

The Role of Fintech in Improving Service Accessibility at Indonesian Sharia Banks in Pontianak City

Peran Fintech Dalam Meningkatkan Aksesibilitas Layanan Pada Bank Syariah Indonesia di Kota Pontianak

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DOI: 10.55963/jumpa.v13i1.888

Abstract - This study analyzes the role of fintech in improving the accessibility of financial services at Bank Syariah Indonesia (BSI) in Pontianak City. The background of this study is the gap in access to financial services for small communities that are difficult to reach by conventional banks. This study uses a quantitative approach with a survey method of 150 active BSI customers who use fintech services, selected through purposive sampling. Data were collected using questionnaires and analyzed with multiple linear regression using SPSS to test the effect of the variables of availability, ease of use, and security of fintech services on the variable of financial service accessibility, including ease of access, service coverage, and financial literacy. The results are expected to provide empirical evidence of the effectiveness of fintech in expanding financial access at BSI and measure customer satisfaction with fintech. This study contributes to the literature on sharia fintech with a focus on empirical analysis in the context of BSI customers in Pontianak, while also serving as a reference for stakeholders in developing sharia banking digital strategies to improve services and empower small communities economically.

Keywords: Availability, Accessibility, Bank Syariah Indonesia, Convenience, Security.

Abstrak - Penelitian ini menganalisis peran fintech dalam meningkatkan aksesibilitas layanan keuangan pada Bank Syariah Indonesia (BSI) di Kota Pontianak. Latar belakang penelitian adalah kesenjangan akses layanan keuangan bagi masyarakat kecil yang sulit dijangkau oleh perbankan konvensional. Penelitian menggunakan pendekatan kuantitatif dengan metode survei terhadap 150 nasabah aktif BSI yang menggunakan layanan fintech, dipilih melalui teknik purposive sampling. Data dikumpulkan menggunakan kuesioner dan dianalisis dengan regresi linier berganda menggunakan SPSS untuk menguji pengaruh variabel ketersediaan, kemudahan penggunaan, dan keamanan layanan fintech terhadap variabel aksesibilitas layanan keuangan, termasuk kemudahan akses, jangkauan layanan, serta literasi keuangan. Hasil diharapkan memberikan bukti empiris efektivitas fintech dalam memperluas akses keuangan di BSI dan mengukur tingkat kepuasan nasabah terhadap fintech. Penelitian ini memberikan kontribusi dalam literatur fintech syariah dengan fokus pada analisis empiris di konteks nasabah BSI di Pontianak, sekaligus menjadi acuan bagi pemangku kepentingan dalam pengembangan strategi digital perbankan syariah guna meningkatkan pelayanan dan pemberdayaan ekonomi masyarakat kecil.

Kata Kunci: Aksesibilitas, Bank Syariah Indonesia, Keamanan, Kemudahan, Ketersediaan.

INTRODUCTION

Background

The Islamic financial system in Indonesia continues to experience significant development, including in the Islamic banking sector. Islamic banks play a crucial role in empowering the community, particularly micro, small, and medium enterprises (MSEs), which struggle to access conventional banking services. Islamic banks offer alternative financing based on Sharia principles, such as fairness, transparency, and the prohibition of usury, aiming to provide ethical and inclusive solutions (Ridwan et al., 2022; Syarifuddin et al., 2023). Islamic financial products such as murabahah, mudharabah, and musyarakah are implemented based on the principles of risk sharing and avoiding usury, distinguishing the Islamic financial system from conventional systems by emphasizing fairness and sustainability, particularly for Bank Syariah Indonesia (BSI) customers in Pontianak City (Okri Handoko et al., 2021; Nurrachmi, 2019; Irawan, 2018).

Pontianak City, with its significant economic potential in the agriculture, fisheries, and trade sectors, faces various challenges such as limited infrastructure, extensive geographic reach, and low public financial literacy. These obstacles hinder the optimal use of BSI as an instrument of economic empowerment (Syarifuddin et al., 2023). BSI also faces competition from conventional financial institutions and loan sharks. Amid these challenges, financial technology (fintech) has emerged as an innovative solution to improve the efficiency and accessibility of financial services. Fintech, with its digital platform, can reach a wider audience, overcome geographical constraints and operational costs, and has the potential to strengthen BSI's role in disbursing financing in accordance with Sharia principles (Cao et al., 2021; Luthfi Khairunnisa & Slamet Rusydiana, 2023).

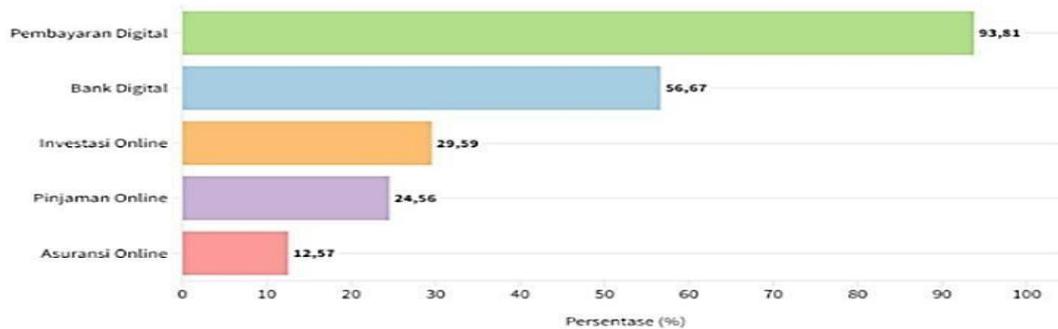


Figure 1. Fintech Usage Statistics Data for 2023

Source: Pernando, 2023.

