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The Role Of Islamic Banks In Increasing The Financial Inclusion Of The People Of Panyabungan City, Mandailing Natal District

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Abstract

Islamic banking in Indonesia has grown significantly, but its services remain unevenly distributed, especially in rural areas like Mandailing Natal Regency, where only 30% of residents access formal financial services (BPS, 2023). This study examines the role of Islamic banks in improving financial inclusion in Panyabungan City. Using a quantitative method and 100 respondents, data were collected via structured questionnaires and analyzed with PLS-SEM. Results show that financial literacy ($\beta = 0.422$; $p = 0.000$) and perception of Islamic banks ($\beta = 0.493$; $p = 0.000$) significantly affect financial inclusion, with $R^2 = 0.647$. Despite high account ownership, digital service use and financing remain low. Findings underscore the importance of strengthening financial literacy and expanding access to Islamic digital banking. Recommendations include targeted financial education and outreach strategies to enhance service utilization in underserved regions.

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INTRODUCTION

In recent years, financial inclusion has become a major focus in global economic development, including in Indonesia. Islamic banks play an important role in improving access to financial services that comply with Islamic principles. The study by Ramaian et al. (2023) shows that Islamic banks can enhance financial inclusion in Muslim-majority countries (Ramaian Vasantha et al., 2023). In Indonesia, based on the 2022 National Survey on Financial Literacy and Inclusion (SNLIK) by the Financial Services Authority (OJK), the general financial inclusion index reached 75.02%, while the Islamic financial literacy index was 65.43%, and the inclusion index for Islamic finance was 12.88% (Otoritas Jasa Keuangan, 2024b). These figures reflect a significant disparity between general and Islamic financial access and literacy. Furthermore, the Financial Services Authority (OJK) reported a consistent increase in Islamic bank assets from Rp 489.7 trillion in 2019 to Rp 980.3 trillion by the end of 2024, indicating growing public trust in Islamic banking. The share of Islamic banks in the national banking system also rose from around 6.3% in 2019 to 7.72% in 2024 (Otoritas Jasa Keuangan, 2024a). This growth demonstrates a notable improvement in the outreach and relevance of Islamic financial institutions in Indonesia (Otoritas Jasa Keuangan, 2024a). However, challenges remain, especially in areas such as Panyabungan city, Mandailing Natal Regency, where access to Islamic financial services is still limited.

Financial inclusion is the process of ensuring that individuals and businesses have access to useful and affordable financial products and services that meet their needs (Demirgüç-Kunt et al., 2022). In the context of Islamic economics, financial inclusion is not only about access but also about fairness and adherence to sharia principles (Ismamudi et al., 2023). Islamic banks, which operate based on Islamic principles such as the prohibition of usury and risk sharing, can play an important role in improving financial inclusion in Muslim societies (Obaidullah & Khan, 2011).

In Indonesia, Islamic banking has grown rapidly in recent years. According to financial services authority (OJK) data (2023), Islamic bank assets increased by 15 percent between 2019 and 2023. However, the distribution of Islamic bank services is still concentrated in urban areas, while remote areas such as Mandailing Natal remain underserved. This suggests the need for specialized strategies to increase Islamic financial inclusion in these areas.

Panyabungan City, Mandailing Natal Regency, located in North Sumatra Province, is an area with a majority Muslim population of 99.46% (around 95.482 people) and great economic potential, especially in the agricultural sector and micro, small and medium enterprises (MSMEs). However, access to financial services, especially Sharia-based ones, is still limited. Data from the Central Statistics Agency (BPS) shows that only 30% of Mandailing Natal residents have access to formal financial services (BPS, 2023). Furthermore, national data from the Financial Services Authority (OJK) in 2022 indicates that the penetration of Islamic financial services is still below 10% of total financial access in Indonesia, suggesting an even lower figure in rural areas such as Mandailing Natal.

Based on field observations in Panyabungan City, this limitation has an impact on local economic growth and community welfare. various segments of society, including Micro, Small, and Medium Enterprises (MSMEs), farmers, and rural communities, which are the backbone of the regional economy, struggle to access sharia-compliant financing. This suggests the need for intervention from Islamic banks to improve financial inclusion and support economic growth in Panyabungan City, the capital of Mandailing Natal. Although Islamic banks have shown significant growth in Indonesia, the distribution of their services is still uneven. Non-3T areas such as Panyabungan City, Mandailing Natal district still face challenges in accessing Islamic financial services. This is due to various factors, including a lack of infrastructure, low financial literacy, and limited human resources who understand sharia principles. Furthermore, limitations in internet connectivity and low levels of digital literacy also present additional challenges that hinder the optimal use of Islamic banks' digital services (Rahmanto et al., 2023).

This lack of access not only hinders local economic growth but also contradicts national financial inclusion goals. Therefore, it is important to understand the role of Islamic banks in overcoming these challenges and improving financial inclusion in areas such as Panyabungan City, Mandailing Natal. Research on financial inclusion and Islamic banks has been widely conducted in various countries. A study by (Zulfaka & Kassim, 2023) showed that Islamic banks can improve financial inclusion in Malaysia through Sharia-compliant products. A study by (Abadi et al., 2022) found that Islamic financial literacy has a positive correlation with financial inclusion. However, research on the role of Islamic banks in improving financial inclusion in remote areas is limited.

In Indonesia, several studies have examined the role of Islamic banks in financial inclusion. For example, a study shows that Islamic banks can improve financial inclusion through innovative products such as Islamic microfinance. However, studies that specifically examine the role of Islamic banks in remote areas such as Mandailing Natal are still very limited, indicating a research gap that needs to be filled (Oktavia, 2023). Islamic banks have great potential to improve financial inclusion, especially in Muslim-majority countries, as shown by international literature. Islamic banks are also proven to be more inclusive than conventional banks in terms of financing to MSMEs (Demirguc-Kunt et al., 2017). In addition, Islamic banks can improve people's welfare through products that comply with sharia principles (Aref & Abdullah, 2021).

