



The Influence of Islamic Banking Financial Technology on Financial Inclusion: A Case Study

Regi Anika¹, Muhammad Ikhsan Harahap¹, Lailan Syafina¹

¹North Sumatra State Islamic University

*Corresponding Author: Regi Anika

E-mail: regianika2004@gmail.com



Article Info

Article history:

Received 18 November 2023

Received in revised form 9

December 2023

Accepted 30 December 2023

Keywords:

Financial effectiveness

Financial Technology

Financial Inclusion

Abstract

This research aims to analyse the role of Fintech in increasing financial inclusion for customers of Bank Sumut Syariah KCP Lubuk Pakam. Fintech as a combination of finance and technology, offers faster, more efficient and inclusive solutions for accessing financial services. This research uses a quantitative approach to analyse data obtained from a survey of customers of Bank Sumut Syariah KCP Lubuk Pakam. The quantitative method was chosen as a way to find out the result of this research because it allows researchers to collect data that can be measured statistically, so that they can identify patterns and trends in the relationship between variables, namely the use of Financial Technology (Fintech) in sharia banking (X) with the development of financial inclusion (Y). The research result shows that Fintech plays a significant role in facilitating access to financial services. Fintech also contributes to increasing financial literacy, transaction efficiency and customer trust through advanced security features such as data encryption and multi-factor authentication. This research provides recommendations for improving digital infrastructure, financial education, and developing innovative sharia products and services.

Introduction

Technology has become an essential component of everyday life. The evolution of technology has changed many aspects of human survival to date. One of the noticeable changes is the increasing number of people who own and use mobile phones on a regular basis. One of the countries in the world with the highest percentage of smartphone users is Indonesia. By some users, smartphones are used by various parties as an opportunity, leading to the development of cutting-edge technology that has the power to improve and transform people's daily lives. Fintech, a new invention in the financial services industry, is one of them. Innovation in the field of financial services is known as *Fintech* or *Financial Technology*. In 2016, the Indonesian Financial Services Authority (POJK) Regulation issued a new regulatory policy regarding fintech regarding lending *off balance sheet* by the market and by the payment transaction process by Bank Indonesia (Harahap & Sugianto, 2023).

The growth of fintech users skyrocketed, from 7% in 2006 to 2007 to 78% in the next ten years. The number of users is recorded as many as 135-140 companies. 43% in the payments sector, such as *Mobile Payment* as well as *Payment Gateway Startups*. Interestingly, only 20 foreign companies participated to invest in fintech, both local and foreign startups. More and more financial organizations are becoming competitive due to the fierce competition between fintech product companies (Musdalifah & Hadisaputro, 2022). To outperform competitors in the market, every company will produce the best products for its customers. A wide range of digital wallets is made possible by a series of attractive, user-friendly, creative, and efficient products. With 50 million users of the Playstore application, Indonesia is in fourth place. According to a survey by the Indonesian Fintech Association (Aftech) *Annual Member Survey 2022/2023*,

there are 366 companies *Fintech* who have joined the association until the end of last year This number increased by 3.97% from the previous year (*year-on-year/yoy*) which is 352 members. Among them are 102 fintech loans *Online*, 84 digital financial innovation (IKD) fintechs, 39 payment system fintechs, 13 technology partner fintechs, 6 financial institution fintechs, 5 capital market fintechs, 4 digital asset fintechs, 113 other fintech companies (Mutia, 2023).

According to Chris Woolard (2020), Executive Director of Strategy and Competition at the Financial Conduct Authority, fintech refers to companies that use new and existing technologies to make better, cheaper, or more accessible products or services. According to the Central Bank of the Republic of Indonesia (BI), Fintech is an innovation in the financial sector that uses technology to improve efficiency in economic and financial activities. In the era of rapidly evolving digital transformation, Financial Technology (Fintech) has become a major pioneer that is revolutionizing the face of the financial sector. This phenomenon has not only affected conventional banking, but has also permeated the Islamic banking sector, bringing a wave of innovation that redefines the way people interact with financial services. The existence of Fintech is no longer just an option, but an urgent need in responding to changing global dynamics. Financial Technology (Fintech) began in the 1970s with the use of computers in the banking system and the development of ATM machines. The 1990s saw the rise of online banking and e-commerce services, paving the way for online payment solutions such as PayPal. In the 2000s, the advent of price comparison services and robo-advisors marked Fintech's first step towards rapid growth. The 2010s saw a surge in Fintech startups, ranging from P2P lending to mobile payments, while the concept of cryptocurrencies and blockchain technology became more prominent. The integration of advanced technologies such as artificial intelligence is increasingly dominant in the 2020s, accompanied by the growth of blockchain-based services. The COVID-19 pandemic in the early 2020s accelerated the adoption of Fintech, with a significant increase in the use of digital financial services (Kusuma & Asmoro, 2021). This transformation is constantly happening, illustrating the evolution from the development of conventional financial technology and Sharia towards an increasingly connected and innovative ecosystem.

