

The Influence of Financial Literacy and Innovation on The Use of BSI Digital Services in Parepare, Indonesia

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ARTICLE HISTORY

Received: February 03, 2025

Revised: May 15, 2025

Accepted: May 27, 2025

DOI

<https://doi.org/10.52970/grdis.v5i3.1088>

ABSTRACT

This study aims to analyze financial literacy and innovation's influence on the decision to use Bank Syariah Indonesia (BSI) digital services in Parepare City. The research method uses a quantitative approach with multiple regression analysis. Data was obtained through research instruments tested for validity and reliability. The results showed that financial literacy had a positive and significant effect with a regression coefficient of 0.350 ($p < 0.05$), and financial innovation also had a positive and significant effect with a regression coefficient of 0.355 ($p < 0.05$) on the decision to use BSI digital services. Simultaneously, these two variables had a significant influence with an F-count value of 50.794 ($p < 0.05$) and could explain 51.2% of the variation in the decision to use BSI services. This study concludes that increasing financial literacy and developing banking service innovations are important in encouraging BSI digital services in Parepare City.

Keywords: Financial Literacy, Financial Innovation, Digital Services, Bank Syariah Indonesia.

I. Introduction

The development of the digital era has significantly transformed the Islamic banking system in Indonesia, placing financial literacy as a fundamental element in people's financial management. In developing areas such as Parepare City, the level of financial understanding of the community still requires special attention. Lusardi and Mitchell define financial literacy as a combination of knowledge and essential skills in making the right financial decisions, including understanding Islamic banking products and services (Yushita, 2017). The digital transformation phenomenon is reflected in the development of Bank Syariah Indonesia (BSI), which is marked by a substantial increase in BSI Mobile users. In 2022, BSI Mobile recorded active user growth from 2.3 million to 3.8 million users, increased to 4.5 million users in 2023, and as of June 2024, reached 7 million users. This achievement results from the digital transformation of Islamic banking and the implementation of government policies that encourage financial inclusion. In the context of these developments, financial system innovation plays a role as a catalyst in the development of the banking sector. Arner confirmed that financial innovation contributes to improved accessibility and efficiency of financial services (Ayuningtyas et al., 2024). However, the reality in Parepare City shows that although most of the Muslim population is interested in Islamic banking services, the limitations of socialization and product understanding are still the main obstacles.



Literature reviews show that previous studies separately focus on a single aspect, either financial literacy or digital innovation. The study of Nadila (2021) and Putri (2021) limits the analysis to the impact of financial literacy on interest in using Islamic banking products without considering the aspect of digital innovation. Meanwhile, Kasman and Ruslan's (2023) research only examines aspects of sharia mobile banking digital innovation without analyzing the role of financial literacy in adopting these innovations. Although Lazriyani and Yarham (2023) have combined aspects of financial literacy and inclusion, their research is limited to student groups and has not considered the role of digital innovation in the preference for using Islamic banking products.

The research gap is also seen from the methodological aspect, where most research uses a single approach - either quantitative or qualitative - and focuses on specific population segments such as students or MSME actors. In addition, the geographical context of previous research has not specifically examined the dynamics of the adoption of Islamic banking digital services in developing areas such as Parepare City, which has different socio-economic characteristics and digital literacy levels from metropolitan areas. A comprehensive synthesis conducted by Menne (2023) identifies development trends. However, it has not provided an in-depth analysis of the interaction between financial literacy and digital innovation in the context of adopting Islamic banking services. This research aims to fill this gap by simultaneously analyzing the influence of financial literacy and digital innovation on people's decisions to adopt BSI digital services, especially in developing regions. This approach is expected to provide a more comprehensive understanding of the factors that affect the adoption of Islamic banking digital services in contemporary society. Although these studies have made significant contributions, a gap exists in understanding the interaction between financial literacy and digital innovation in adopting Islamic banking digital services, especially in developing regions such as Parepare City. This study aims to fill this gap by analyzing the influence of these two factors simultaneously on people's decisions to adopt BSI digital services. Thus, this study aims to analyze the influence of financial literacy and digital innovation on the decision of the people of Parepare City to adopt BSI digital services. Through a comprehensive exploration of financial literacy aspects in financial decision-making and the impact of mobile banking innovation, this research is expected to develop effective financial education programs and increase public participation in the Islamic banking system.

