. (2023). *Ransomware Lockbit 3.0 Klaim Lumpuhkan BSI dan Curi Data Pengguna*.

Fianto, B. A., Rahmawati, C. K., & Supriani, I. (2021). Mobile banking services quality and its impact on customer satisfaction of Indonesian Islamic banks. *Jurnal Ekonomi & Keuangan Islam*, *7*(1), 59–76. https://doi.org/10.20885/jeki.vol7.iss1.art5

Field, A. (2018). Discovering Statistic Using IBM SPSS Statistic 6th. *Dk*, *53*(9), 1689–1699.

Ghozali, I. (2018). *Aplikasi analisis multivariate dengan program IBM SPSS 25*. http://files/244/index.html

Ghozali, I. (2021). *Partial Least Squares Konsep, Teknik dan Aplikasi Menggunakan Program SmartPLS 3.0 untuk Penelitian Empiris*. Badan Penerbit Universitas Diponergoro.

Ghozali, I., & Latan, H. (2015). *Partial least squares konsep, teknik dan aplikasi menggunakan program smartpls 3.0 untuk penelitian empiris*. Badan Penerbit UNDIP.

Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021). *Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R*. Springer International Publishing. https://doi.org/10.1007/978-3-030-80519-7

Hair, J. F., Ringle, C. M., & Sarstedt, M. (2013). Partial Least Squares Structural Equation Modeling: Rigorous Applications, Better Results and Higher Acceptance. *Long Range Planning*, *46*(1–2), 1–12. https://doi.org/10.1016/j.lrp.2013.01.001

Heriyana. (2020). Pengaruh Kepercayaan dan Keamanan Terhadap Keputusan

Mahasiswa dalam Belanja Online (Studi pada Mahasiswa STIE Rahmaniyah Sekayu). *Jurnal Ekonomi*, *10*(1), 33–39.

Hidayat, R., Umam, R., & Tripalupi, R. I. (2021). Kinerja Keuangan Perbankan Syariah Pada Masa Covid-19 dan Strategi Peningkatannya. *Finansha: Journal of Sharia Financial Management*, 2(2), 77–91.

Huda, M. Q., Hidayah, N. A., & Putra, S. J. (2016). A study of social technology use in State Islamic University (UIN) Syarif Hidayatullah Jakarta. *2016 4th International Conference on Cyber and IT Service Management*, 1–6. https://doi.org/10.1109/CITSM.2016.7577581

Indonesia, B. S. (2019). *Kebijakan Privasi PT Bank Syariah Indonesia Tbk*.

Indonesia, B. S. (2024). *Transaksi Digital Banking Naik 45%, BSI Apreasiasi Nasabah Lewat Hujan Rezeki BSI Mobile*.

Irwansyah, R., Listya, K., Setiorini, A., Hanika, I. M., Hasan, M., Utomo, K. P., Bairizki, A., Lestari, A. S., Rahayu, D. W. S., Butarbutar, M., Nupus, H., Hasbi, I., Elvera, & Diana Triwardhani. (2021). *Perilaku Konsumen*. Penerbit Widina Bhakti Persada Bandung.

Jogiyanto. (2007). *Sistem Informasi Keperilakuan. Edisi Revisi*. Andi Offset.

Jou, M., Nur Alfiana, I., & Amri, M. (2023). Pengaruh Kemudahan dan Kelengkapan Fitur BSI Mobile Terhadap Kepuasan dan Loyalitas Nasabah. *Mutanaqishah: Journal of Islamic Banking*, *3*(1), 55–66.

Juliandi, A., Irfan, Manurung, S., & Satriawan, B. (2018). *Mengolah Data Penelitian Bisnis dengan SPSS*.

Julianto, J., & Helvira, R. (2022). Peran Sistem Informasi Manajemen Bank Syariah Indonesia Dalam Membantu Peningkatan Perekonomian Dan Bisnis Di Era Digital. *OIKONOMIKA: Jurnal Kajian Ekonomi Dan Keuangan Syariah*, *3*(2), 144–155. https://doi.org/10.53491/oikonomika.v3i2.637

Kock, N., & Lynn, G. S. (2012). Lateral collinearity and misleading results in variance-based SEM: An illustration and recommendations. *Journal of the Association for Information Systems*, *13*(7), 546–580. https://doi.org/10.17705/1jais.00302

Lee. (2009). *Pengantar Manajemen*. Salemba Empat.

Lemeshow, Stanley, Hosmer, W, D., Klar, & Janelle. (1997). *Besar Sampel Dalam Penelitian Kesehatan*. Gadjah Mada University Press.

Li, F., Lu, H., Hou, M., Cui, K., & Darbandi, M. (2021). Customer satisfaction with bank services: The role of cloud services, security, e-learning and service quality. *Technology in Society*, *64*(July 2020), 101487. https://doi.org/10.1016/j.techsoc.2020.101487

Maharsi, S., & Fenny, F. (2007). Analisa Faktor-Faktor Yang Mempengaruhi Kepercayaan Dan Pengaruh Kepercayaan Terhadap Loyalitas Pengguna Internet Banking Di Surabaya. *Jurnal Akuntansi Dan Keuangan*, *8*(1), 35–51.