Fintech is emerging as a leading solution that combines finance with technology, enabling faster, more efficient, and inclusive access to financial services. In this context, the research "The Effectiveness of Financial Technology (Fintech) in Islamic Banking on the Development of Financial Inclusion" becomes increasingly important, especially when the focus is on Islamic banking. The marriage between sharia principles and financial technology innovation opens a new path to a positive transformation in providing financial services that are in accordance with the needs and ethical values of society (Wahyuni et al., 2022). Financial inclusion is one of the main indicators to measure people's accessibility to financial products and services that involve all segments of society, including sharia-based ones. Islamic banking as an integral part of the global financial system has become more important in meeting the financial needs of the community, especially for individuals and groups who have a preference for sharia principles.

The development of financial inclusion is an important foundation to support inclusive economic growth and financial justice. In the context of Islamic banking, Fintech is considered a potential catalyst to achieve this goal. Financial inclusion in Indonesia itself continues to increase. In 2021, the level of financial inclusion in Indonesia increased compared to the previous year and reached 83.6%. This number of financial inclusion developments was followed by significant growth in ownership and use of accounts/accounts which also increased to 65.4% in 2021. Financial technology innovations in the sharia realm open the door wide for wider access to financial products and services in accordance with sharia principles. The

accessibility of Islamic financial services is made easier through digital banking applications, which allow customers to manage their sharia savings and get sharia financing more efficiently. Fintech also facilitates sharia-based P2P lending and crowdfunding models, providing an alternative to interest-free financing or in accordance with sharia principles (Hanum & Harahap, 2022).

Additionally, the P2P lending model adopted by Fintech facilitates direct lending between lenders and borrowers, opening doors for individuals or small businesses that are considered risky by traditional banks. Fintech is also driving the development of a banking system without a physical office, allowing for cheaper and more accessible financial services for those who have difficulty accessing bank offices in person. Digital payment services and digital wallets are creating a more efficient and easy way to make transactions, meeting the needs of people who do not have easy access to cash or conventional banking services. In addition, through Fintech, financial education can be accessed through digital applications and platforms, helping to increase people's understanding of financial services and their benefits (Hanum & Harahap, 2022). With the integration of Fintech, financial inclusion has become wider, providing opportunities for more individuals to access and utilize financial services effectively, regardless of geographical restrictions or income levels (Azhari et al., 2023).

The results of a study conducted by Munawar et al. (2022) in the research "*Financial technology (Fintech) in the financial inclusion of MSMEs in Banjar city during the covid-19 pandemic*" found that financial literacy and perception of the convenience, effectiveness, and risks of transacting with fintech have a significant influence on financial inclusion and interest in transacting with fintech (Munawar et al., 2022). Research shows that MSME owners in Banjar City tend to have bank accounts (93%) and most have used fintech platforms such as Ovo, Dana, and Go Pay before the Covid-19 pandemic (27%). During the pandemic, the use of fintech increased, with most MSMEs receiving payments through fintech applications 7-14 times per week. MSME actors understand fintech as a technology that is closely related to financial transactions, both payments and purchases (Munawar et al., 2022). Ratnawaty Marginingsih in the research "*Financial Technology (Fintech) in National Financial Inclusion during the Covid-19 Pandemic*" shows that the positive impact during the Covid-19 pandemic (Munawar et al., 2022). The contribution of Fintech has helped more people who are still not served by formal financial institutions in conducting financial transactions according to their needs. In addition, Fintech has also contributed to significant increases in national output, fund distribution, and investment, which ultimately has an impact on Indonesia's economic growth (Marginingsih, 2021).

In addition, in research conducted by Marini et al. (2020) stated that fintech has a great influence on increasing financial inclusion in MSMEs in Madura (Winarto, 2020). And contrary to the research conducted by Moh. Zaki Kurniawan & M. Boy Singgih Gitayuda on fintech variables on financial inclusion showed that fintech has no effect on financial inclusion (Kurniawan & Gitayuda, 2023).