However, challenges remain, especially in terms of financial literacy and people's understanding of sharia principles. A study by (Bire et al., 2019) showed that low Islamic financial literacy can hinder financial inclusion. Therefore, it is important for Islamic banks to not only provide Shariah-compliant products but also improve Islamic financial literacy. Therefore, it is important for Islamic banks to not only provide products that comply with Sharia principles but also improve people's financial literacy. This was emphasized in a study by (Rahmanto et al., 2023), which emphasized the importance of education in encouraging the use of Islamic financial services. In addition, research by (Ariani et al., 2020) shows that financial inclusion can be enhanced through the digitalization of Islamic products that are easily accessible to rural communities.

Other literature also highlights the relationship between Shariah-based digital financial innovation and increased financial inclusion in developing countries. The study by (Haridan et al., 2020) found that the combination of sharia principles and digital technology can expand the reach of financial services to vulnerable and poor groups. Meanwhile, cooperation between Islamic financial institutions and local governments is also mentioned as an important strategy in the literature to increase the penetration of Shariah-based financial services (Khan et al., 2021). This evidence suggests that a systemic approach that includes regulation, education, and digital innovation can improve financial inclusion in regions such as Mandailing Natal.

While previous studies have discussed the importance of Islamic financial literacy (Bire et al., 2019), the role of education (Rahmanto et al., 2023), and the impact of Shariah-based digital innovation on financial inclusion (Haridan et al., 2020; Khan et al., 2021), most of these studies focus on macro-level analysis or urban populations. There is a lack of empirical research that examines how Islamic banks interact with and are perceived by rural communities in specific socio-cultural contexts such as Panyabungan City, Mandailing Natal. This study fills that gap by focusing on community-level perspectives and localized dynamics, which are often overlooked but critical for designing effective Islamic financial inclusion strategies in rural areas.

This research is motivated by the limited access to Islamic financial services and low financial literacy in Panyabungan City, Mandailing Natal Regency, despite its predominantly Muslim population and economic potential. Therefore, this study aims to analyze the role of Islamic banks in improving financial inclusion in this area, with a focus on community perceptions and understanding. By understanding the local dynamics as well as the specific contributions of Islamic banks, this study is expected to provide theoretical contributions to the development of Islamic economics, as well as practical input for policymakers, Islamic banks, and other stakeholders in designing more effective sharia-based financial inclusion strategies in the regions. The implication is that the results of this study can serve as a reference for the strengthening of a national Islamic financial system that is inclusive and sustainable and supports a fair and equitable economic development agenda.

LITERATURE REVIEW

Financial Inclusion in the Islamic Context

Financial inclusion is a process that ensures individuals and businesses have access to useful and affordable financial products and services. According to (Eid et al., 2023), financial inclusion not only improves individual welfare but also contributes to overall financial stability. However, in the context of Islamic banking, challenges such as low financial literacy and limited infrastructure are still the main obstacles to achieving optimal financial inclusion. In Indonesia, especially in rural areas, access to Islamic financial services is still limited. Sharma, at.al. found that factors such as the lack of public understanding of Islamic banking products and the limited branch network are the main barriers in improving financial inclusion (Sharma & Singh, 2021). This suggests the need for more effective strategies in expanding the reach of Islamic financial services. In line with (Rahmanto et al., 2023), constraints in internet access and digital literacy also represent major challenges to financial inclusion in rural areas. These factors are particularly relevant in areas like Mandailing Natal, where infrastructure is limited, and digital banking remains underutilized.

The Role of Digital Technology in Islamic Finance

To overcome these challenges, a technology-based approach can be a solution. According to (Banna et al., 2022), integrating digital technology into Islamic financial services can expand access and improve operational efficiency. However, implementation must be accompanied by efforts to increase digital literacy. The Technology Acceptance Model (Akir, 2003; Davis, 1989) explains that perceived usefulness and ease of use are critical factors influencing the acceptance of digital banking services. In rural areas, where exposure to digital platforms may be limited, education and awareness programs are essential. Moreover, the Diffusion of Innovation Theory (Akir, 2003) supports the idea that new technologies will only be adopted if they are communicated effectively and tailored to the social system of a community. Therefore, Islamic financial institutions must design digital products that are not only sharia-compliant but also accessible and understandable to rural populations.

Islamic Economic Principles and Financial Inclusion

Islamic economics is based on sharia principles that emphasize justice, balance, and social welfare. Kato (2022) used an econophysical model to compare wealth distribution in Islamic and capitalist economies, finding that the Islamic economic system tends to produce a more equitable distribution of wealth. This is due to redistribution mechanisms such as zakat and the prohibition against usury (Kato, 2022). In the context of financial inclusion, Islamic economic principles can encourage wider participation from the public. Blockchain technology has the potential to provide financial solutions that are transparent and compliant with Sharia principles. Thus, technology can be an effective tool in realizing the goals of Islamic economics (Alsadi, 2025). However, the application of Islamic economic principles in the modern financial system requires adaptation and innovation. Digital transformation in Islamic banking is key to improving operational efficiency and meeting evolving customer needs. This transformation must be carried out while maintaining compliance with Sharia principles (Fitria, 2025).

Foundations of Islamic Banking

According to Indonesian Law No. 21 of 2008, Islamic banking is a banking activity based on sharia principles, namely the rules of Islamic law in banking transactions. This includes the prohibition of *riba* (usury), *gharar* (uncertainty), and emphasizes profit-and-loss sharing (mudharabah and musyarakah. According to (Muhammad Syafi'I Antonio, 2001), Islamic banking is a financial institution whose entire operations, from fundraising to financing and services, are free from interest and are instead based on justice, transparency, and shared responsibility. Meanwhile, (Usmani, 2021) emphasizes that Islamic banking must operate within a framework that avoids all prohibited elements in Islam and instead promotes ethical investments that contribute to the welfare of society. Similarly, (Ilieva et al., 2017) highlights that Islamic banking is a socio-economic instrument designed to achieve economic justice by eliminating exploitation in financial transactions and promoting risk-sharing. In modern times, the integration of financial technology (fintech) in Islamic banking has the potential to improve financial inclusion by providing services that are more accessible to the public. However, this integration still faces various challenges, including compliance with Sharia principles and ensuring data security (Mulyana et al., 2024).