Maryani, A., & Yustini, S. (2018). Religious Behavior of Students UIN Syarif Hidayatullah Jakarta. *Proceedings of the 1st International Conference on Recent Innovations*, 268–274. https://doi.org/10.5220/0009928102680274

MALIKI
ISLAMIC
ECONOMICS
JOURNAL

Mukhtisar, M., Tarigan, I. R. R., & Evriyenni, E. (2021). Pengaruh Efisiensi, Keamanan Dan Kemudahan Terhadap Minat Nasabah Bertransaksi Menggunakan Mobile Banking (Studi Pada Nasabah Bank Syariah Mandiri Ulee Kareng Banda Aceh). *Jihbiz: Global Journal of Islamic Banking and Finance.*, *3*(1), 56. https://doi.org/10.22373/jihbiz.v3i1.9632

Muladi, A. (2021). Efektivitas Sistem Layanan Mobile Banking dalam Merespon Kebutuhan Nasabah di Era Pandemic Covid-19 (Studi pada Nasabah PT Bank Syariah Indonesia, Tbk KCP Bulukumba Sam Ratulangi). *Undergraduate (S1) Thesis Universitas Islam Negeri Alauddin Makassar*.

Nawangwulan, V. A. D., & Renny, R. (2024). Perception of Transaction Ease, Security and Trust on Customer Satisfaction in Using BSI Mobile Banking to Generation Z Customers in Jabodetabek. *Journal of Economics, Finance And Management Studies*, *07*(09), 5504–5518. https://doi.org/10.47191/jefms/v7-i9-04

Pratowo, B. (2023). *Gagal Tarik Tunai di ATM BSI, Saldo Terpotong*. Media Konsumen.

Putri, A., Sari, A., Ainun, N., Ramadhani, R., Sulfitra, M., & Sarbia, S. (2024). *Pengaruh Digitalisasi Perbankan Terhadap Kepuasaan Mahasiswa Pengguna Layanan Digital Bank Syariah (Studi Pada Mahasiswa UMP)*. *02*(02), 1137–1144.

Ramaadhan, P. N., Bustami, & Ardelia, A. S. (2024). Analisis Pengaruh Mobile Banking BSI Terhaadap Kepuasan Nasabah (Studi Kasus Mahasiswa Universitas Tanjungpura). *Prosiding Program Studi Ekonomi Islam 2024, 2*.

Raman, A., & Annamalai, V. (2011). Web Services and e-Shopping Decisions: A Study on Malaysian e-Consumer. *Wireless Information Networks & Business Information System*, *2*, 54–60.

Sa'diyah, W., & Marlena, N. (2018). Use of e-toll Cards: Satisfied Consumers? *Jurnal Manajemen Motivasi*, *14*(2), 73. https://doi.org/10.29406/jmm.v14i2.1193

Sabol, M., Hair, J., Cepeda, G., Roldán, J. L., & Chong, A. Y. L. (2023). PLS-SEM in information systems: seizing the opportunity and marching ahead full speed to adopt methodological updates. *Industrial Management & Data Systems*, *123*(12), 2997–3017. https://doi.org/10.1108/IMDS-07-2023-0429

Sapitri, A., Saputra, M. W., Putri, M. A., & Efendi, Y. (2023). Redesign Aplikasi M-Banking Metode Lean UX Dengan Pengujian A/B Testing (Studi Kasus BSI). *SATIN - Sains Dan Teknologi Informasi*, *9*(2), 112–124. https://doi.org/10.33372/stn.v9i2.1038

Sari, N. E., & Oswari, T. (2020). Pengaruh Kemudahan, Kepercayaan, Dan Keamanan Terhadap Kepuasan Pelanggan Melalui Keputusan Pembelian Pada Toko Online Tokopedia. *Creative Research Management Journal*, *3*(2), 34. https://doi.org/10.32663/crmj.v3i2.1550

Setiadi, N. J. (2019). *Perilaku Konsumen: Perspektif Kontemporer pada Motif, Tujuan, dan Keinginan Konsumen*. Prenada Media Group.

Shadiba Maharani, E., Sekarsari, M., & Zhafiraah, N. R. (2024). The Effect of

Convenience and Security on Satisfaction with Customer Interest as Mediator. *Research of Economics and Business*, 2(1), 11–24. https://doi.org/10.58777/reb.v2i1.207

Sugiyono. (2016). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. CV ALFABETA.

Sururin, S., Suparta, M., Hidayat, D. N., Alim, S., Hadiyansyah, D., & Zamhari, A. (2021). Conceptualizing Integration of Islamic Education and Education in General at UIN Syarif Hidayatullah Jakarta. *Jurnal Pendidikan Agama Islam (Journal of Islamic Education Studies)*, 9(1), 17–38. https://doi.org/10.15642/jpai.2021.9.1.17-38

Sutrisno, E. (2007). *Budaya Organisasi*. Fajar Interpratama Mandiri.

Taherdoost, H. (2018). Validity and Reliability of the Research Instrument; How to Test the Validation of a Questionnaire/Survey in a Research. *SSRN Electronic Journal*, 5(3), 28–36. https://doi.org/10.2139/ssrn.3205040

Tjiptono, F. (2014). *Pemasaran Jasa-Prinsip, Penerapan, dan Penelitian (1st ed.)*. Andi Offset.

Ul Haq, I., & Awan, T. M. (2020). Impact of e-banking service quality on e-loyalty in pandemic times through interplay of e-satisfaction. *Vilakshan - XIMB Journal of Management*, 17(1/2), 39–55. https://doi.org/10.1108/xjm-07-2020-0039

Universitas Islam Negeri Syarif Hidayatullah Jakarta. (2024). *Data & Fakta UINJKT*. Website Resmi.