II. Literature Review and Hypothesis Development

The leading theory used in this study is the Technology Acceptance Model (TAM), one of the models generally used to explain user acceptance of information technology systems. TAM is a theoretical development of the Theory of Reasoned Action (TRA) by Ajzen and Fishbein. Davis first introduced this model. The TAM developed by Davis has added two primary constructs to the TRA model. Perceived ease of use and perceived usefulness are the two primary constructs added. TAM explained that the two primary constructs determine the user's acceptance of the information technology system. The constructs of the unmodified TAM consist of five primary constructions: perceived ease of use, perceived usefulness, attitude towards using, behavioral intention to use, and actual system usage (STIKOM, 2017).

2.1. Financial Literacy

Financial literacy is the ability to understand financial conditions and the concept of financial concepts to change that knowledge appropriately into behavior (Gws & Febriaty, 2018). According to Tribuana (2020), in his research, financial literacy is the ability of an individual to manage their finances so that there are no financial difficulties in their life (Tribuana et al., 2020). Research conducted by Kusumaningtyas & Sakti (2017) concluded that financial literacy is a series of processes that aim to manage finances and participate in economic life (Sada, 2022). From this explanation, it can be concluded that financial literacy is not only limited to theoretical understanding but also includes practical implementation in daily financial management and active participation in the broader economic system.

2.2. Financial Innovation

Financial innovation can be defined as a market change for consumers and business debt. Financial innovation has a variety of activities, namely (1) creating new financial products with Payoffs that are desired/agreed upon by the consumer and (2) providing new financial services such as ATMs, cash cards, etc. (Khalifaturofi'ah, 2019). Innovation plays an important role in the financial sector, including banking. Banking must produce new products in response to public requests that are more creative and innovative, so that banking can be maintained amid intense competition (Ayuningtyas et al., 2024). With this, it can be concluded that financial innovation is a significant change in the market that impacts consumers and businesses, including creating new financial products and providing services such as ATMs (Automatic Teller Machines). This innovation is important for the banking sector, which needs to develop creative products to meet the community's demands. Adaptability and innovation are the keys for banks to maintain their existence during intense competition.

2.3. Purchase/use decision

According to Hadari, Nawawi defines a decision as the result of considering something that will be implemented in real life. The decision can also be interpreted as the best result when choosing one of the two or several alternatives faced. Decision-making is a process or series of activities analyzing various facts, information, data, theories/opinions that finally arrive at one conclusion that is considered the best and most appropriate (Raihan, 2016). Individuals or groups make purchasing decisions to choose, buy, use, and utilize goods or services to meet their needs or desires (Kotler & Keller, 2012; Sanjaya & Budiono, 2021). Based on the description above, the decision results from the consideration process to carry out a real action, which is chosen as the best solution from several existing alternatives. Decision-making involves analyzing facts, information, data, and theories to reach appropriate conclusions. In the context of purchasing, the decision is the process of individuals or groups in choosing, purchasing, and using goods or services to meet their needs or desires.

2.4. Hypothesis

A hypothesis is a provisional statement or conjecture formulated based on a theory or initial observation, which will then be tested through research. The hypothesis serves as a guideline for research, providing direction on what to test and measure.

- H1 : Financial literacy has a positive effect on the decision of the people of Parepare City to use Bank Syariah Indonesia (BSI) services.
- H2 : Financial innovation has a positive effect on the decision of the people of Parepare City to use Bank Syariah Indonesia (BSI) services.
- H3 : Financial literacy and financial innovation simultaneously have a positive and significant effect on the decision of the people of Parepare City to use Bank Syariah Indonesia (BSI) services.

III. Research Method

The type of research used in this study is quantitative, with data in the form of numbers analyzed using statistical methods. The approach used in this study is associative. The associative approach aims to identify the correlation between several variables. In this context, the study explores the relationship between financial literacy and financial innovation and the decision to use the digital services of Indonesian Islamic

banks. The variables of this study include financial literacy and financial innovation as independent variables and the decision to use Islamic bank digital services as dependent variables.

3.1. Population and sample

Population is a generalization area consisting of objects/subjects with specific qualities and characteristics determined by the researcher to be studied and then drawn conclusions.(Suggestion, 2013). The population in this study is the people of Parepare City. The sampling technique uses non-probability sampling, where not all population members have the same chance of being in the research sample. (Suggestion, 2013). The method used is purposive sampling with three main criteria: first, being a customer of Bank Syariah Indonesia who uses mobile banking services. Second, domiciled in Parepare City. Third, have access to digital services. With the criteria that have been determined and the number unknown, the researcher uses the Lameshow formula to calculate the number of samples in this study. The number of samples produced from calculating the Lame's show formula is 96.