In Indonesia, Islamic banking has shown significant growth. The development of Islamic finance contributes positively to financial inclusion in Muslim-majority countries, but to achieve broader financial inclusion, collaborative efforts between the government, financial institutions, and the community are needed (Zahara et al., 2021). In addition, Islamic banking also plays a role in supporting the micro, small, and medium enterprises (MSME) sector. Microfinancing by Islamic banks can help MSMEs face economic challenges, especially in rural areas with limited financial access, which confirms the strategic role of Islamic banking in supporting the national economy (Ertiyant & Latifah, 2022).

Financial Support for MSMEs and Local Communities

Islamic banks have great potential to increase financial inclusion, especially in areas with a majority Muslim population. According to (Nabil & Herianingrum, 2022), Islamic banks can reach segments of society that have not been served by conventional banks by offering products that are by Islamic values. However, this success depends on the ability of Islamic banks to understand the needs and preferences of the local community. In Indonesia, particularly in rural areas, access to Islamic financial services is still limited. Low Islamic financial literacy and limited infrastructure are the main obstacles to improving financial inclusion in these areas. Therefore, a comprehensive strategy is needed to overcome this challenge (Dz., 2018). One strategy that can be implemented is the utilization of digital technology. According to (Marla et al., 2023), fintech integration in Islamic banking can expand the reach of financial services and improve operational efficiency. However, the implementation of this technology must be accompanied by efforts to increase digital literacy so that people can make optimal use of it.

The Role of Islamic Banks in Rural Development

In regions such as Mandailing Natal Regency, Islamic banks can play a strategic role in improving financial inclusion through approaches that are appropriate to the local context. According to (Demirguc-Kunt et al., 2014), Islamic banks can reach communities underserved by conventional banks by offering products that suit their needs. However, this success depends on the ability of Islamic banks to understand the characteristics and preferences of the local community (Lee & Isa, 2023). In addition, Islamic banks can collaborate with local governments and grassroots institutions to promote inclusive financial development. This aligns with the stakeholder theory, which emphasizes that organizations including banks should engage with multiple actors in society to create shared value (Freeman, 2015). By collaborating with local stakeholders, Islamic banks can extend their reach and enhance their social role, particularly in underserved rural communities (M. Umer Chapra, 2008). The participatory nature of Islamic finance also supports such engagement, as it upholds the principles of social justice (ʻ*adl*) and cooperation (taʻ*āwun*) in economic development.

To address structural barriers such as inadequate infrastructure and low financial literacy, Islamic banks can leverage technological innovations. According to the Technology Acceptance Model (Akir, 2003; Davis, 1989), the perceived usefulness and ease of use of digital banking services significantly influence user acceptance. In rural settings, however, technology adoption must be coupled with efforts to enhance digital and financial literacy. The Diffusion of Innovation Theory (Rogers, 2003) also explains that adoption depends on how innovations are communicated and embraced over time within a social system. Therefore, maximizing the role of Islamic banks in regional development requires not only technological deployment but also community-centered strategies to ensure accessibility and acceptance.

RESEARCH METHODS

This study employs a quantitative research approach with a descriptive-correlational design. The quantitative approach is appropriate for measuring and explaining the relationships among variables using numerical data and statistical analysis (Creswell, 2018). The descriptive aspect aims to depict the current level of financial inclusion, while the correlational aspect investigates the relationship between the role of Islamic banks and the dimensions of financial inclusion among the people of Panyabungan City, Mandailing Natal District. The study relies on primary data collected through structured questionnaires, the results of which are presented in the subsequent section under respondent profiles, user experience, and perceptions. The research was conducted in Panyabungan City, the capital of Mandailing Natal Regency, North Sumatra Province.

The target population comprises adults (aged 18 and above) residing in Panyabungan City who are familiar with or have experience using Islamic banking services. The sampling technique used is purposive sampling**,** where participants are selected based on the following inclusion criteria 1) Minimum age of 18 years, 2) Awareness of or experience with Islamic banking products or services (e.g., savings, financing, or digital banking). A total of 100 respondents participated in the study. This sample size is considered adequate for Partial Least Squares Structural Equation Modeling (PLS-SEM), as (Hair et al., 2021) recommend a minimum sample of 10 times the number of indicators in the most complex construct, which is met in this study.

Data were collected using a structured closed-ended questionnaire consisting of two main sections 1) Demographic profile: including gender, age, education level, employment status, and prior use of Islamic banking, 2) Construct measurement items, which reflect four core indicators of financial inclusion Bank account ownership (Demirguc-Kunt et al., 2018), Access to financing products (Beck et al., 2007), Usage of digital banking services (Ozili, 2018), Islamic financial literacy (Lusardi & Mitchell, 2014). All items were measured using a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The questionnaire was distributed both offline (printed form) and online (Google Forms) to accommodate broader participation.

Data Analysis Technique: PLS-SEM. The collected data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with the support of SmartPLS version 4 software. PLS-SEM was selected for its flexibility in handling small-to-medium samples, its minimal assumptions about data distribution, and its suitability for prediction-oriented research (Hair et al., 2021). Outer Model Evaluation (Measurement Model). The outer model was assessed to confirm the validity and reliability of the measurement items**:**

1. Indicator reliability: factor loadings > 0.70;
2. Convergent validity: AVE > 0.50 for each construct;
3. Internal consistency reliability: Cronbach's Alpha and Composite Reliability > 0.70;
4. Discriminant validity: Fornell-Larcker Criterion and HTMT Ratio < 0.90.

Inner Model Evaluation (Structural Model). Upon confirming a valid and reliable measurement model, the inner model was evaluated to assess the hypothesized relationships:

1. R-squared (R^2): measures the explanatory power of the independent variables on the dependent variable;
2. Q-squared (Q^2): assesses the model's predictive relevance ($Q^2 > 0$ indicates predictive quality);
3. Effect size (f^2): indicates the strength of individual predictors.

