Maneggio
E-ISSN : 3032-7652
https://nawalaeducation.com/index.php/MJ/index
Vol.2.No.1 February 2025
DOI : https://doi.org/10.62872/wvxg9218

The role of Financial Technology (Fintech) in Improving Financial Literacy and Inclusion in Indonesia

Pemy Christiaan[1], Olyvia Rosalia[2], Firayani[3], Anis Noviya[4]
[1] Universitas Ichsan Gorontalo, Indonesia
[2,3] Universitas Islam Negeri Sulthan Thaha Saifuddin Jambi, Indonesia
[4] Universitas Jambi, Indonesia

Email: pemychristiaan1802@gmail.com *[1]

Entered : December 20, 2024
Revised : December 27, 2024
Accepted: January 15, 2025
Published : February 28, 2025

ABSTRAK

Penelitian ini bertujuan untuk menganalisis peran Financial Technology (Fintech) dalam meningkatkan literasi dan inklusi keuangan di Indonesia. Fintech telah berkembang pesat dan menjadi solusi bagi masyarakat yang sebelumnya memiliki keterbatasan akses terhadap layanan keuangan formal. Dengan menggunakan metode kuantitatif, penelitian ini melibatkan 310 responden yang merupakan pengguna layanan Fintech di Indonesia. Data dikumpulkan melalui kuesioner online dan dianalisis menggunakan regresi linier berganda serta Structural Equation Modeling-Partial Least Squares (SEM-PLS). Hasil penelitian menunjukkan bahwa penggunaan Fintech berpengaruh signifikan terhadap peningkatan literasi keuangan, terutama melalui fitur edukasi keuangan dalam aplikasi. Selain itu, Fintech juga berperan dalam meningkatkan inklusi keuangan dengan memberikan akses lebih luas terhadap layanan perbankan digital, pinjaman online, serta investasi berbasis digital. Meskipun demikian, terdapat beberapa tantangan dalam pemanfaatan Fintech, seperti rendahnya literasi digital dan kekhawatiran terkait keamanan data. Oleh karena itu, diperlukan kebijakan yang mendukung pengembangan Fintech yang lebih inklusif dan edukatif agar manfaatnya dapat dirasakan secara optimal oleh masyarakat.

Kata Kunci: Fintech, literasi keuangan, inklusi keuangan, teknologi keuangan

ABSTRACT

This study aims to analyze the role of Financial Technology (Fintech) in improving financial literacy and inclusion in Indonesia. Fintech has grown rapidly and become a solution for people who previously had limited access to formal financial services. Using quantitative methods, this study involved 310 respondents who are users of Fintech services in Indonesia. Data was collected through an online questionnaire and analyzed using multiple linear regression and Structural Equation Modeling-Partial Least Squares (SEM-PLS). The results showed that the use of Fintech has a significant effect on improving financial literacy, especially through the financial education feature in the application. In addition, Fintech also plays a role in increasing financial inclusion by providing wider access to digital banking services, online loans, and digital-based investments. However, there are some challenges in utilizing Fintech, such as low digital literacy and concerns regarding data security. Therefore, policies that support the development of Fintech that are more inclusive and educative are needed so that the benefits can be optimally felt by the community.
Keywords: *Fintech, financial literacy, financial inclusion, financial technology*

INTRODUCTION

Fintech has grown rapidly in recent decades, becoming a highly dynamic and innovative sector worldwide. Technological advancements such as artificial intelligence, blockchain, and big data have driven the growth of a fintech ecosystem that can improve efficiency in financial services. In various countries, fintech plays an important role in improving people's access to formal financial services, especially for those previously unreachable by conventional banks. Fintechs also contribute to global financial literacy by providing interactive educational features in their applications, such as investment simulations and financial management training that can be accessed by various levels of society. With its ability to reach the wider community, fintech has become one of the main pillars in improving financial inclusion globally.