$$n = \frac{z^2 p (1 - p)}{(d)^2}$$

Information:

n = Number of samples

Z = Z score at 95% confidence (1.96)

d = Alpha (0.10) or sampling error = 10%

p = Maximum estimate (0.5)

In this study, data collection uses a questionnaire motif; each statement is measured using a 5-point Likert Scale with the following criteria:

Table 1. Scale Likert

Description	Score
Strongly Agree	1
Agree	2
Neutral	3
Disagree	4
Strongly disagree	5

3.2. Data analysis methods

The data analysis in this study uses a statistical approach processed through the Statistical Package for Social Science (SPSS) version 26 program. This study applies several stages of analysis. The first stage involves testing research instruments consisting of two components. The first component is a validity test that aims to measure the accuracy of each item in the research instrument. The second component is a reliability test that evaluates the measuring instrument's consistency and reliability. The second stage applies a classic assumption test that includes three tests. First, the normality test with the Kolmogorov-Smirnov method ensures the data distribution's normality. Second, the multicollinearity test through VIF value analysis and tolerance is used to detect correlations between independent variables. Third, the heteroscedasticity test with the Glejser method to evaluate the uniformity of residual variance. The third stage tests the hypothesis through several statistical analyses. The primary analysis uses multiple linear regression with the equation:

$$Y = a + b_1X_1 + b_2X_2 + e$$

Information: Y = Community decision (dependent variable) a = Constant b_1, b_2 = Regression coefficient X_1 = Financial literacy (first independent variable) X_2 = Financial innovation (second independent variable) e = Error term.

Furthermore, a t-test was carried out to analyze the individual influence of each independent variable, an F test to evaluate the simultaneous influence of independent variables, and a determination coefficient (R^2) test to measure how much the independent variables could explain the variation of dependent variables in the research model.

IV. Results and Discussion

4.1. Statistical Results

4.1.1. Validity Test

Table 2. Validity Test Results

Variable	Sig	Description
X1	> 0.05	Valid
X2	> 0.05	Valid
Y	> 0.05	Valid

The significance value is 0.05. Thus, the research instruments for variables X_1 , X_2 , and Y are declared statistically invalid.

4.1.2. Reliability Test

Table 3. Reliability Test

Variable	Sig	Description
X1	>0.60	Valid
X2	>0.60	Valid
Y	>0.60	Valid

From Table 3, the Cronbach's Alpha value is more than 0.60. This shows that all variable instruments in this study are reliable or meet the criteria, so the data used for subsequent analysis can be trusted and feasible.

4.1.3. Normality Test

Table 4. Normality Test

Variable	Tolerance	Value	Description
Financial Literacy	0,412	2,426	No Multicollinearity
Financial Innovation	0,412	2,426	No Multicollinearity

Based on Table 4, the significant value of $asymp.sig.$ (2-tailed) by 0.00 is smaller than 0.05. Based on Kolmogorov's decision-making criteria, this indicates that the data is not normally distributed. Therefore, the assumptions and statements of normality in the regression model are unmet.

4.1.4. Heteroscedasticity Test

Based on the results of the heteroscedasticity test, it can be seen that there is no heteroscedasticity in the Financial Literacy variable because it has a significance value of 0.464 (> 0.05) which means that there is no heteroscedasticity in this variable, Financial Innovation has a significance value of 0.001 (< 0.05) which indicates the occurrence of heteroscedasticity in this variable, and the Purchase/Use Decision has a significance value of 0.000 (< 0.05) which indicates that it occurs heteroscedasticity in this variable

4.1.5. Multiple Regression Analysis Test

$$Y = a + b_1X_1 + b_2X_2 + e$$

$$Y = 2,449 X_1 + 0,350 X_2 + e$$

Explanation:

The constant of 2,449 indicates that even though the Financial Literacy value is zero, the decision to purchase/use Bank Syariah Indonesia's digital services will remain at 2,449. The regression coefficient of Financial Innovation is 0.350, meaning that every 1 point increase in Financial Literacy will impact the increase, so the decision to purchase/use Bank Syariah Indonesia's digital services will remain at 2,449, assuming other independent variables are constant. The standard error (e) is a random variable that reflects all factors that affect Y, but is not included in the regression equation of this study.

4.1.6. T-Test

Table 5. T-test

Coefficient A						
Model		Coefficient Non-Standard		Standard Coefficient beta	t	Sig
		B	Standard errors			
1	(Constant)	2.449	1.436		1.706	.091
	Financial Literacy	.350	.122	.320	2.866	.005
	Financial Innovation	.355	.089	.447	4.006	.000

a. Dependent Variables: Purchase/Use Decisions

The Financial Literacy variable has a t-count value of 2.866 with a significance of 0.005 ($p < 0.05$), indicating that Financial Literacy partially has a significant positive effect on Purchase/Use Decisions. The Financial Innovation variable has a t-count value of 4.006 with a significance of 0.000 ($p < 0.05$), indicating that Financial Innovation also partially has a significant positive effect on Purchase/Use Decisions.