Based on the data above, fintech usage in digital banks reached 56.67% in 2023, indicating that the average consumer is using fintech more frequently in their digital banking activities. One example is Bank Syariah Indonesia (BSI). BSI uses a digital platform called "Beyond" to provide product information, open accounts, conduct transactions, apply for financing, and more (Moch Dzul Fahmi et al., 2023). Customer identity verification is conducted online, making it faster and more efficient. This reduces the need for physical meetings and expedites the account opening process. BSI is integrated with digital payment systems, such as e-wallets, online bank transfers, and virtual accounts, making it easier for customers to make payments, deposits, and withdrawals.

Fintech Beyond at BSI directly connects lenders and borrowers, with Sharia-compliant contracts. This opens up access to financing for BSI business customers and individual customers who struggle to access conventional banks. BSI's fintech application helps customers manage their finances with features such as transaction recording, budget planning, and financial analysis, all of which are aligned with Sharia principles (Yahya, 2021).

However, the implementation of fintech services in Pontianak still faces challenges such as technology adoption by the public and infrastructure readiness. Furthermore, there are few quantitative studies empirically measuring the impact of fintech on the accessibility of BSI services in Pontianak. This study aims to fill this gap by quantitatively examining the influence of the availability, convenience, and security of fintech services on the accessibility of BSI services in Pontianak City. A questionnaire survey approach was used to collect data from BSI Pontianak customers, and the results were statistically analyzed using SPSS with regression tests, ANOVA, and t-tests to test the causal relationship between fintech variables and service accessibility.

To date, there has been limited quantitative research specifically assessing the impact of fintech on the accessibility of BSI services in Pontianak. Previous research has been largely qualitative, focusing on other regions or on different aspects of fintech without empirically examining the specific context of Pontianak, despite the unique geographic and socioeconomic conditions of this region. This study aims to address the lack of quantitative analysis in examining the influence of fintech availability, convenience, and security on accessibility.

This research offers novelty by being the first to quantitatively measure the detailed relationship between fintech use and the accessibility of Islamic banking services in Pontianak, using indicators such as reach, ease of use, and speed of service. The study uses an advanced statistical approach to empirically test the influence of fintech "Beyond" from the perspective of Islamic banking customers in

areas with varying technological and economic challenges. The study also presents quantitative customer satisfaction data, a topic that remains largely unexplored.

This research provides theoretical contributions, adding empirical evidence and quantitative models to the impact of fintech on Islamic banking in an under-researched local context, particularly Pontianak. Practically, it provides data-driven recommendations for Islamic banking and stakeholders in developing more effective and inclusive fintech services, tailored to Pontianak's local challenges. This research can also serve as a policy reference for regulators in supporting the development of Islamic fintech, particularly in areas with access and infrastructure constraints. Methodologically, this study also offers a quantitative survey approach and statistical analysis that can be adopted by future studies in Islamic banking and financial technology in other regions. By focusing on the influence of the availability, convenience, and security of fintech services on accessibility, this study will fill the gap in the literature while providing empirical evidence and strategic recommendations for fintech development at BSI Pontianak so that it can increase more effective and sustainable sharia financial inclusion.

This research uses a quantitative approach with a survey method to solve the problem. The focus of this study is on the collection and analysis of numerical data to test hypotheses and generalize findings to a broader population. The goal is to measure and analyze the relationship between fintech usage and the level of accessibility of BSI services. Data collection was conducted by asking structured questions in the form of a questionnaire to a number of respondents, namely BSI customers in Pontianak City, to obtain information about fintech usage and BSI service accessibility. The questionnaire data will be statistically processed using SPSS with regression tests and analyzed descriptively. The implications of the research findings can inform the development of BSI services and fintech utilization in Pontianak City.

Despite the rapid growth of fintech, there is a research gap. Previous studies have focused more on fintech adoption in general or in large cities in Java. Few empirical studies have specifically measured how technical variables (availability, convenience, security) affect BSI service accessibility in areas with unique infrastructure characteristics like Pontianak. Based on the urgency to fill this literature gap, the research question is: Do the availability of fintech services, ease of use of fintech services, security of fintech services, and the overall role of fintech (availability, convenience, and security) positively influence the accessibility of Islamic financial services?

Previous research on the State of the Art (ART) has demonstrated the potential of fintech to improve efficiency, accessibility, and inclusion in Islamic finance. Previous research has examined the growing popularity of e-wallets, mobile banking, and Islamic peer-to-peer lending, focusing on their benefits and challenges. Previous research has examined fintech adoption and the factors influencing digital literacy, trust, ease of use, and consumer preferences. This research's novelty will provide a specific contribution to the context of the relationship between fintech use and the accessibility of Islamic financial services in Pontianak City. It is hoped that the findings will provide relevant information for the development of Islamic financial services and the implementation of fintech in Pontianak City. The current study was designed to quantitatively measure the accessibility of Islamic financial services using a questionnaire, utilizing indicators of reach, convenience, and speed.

This study was conducted to find empirical evidence regarding the impact of fintech on accessibility, a factor that may have been underexplored by previous research. Furthermore, this study specifically measures customer satisfaction levels regarding fintech use in accessing Islamic Banking (BSI) services. The information obtained will provide a deeper understanding of fintech's effectiveness from a user perspective. This study uses in-depth statistical analysis (t-test, ANOVA, and regression) to test the research hypotheses and identify causal relationships between fintech use and accessibility.