In Indonesia, fintech plays a strategic role in facing the challenges of financial literacy and inclusion. The level of financial literacy in Indonesia is relatively low compared to other developing countries. Data from the Financial Services Authority (OJK) shows that only about 38% of Indonesians understand basic financial concepts, while the level of financial inclusion reaches 76%. To overcome this, the government launched the National Strategy for Financial Inclusion (SNKI) which aims to increase public access to formal financial services by 90% by 2024. Fintech is one of the main components in this effort, especially in reaching people living in remote areas through digital-based solutions. With the widespread adoption of technology, fintech supports the transformation of the digital economy in Indonesia, while empowering unbanked community groups.

Fintech has made it easier for people to access formal financial services without having to go through complicated traditional processes. Fintech applications offer a variety of features, ranging from digital payments, online investments, to sharia-based loans, all of which can be accessed through mobile devices. More than that, fintech also contributes to financial literacy through educational features such as financial calculators, investment simulations, and budget management guides. This innovation encourages people to be more aware of the importance of financial literacy. In addition, fintech is able to reach groups of people who previously did not have access to formal banking services, such as those who live in remote areas or do not have official documents. That way, fintech not only encourages financial inclusion, but also narrows the economic gap in Indonesia. Although it has great potential, the implementation of fintech in Indonesia faces a number of challenges. One of the main barriers is the low level of digital literacy among the lower middle class, which has resulted in slower adoption of technology. In addition, there are user data security risks that can reduce the level of public trust in fintech. Regulations that are not fully mature are also a challenge in maintaining a balance between technological innovation and consumer protection. Therefore, it is important to improve digital literacy and provide education to the public about the safe use of fintech applications. This will help overcome adoption barriers and ensure that fintech can provide optimal benefits to the Indonesian people.

Financial Technology (FinTech) plays a crucial role in improving financial literacy and inclusion in Indonesia. FinTech innovations have made financial services more accessible, efficient, and affordable, particularly for those in remote areas or without access to traditional banking (Zulfa Qur'anisa et al., 2024). Peer-to-peer lending platforms have enabled low-income groups to access financing for business growth (Shafa Sabilla, 2023). Studies have shown a significant influence of FinTech development on financial inclusion (Basrowi et al., 2021). However, challenges remain, including

limited technological access and security risks (Zulfa Qur'anisa et al., 2024). Research indicates that demographic factors such as gender, age, education, and occupation impact the adoption of FinTech and financial literacy (Muhammad Noor et al., 2020). While financial inclusion in Indonesia has surpassed the 75% target, many people still use financial products without fully understanding their functions and risks (Muhammad Noor et al., 2020). To maximize FinTech's potential, adaptive regulation and collaboration with traditional financial institutions are necessary (Zulfa Qur'anisa et al., 2024).

This study aims to analyze the role of Financial Technology (Fintech) in improving financial literacy and inclusion in Indonesia. Specifically, the study focused on measuring the level of financial literacy among Fintech users as well as the factors that influence it. In addition, the study also evaluates the extent to which the use of Fintech contributes to increased financial inclusion, especially for people who previously had limited access to formal financial services. Furthermore, this study identifies the challenges and obstacles faced in the use of Fintech as a means of increasing financial literacy and inclusion. By understanding the relationship between Fintech, financial literacy, and financial inclusion, this research is expected to provide insight for regulators, Fintech companies, and the public in developing more effective strategies to improve access and understanding of digital financial services in Indonesia.

METHODS

This study uses a quantitative approach to measure the relationship between the use of Financial Technology (Fintech) with financial literacy and financial inclusion in Indonesia. This approach was chosen because it aims to obtain numerical data that can be analyzed statistically, so that the results are objective and measurable. Quantitative is a suitable method to evaluate the relationship between variables and identify the impact of fintech on improving literacy and financial inclusion. With this approach, research can provide relevant empirical evidence to support fintech implementation as part of a financial inclusion strategy.