Bank Sumut Syariah KCP Lubuk Pakam is one of the Islamic financial institutions that plays an important role in providing financial services in accordance with sharia principles for the people in the Lubuk Pakam area. As part of the Islamic banking sector, Bank Sumut Syariah KCP Lubuk Pakam has a strategic role in facilitating access to inclusive and sustainable financial services. In implementing Fintech at Bank Sumut Syariah KCP Lubuk Pakam will result in a significant increase in financial inclusion, with more individuals and small and medium enterprises (SMEs) being able to access Islamic financial services. Not only that, the implementation of Fintech at Bank Sumut Syariah KCP Lubuk

Pakam will result in universal accessibility to Islamic financial services for all people in the region, regardless of social, economic, or geographical status (Pida & Imsar, 2022). However, in reality, there are limitations in technology infrastructure and human resources that can affect the effectiveness of Fintech implementation in supporting financial inclusion. Some people in Lubuk Pakam still have a limited understanding of Islamic financial services and their benefits, as well as the use of fintech themselves. This lack of understanding can be an obstacle in utilizing Islamic banking services offered by Bank Sumut Syariah KCP Lubuk Pakam (Rahman & Saputra, 2022). With this study, it forms an update from the previous research with the aim of evaluating the effectiveness of Financial Technology (Fintech) in the context of Islamic banking, especially in the implementation at Bank Sumut Syariah KCP Lubuk Pakam. The evaluation will focus on various aspects of Fintech used by the bank, such as digital banking applications and online payment platforms, with the aim of identifying successes and challenges in the implementation of the technology. In addition, this study will analyze the impact of the use of Fintech on the level of financial inclusion in the Lubuk Pakam area, including increasing the accessibility of financial services and public understanding of Islamic financial services.

Financial Effectiveness

According to Wahyuni, Nurbaiti, and Harahap (2022), effectiveness is basically related to the achievement of policy goals or targets (use results). Effectiveness is the relationship between outputs and goals or objectives that must be achieved (Wahyuni, Nurbaiti, & Harahap, 2022). Financial effectiveness according to Eugene F. Brigham and Michael C. Ehrhardt in their book entitled *"Financial Management: Theory and Practice"*, Brigham and Ehrhardt define financial effectiveness as the ability of a company to generate high profits for shareholders by optimally managing its assets and liabilities. And according to John A. Tracy, In his book *"The Fast Forward MBA in Finance"*, Tracy defines financial effectiveness as an organization's ability to generate positive cash flow, control costs, and utilize funds optimally to achieve sustainable growth and profitability. One of the most important measures of financial effectiveness is the level of profitability of an organization which includes the ability of the organization to generate a net profit from operational activities after considering all costs and expenses (Syahputra et al., 2023). In financial effectiveness, the use of technology, especially internet banking, has changed the way companies think, especially banking, can be easier to develop and convey. Financial risk management such as liquidity ratio, solvency ratio, and profitability ratio show the extent to which a bank can efficiently manage its financial resources and generate profits (Rahman & Saputra, 2022).

According to experts, the indicator of financial effectiveness can be measured using several ratios, firstly, a high ratio indicates that the bank has the ability to manage risk and generate profits. This ratio consists of the effectiveness ratio, efficiency ratio, and independence ratio. In addition, net profit is a key indicator of a bank's financial effectiveness, describing a bank's ability to generate sufficient profits to cover operational and investment costs and provide profits to shareholders. High net profit is an important benchmark because it reflects the stability and success of a financial institution in managing assets and liabilities is also the main factor that affects the success of a bank (Arafah et al., 2023). Operational performance includes aspects of operational efficiency, customer service quality, and customer satisfaction level. Banks with good operational performance tend to have satisfied and loyal customers. This customer satisfaction can in turn increase sales of products and services, create an environment conducive to business growth and strengthen the bank's market position (Mauk, 2022).