This research is expected to make a significant empirical contribution to the literature on fintech, particularly in the context of Islamic Banking (BSI) services and accessibility. The results can be used as a basis for developing more effective strategies for utilizing fintech in the Islamic financial sector.

LITERATURE REVIEW

This research is based on two main theories. First, the technology acceptance model (TAM) proposed by Davis, which emphasizes that information system acceptance is determined by perceived ease of

use and perceived usefulness. Second, the resource-based view (RBV), which views banking technology capabilities as a strategic resource for creating a competitive advantage in reaching customers.

Financial literacy and public trust in digital financial services are key factors in driving fintech adoption and increasing financial inclusion (Syarifuddin et al., 2023). Data security and privacy protection are key aspects influencing user interest in utilizing Sharia-compliant fintech services, while concerns about potential data breaches can hinder adoption of this technology (Fadli & Andriani, 2024). Therefore, improving Sharia-compliant financial literacy and enforcing comprehensive regulations are crucial to building public trust and ensuring the effective and safe use of fintech services (Yahya, 2021; Mulyana et al., 2024).

The use of digital technologies, such as mobile banking and fintech platforms, has demonstrated a positive impact on increasing access to financial services, particularly during the COVID-19 pandemic, which accelerated the digitalization of Islamic financial services in Indonesia (Widyandri & Laila, 2022; Lukmayani et al., 2021). In addition to technological aspects, cultural factors and public education regarding Islamic finance also play a significant role in increasing interest and trust in Islamic fintech (Luthfi Khairunnisa & Slamet Rusydiana, 2023).

In general, the successful development of Islamic fintech in Indonesia depends heavily on the integration of literacy, security, trust, and regulations that support sustainable innovation in Islamic finance.

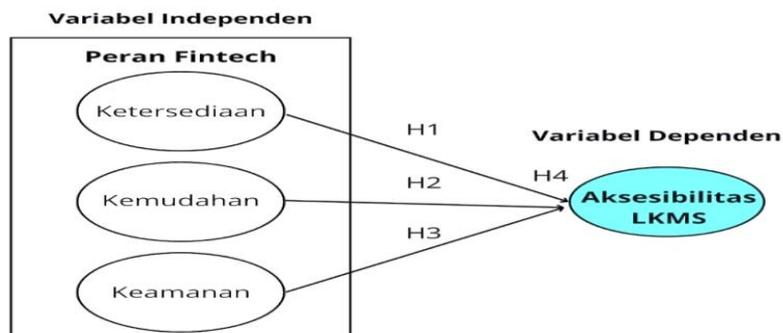


Figure 3. Research Framework

Pengembangan Hipotesis

Berdasarkan teori dan penelitian terdahulu, hipotesis yang diajukan adalah:

- H1: Ketersediaan layanan berpengaruh positif terhadap aksesibilitas layanan BSI.
- H2: Kemudahan penggunaan berpengaruh positif terhadap aksesibilitas layanan BSI.
- H3: Keamanan dan kepercayaan berpengaruh positif terhadap aksesibilitas layanan BSI.

RESEARCH METHOD

Based on the type of data and analysis, this research is considered quantitative. A quantitative approach is the science and art of data collection, analysis, and interpretation to inform conclusions and decision-making. Based on the level of explanation, this research is associative, aiming to determine the relationships between variables.

The population in this study was all customers of Bank Syariah Indonesia (BSI) in Pontianak City, with a sample of 264 respondents. The sample size was measured using the theory of Sarstedt et al. (2021) using the inverse square root method, which considers the probability that the ratio of the path coefficient and its standard error will be greater than the critical value of the test statistic for a given significance level. Therefore, the results depend only on one path coefficient and are independent of the most complex regression model (formative) or the overall model size. Assuming a general power level of 80% and significance levels of 1%, 5%, and 10%, the minimum is the same. The sample size (n_{min}) is presented by the following equations, respectively, where p_{min} is the path coefficient value with the minimum magnitude in the PLS path model.

$$\text{Significance level} = 5\%: n_{min} > \left(\frac{2.486}{|P_{min}|} \right)^2 \tag{1}$$

With a significance level of 5% and a minimum path coefficient of 0.2, the minimum sample size is as follows:

$$n_{min} > \left(\frac{2.486}{0.153} \right)^2 = 264 \tag{2}$$

Therefore, it can be concluded that the sample size for this study was 264 respondents.

The sampling technique used in this study was non-probability sampling with purposive sampling. The sample selection criteria were Bank Syariah Indonesia customers who use the Byond application. Data collection techniques used were literature review, questionnaires, and interviews. The variables used were service availability (X_1), ease of use (X_2), security and trust (X_3), and indikatoraccessibility (Y). Further details can be seen in the following table:

Table 1. Variables, Indicators and Measurement Scales

Variable	Indicator	Scala Type	Source
Service availability (X_1)	Number of available Sharia-compliant fintech platforms Types of fintech services (e.g., loans, investment payments)	Interval	(Mulyana et al., 2024; Yahya, 2021).
Ease of use (X_2)	Ease of access Ease of registration and verification process Ease of navigation and use of fintech features	Interval	(Mulyana et al., 2024; Widyandri & Laila, 2022; Yahya, 2021).
Security and trust (X_3)	Security of personal data and transactions Reputation and credibility of the fintech platform Availability of customer service	Interval	(Muzdalifa et al., 2018).
Accessibility (Y)	Financial access and service coverage Financial information and literacy	Interval	(Muzdalifa et al., 2018).