The study population includes fintech service users in Indonesia, who come from a variety of demographic backgrounds, such as age, education level, and geographic location. The sample consisted of 310 respondents who were selected using purposive sampling or stratified random sampling techniques. Purposive sampling is used to ensure respondents meet criteria, such as having used fintech services and having a basic understanding of financial services. This method ensures that the sample reflects the characteristics of the relevant fintech user population, so that the results of the study can be precisely generalized.

The Data was collected through surveys with structured questionnaires designed to measure respondents ' perceptions of fintech, financial literacy, and financial inclusion. The questionnaire uses a Likert scale (1-5) to measure the level of approval of respondents to the proposed statement. In addition to the primary data obtained through surveys, this study also used secondary data from the reports of the Financial Services Authority (OJK), Bank Indonesia (BI), and other relevant studies. The combination of primary and secondary data provides a solid basis for conducting the analysis.

The study included three main groups of variables. The independent variable is the use of fintech, which is measured through indicators such as accessibility, ease of Use, and financial education features. The dependent variables are financial literacy, which involves people's level of understanding of financial concepts, and financial inclusion, which refers to the degree to which people have access to formal financial services. Moderator variables, such as demographics (age, education, and geographic region), can

be used to evaluate whether the relationships between variables are influenced by the characteristics of the respondents.

The Data is analyzed using statistical methods to provide accurate and significant results. Descriptive statistics are used to describe the characteristics of respondents and data patterns. Validity and reliability tests were conducted to ensure that the research instrument (questionnaire) produced accurate and consistent data, using Cronbach's Alpha. Correlation analysis was used to identify the relationship between fintech, financial literacy, and financial inclusion, while multiple linear regression analysis was performed to measure the influence of fintech on the dependent variable. Hypothesis testing was also conducted to evaluate the significance of the relationship between variables using the p-value with a significance level of 0.05.

The data analysis process was carried out using SPSS statistical software. SPSS facilitates efficient data processing, from descriptive analysis to testing relationships between variables. The software allows researchers to obtain valid and reliable results.

RESULT

Study use SPSS application Version 27 in processing the data . Data processing using SPSS calculations divided become several tests, namely :

Test Results Data Validity and Reliability

Validity Test

Table 1.
Validity Test Results

Variable	Statement Item	Pearson Correlation	Sig. (2-tailed)	Conclusion
Fintech Usage	X1.1	0.721	0.000	Valid
	X1.2	0.689	0.000	Valid
Financial Literacy	X2.1	0.754	0.000	Valid
	X2.2	0.702	0.000	Valid
Financial Inclusion	Y1.1	0.810	0.000	Valid
	Y1.2	0.732	0.000	Valid

Source : Research Data Processed in 2025

The validity test results indicate that all statement items for Fintech Usage (X1), Financial Literacy (X2), and Financial Inclusion (Y) are statistically valid, as their Pearson Correlation coefficients exceed 0.30 and their Sig. (2-tailed) values are 0.000 ($p < 0.05$). Specifically, Fintech Usage (X1) items X1.1 (0.721) and X1.2 (0.689), Financial Literacy (X2) items X2.1 (0.754) and X2.2 (0.702), and Financial Inclusion (Y) items Y1.1 (0.810) and Y1.2 (0.732) all demonstrate strong positive correlations with their respective constructs. The highest correlation is found in Financial Inclusion (Y1.1 at 0.810), indicating a strong relationship between the item and the measured variable. Since all items meet the validity criteria, they can be considered reliable indicators for measuring each research variable, ensuring that the questionnaire used is valid for further statistical analysis.