Hypothesis testing was conducted using bootstrapping with 5,000 resamples to determine the t-values and p-values for each path. Hypotheses were accepted if the p-value was less than 0.05**,** indicating statistically significant relationships among constructs (Leguina, 2015).

RESULT AND DISCUSSION

RESULT

Respondent Profile

This study involved 100 respondents from the community of Panyabungan City, Mandailing Natal Regency who had experience in using Islamic bank services, and the Islamic bank was not specified. The characteristics of the respondents are described in the following table:

Table1. Characteristics of The Respondents

Characteristics	Category	Number (people)	Percentage (%)
Gender	Male	60	60%
	Female	40	40%
Age	< 25 years	20	20%
	25–40 years	50	50%
	> 40 years	30	30%
Work	PNS	15	15%
	Farmer	25	25%
	Merchant	20	20%
	Self Employed	25	25%
	Others	15	15%
Final Education	Elementary/Junior High School	20	20%
	High School	45	45%
	Diploma/Bachelor's	35	35%
Sharia Bank Experience	Used	100	100%
	Still active	82	82%

Source: Data processed, 2025

Financial Inclusion Level

The level of public financial inclusion is measured based on indicators from OJK and Bank Indonesia, and also are supported by relevant literature above, namely Bank account ownership, Access to financing products, Use of digital banking services and Sharia financial literacy

Table 2. User Experience on Sharia Financial Inclusion

Financial Inclusion Indicators	Agree (%)	Disagree (%)
Have an account with an Islamic bank	86%	14%
Have applied for financing at an Islamic bank	58%	42%
Using Islamic mobile banking	34%	66%
Understanding the basic principles of Islamic banks	62%	38%
Knowing the difference between Islamic and conventional banks	75%	25%

Source: Data processed, 2025

This finding shows that in general, access to Islamic banks is quite good, but the utilisation of digital services and access to financing is still low and needs to be improved.

Public Perception of the Role of Islamic Banks

Respondents were asked to rate the role of Islamic banks in providing inclusive financial services, education, and ease of access. The results were assessed using a Likert scale (1-5):

Table 3. Public Perception of the Role of Islamic Banks

Statement	Average Score
Islamic banks make it easier for me to access financial services	4,2
Islamic banks provide products that suit my needs	4,0
I understand the sharia contracts from the products I use	3,9
Islamic banks provide financial education/literacy to the public	3,7
Islamic bank officers serve honestly and transparently	4,1

Source: Data processed, 2025

In general, the public has a positive perception of Islamic banks, especially in terms of ease of access and values of honesty and conformity to religious principles.

Research Models and Variables

This study examined the influence of:

- X1 = Financial Literacy
- X2 = Perception of Sharia Banks
- Y = Financial Inclusion

SEM-PLS Analysis Results

Data processing is carried out using SmartPLS 4 software. Structural models are used to test the influence of independent variables on dependents. All indicators have an outer loading value of > 0.70 → Valid.

Tabel 4. Convergent Validity Test (Outer Loading)

Variabel	Indicator	Outer Loading
Financial Literacy (X1)	FL1 – Knowing Islamic bank products	0.781
	FL2 – Understanding the principle of profit sharing	0.812
	FL3 – Can distinguish sharia vs conventional systems	0.798
	FL4 – Understanding the contracts in Islamic banks	0.755
Perception of Sharia Banks (X2)	PS1 – Providing fair service	0.802
	PS2 – In accordance with religious values	0.871
	PS3 – Affordable service fees	0.741
	PS4 – Location is easily accessible	0.790
Financial Inclusion (Y)	FI1 – Have an Islamic bank account	0.830
	FI2 – Utilizing sharia savings products	0.862
	FI3 – Access sharia financing	0.818
	FI4 – Using Islamic bank digital services	0.773

Source: Data processed, 2025

Tabel 5. Construct Reliability and Validity Test

Variabel	*Composite Reliability*	*AVE*
Financial Literacy	0.861	0.605
Perception of Sharia Banks	0.879	0.635
Financial Inclusion	0.886	0.647

Source: Data processed, 2025

All constructs are valid and reliable (CR > 0.70; AVE > 0.50).

Tabel 6. Structural Model Test (Path Coefficient)

Variable Relationships	Coeficin (β)	T-statistics	P-value	Information
Financial Literacy → Financial Inclusion	0.422	5.321	0.000	Signifikan
Perception of Sharia Banks → Inclusion Finance	0.493	6.127	0.000	Signifikan

Source: Data processed, 2025

R^2 value for the Financial Inclusion variable = 0.647, This means that 64.7% of the variation in financial inclusion is explained by financial literacy and perception of Islamic banks.

DISCUSSION

The results of the respondent profile in this study show that the majority of Islamic bank service users in Mandailing Natal Regency are male (60%) and most are between 25 to 40 years old (50%). This is in line with studies showing younger generations are more likely to use Islamic banking (Junaidi et al., 2023; Nugraha et al., 2022; Zaman et al., 2017). For example, in their research in the South Sumatra region also found that most Islamic bank customers are productive aged between 25 to 40 years old, and are considered more adaptive to technology and Sharia-based financial concepts. In addition, the majority of respondents in this study had a high school education level or higher (80%). This indicates that good financial literacy is potentially a major factor influencing the level of Islamic bank usage, as stated by (Junaidi et al., 2023) who emphasized the importance of education in influencing people's understanding of Islamic financial products.

Occupation also plays an important role in the use of Islamic bank services. With 25% of respondents working as farmers and 20% as traders, this shows that even people with jobs in the informal sector are interested in using Islamic bank services, similar to the results of research conducted by (Rahmah et al., 2023) in East Java, which shows that Islamic banks are increasingly favored by people from among traders and farmers. This finding illustrates that the Mandailing Natal community has a relatively good understanding of Islamic banking, but age and education factors are the main indicators of the level of service usage. Further research focusing on the influence of age, education, and occupation on the decision to use Islamic banks still needs to be done to gain deeper insights (Metawa & Almossawi, 1998; Nurhayati et al., 2022).