Financial Technology (*Fintech*)

Fintech comes from the term financial technology or financial technology. According to The National Digital Research Centre (NDRC), in Dublin, Ireland, defines fintech as "*innovation in financial service*" or "Innovation in Fintech Financial Services" which is an innovation in the financial sector by providing a touch of modern technology. Financial transactions through fintech include payments, investments, money lending, transfers, financial plans and financial product comparisons (Azhari et al., 2023). *Fintech* or what is called Information Technology in Indonesian is the use of technology in the financial system that produces new products, services, technologies, or business models and can have an impact on monetary stability, financial system stability, smoothness, security, and reliability of the payment system. That the current development of technology and information systems continues to give birth to various innovations, especially those related to financial technology to meet various needs of the community including access to financial services and transaction processing (Pitri, 2023).

According to (Kusuma & Asmoro, 2021) revealed that fintech is a new form of industry that applies technology to produce advances in the application of the financial sector. (Musdalifah & Hadisaputro, 2022) argue that fintech is a combination of several sciences, such as finance as well as management and technological innovation. Currently, the development of financial technology (fintech) has changed the face of the development industry significantly. With the emergence of technological innovations, such as digital banking applications, digital payments, and peer-to-peer lending platforms, fintech has made a major contribution in improving the accessibility, convenience, and efficiency of financial services. So in the study, fintech indicators consist of internet banking, mobile banking, SMS banking, and phone banking. Because only through digital banking applications, customers can now easily access their accounts, make transactions, and manage their finances quickly and conveniently via mobile devices or the internet without the need to visit a physical branch. Not only that, but fintech also opens up new opportunities for individuals and small businesses by providing access to alternative sources of financing through peer-to-peer lending and crowdfunding platforms. What's more, blockchain technology, as the cornerstone of cryptocurrencies such as Bitcoin, has attracted interest from the banking industry with its potential to improve operational efficiency and transaction security.

Financial Inclusion

Financial inclusion is a concept that emphasizes equal and equitable access to welfare services for all people, regardless of their social, economic, and ethnic background. Financial inclusion includes such as savings, loans, insurance, and investments. According to Inclusion (*Financial Inclusion*, 2016) Defining financial inclusion as access to appropriate financial products including credit, savings, insurance, and payments, the availability of quality access including convenience, dependability and with regard to consumer protection. The United Nations Capital Development Fund (UNCDF) defines inclusion as a process that enables individuals and businesses, especially low-income earners, to efficiently use adequate and affordable financial services to improve their well-being. The financial inquest aims to ensure that everyone, including those who are less fortunate or isolated, can better manage their finances, reduce economic disparities, and promote sustainable economic growth. Access to financial services can ensure that everyone has access to decent financial services, including savings, loans, and insurance. Financial inclusion is a very important factor in efforts to achieve the Sustainable Development Goals (SDGs) set by the United Nations (UN), especially SDG 10 which focuses on reducing inequality (Tambunan et al., 2023).

Financial inclusion in Islamic banking is an effort that aims to ensure that all individuals and segments of society have equal access to financial services in accordance with sharia principles. In the context of financial inclusion, Islamic banking is committed to providing financial services that include a wide range of products and services, such as savings, financing, insurance, and investments, in accordance with sharia principles. Financial inclusion efforts in Islamic banking include several indicators, including access, use, and quality. Opening wider access to Islamic financial services, especially for those who previously did not have access or may have moral or religious objections to conventional financial products.

Methods

This study uses a quantitative approach to analyze data obtained from a survey of customers of Bank Sumut Syariah KCP Lubuk Pakam. The quantitative method was chosen as a way to know the results of this study because it allows researchers to be able to collect data that can be measured statistically, so that it can identify patterns and trends in the relationship between variables, namely the use of Financial Technology (Fintech) in Islamic banking (X) and the development of financial inclusion (Y). The total customer population at Bank Sumut KCP Lubuk Pakam is 8,571 customers and is simplified using the Slovin formula so that the number of samples obtained is 98 samples. Later, a survey will be conducted with customers using a questionnaire that has been systematically designed to obtain measurable and structured responses. The collected data will be processed and analyzed using descriptive statistical techniques and simple linear regression analysis using SPSS software. With a simple linear regression analysis, the author can evaluate the relationship between the independent variable (X), namely the use of Fintech in Islamic banking, and the dependent variable (Y), namely the development of financial inclusion. Later, the results of the regression analysis will provide a deeper understanding of the extent to which the use of fintech affects financial inclusion in the context of Islamic banking at Bank Sumut Syariah KCP Lubuk Pakam. The indicators in this study are first fintech (X), namely internet banking, mobile banking, SMS banking, and phone banking. Also the financial inclusion variables (Y) are availability, use, and quality.