Source: Processed data, 2025.

Data processing and analysis techniques were divided into two: descriptive analysis and structural equation modeling partial least squares (SEM-PLS). Descriptive statistics were used to analyze research variable data based on the mean, standard deviation, maximum, and minimum values, thus providing a clear understanding and presenting the characteristics of a sample. SEM-PLS analysis, on the other hand, was used to test previously formulated hypotheses using a structural model with the Smart-PLS 3.0 analysis tool.

This research was quantitative, focusing primarily on data collection and numerical analysis to test hypotheses or explain relationships between variables. Data were collected from questionnaires and measured using a Likert scale. The data were then analyzed using statistical testing tools. The sampling technique used was a non-probability sampling technique using purposive sampling, with respondents being LKMS customers who actively use fintech.

Population and Sample

The population in this study was customers using the BSI mobile banking application in Pontianak City. Because the exact population size was unknown, the sample was determined using the Slovin formula with a 10% margin of error. Based on this calculation, the sample size was set at 100 respondents. The sampling technique used was purposive sampling, with the criterion of being active customers for at least 6 months.

Analysis Method

This research uses a quantitative approach. Hypothesis testing was conducted using structural equation modeling (SEM) based on partial least squares (PLS) with the aid of smart-PLS 3.0 software. This method was chosen because of its ability to analyze complex paths within the available sample size.

FINDINGS AND DISCUSSION

Findings

Research Results: Data Analysis of Respondent Characteristics

The analysis of respondent characteristics in this study aims to provide a general overview of the background of the participants. These characteristics include gender, age, highest level of education, occupation, monthly income, monthly expenses, BSI customer status, and frequency of use of BSI services.

Based on data collected from 100 respondents, the majority of participants in this study were male (55%), while females made up 45%. In terms of age, respondents were predominantly in the 20-30 age group (40%) and 31-40 age group (35%), indicating that the majority of respondents were of productive age. The highest level of education for respondents was a bachelor's degree (50%) and high school graduates (30%). In terms of occupation, private sector employees (35%) constituted the largest group, followed by civil servants and self-employed/entrepreneurs, each with 20%.

Table 2. Respondent Characteristics

No	Characteristic Group	Category	Amount (Example)	Percentage (%)
1.	Gender	Man	55	55%
		Women	45	45%
		Total	100	100%
2.	Age	< 20 year	5	5%
		20 - 30 year	40	40%
		31 - 40 year	35	35%
		41 - 50 year	15	15%
		> 50 year	5	5%
		Total	100	100%
3.	Last Education	High school/equivalent	30	30%
		D1/D2/D3	5	5%
		Bachelor (S1)	50	50%
		Postgraduate (S2)	10	10%
		Doctoral (S3)	5	5%
		Total	100	100%
4.	Work	Students	15	15%
		Government employees	20	20%
		Private employees	35	35%
		Self-employed/entrepreneur	20	20%
		Other	10	10%
		Total	100	100%
5.	Monthly income	Less than Rp. 1 million	10	10%
		Rp. 1 juta - Rp. 3 million	35	35%
		Rp. 3,1 juta - Rp. 4 million	25	25%
		Rp. 4,1 juta - Rp. 5 million	15	15%
		> Rp. 5 million	15	15%
		Total	100	100%
6.	Monthly expenses	Less than Rp. 1 million	15	15%
		Rp. 1 juta - Rp. 3 million	40	40%
		Rp. 3,1 juta - Rp. 4 million	20	20%
		Rp. 4,1 juta - Rp. 5 million	10	10%
		> Rp. 5 million	15	15%
		Total	100	100%
7.	BSI customers in Pontianak	Yes	80	80%
		No	20	20%
		Total	100	100%
8.	Frequency of use of BSI services (per month)	1 - 3 time	45	45%
		4 - 6 time	30	30%
		7 - 9 time	10	10%
		10 - 12 time	5	5%
		> 12 time	10	10%
		Total	100	100%

Source: Smart-PLS3 processing data, 2025.

The distribution of monthly income shows variation, but the largest group is in the range of IDR 1 million - IDR 3 million (35%). Monthly expenses, where the majority of respondents (40%) have expenses in the range of IDR 1 million - IDR 3 million. Regarding the frequency of use of BSI banking services (including ATMs and M-banking) in a month, the majority of respondents (45%) use BSI services 1-3 times and 30% of respondents use BSI services 4-6 times. This shows that although the majority are customers, the intensity of use of digital or conventional services still varies, demonstrating a tendency towards moderate to low frequency of use.

Measurement Model Evaluation (Outer Model)

Convergent and Discriminant Validity Tests

Convergent validity tests are measured using the correlation value between indicator scores and the scores of their latent variables. Convergent validity can be determined from the factor loadings, with each indicator being considered valid if the factor loading value is greater than 0.70. Discriminant validity tests are conducted, first, by comparing the factor loadings with the cross-loadings. If the factor loading within an indicator is greater than the cross-loading value, then discriminant validity is met for that indicator. Conversely, if the cross-loading value is greater than the factor loading value, then discriminant validity is not met. Second, by comparing the square root of average variance extracted (AVE) value of the latent variable with the correlation between the other latent variables. Furthermore, tests are conducted using the Fornell-Larcker and Herotrait-Monotrait Method (HTMT). The results of the convergent and discriminant validity tests are shown in the following table:

Table 3. Loading Factor and Cross Loading Values of Latent Variables

Indicator	Service Availability (X ₁)	User Convenience (X ₂)	Security and Trust (X ₃)	Accessibility Services (Y)
KL1	0,951	0,756	0,661	0,640
KL2	0,960	0,773	0,675	0,642
KL3	0,969	0,815	0,706	0,697
KL4	0,940	0,812	0,669	0,707
KL5	0,934	0,837	0,689	0,748
KP1	0,813	0,945	0,763	0,790
KP2	0,819	0,956	0,787	0,800
KP3	0,811	0,972	0,782	0,823
KP4	0,811	0,969	0,775	0,819
KP5	0,795	0,944	0,793	0,833
KP6	0,767	0,931	0,782	0,826
KK1	0,603	0,742	0,934	0,685
KK2	0,602	0,753	0,943	0,745
KK3	0,666	0,779	0,951	0,754
KK4	0,721	0,789	0,924	0,739
KK5	0,720	0,764	0,921	0,743
AL1	0,684	0,837	0,742	0,954
AL2	0,687	0,831	0,780	0,950
AL3	0,688	0,827	0,760	0,974
AL4	0,696	0,827	0,766	0,979
AL5	0,707	0,821	0,754	0,969
AL6	0,714	0,817	0,740	0,960
AL7	0,714	0,813	0,750	0,956

Source: Smart-PLS3 processing data, 2025.

Based on the analysis above, all variable indicators have loading factor values > 0.70, thus meeting convergent validity. Furthermore, each variable indicator has a loading factor value > cross-loading, indicating that discriminant validity has also been met for each indicator. Furthermore, the results of the fornel-larcker and herotrait-monotrait method (HTMT) tests are shown in the following table:

Table 4. Fornell-Larcker Test Results

Fornell-Larcker	Service Availability	User Convenience	Security and Trust	Accessibility Services
Service Availability (Y)	0,963			
Security and Trust (X ₃)	0,785	0,935		
User Convenience (X ₂)	0,856	0,819	0,953	
Accessibility Services (X ₁)	0,725	0,716	0,842	0,951

Source: Smart-PLS3 processing data, 2025.

Discriminant validity is seen based on the Fornell-Larcker criteria, where the square root of AVE for each variable (service availability: 0.951; user friendliness: 0.953; security & trust: 0.935; accessibility: 0.963) is greater than its correlation with other variables, which indicates that each variable is uniquely different. Furthermore, a test was conducted using the Herotrait-Monotrait Method (HTMT), with the following results:

Table 5. Herotrait-Monotrait Method (HTMT) Test Results

HTMT	Service accessibility	Security and Trust	User Convenience	Service Availability
Service accessibility (Y)	1			
Security and trust (X ₃)	0,804	1		
User convenience (X ₂)	0,870	0,842	1	
Service availability (X ₁)	0,737	0,737	0,860	1

Source: Smart-PLS3 processing data, 2025.

Discriminant validity shows theoretically that a construct is different from other constructs and is tested statistically (empirically). When the HTMT between constructs shows a number below 0.90 (HTMT < 0.90) then the two constructs are indeed different and empirically statistically different as well, and vice versa. The results of the HTMT test in the table above show that all HTMT values are below 0.90 (HTMT < 0.90), so it can be said statistically that the research constructs are different or the discriminant validity of this research meets the requirements.

Reliability Testing

This test aims to assess the consistency of answers to questionnaire questions or statements if the questions or statements are used twice to measure the same symptoms.

Table 6. Reliability Test Results

	Cronbach's Alpha	Composite Reliability
Service availability (X ₁)	0,974	0,979
User convenience (X ₂)	0,980	0,983
Security and trust (X ₃)	0,964	0,972
Service accessibility (Y)	0,987	0,989

Source: Smart-PLS3 processing data, 2025.

The results of the reliability test show that each variable has a composite reliability value > 0.70, so it can be said that all constructs are reliable. The construct reliability of the outer model has been met very well, as seen from the smallest composite reliability value of 0.972 (Security and Trust) and the highest 0.989 (service accessibility). Meanwhile, the results of the Cronbach's alpha of each variable have a Cronbach's alpha value > 0.7, which means that the internal consistency reliability of the outer model is very good, with the smallest Cronbach's alpha of 0.964 (security and trust) and the highest 0.987 (service accessibility).

Structural Model (Inner Model)

After the research constructs have met the validity and reliability criteria in the measurement model evaluation (outer model), the next step is to evaluate the structural model. Structural model evaluation is conducted to examine the relationships between constructs (model fit), the assumptions of the inner PLS model (multicollinearity/VIF test), and the inner model evaluation (structural model) by predicting the relationships between latent variables, using R-square values, path coefficients, and f-square values, as well as measuring the model's goodness of fit (GoF) criteria.

Model Fit

To determine whether a research model fits, simply look at the loading factor of each indicator, or whether it passes validity and reliability tests. The model can also be assessed by its SRMR value. If $SRMR > 0.10$, the model is not fit; conversely, if $SRMR \leq 0.10$, the model is fit.

Table 7. Model Fit Test

	Saturated Model	Estimated Model
SRMR	0,041	
Chi-Square	1.417,98	

Source: Smart-PLS3 processing data, 2025.

The table above shows a SRMR value of $0.041 < 0.10$, indicating a very good fit for the model. This indicates the model is able to replicate the correlations in the data quite accurately.

PLS Inner Model Assumptions (Multicollinearity Test/VIF)

The assumption or requirement in partial least squares inner model analysis is the absence of multicollinearity. A model is considered to be free of multicollinearity if the VIF is <5 ; conversely, if the VIF is >5 , multicollinearity exists between constructs.