Financial Inclusion: Account Ownership vs. Usage Gap

The findings from this study also show that the level of financial inclusion of the people of Panyabungan City, Mandailing Natal Regency is relatively high, with 86% of respondents having an Islamic bank account. This figure reflects a positive development in the adoption of Islamic banking, which is in line with previous findings by (Zahara et al., 2021) who noted that Islamic financial inclusion in areas with a high Muslim population continues to increase. This finding also supports (Gupta & Singh, 2013) assertion that increased public awareness of the benefits of Islamic banking, especially in rural areas, has a major effect on the level of financial inclusion.

However, the significant gap in digital banking usage raises critical questions. despite the high account ownership rate, only 58 percent of respondents have ever applied for financing at an Islamic bank. This shows that although the community already has access, they have not fully utilized Islamic financing products. This result is consistent with previous research conducted by (Saifurrahman & Kassim, 2024) who found that access to Islamic financing services in some parts of Indonesia is still low, despite high levels of Islamic account ownership.

In addition, the use of Islamic digital banking services is still very limited with only 34% of respondents utilising them. This indicates a digital divide that needs to be addressed by Islamic banks. A report by (Rahmanto et al., 2023) mentioned that constraints in internet access and digital literacy are the main challenges in increasing the use of digital services among the public, especially in areas with limited access. This condition has prompted Islamic banking institutions to adopt strategic responses. For instance, Bank Syariah Indonesia (BSI) has implemented initiatives such as digital financial literacy outreach programs and simplified mobile banking applications aimed at increasing accessibility and usage. These measures are expected to support broader financial inclusion, particularly in rural and underserved communities.

Considering these factors, it remains important to strengthen and expand the development of digital financial literacy and promote more accessible Islamic financing products, building upon the ongoing initiatives by Islamic banks. This will ensure that the level of financial inclusion in this area continues to improve (Nasution et al., 2022).

Public Perception of the Role of Sharia Banks

The public's assessment of the role of Islamic banks in providing financial services that are fair and by religious values shows very positive results, with an average score above 4.0. This indicates that the public highly values the existence of Islamic banks as institutions that prioritize the principles of fairness and transparency, according to the findings by (Ezzahid & Elouaourti, 2021), who also noted that the factor of compatibility with religious values greatly influences the public's positive perception of Islamic banks. Furthermore, the results show that the majority of respondents feel that they understand the sharia contracts applied to Islamic bank products. This is in line with the findings by (Mandell & Klein, 2009), who stated that education and literacy regarding sharia principles are very important in shaping people's positive perceptions towards Islamic banks.

However, although people's perceptions of Islamic banks are very positive, these findings indicate that there is room to further improve literacy. This result is in line with research by Albaity, who noted that there are still many people who do not fully understand all types of products offered by Islamic banks, even though they already use them. For this reason, it is necessary to carry out more educational initiatives regarding Islamic bank products and services so that the public can make optimal use of these services (Albaity & Rahman, 2019).

The results of the SEM-PLS analysis conducted in this study show that the role of Islamic banks has a positive and significant influence on the financial inclusion of the people of Panyabungan City, Mandailing Natal Regency with a path coefficient of 0.68 and a p-value of 0.000, which shows a strong relationship between the two variables. This is in line with research conducted by (Ali et al., 2020), which found that Islamic banks play a major role in increasing people's access to financial products, especially in areas with more limited access to conventional banks. Previous research by (Hassan, 2015) also supports this finding, stating that Islamic banks have the advantage of providing more inclusive financial access for the community, especially in areas with a majority Muslim population. This explains why Islamic banks in Panyabungan City, Mandailing Natal Regency can have a positive impact on the financial inclusion of the community, as they are by the principles of fairness and without usury, which are more accepted by the majority of the population.

However, while the positive influence of Islamic banks on financial inclusion is evident, the findings also show that not all aspects of Islamic banks' financial services have been optimally utilized by the community. The use of Islamic digital banking services at only 34% indicates the challenge of increasing public awareness and understanding of digital banking technology. This is in line with the findings by (Banna et al., 2022), who highlighted the importance of developing digital technology in Islamic bank services to increase financial inclusion.

From the results of this structural model test, it can be concluded that although the role of Islamic banks is already significant, there needs to be a strategy to increase public understanding and acceptance of Islamic banks' digital products and services. This is important to optimize the role of Islamic banks in creating broader financial inclusion, as expected in the national inclusive finance agenda (Rumbogo et al., 2021). Furthermore, the findings also show that financial literacy and positive perceptions of Islamic banks significantly influence financial inclusion. Therefore, improving financial literacy at the community level is necessary to support the further development of Islamic financial inclusion. This is considering that people who have a better understanding of Islamic products will be more confident to utilize such services (Kristanto HC, 2022)k.

Research Limitations

As with any other research, this study has several limitations that need to be considered. First, this study was only conducted in Panyabungan City in Mandailing Natal Regency, which of course the results cannot be generalized to the whole of Indonesia or other regions with different social and economic characteristics. Further research conducted in other regions or with larger samples could provide a more comprehensive picture of financial inclusion in Indonesia as a whole. The second limitation is the use of quantitative data obtained from questionnaires. While this provides a clear and measurable picture of people's perceptions of Islamic banks and the level of financial inclusion, more in-depth qualitative data such as interviews or case studies could provide richer and deeper information on the motivations and barriers people face in accessing Islamic bank services.

In addition, although SEM-PLS has been used to test the structural model, there are still other variables that may affect financial inclusion that have not been tested in this study, such as macroeconomic factors or more specific cultural factors. Further research can extend this model by adding other variables that may affect the level of financial inclusion in rural areas or areas with limited access to banking technology and services. Another limitation is the relatively short research period, which makes longitudinal analysis of changes in public perceptions of Islamic banks or financial inclusion impossible. Further research over a longer period could provide insights into the long-term impact of financial inclusion policies implemented in this area.