Results and Discussion

Instrument Validity and Reliability Test

Validity Test

A validity test is a test used to show the extent to which a measuring tool used in a measure is being measured. Ghozali stated that validity tests are used to measure the validity or validity of a questionnaire (Ghozali, 2009). A questionnaire is said to be valid if the questions on the questionnaire are able to reveal something that the questionnaire will measure.

Table 1. Results of the Validity Test of Sharia Banking Fintech (X)

Variable	Question	r Calculate	r Table	Information
Fintech (X)	X.1	0,774	0,197	Valid
	X.2	0,795	0,197	Valid
	X.3	0,599	0,197	Valid
	X.4	0,744	0,197	Valid
	X.5	0,785	0,197	Valid
Inclusion Finance (Y)	Y.1	0,852	0,197	Valid
	Y.2	0,793	0,197	Valid
	Y.3	0,724	0,197	Valid
	Y.4	0,843	0,197	Valid

	Y.5	0,889	0,197	valid
--	-----	-------	-------	-------

Source: Primary Data processed by SPSS, 2024

If $R_{calculated} > R_{table}$ (2-sided test with sig. 0.05), then the instrument or question items are significantly correlated with the total score (declared valid). Based on the table above, it is known that the R value of the measurement of 5 questions for each variable has $R_{calculated} > R_{table}$ with a table R value of 0.197. Therefore, all questions are considered substantial.

Table 2. Reliability Score Results

Question	Reliability Test Score	Cronbach Alpha Limit	Information
X	0,783	0,60	Reliable
Y	0,876	0,60	Reliable

Source: Primary Data processed by SPSS, 2024

Reliability testing is a process to evaluate the consistency and stability of the results produced by a measurement instrument. Reliability is important because it ensures that the tool delivers consistently the same results when used under similar conditions. According to Al Ghazali, the high and low reliability is empirically indicated by a number called the reliability coefficient. High reliability is characterized by an rxx value that is close to 1. In general, reliability is considered adequate if the value is > 0.60 . Therefore, if Cronbach's Alpha score on 10 items is greater than 0.60 the entire questionnaire is considered reliable. So, the questionnaire is declared reliable and can be distributed to respondents as a research instrument.

Normality Test

The normality test aims to see if the distribution pattern of the multiple linear regression results has spread along the normal line of the p-plot of regression standardized residual. The following are the results of the normality test in the study.

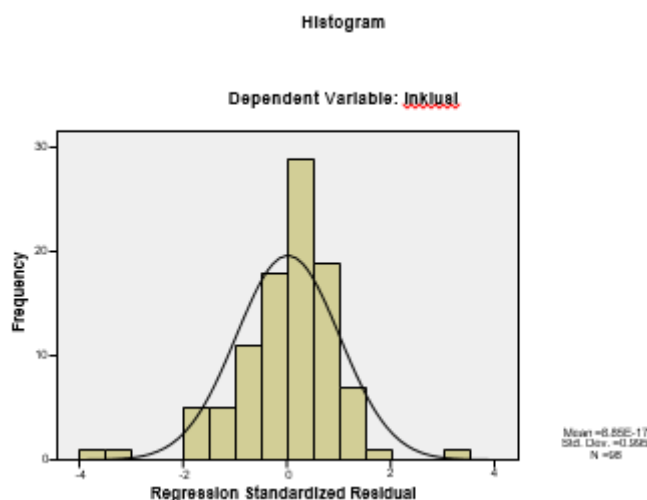


Figure 1. Histogram

The histogram shows the frequency distribution of the variable data "Inclusion" in the variable. A mean close to zero (8.85E-17) indicates that the data tends to be centered around that value. The Standard Deviation (Std. Dev.) of 0.995 indicates the distribution of data from the mean. The higher the standard deviation value, the greater the variation in the data. The number of data (N) of 98 indicates the number of observations or cases used in the analysis. Apart from

that, it can be seen that the shape of the histogram follows a diagonal line, so in the research data it can be said to be normally distributed.