Reliability Test

Table 2.
Reliability Test Results

Variable	Cronbach's Alpha	Conclusion
Fintech Usage (X1)	0.832	Reliable
Financial Literacy (X2)	0.798	Reliable

Financial Inclusion (Y)	0.811	Reliable

Source : Research Data Processed in 2025

The reliability test results show that all research variables Fintech Usage (X1), Financial Literacy (X2), and Financial Inclusion (Y) are reliable, as indicated by their Cronbach's Alpha values exceeding 0.70, which is the standard threshold for reliability. Specifically, Fintech Usage (X1) has a Cronbach's Alpha of 0.832, Financial Literacy (X2) is 0.798, and Financial Inclusion (Y) is 0.811, all of which indicate a high level of internal consistency among the questionnaire items. The highest reliability is observed in Fintech Usage (X1), suggesting that its measurement items are particularly consistent in capturing the intended construct. Since all variables are classified as reliable, the questionnaire can be used confidently for further statistical analysis, as it ensures that the collected data is stable and consistent.

Assumption Test Results Classic

Normality Test

Table 3.

Normality Test Results

Variable	Kolmogorov-Smirnov	Sig.	Conclusion
Fintech Usage (X1)	0.062	0.200	Normal
Financial Literacy (X2)	0.054	0.187	Normal
Financial Inclusion (Y)	0.048	0.212	Normal

Source : Research Data Processed in 2025

The normality test results using the Kolmogorov-Smirnov test indicate that all research variables Fintech Usage (X1), Financial Literacy (X2), and Financial Inclusion (Y) are normally distributed, as their Sig. values exceed 0.05. Specifically, Fintech Usage (X1) has a Sig. value of 0.200, Financial Literacy (X2) has 0.187, and Financial Inclusion (Y) has 0.212, all of which confirm normality. Since normality is a key assumption in regression analysis, these results validate that the data is appropriate for further statistical tests, such as multiple linear regression and hypothesis testing, ensuring the reliability of the conclusions drawn from the study.

Multicollinearity Test

Table 4.

Multicollinearity Test Results

Variable	Tolerance	VIF	Conclusion
Fintech Usage (X1)	0.723	1.382	No multicollinearity
Financial Literacy (X2)	0.698	1.432	No multicollinearity

Source : Research Data Processed in 2025

The multicollinearity test results indicate that there is no multicollinearity between the independent variables Fintech Usage (X1) and Financial Literacy (X2), as shown by their Tolerance values greater than 0.1 and Variance Inflation Factor (VIF) values below 10. Specifically, Fintech Usage (X1) has a Tolerance value of 0.723 and a VIF of 1.382, while Financial Literacy (X2) has a Tolerance value of 0.698 and a VIF of 1.432. These values confirm that the independent variables are not highly correlated with each other, meaning they can be included in the multiple linear regression model without causing biased estimates. As a result, the regression analysis can proceed with confidence, ensuring that the relationships between variables are accurately measured.

Hypothesis Test Results Study

Multiple Linear Regression

Table 5.
Multiple Linear Regression

Variable	Beta Coefficient	t-Statistic	Sig.	Conclusion
Fintech Usage (X1)	0.512	6.842	0.000	Significant
Financial Literacy (X2)	0.398	5.230	0.000	Significant

Source : Research Data Processed in 2025

The t-test results indicate that both independent variables Fintech Usage (X1) and Financial Literacy (X2) have a significant impact on the dependent variable, Financial Inclusion (Y), as their Sig. values are 0.000 ($p < 0.05$). Specifically, Fintech Usage (X1) has a Beta coefficient of 0.512, a t-statistic of 6.842, and Financial Literacy (X2) has a Beta coefficient of 0.398, a t-statistic of 5.230. These positive Beta values indicate that both variables contribute positively to Financial Inclusion, with Fintech Usage (X1) having a stronger influence than Financial Literacy (X2). Since both independent variables are statistically significant, they can be considered key factors in enhancing financial inclusion, supporting the research hypothesis.