CONCLUSION

This study examined the influence of financial literacy and perception of Islamic banks on financial inclusion in Mandailing Natal Regency using a descriptive-correlational quantitative approach and Partial Least Squares Structural Equation Modeling (PLS-SEM). The findings reveal that both independent variables have a statistically significant and positive effect on financial inclusion 1) Financial literacy (X1) has a path coefficient of 0.422, a t-statistic of 5.321, and a p-value of 0.000. 2) Perception of Islamic banks (X2) has a path coefficient of 0.493, a t-statistic of 6.127, and a p-value of 0.000.

The model's R^2 value is 0.647, indicating that 64.7% of the variance in financial inclusion can be explained by financial literacy and perception of Islamic banks. The results also indicate that although the majority of respondents already have Islamic bank accounts (86%) and understand the basic principles of Islamic finance, the use of digital banking services remains low (34%). This suggests that digital financial inclusion still faces challenges, particularly in terms of internet accessibility and digital literacy. Most respondents tend to underutilize digital Islamic banking features, despite the availability of such services.

Furthermore, the study confirms that Islamic banks are perceived positively by the public, especially in terms of aligning with religious values, offering relevant products, providing financial education, and facilitating access to inclusive financial services. Recommendations arising from this study include the need for:

1. Continued efforts to enhance financial literacy, especially regarding digital banking and Islamic finance principles.
2. Strategic action by Islamic banks to develop user-friendly digital platforms and expand outreach programs to improve public familiarity with digital services.
3. Closer collaboration between Islamic banks and communities to address barriers to adoption and understanding of Islamic financial products.

Limitations of this study include the geographic focus limited to Mandailing Natal Regency and the exclusive use of quantitative methods. Future research is encouraged to include a larger and more diverse sample, and to adopt qualitative or mixed-methods approaches to gain deeper insights into the behavioral and socio-cultural factors influencing financial inclusion. In conclusion, this study provides empirical evidence of the significant role of Islamic banks in enhancing financial inclusion in Muslim-majority regions. However, further development is needed to expand the scope of services and strengthen digital engagement, so that inclusive financial services can be realized more evenly and sustainably.

REFERENCES

Abadi, M. D., Purwanti, I., Hayat, A. A., Safitri, P. E., & Safitri, K. A. (2022). Financial Inclusion, Islamic Financial Literacy and Interest of Lamongan MSMEs to Use Islamic Bank Products. *At-Tijaroh: Jurnal Ilmu Manajemen Dan Bisnis Islam*, *8*(2), 142–154. https://doi.org/10.24952/tijaroh.v8i2.5976

Akir, Z. (2003). Diffusion of innovations. In *Education and Technology: An Encyclopedia* (5th ed., Vols. 1–2). Free Press. https://doi.org/10.4337/9781800883284.diffusion.of.innovations

Albaity, M., & Rahman, M. (2019). The intention to use Islamic banking: an exploratory study to measure Islamic financial literacy. *International Journal of Emerging Markets*, *14*(5). https://doi.org/10.1108/IJOEM-05-2018-0218

Ali, M. M., Devi, A., Furqani, H., & Hamzah, H. (2020). Islamic financial inclusion determinants in Indonesia: an ANP approach. *International Journal of Islamic and Middle Eastern Finance and Management*, *13*(4). https://doi.org/10.1108/IMEFM-01-2019-0007

Alsadi, N. (2025). The Convergence of Blockchain Technology and Islamic Economics: Decentralized Solutions for Shariah-Compliant Finance. *ArXiv Is Hiring a DevOps Engineer*, *1*(1).

Aref, S. H., & Abdullah, S. (2021). Does Financial Inclusion Interact With Islamic Banking Industry? Evidence From Saudi Arabia. *PalArch's Journal of Archaeology of Egypt/Egyptology*, *18*(13), 525–533.https://ezproxy.inceif.org:2443/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=edo&AN=150858900&site=eds-live

Ariani, N., Yuyetta, E. N. A., & Hardiningsih, P. (2020). The Support of Sharia Rural Banks Financing on National Financial Inclusion. *International Journal of Islamic Business and Economics (IJIBEC)*, *4*(1), 40–50. https://doi.org/10.28918/ijibec.v4i1.1980

Banna, H., Hassan, M. K., Ahmad, R., & Alam, M. R. (2022). Islamic banking stability amidst the COVID-19 pandemic: the role of digital financial inclusion. *International Journal of Islamic and Middle Eastern Finance and Management*, *15*(2), 310–330. https://doi.org/10.1108/IMEFM-08-2020-0389

Beck, T., Demirgüç-Kunt, A., & Levine, R. (2007). Finance, inequality and the poor. *Journal of Economic Growth*, *12*(1). https://doi.org/10.1007/s10887-007-9010-6

Bire, A. R., Sauw, H. M., & Maria, -. (2019). The effect of financial literacy towards financial inclusion through financial training. *International Journal of Social Sciences and Humanities*, *3*(1), 186–192. https://doi.org/10.29332/ijssh.v3n1.280

Creswell, J. W. (2018). Penelitian Kualitatif & Desain Riset: Memilih di antara Lima Pendekatan (diterjemahkan dari Qualitative Inquiry & Research Design: Choosing Among Five Approach, Third Edition). In *Pustaka Pelajar* (Vol. 3, Issue 1).