Normal P-P Plot of Regression Standardized Residual

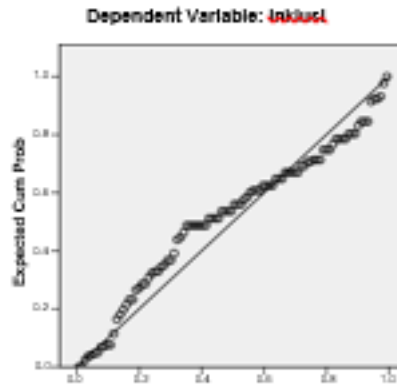


Figure 2. P-P Plot (Probability-Probability Plot)

The P-P Plot (Probability-Probability Plot) is used to evaluate the extent to which the residual data from the regression analysis corresponds to the normal distribution. In this study, the points on the plot are close to the diagonal line, indicating that the residuals follow the normal distribution well.

Table 3. One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		98
Normal	Mean	.0000000
Parameters(a,b)	Std. Deviation	2.42141378
Most Extreme	Absolute	.140
Differences	Positive	.094
	Negative	-.140
Kolmogorov-Smirnov Z		1.390
Asymp. Sig. (2-tailed)		.042

Source: Primary Data processed by SPSS, 2024

- a. Test distribution is Normal
- b. Calculated from data

The Kolmogorov Smirnov test is part of the classical assumption test. The Kolmogorov smirnov test can be defined as a normality test that compares the distribution of the tested data with the standard normal distribution to determine if the data comes from the normal distribution. The basis for decision-making in this test is that if the significant value > 0.05 , then the residual value is normally distributed. If the significant value < 0.05 , then the residual value is not normally distributed. In the kolmogorov smirnov table, the sig value is $0.042 > 0.05$, so it can be concluded that the residual value is normally distributed.

Hypothesis Test

The t-test – Statistics is one of the statistical tests to test the correctness of the hypothesis proposed by the researcher in distinguishing the average in two populations. The t-test uses a significant value for the acquisition of a statistical t-test with a degree of confidence of 5% (p-values <0.05). There are 2 possible results of the t-test, as follows: (1) If the significance value of the t-test > 0.05 or the t-calculated value < t-table, then H_0 is accepted and H_a is rejected. This means that there is no influence between independent variables on dependent variables; (2) If the significance value of the t-test < 0.05 or the t-count value > t-table, then H_0 is rejected and H_a is accepted. This means that there is an influence between independent variables on dependent variables.

Table 4. Coefficients (a)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta	B	Std. Error	
1	(Constant)	3.056	1.408		2.170	.032
	Fintech	.851	.071	.774	11.962	.000

a. Dependent Variable: Inclusion

Source: Primary Data processed by SPSS, 2024

In the results of the t-statistical test, it is known that the fintech sig value is $0.000 < 0.05$ and the t-count value is $11,962 >$ the t-table $1,984$ indicates that H_0 is rejected and H_a is accepted. It shows that the Fintech variable (X) significantly affects the dependent variable Financial Inclusion (Y).

Coefficient Determination (R^2)

The determination coefficient test was carried out to find out how much endogenous variables are simultaneously able to explain exogenous variables. The higher the R^2 value means the better the prediction model of the proposed research model. The determination coefficient test (R^2) is carried out to determine and predict how large or important the contribution of the influence given by the independent variables together to the dependent variables.

Table 5. Model Summary

Type	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.774(a)	.598	.594	2.43399

a Predictors: (Constant), Fintech

Source: Primary data processed by SPSS, 2024

The results of the regression test show that the regression model used has a good degree of match with the observed data. The Fintech variable significantly affected the dependent variable of Inclusion, with a determination coefficient (R Square) of 0.598. This means that about 59.8% of the variability in inclusion can be explained by the Fintech variables in the regression model. In addition, the Adjusted R Square value which is almost the same as R Square shows that the addition of Fintech variables significantly improves the model's ability to account for variations in inclusions

The Influence of Financial Technology (Fintech) of Bank Sumut Syariah KCP Lubuk Pakam Customers on Financial Inclusion

Based on the results of the t-test, showing the influence of the fintech variable (X) on the financial inclusion variable (Y), the sig value of 0.000 is smaller than 0.05, indicating that there is sufficient statistical evidence to reject the null hypothesis. If the significance value of the t test < 0.05 , then H_0 is rejected and H_a is accepted. This means that there is an influence between independent variables on dependent variables. Furthermore, the results of the comparison of the t-calculated value and the t-table show that the t-value of 11.962 exceeds the t-value of the table 1.984. Thus, it can be clearly expressed if the financial technology (fintech) of Bank Sumut Syariah Kcp Lubuk Pakam customers has an effect on financial inclusion. In determining and predicting how large or important the contribution of the influence given by the independent variables together on the dependent variables in this study was obtained, the value of the determination coefficient (R Square) was obtained of 0.598. Interpreting about 59.8% of the variability in inclusion can be explained by the Fintech variables in the regression model.