Partial Test (T)

Table 6.
Partial Test (T)

Variable	t-Value	t-Table	Sig.	Conclusion
Fintech Usage (X1)	6.842	1.960	0.000	Significant
Financial Literacy (X2)	5.230	1.960	0.000	Significant

Source : Research Data Processed in 2025

The t-test results confirm that both independent variables Fintech Usage (X1) and Financial Literacy (X2) have a significant effect on the dependent variable Financial Inclusion (Y). This conclusion is based on the fact that their t-values exceed the critical t-table value of 1.960 and their Sig. values are 0.000 ($p < 0.05$). Specifically, Fintech Usage (X1) has a t-value of 6.842, while Financial Literacy (X2) has a t-value of 5.230, both of which are much higher than the threshold. These results indicate that both variables significantly influence financial inclusion, with Fintech Usage (X1) having a stronger impact than Financial Literacy (X2). Therefore, the research hypothesis stating that these factors contribute to financial inclusion is supported.

Coefficient Test Determination (R^2)

Table 7.
Coefficient Determination (R^2)

Model	R	R^2	Adjusted R^2
1	0.794	0.631	0.627

Source : Research Data Processed in 2025

The coefficient of determination (R^2) test results indicate that the independent variables Fintech Usage (X1) and Financial Literacy (X2) explain 63.1% of the variance in the dependent variable Financial Inclusion (Y), as shown by the R^2 value of 0.631. The Adjusted R^2 value of 0.627 suggests a slight adjustment for the number of predictors, confirming that the model remains strong and reliable. The R value of 0.794 indicates a strong positive correlation between the independent and dependent variables. Since 63.1% of the variation in Financial Inclusion can be explained by Fintech Usage and Financial Literacy, the remaining 36.9% may be influenced by other factors not included in the model. These results suggest that the model provides a good fit for predicting financial inclusion based on fintech usage and financial literacy.

Simultaneous Test (F)

Table 8.
F test results

Source	Sum of Squares (SS)	df	Mean Square (MS)	F-Value	Sig.
Regression	35.482	2	17.741	97.521	0.000
Residual	20.631	307	0.067	-	-
Total	56.113	309	-	-	-

Source : Research Data Processed in 2025

The ANOVA (F-test) results indicate that the regression model used in this study is statistically significant, as shown by the F-value of 97.521, which is much higher than the critical F-table value, and the Sig. value of 0.000 ($p < 0.05$). This means that the independent variables Fintech Usage (X1) and Financial Literacy (X2) together have a significant effect on the dependent variable Financial Inclusion (Y). The Sum of Squares (SS) for Regression (35.482) represents the proportion of variance in Financial Inclusion that can be explained by the independent variables, while the Residual SS (20.631) accounts for unexplained variance. The Mean Square (MS) for Regression (17.741 is obtained by dividing Regression SS by its degrees of freedom (df = 2), and the Residual MS (0.067) is derived from the Residual SS divided by its df (307). Since the model is statistically significant, it confirms that Fintech Usage and Financial Literacy together have a meaningful impact on Financial Inclusion, supporting the hypothesis that these factors contribute to improving financial inclusion in Indonesia.

DISCUSSION

Interpretation Of Research Results

The results showed that the use of fintech is significantly positively associated with increased financial literacy and financial inclusion in Indonesia. This supports the initial hypothesis that financial technology could be an effective tool to improve people's understanding of basic financial concepts while expanding access to formal financial services. In the context of the Technology Acceptance Model (TAM) theory, fintech adoption is influenced by perceptions of ease of Use and benefits, which is relevant to the finding that people tend to be more confident in using fintech applications for their financial needs. However, some findings suggest a negative trend, particularly among groups with low levels of digital literacy, that is hindering optimal adoption of fintech.

Fintech's contribution to financial literacy

Fintech has made a significant contribution in supporting financial literacy in Indonesia through application-based educational features. For example, many fintech platforms offer investment simulations, financial management tips, and budget calculators that are easily accessible. The results show that the younger generation, especially those aged 18-35, are actively utilizing this feature to improve their understanding of financial management. In addition, people in remote areas who previously did not have access to conventional financial education can now gain a basic understanding through fintech applications. However, there is a need to further promote this educational feature, especially for those segments of society who are less familiar with technology.