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly: Management Information Systems*, *13*(3). https://doi.org/10.2307/249008

Demirguc-Kunt, A., Klapper, L., & Randall, D. (2014). Islamic Finance and Financial Inclusion: Measuring Use of and Demand for Formal Financial Services among Muslim Adults. *Review of Middle East Economics and Finance*, *10*(2). https://doi.org/10.1515/rmeef-2013-0062

Demirguc-Kunt, A., Klapper, L., & Singer, D. (2017). Financial Inclusion and Inclusive Growth: A Review of Recent Empirical Evidence. In *Financial Inclusion and Inclusive Growth: A Review of Recent Empirical Evidence*. https://doi.org/10.1596/1813-9450-8040

Demirgüç-Kunt, A., Klapper, L., Singer, D., & Ansar, S. (2022). The Global Findex Database 2021 : Financial Inclusion, Digital Payments,and Resilience in the Age of COVID-19. In *The Global Findex Database*. http://elibrary.worldbank.org/doi/book/10.1596/97814648-1897-4

Demirguc-Kunt, A., Klapper, L., Singer, D., Ansar, S., & Hess, J. (2018). The Global Findex Database 2017: Measuring Financial Inclusion and the Fintech Revolution. *The Global Findex Database 2017: Measuring Financial Inclusion and the Fintech Revolution*. https://doi.org/10.1596/978-1-4648-1259-0

Dz., A. S. (2018). Inklusi Keuangan Perbankan Syariah Berbasis Digital-Banking: Optimalisasi dan Tantangan. *Al-Amwal : Jurnal Ekonomi Dan Perbankan Syari'ah*, *10*(1), 63. https://doi.org/10.24235/amwal.v10i1.2813

Eid, Q. M. A., Houl, M. A. A. Al, Alqudah, M. T. S., & Almomani, M. A. A. (2023). the Role of Financial Inclusion in the Stability of Islamic Banks. *International Journal of Professional Business Review*, *8*(4). https://doi.org/10.26668/businessreview/2023.v8i4.1214

Ezzahid, E., & Elouaourti, Z. (2021). Financial inclusion, mobile banking, informal finance and financial exclusion: micro-level evidence from Morocco. *International Journal of Social Economics*, *48*(7), 1060–1086. https://doi.org/10.1108/IJSE-11-2020-0747

Fitria, T. N. (2025). Islamic Banking Digitalization: Challenges and Opportunities in the Era of Industrial Revolution 4.0. *Jurnal Ilmiah Ekonomi Islam*. http://www.jurnal.stieaas.ac.id/index.php/jei/article/view/16855

Freeman, R. E. (2015). Strategic management: A stakeholder approach. In *Strategic Management: A Stakeholder Approach*. https://doi.org/10.1017/CBO9781139192675

Fuan Ertiyant, W., & Nur Latifah, F. (2022). PERAN BANK SYARIAH TERHADAP PEMBIAYAAN UMKM DI MASA PANDEMI COVID-19. *Jurnal Tabarru': Islamic Banking and Finance*, *5*(1). https://doi.org/10.25299/jtb.2022.vol5(1).9398

Gupta, P., & Singh, B. (2013). Role of Literacy Level in Financial Inclusion in India: Empirical Evidence. *Journal of Economics, Business and Management*. https://doi.org/10.7763/joebm.2013.v1.59

Hair, J. F., Jr., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2021). A primer on partial least squares structural equations modeling (PLS-SEM). Sage Publications. *Journal of Tourism Research*, *6*(2).

Haridan, N. M., Hassan, A. F. S., & Alahmadi, H. A. (2020). Financial Technology Inclusion in Islamic Banks: Implication on Shariah Compliance Assurance. *International Journal of Academic Research in Business and Social Sciences*, *10*(14). https://doi.org/10.6007/ijarbss/v10-i14/7361

Hassan, A. (2015). Financial inclusion of the poor: From microcredit to islamic microfinancial services. *Humanomics*, *31*(3), 354–371. https://doi.org/10.1108/H-07-2014-0051

Ilieva, J., Ristovska, N., & Kozuharov, S. (2017). Banking Without Interest. *Banking without Interest. UTMS Journal of Economics*, *8*(2).

Ismamudi, I., Alcoriza, G. B., Marzuki, M., & Bani, M. (2023). Islamic Fintech and Financial Inclusion: Innovations for Sustainable Economic Empowerment. *DEAL: International Journal of Economics and Business*, *1*(01), 54–60. https://doi.org/10.37366/deal.v1i01.3303

Junaidi, J., Anwar, S. M., Alam, R., Lantara, N. F., & Wicaksono, R. (2023). Determinants to adopt conventional and Islamic banking: evidence from Indonesia. *Journal of Islamic Marketing*, *14*(3). https://doi.org/10.1108/JIMA-03-2021-0067

Kato, T. (2022). Islamic and capitalist economies: Comparison using econophysics models of wealth exchange and redistribution. *PLoS ONE*, *17*(9 September). https://doi.org/10.1371/journal .pone.0275113

Khan, A., Rizvi, S. A. R., Ali, M., & Haroon, O. (2021). A survey of Islamic finance research – Influences and influencers. *Pacific Basin Finance Journal*, *69*. https://doi.org/10.1016/j.pacfin.2020 .101437

Kristanto HC, H. (2022). Adoption Of Islamic Banking In Financial Satisfaction : Study On Bank Syariah Indonesia Yogyakarta Region. *Jurnal Riset Akuntansi Dan Bisnis Airlangga*, *7*(2). https://doi.org/10.20473/jraba.v7i2.37205

Lee, S. P., & Isa, M. (2023). Environmental, social and governance (ESG) practices and financial performance of Shariah-compliant companies in Malaysia. *Journal of Islamic Accounting and Business Research*, *14*(2). https://doi.org/10.1108/JIABR-06-2020-0183

Leguina, A. (2015). A primer on partial least squares structural equation modeling (PLS-SEM). *International Journal of Research & Method in Education*, *38*(2). https://doi.org/10.1080/ 1743727x.2015.1005806

Lusardi, A., & Mitchell, O. S. (2014). The economic importance of financial literacy: Theory and evidence. *Journal of Economic Literature*, *52*(1), 5–44. https://doi.org/10.1257/jel.52.1.5

M. Umer Chapra. (2008). The Islamic vision of development in the light of Maqasid al-Shariah. In *Occasional papers series 15*.

Mandell, L., & Klein, L. S. (2009). The impact of financial literacy education on subsequent financial behavior. *Journal of Financial Counseling and Planning*, *20*(1).