Table 8. Multicollinearity Test

	Result	Information
Service availability (X_1)	3,463	There is no multicollinearity
User convenience (X_2)	5,134	There is no multicollinearity
Security and trust (X_3)	3,062	There is no multicollinearity

Source: Smart-PLS3 processing data, 2025.

Based on the table above, each variable has a VIF value < 5 , although there is 1 variable that has a value of 5.134, but if simplified the value is still below 5, so it means that in this test there is no multicollinearity.

Predictive Relevant (Q-Square) and F-Square

The predictive relevance value is used to assess the suitability of the observed values and to assess structural relevance. If the predictive relevance (Stone-Gisser value) $Q\text{-square} > 0$, then the observed values are good/have good model structural relevance. If the predictive relevance (Stone-Gisser value) $Q\text{-square} < 0$, then the observed values are poor/have poor model structural relevance. Meanwhile, the f-square describes the influence of exogenous latent variables on endogenous latent variables, with the following conditions: 1) an f-square value of 0.02 indicates a weak influence; 2) an f-square value of 0.15 indicates a moderate influence; 3) an f-square value of 0.35 indicates a strong influence. The results of the predictive relevance (Q-square) and f-square values can be seen in the table below:

Table 9. Predictive Relevant Values (Q-Square) and f-Square

	Q^2	f^2	Categori
Service availability → service accessibility		0,000	No effect
Ease of use → service accessibility		0,338	Large effect
Security and trust → service accessibility		0,087	Small effect
Service accessibility	0,691		Baik

Source: Smart-PLS3 processing data, 2025.

Based on the table above, the Q-square value of 0.691 indicates that the model has predictive relevance for the construct of “service accessibility”. In addition, it also shows very large predictive relevance, which means the model is very good at predicting the observed values of the construct of “service accessibility”. Furthermore, the f-square value of service availability on service accessibility of 0.000 indicates a very small effect or even no effect at all. The f-square value of ease of use on service accessibility of 0.338 indicates a large effect, which means ease of use is an important predictor and provides a substantial contribution. Furthermore, the f-square value of security and trust on service accessibility of 0.087 indicates a small effect on service accessibility.

Coefficient of Determination (R2)

The coefficient of determination test aims to identify the extent to which exogenous latent variables contribute to or influence the explanation of endogenous latent variables. Furthermore, the coefficient

of determination value can also indicate how accurately a model predicts a variable. The results of the coefficient of determination can be seen in the table below:

Table 10. Test of the Coefficient of Determination (R²)

	R-square	Information
Service accessibility	0,746	Strong effect

Source: Smart-PLS3 processing data, 2025.

The model structure for the influence of service availability, ease of use, security, and trust on service accessibility has an R² value of 0.746, indicating that the magnitude of each variable's influence on service accessibility is 74.6%, falling into the strong category. This indicates that the model has excellent predictive or explanatory capabilities.

Hypothesis Testing (Path Coefficient)

The path coefficient is used to determine the magnitude of the partial effect and to indicate the direction of the relationship between variables, whether positive or negative. The path coefficient is used to determine the path equation of the research model. In testing the hypothesis in this study, the correlation between constructs is measured by observing the path coefficients and their significance level, which is then compared with previous research hypotheses. The significance level used in this study is 5% or 0.05. The path coefficient values in this study can be seen in the following table:

Table 11. Hypothesis Testing

Source: Smart-PLS3 processing data, 2025

Hypotheses	Path	Path Coefficient	P-Value	Information
H ₁	Service availability → service accessibility	-0,008	0,934	Rejected
H ₂	User convenience → service accessibility	0,654	0,000	Accepted
H ₃	Security and trust → service accessibility	0,255	0,007	Accepted

Based on the results of the coefficient of determination test, the hypothesis obtained to answer the research problem formulation is:

The Effect of Availability on Accessibility (H1 Rejected)

The findings indicate that service availability has no significant effect. This is a novelty of this study, differing from common assumptions. In the Pontianak context, mere availability is not sufficient. Infrastructure availability is considered a basic standard (hygiene factor), but it does not automatically promote accessibility if it is not accompanied by education. The first hypothesis (H₁), which states that service availability influences service accessibility, is rejected. This is indicated by a p-value of 0.934, which is much greater than the typical significance level (e.g., 0.05), and a path coefficient of -0.008, which is very small, indicating no significant effect of service availability on service accessibility. This research aligns with several previous studies showing that while service availability is important, it does not directly contribute to increased accessibility. For example, research by (17) found that other variables such as proximity and accommodation had a more substantial relationship with accessibility, while the availability variable did not have a significant impact on the accessibility of health services during the COVID-19 pandemic. This suggests that in certain contexts, such as in financial services or fintech, other factors may be more decisive in increasing the accessibility of services (18)

The Influence of Ease of Use (H2 Accepted)

Ease of use has the most dominant influence. Based on indicator analysis, item KP3 (ease of navigation) has the highest loading factor (0.972). Practical implications: BSI should prioritize developing an intuitive and simple user interface. Customers in Pontianak value ease of menu navigation over a multitude of complex features. The second hypothesis (H₂), which states that ease of use influences service accessibility, is accepted. This is supported by a p-value of 0.000 (less than 0.05) and a positive path coefficient of 0.654, indicating a positive and significant influence of ease of use on service accessibility.