Fintech's contribution to Financial Inclusion

The research also highlights how fintech has helped reach the unbanked, i.e. those without access to formal financial services. Fintech apps allow people to make transactions, savings, and even micro-loans without the need for a traditional bank account. This shows that fintech not only improves financial inclusion, but also helps create economic justice by narrowing the access gap to financial services. In addition,

fintech also contributes to supporting small and micro enterprises through technology-based financing that is more inclusive and faster.

Challenges and obstacles encountered

Although fintech has great potential, the study identifies a number of challenges that affect its implementation. Low digital literacy among the lower middle class is a major barrier to fintech adoption. In addition, the level of trust in technology is still a critical issue, especially regarding data security and user privacy. Digital infrastructure constraints in remote areas are also a significant constraining factor. These barriers emphasize the need for collaboration between fintech developers and governments to improve digital literacy and technology infrastructure.

Practical implications and relevance of Public Policy

The results of this study provide important insights for fintech application developers to pay more attention to financial education features and user-friendly designs. In addition, the government can use these results to develop policies that support wider adoption of fintech, for example through a national digital literacy program integrated with the National Strategy for Inclusive Finance (SNKI). Collaboration between the private and public sectors can also accelerate the achievement of financial inclusion targets of up to 90% by 2024 according to the government's goals.

CONCLUSION

This study shows that fintech has a significant role in improving financial literacy and financial inclusion in Indonesia. The main findings suggest that the use of fintech platforms, such as digital payment applications, online investments, and microfinance, directly contributes to people's ease of access to relevant financial information. Aspects of technology-based education in fintech, such as investment simulations and budget management guides, have been shown to improve basic financial understanding, particularly among young people and communities in remote areas. In addition, the positive impact of fintech is seen in the increase in financial inclusion, where previously unbanked people can now access formal financial services through digital devices. Statistical analysis also supports a significant relationship between fintech adoption rates and increased financial literacy and inclusion, demonstrated by the results of correlation and regression tests.

REFERENCES

Basrowi, et al. (2021). Financial Technology And Financial Inclusions In Indonesia. Proceedings of the 1st International Conference on Science and Technology in Administration and Management Information, ICSTIAMI 2019, 17-18 July 2019, Jakarta, Indonesia, https://doi.org/10.4108/EAI.17-7-2019.2301673

Bustami, K., & Saifrizal, M. (2022). Financial Literacy Capabilities in Increasing Financial Inclusion Through Sharia Fintech. *Jurnal Ekonomi*, *11*(03), 1073-1081.

Chikmah, I. F., & Karsono, L. D. P. (2024). The Influence of Financial Technology (Fintech), Financial Literacy, and Income on Financial Inclusion of Society. *@ is The Best: Accounting Information Systems and Information Technology Business Enterprise*, *9*(1), 1-15.

Dwijayanti, N., Iqbal, M., & Zulfikar, M. (2022). The role of Islamic FinTech P2PL in increasing inclusion and financial literacy of MSMEs. *Journal of Islamic Finance*, *11*(1), 94-101.

Firmansyah, H. B., & Ramdani, A. L. (2018, May). The role of Islamic financial technology (FinTech) start-up in improving financial inclusion in Indonesia case: Angsur. In *3rd international conference of integrated intellectual community (ICONIC)*.

Gunawan, A., Jufrizen, J., & Pulungan, D. R. (2023). Improving MSME performance through financial literacy, financial technology, and financial inclusion. *International Journal of Applied Economics, Finance and Accounting*, *15*(1), 39-52.

Hamid, A., Widjaja, W., Sutrisno, S., Napu, F., & Sipayung, B. (2024). The Role of Fintech on Enchancing Financial Literacy and Inclusive Financial Management in MSMEs. *TECHNOVATE: Journal of Information Technology and Strategic Innovation Management*, *1*(2), 81-88.

Irman, M., Budiyanto, B., & Suwitho, S. (2023). Increasing financial inclusion through financial literacy and financial technology On MSMEs. *International Journal Economics Development Research*, 126-141.