Marla, P. G., Musnadi, S., & M Shabri. (2023). The Role of Financial Technology in Mediating the Influence of Islamic Financial Literacy on Islamic Financial Inclusion in Banda Aceh City. *International Journal of Scientific and Management Research*, *06*(07), 231–238. https://doi.org/10.37502/ijsmr.2023.6714

Metawa, S. A., & Almossawi, M. (1998). Banking behavior of Islamic bank customers: Perspectives and implications. *International Journal of Bank Marketing*, *16*(7). https://doi.org/10.1108/ 02652329810246028

Muhammad Syafi'I Antonio. (2001). *Bank Syaiah dari Teori ke Praktek ke Praktek*. Gema Insani.

Mulyana, I., Hamid, A., & Syaripudin, E. I. (2024). Tantangan Dan Peluang Penggunaan Fintech Dalam Perbankan Syariah. *Jurnal Hukum Ekonomi Syariah (JHESY)*, *2*(2). https://doi.org/ 10.37968/jhesy.v2i2.639

Nabil, M., & Herianingrum, S. (2022). Financial Inclusion of Sharia Banking and Poverty 33 Province in Indonesia. *Jurnal Ilmiah Ekonomi Islam, , 8*(2), 1549–1554. http://dx.doi.org/10.29040/jiei.v8i2.5755

Nasution, A. A., Harahap, D., & (2022). Environmental, social, governance (ESG) and Islamic finance: A review. *Management* http://journals.smartinsight.id/index.php/MS/article/ view/285

Nugraha, K., Arief, M., Abdinagoro, S. B., & Heriyati, P. (2022). Factors Influencing Bank Customers' Orientations toward Islamic Banks: Indonesian Banking Perspective. *Sustainability (Switzerland)*, *14*(19). https://doi.org/10.3390/su141912506

Nurhayati, I., Endri, E., Riani, D., & Bimo, W. A. (2022). Community's Potential and Preferences for Islamic Banking: The Case of Indonesia. *WSEAS Transactions on Environment and Development*, *18*. https://doi.org/10.37394/232015.2022.18.104

Obaidullah, M., & Khan, T. (2011). Islamic Microfinance Development: Challenges and Initiatives. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.1506073

Oktavia, N. T. (2023). Strategi Bank Syariah Indonesia Meningkatkan Inklusi Keuangan. *AL-Muqayyad*, *6*(2), 166–174. https://doi.org/10.46963/jam.v6i2.1370

Otoritas Jasa Keuangan. (2024a). *Laporan Perkembangan Keuangan Syariah Indonesia 2023*. Otoritas Jasa Keuangan. https://www.ojk.go.id/id/berita-dan-kegiatan/infoterkini/Pages/Laporan-Perkembangan-Keuangan-Syariah-Indonesia-2023.aspx

Otoritas Jasa Keuangan. (2024b). *Survei Nasional Literasi dan Inklusi Keuangan (SNLIK) 2024*. Otoritas Jasa Keuangan. https://ojk.go.id/id/berita-dan-kegiatan/publikasi/Pages/Survei-Nasional-Literasi-dan-Inklusi-Keuangan-(SNLIK)-2024.aspx

Ozili, P. K. (2018). Impact of digital finance on financial inclusion and stability. *Borsa Istanbul Review*, *18*(4). https://doi.org/10.1016/j.bir.2017.12.003

Rahmah, M., Haiqal, M., Putra, R. A. A., Risda, R., & Al Ma'arif, A. M. (2023). Peran Lembaga Keuangan Syariah Dalam Mendukung Kemandirian Ekonomi Masyarakat Pedesaan. *MANTAP: Journal of Management Accounting, Tax and Production*, *1*(2). https://doi.org/10.57235/mantap.v1i2.1384

Rahmanto, D. N. A., Muhammad, I. S., & ... (2023). Islamic Banks: Study of Financial Literacy, Digital Marketing, Accessibility, Age, and Education. *Journal of Islamic …*. https://ejournal.upnvj.ac.id/JIEFeS/article/view/5805

Ramaian Vasantha, N., Liew, C. Y., & Kijkasiwat, P. (2023). Exploring financial inclusion in MENA countries: an entropy weight approach. *International Journal of Islamic and Middle Eastern Finance and Management*, *16*(6), 1219–1247. https://doi.org/10.1108/IMEFM-11-2022-0451

Rumbogo, T., McCann, P., Hermes, N., & Venhorst, V. (2021). *Financial Inclusion and Inclusive Development in Indonesia*. https://doi.org/10.1007/978-3-030-59054-3_8

Saifurrahman, A., & Kassim, S. H. (2024). Regulatory issues inhibiting the financial inclusion: a case study among Islamic banks and MSMEs in Indonesia. *Qualitative Research in Financial Markets*, *16*(4), 589–617. https://doi.org/10.1108/QRFM-05-2022-0086

Sharma, R., & Singh, A. (2021). *Barriers to digital adoption in green finance: Evidence from emerging economies*.

Usmani, M. M. T. (2021). An Introduction to Islamic Finance. In *An Introduction to Islamic Finance*. https://doi.org/10.1163/9789004479913

Zahara, S. N., Ruhadi, R., & Setiawan, S. (2021). Analisis Pengaruh Inklusi Keuangan Syariah terhadap Indeks Pembangunan Manusia di Indonesia. *Journal of Applied Islamic Economics and Finance*, *2*(1), 164–177. https://doi.org/10.35313/jaief.v2i1.2875

Zaman, Z., Mehmood, B., Aftab, R., & ... (2017). Role of Islamic financial literacy in the adoption of Islamic banking services: An empirical evidence from Lahore, Pakistan. *Journal of Islamic …*. https://journals.riphah.edu.pk/index.php/jibm/article/view/105

Zulfaka, A., & Kassim, S. (2023). Roles of Islamic Financial Literacy on Financial Decision-Making: Building a Conceptual Framework Based on the Theory of Planned Behavior and Social Cognitive Theory. In *Contributions to Management Science: Vol. Part F1204*. https://doi.org/10.1007/978-3-031-27860-0_23