This research supports Sauki et al. (2024), who highlighted the importance of ease of use and security in influencing user interest in online transactions, showing that if a platform is perceived as easy to use and secure, accessibility and user participation tend to increase significantly (19).

The Influence of Security (H3 Accepted)

Security has a significant positive effect. The KK3 indicator (customer service) has a significant contribution (0.951). This provides insight that customers' sense of security is not only about encryption technology, but also about the guarantee of responsive customer service when problems arise. The third hypothesis (H3), which states that security and trust influence service accessibility, is also accepted. A p-value of 0.007 (less than 0.05) and a positive path coefficient of 0.255 support the positive and significant influence of security and trust on service accessibility. Research by Fadli and Andriani also noted that low levels of trust and security can lead to low purchasing interest, thus indicating that high levels of trust and security in the fintech environment significantly influence the level of participation and accessibility of these services (20)(21). These results demonstrate that in the context of fintech services, not only ease of use is important, but also aspects of security and trust, which must be well managed to improve accessibility and user satisfaction. The overall role of fintech (availability, convenience, and security) in the accessibility of BSI services shows that fintech services have a positive influence on the accessibility of BSI services, primarily driven by ease of use and security factors. Although the availability of services individually did not show a significant influence, the other two aspects (convenience and security) were shown to significantly and positively influence the accessibility of BSI services. This suggests that while availability may be a basic prerequisite, ease of use and security assurance are key factors for fintech that actively improve the accessibility of BSI services.

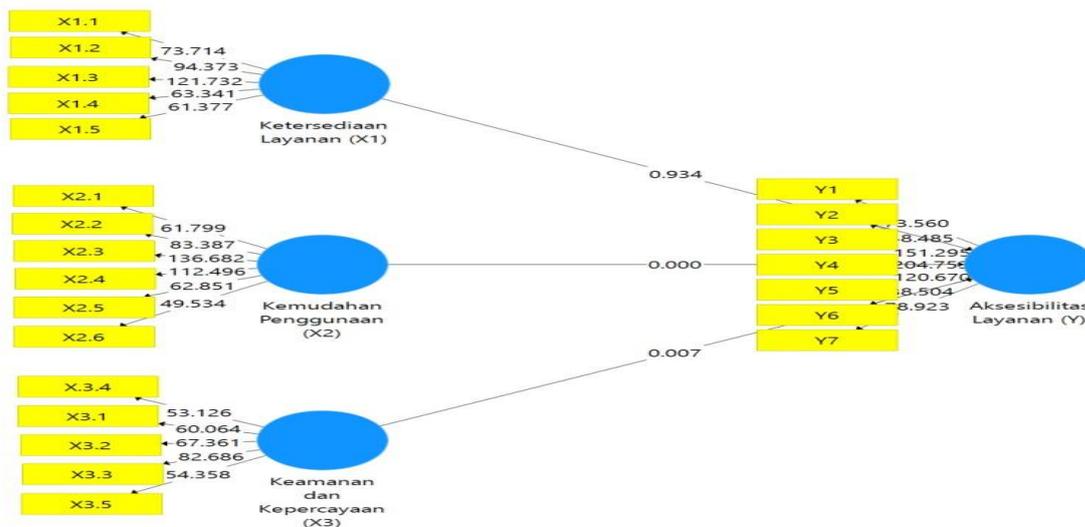


Figure 4. Outer Model Test Results

Based on the outer model test results, it can be concluded that all indicators used to measure each latent variable (service availability, ease of use, security and trust, and service accessibility) have significant and strong loadings. This is evident from the very high t-statistic values for each indicator, all of which far exceed the general critical value of 5%. This indicates that each indicator is valid and reliable in measuring the latent construct it represents, thus the measurement model in this study is considered good and meets the requirements for further analysis.

CONCLUSION

The increased accessibility of Bank Syariah Indonesia services in Pontianak City is significantly influenced by public financial literacy and easy access to digital technology. Sharia financial literacy encourages understanding and use of services, while secure and accessible digital facilities expand customer participation. A limitation of this study is its focus on BSI fintech customers in Pontianak, so the results may not be generalizable to other regions. Theoretically, this study enriches the Sharia fintech literature with local empirical evidence that is important for further research. Bank Syariah

Indonesia and the local government are advised to intensify sustainable Sharia financial education programs that reach a wider audience. The development of user-friendly and secure digital facilities in various strategic locations also needs to be prioritized to support digital financial inclusion. Collaboration with local communities is highly recommended to reach those less familiar with technology. Future researchers are encouraged to expand the sample size and variables to make the results more comprehensive and applicable.