This result shows that fintech provides easier and faster access to financial services for customers of Bank Sumut Syariah KCP Lubuk Pakam. Through mobile banking applications or online platforms, customers can make various transactions such as fund transfers, bill payments, and purchase financial products in accordance with sharia principles without having to visit a branch office. This makes it very easy to access, especially for customers who live in remote areas or have limited time. In addition, fintech also offers lower transaction fees, making financial services more affordable for low-income people. The speed and efficiency of transactions offered by fintech improves the customer experience and encourages more frequent use of financial services (Musdalifah & Hadisaputro, 2022). With advanced security features such as data encryption and multi-factor authentication, fintech increases customer confidence in digital services. Islamic financial education and literacy provided by fintech platforms help customers understand Islamic financial products and services, so that fintech can increase Islamic financial inclusion in the region, by ensuring that more people can take advantage of financial services that align with their beliefs and values. The results of this study are in line with research conducted by Marini et al. (2020) stated that fintech has a great influence on increasing financial inclusion in MSMEs in Madura (Winarto, 2020).

Conclusion

Fintech is emerging as a leading solution that combines finance with technology, enabling faster, more efficient, and inclusive access to financial services. Fintech has an important role to play in improving financial inclusion. In the context of Bank Sumut Syariah KCP Lubuk Pakam Customers, the use of Fintech, such as mobile banking applications and online platforms, has made it easier for customers to conduct various financial transactions in accordance with sharia principles without having to visit a physical branch office. This not only makes it easier to access for customers who live in remote areas or have limited time, but also offers lower transaction costs, making financial services more affordable for low-income people. In addition, Fintech also plays a role in improving financial literacy, transaction efficiency, and customer trust in digital financial services. Through advanced security features such as data encryption and multi-factor authentication, Fintech can provide customers with a sense of security and trust in using financial services digitally. Thus, Fintech can be the key to expanding financial access and advancing financial inclusion in society.

References

- Arafah, F., Lathief Ilhamy Nasution, M., & Sugianto. (2023). Analisis Peran Audit Internal terhadap Manajemen Risiko pada Perbankan Syariah (Studi Kasus Pada PT. Bank Syariah Indonesia KC Medan S. Parman). *Jurnal Pendidikan Tambusai*, 7, 3676–3683.
- Azhari, Rizal, A., Hari Susanto, S. N., & Juliani, H. (2023). Implementasi Penerbitan KTP Elektronik Bagi Warga Negara Asing di Kota Semarang. *Dipenogoro Law Journal*, 12(April), 1–15. <https://doi.org/https://doi.org/10.14710/dlj.2023.40845>
- Financial Inclusion*. (2016). <https://www.cgap.org/topics/financial-inclusion>
- Ghozali. (2009). *Aplikasi Analisis dengan Progra SPSS*. Universitas Dipenogoro.
- Hanum, F., & Harahap, M. I. (2022). Analysis of Factors Affecting Employee Performance At Bank Syariah Indonesia (Bsi) of Adam Malik Branch Office in Medan City. *Cashflow : Current Advanced Research on Sharia Finance and Economic Worldwide*, 1(3), 1–10. <https://doi.org/10.55047/cashflow.v1i3.165>
- Harahap, M. I., & Sugianto. (2023). Pengaruh Inflasi, Suku Bunga Dan Pembiayaan Bank Syariah Terhadap Ekspor Indonesia. *Jurnal Riset Akuntansi Dan Bisnis*, 23(2), 73–81.
- Kurniawan, M. Z., & Gitayuda, M. B. S. (2023). Tingkatkan Inklusi Keuangan UMKM di Wisata Pesisir Madura: Peran Literasi Keuangan dan Pemanfaatan Fintech. *Jurnal Ilmiah Akuntansi Dan ...*, 8(1), 80–87. <https://journal.undiknas.ac.id/index.php/akuntansi/article/view/4900%0Ahttps://journal.undiknas.ac.id/index.php/akuntansi/article/download/4900/1443>
- Kusuma, H., & Asmoro, W. K. (2021). Perkembangan Financial Teknologi (Fintech) Berdasarkan Perspektif Ekonomi Islam. *ISTITHMAR : Jurnal Pengembangan Ekonomi Islam*, 4(2), 141–163. <https://doi.org/10.30762/itr.v4i2.3044>
- Marginingsih, R. (2021). Financial Technology (Fintech) Dalam Inklusi Keuangan Nasional di Masa Pandemi Covid-19. *Moneter - Jurnal Akuntansi Dan Keuangan*, 8(1), 56–64. <https://doi.org/10.31294/moneter.v8i1.9903>
- Mauk, S. S. (2022). Analysis Of Financial Performance Effectiveness At Pt. Bank Rakyat Indonesia Tbk And Pt. Bank Negara Indonesia Tbk Period 2016-2020 Analisis Efektivitas Kinerja Keuangan Pada Pt. Bank Rakyat Indonesia Tbk Dan Pt. Bank Negara Indonesia Tbk Periode 2016-202. *Jurnal Inspirasi Ekonomi*, 4(1), 2503–3123. <https://doi.org/https://doi.org/10.32938/ie.v4i1.2195>
- Munawar, A. H., Rosyadi, A., & Rahmani, D. A. (2022). Financial technology (fintech) dalam inklusi keuangan umkm kota Banjar di masa pandemi covid-19. *Inovasi*, 18(1), 39–49. <https://doi.org/10.30872/jinv.v18i1.10454>
- Musdalifah, M., & Hadisaputro, E. L. (2022). Analisis Kepuasan Pengguna Menggunakan Technology Acceptance Model Pada Aplikasi Dana. *Journal of Computer System and Informatics (JoSYC)*, 4(1), 72–78. <https://doi.org/10.47065/josyc.v4i1.2493>
- Mutia, C. (2023). Ada 366 Anggota Asosiasi Fintech di Indonesia hingga 2022. Databoks. <https://databoks.katadata.co.id/datapublish/2023/08/01/ada-366-anggota-asosiasi-fintech-di-indonesia-hingga-2022-begini-trennya>