4.1.7. F-Test

Table 6. F-Test

Variance Analysis						
Model		Sum Squared	DF	Average Square	F	Sig
1	Regression	1416.351	2	708.176	50.794	.000b
	Constant	1296.607	93	13.942		
	Total	2712.958	95			

a. Variable dependent: Purchase/Use Decision

b. Predictors: (constant), Financial Innovation, Financial Literacy

The results of the F test showed an F-count value of 50.794 with a significant level of 0.000 ($p < 0.05$). This proves that the variables of Financial Literacy and Financial Innovation simultaneously (together) significantly influence Purchase/Use Decisions.

4.1.8. Determination Coefficient Test (R^2)

Table 7. R^2 Test

Model Summary				
Type	R	R Square	R Adjusted Squared	Std. Error of the Estimate
1	.723a	.522	.512	3.734
a. Predictors: (Constant), Financial Innovation, Financial Literacy				

The R Square value of 0.522 or 52.2% with an Adjusted R Square of 0.512 or 51.2% shows that Financial Literacy and Financial Innovation variables can explain the variation in changes in Purchase/Use Decisions by 51.2%. In comparison, the remaining 48.8% is explained by other variables not included in this research model. The correlation value (R) of 0.723 shows a strong relationship between the independent and dependent variables.

4.2. Discussion

4.2.1. Financial literacy has a positive effect on the decision of the people of Parepare City to use the digital services of Bank Syariah Indonesia (BSI) KC ParePare.

The results of the study stated that financial literacy had a positive effect on the decision of the people of Parepare City to use the services of Bank Syariah Indonesia (BSI). This is evidenced by a regression coefficient value of 0.350 and a significance value of 0.005 ($p < 0.05$), which indicates a positive and significant influence. These findings show that the higher the level of financial literacy of the community, the higher their tendency to use BSI services.

4.2.2. Financial innovation has a positive effect on the decision of the people of Parepare City to use the digital services of Bank Syariah Indonesia (BSI) KC Parepare

Based on the results of the study, it was stated that financial innovation had a positive effect on the decision of the people of Parepare City to use Bank Syariah Indonesia (BSI) services. The analysis showed a regression coefficient value of 0.355 with a significant value of 0.000 ($p < 0.05$). This confirms that financial innovation has a positive and significant influence on the decision to use BSI services, where the better financial innovations are offered, the higher the level of use of the service.

4.2.3. Financial literacy and financial innovation simultaneously have a positive and significant effect on the decision of the people of Parepare City to use Bank Syariah Indonesia (BSI) services.

Based on the study's results, it was stated that financial literacy and financial innovation simultaneously had a positive and significant effect on the people of Parepare City to use the services of Bank Syariah Indonesia (BSI). This is evidenced by the F-test results, which show an F-count value of 50.794 with a significance of 0.000 ($p < 0.05$). Furthermore, the Adjusted R Square value of 0.512 indicates that the two independent variables can explain 51.2% of the variation in the decision to use BSI services. In contrast, the remaining 48.8% is explained by other variables not included in this research model.

V. Conclusion

Based on the research data analysis on the influence of financial literacy and financial innovation on the decision to use Bank Syariah Indonesia (BSI) digital services in Parepare City, several important findings were found. The results of the validity and reliability test show that the research instrument is reliable and suitable for analysis, although there are some limitations in the normality of the data. Multiple regression analysis revealed that financial literacy had a positive and significant influence with a regression coefficient of

0.350 ($p < 0.05$). At the same time, financial innovation also showed a positive and significant influence with a regression coefficient of 0.355 ($p < 0.05$) on the decision to use BSI digital services.

Simultaneously, the two independent variables had a significant influence, as evidenced by the F-count value of 50.794 ($p < 0.05$). This research model explained 51.2% of the variation in the decision to use BSI services, as indicated by the Adjusted R Square value. Other factors outside the research model explained the remaining 48.8%. The correlation value (R) of 0.723 indicates a strong relationship between the independent and dependent variables. These findings confirm that increasing financial literacy and developing banking service innovations are important in encouraging BSI digital services in Parepare City. Therefore, efforts to improve people's financial literacy and the development of banking service innovations need to be carried out continuously to increase the adoption of Islamic banking services in the region.

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