REFERENCES

- Cao, L., Yang, Q., & Yu, P. (2021). Data science and AI in FinTech: an overview. *International Journal of Data Science and Analytics*, 12. <https://doi.org/10.1007/s41060-021-00278-w>
- Fadli, & Andriani, E. (2024). Pengaruh Kepercayaan dan Keamanan Terhadap Minat Beli Sediaan Obat Sirup. *Medimuh: Jurnal Kesehatan Muhammadiyah*, 5(1), 2776–2823. <https://doi.org/https://doi.org/10.37874/mh.v5i1.1313>
- Fadli, M., Widijowati, D., & Andayani, D. (2024). Pencurian Data Pribadi di Dunia Maya (Phising Cybercrime) yang ditinjau dalam Perspektif Kriminologi. *Co-Value Jurnal Ekonomi Koperasi Dan Kewirausahaan*, 14. <https://doi.org/10.59188/covalue.v14i11.4335>
- Irawan, M. (2018). Politik Hukum Ekonomi Syariah Dalam Perkembangan Lembaga Keuangan Syariah di Indonesia. *Jurnal Media Hukum*, 25(1), 10–21. <https://doi.org/10.18196/jmh.2018.0097.10-21>
- Lukmayani, Z. F., Palutturi, S., & Rahmadani, S. (2021). Faktor yang Berhubungan dengan Aksesibilitas Pasien BPJS Kesehatan Dimasa Pandemi COVID-19. *Hasanuddin Journal of Public Health*, 2(3), 238–250. <https://doi.org/10.30597/hjph.v2i3.13140>
- Luthfi Khairunnisa, H., & Slamet Rusydiana, A. (2023). Mapping on Islamic Microfinance Research: Lesson Learn from Indonesia and Turkey. *Jurnal Economics and Sustainability*, 1(1). <https://doi.org/https://doi.org/10.58968/es.v1i1.411>
- Moch Dzul Fahmi, Arifki Budia Warman, & Riska Fauziah Hayati. (2023). Literasi Hukum Ekonomi Syariah di Era Digital dan Kontribusinya bagi Penguatan Ekonomi Syariah di Indonesia (Studi terhadap Platform Instagram). *Al-Huquq: Journal of Indonesian Islamic Economic Law*, 5(1), 20–43. <https://doi.org/10.19105/alhuquq.v5i1.5729>
- Mulyana, I., Hamid, A., & Syaripudin, E. I. (2024). Tantangan Dan Peluang Penggunaan Fintech Dalam Perbankan Syariah. *Jurnal Hukum Ekonomi Syariah (JHESY)*, 2(2), 60–69. <https://doi.org/10.37968/jhesy.v2i2.639>
- Muzdalifa, I., Rahma, I. A., Novalia, B. G., & Rafsanjani, H. (2018). Peran Fintech Dalam Meningkatkan Keuangan Inklusif Pada UMKM di Indonesia (Pendekatan Keuangan Syariah). *Jurnal Masharif Al-Syariah: Jurnal Ekonomi Dan Perbankan Syariah*, 3(1). <https://doi.org/https://doi.org/10.30651/jms.v3i1.1618>
- Nurrachmi, L. (2019). Optimalisasi Bagi Hasil Pada Produk Pembiayaan Mudharabah dalam Meningkatkan Laba dan Market Share. *Jurnal Akuntansi (e-Journal)*, 10(2), 193–201. <https://ejournal.uin-malang.ac.id/index.php/el-muhasaba/article/view/6779>
- Okri Handoko, D., Tirta, D., & Risa, F. (2021). Pengaruh Financing to Deposit Ratio, NonPerforming Financing, dan Return on Equity Terhadap Pembiayaan Mudharabah Pada Bank Umum Syariah di Indonesia. *Jurnal Tabarru': Islamic Banking and Finance*, 4(2), 585–593. [https://doi.org/https://doi.org/10.25299/jtb.2021.vol4\(2\).8672](https://doi.org/https://doi.org/10.25299/jtb.2021.vol4(2).8672)
- Pernando, A. (2023, March 21). Survey DataIndonesia.Id: Penetrasi Fintech Semakin Dalam. *Financial.Bisnis.Com*.
- Ridwan, R., Abdullah, S., & Yusmita, F. (2022). IMPLEMENTATION OF CASHLESS POLICY STRATEGIES TO MINIMIZE FRAUD IN THE GOVERNMENT SECTOR: SYSTEMIC REVIEW. *Jurnal Akuntansi*, 12, 181–201. <https://doi.org/10.33369/jakuntansi.12.3.181-201>
- Sarstedt, M., Ringle, C., & Hair, J. (2021). Partial Least Squares Structural Equation Modeling (pp. 1–47). https://doi.org/10.1007/978-3-319-05542-8_15-2
- Sauki, M. I., Tinggi, S., Ekonomi, I., & Bangsa, H. (2024). Pengaruh Keamanan, Privasi, dan Kepercayaan Terhadap Minat Menggunakan Metode Pembayaran Cash on Delivery pada

- Pembelian Produk Pembersih Wajah Secara Online di Jakarta. *Syntax Literate*. (9), 6. <https://doi.org/10.36418/syntax-literate.v9i6>
- Syarifuddin, M., Purnamasari, D., & Safitri, F. (2023). Muslim Literacy in Choosing a Banking System in Indonesia Between Islamic Banks or Conventional Banks (Literasi Muslim Dalam Memilih Sistem Perbankan di Indonesia Antara Bank Syariah atau Bank Konvensional). *Journal of Islamic Economics and Philanthropy*, 6, 1. <https://doi.org/10.21111/jiep.v6i1.9272>
- Widyandri, D. B., & Laila, N. (2022). Analysis of the Influence of Mobile Banking and Financial Inclusion on the Financial Performance of Sharia Banks in Indonesia for the Period 2014-2019. *Jurnal Ekonomi Syariah Teori Dan Terapan*, 9(1), 14. <https://doi.org/10.20473/vol9iss20221pp14-24>
- Widyastuti, E. (2020). Urgensi Optimalisasi Pembiayaan Mudharabah sebagai Core Product Perbankan Syariah Indonesia. *El-Jizya: Jurnal Ekonomi Islam*, 8, 150–175. <https://doi.org/10.24090/ej.v8i2.4024>
- Yahya, A. (2021). Sharia Fintech Development in Indonesia. <https://doi.org/10.4108/eai.17-7-2020.2302984>