- Pida, Y., & Imsar, I. (2022). Pengaruh Literasi Keuangan dan Inklusi Keuangan Terhadap Scale Up Bisnis UMKM Kota Medan Dalam Kerangka Maqashid Syariah. *Jurnal Sains Sosio Humaniora*, 6(2), 104–118. <https://doi.org/10.22437/jssh.v6i2.22897>
- Pitri, D. C. (2023). Dampak Financial Technology (Fintech) terhadap Perkembangan Inklusi Keuangan pada UMKM di Kota Jember. *Jurnal Ekonomi, Manajemen Dan Akuntansi*, 1(2), 401–407.
- Rahman, A. Z., & Saputra, F. L. (2022). Efisiensi dan efektivitas dalam pengelolaan keuangan daerah Kabupaten Cilacap. *Humanika*, 22(2), 117–126. <https://doi.org/10.21831/hum.v22i2.54277>
- Syahputra, A., Harahap, I., M. Nawawi, Z., & Kaswinata, K. (2023). Distribusi Pendapatan dan Kemiskinan di Indonesia dalam Perspektif Ekonomi Islam: Tantangan dan Prospek Masa Depan. *Jurnal Iqtisaduna*, 9(2), 144–161. <https://doi.org/10.24252/iqtisaduna.v9i2.41929>
- Tambunan, M. A. M., Nurbaiti, & Muhammad Lathief Ilhamy Nasution. (2023). The Influence Of Risk Perception, Return Expectations, Behavioral Motivation And Technological Progress On Investment Decisions In Islamic Peer To Peer Fintech. *Jurnal Ekonomi Sean Institute*, 12(2), 1751–1760.
- Wahyuni, S., Nurbaiti, & Harahap, M. I. (2022). Efektifitas Penerapan Financial Technology (Fintech) dan Strategi Fundraising dalam Optimalisasi Penghimpunan ZISWAF (Zakat , Infak , Sedekah , Wakaf) (Studi Kasus Dompot Dhuafa Waspada Sumatera Utara). *JES (Jurnal Ekonomi Syariah)*, 6, 9925–9939. <https://doi.org/https://doi.org/10.31004/jptam.v6i2.3992>
- Winarto, W. W. A. (2020). Peran Fintech dalam Usaha Mikro Kecil dan Menengah (UMKM). *Jesya (Jurnal Ekonomi & Ekonomi Syariah)*, 3(1), 61–73. <https://doi.org/10.36778/jesya.v3i1.132>