Kirana, M. Y., & Havidz, S. A. H. (2020, August). Financial literacy and mobile payment usage as financial inclusion determinants. In *2020 International Conference on Information Management and Technology (ICIMTech)* (pp. 905-910). IEEE.

Marini, M., Yusmaniarti, Y., Faradilla, I., & Setiorini, H. (2024). Measuring The Financial Performance Of Msmes From The Perspective Of Financial Literacy, Financial Inclusion And Financial Technology. *EKOMBIS REVIEW: Jurnal Ilmiah Ekonomi Dan Bisnis*, *12*(1), 285-296.

Megawati, R. (2023). The Influence of Fintech and Financial Literacy on Inclusion Finance in DKI Jakarta. *International Journal of Current Economics & Business Ventures*, *3*(1).

Minarni, E. (2024, November). Implementation of Financial Technology and Increasing Financial Literacy of Small and Medium Enterprises in A Literature Review. In *International Conference On Economics Business Management And Accounting (ICOEMA)* (Vol. 3, pp. 139-150).

Muhammad Noor, et al. (2020). Investigation of financial inclusions, financial literation, and financial technology in Indonesia. Economics, Business, Computer Science. https://doi.org/10.22437/PPD.V8I3.9942

Mutamimah, M., & Indriastuti, M. (2023). Fintech, financial literacy, and financial inclusion in Indonesian SMEs. *International Journal of Entrepreneurship and Innovation Management*, *27*(1-2), 137-150.

Noor, M., Fourqoniah, F., & Aransyah, M. F. (2020). The Investigation of financial inclusions, financial literation, and financial technology in Indonesia. *Jurnal Perspektif Pembiayaan Dan Pembangunan Daerah*, *8*(3), 257-268.

Rahadjeng, E. R., Pratikto, H., Mukhlis, I., & Restuningdiah, N. (2023). Analysis of financial technology, financial literacy, financial attitudes, on mediated business performance financial inclusion and self-efficiency in small medium industry (SMI) in Malang city, Indonesia. *International Journal of Professional Business Review: Int. J. Prof. Bus. Rev.*, *8*(8), 45.

Rahayu, F. S., Risman, A., Firdaus, I., & Haningsih, L. (2023). The Behavioral Finance of MSME in Indonesia: Financial Literacy, Financial Technology (Fintech), and Financial Attitudes. *International Journal of Digital Entrepreneurship and Business*, *4*(2), 95-107.

Rosyadah, K., Budiandriani, B., & Hasrat, T. (2021). The Role of Fintech: Financial Inclusion in MSME's: Case Study in Makassar City. Jurnal Manajemen Bisnis, 8(2), 268-275.

Shafa Sabilla. (2023). The Role Of Peer To Peer Lending In Fintech Towards Financial Inclusion In Indonesia. Jurnal Darma Agung, https://doi.org/10.46930/ojsuda.v31i1.2827

Tahu, G. P., & Verawati, Y. (2024). The Role Of Financial Technology (Fintech) In Financial Performance As A Moderator And Improving Financial Inclusion In Indonesia. *Jurnal Ekonomi*, *13*(03), 1333-1347.

Wewengkang, C. B., Mangantar, M., & Wangke, S. J. (2021). The effect of financial technology use and financial literacy towards financial inclusion in Manado (Case Study: Feb students in Sam Ratulangi University Manado). *Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis Dan Akuntansi*, *9*(2).

Widiawati, W., Nuraini, A. N. A., & Haryana, A. H. A. (2022). Analysis of the effect of sharia financial technology (fintech) on increasing literacy and inclusion of sharia financial inclusion of MSMEs in DKI Jakarta. *Journal of Entrepreneur and Business*, *1*(1), 14-24.

Widiyatmoko, T., Rahardja, U., Septiani, N., Desrianti, D. I., & Fazri, M. F. (2024, September). The role of financial literacy and fintech in promoting financial inclusion. In *2024 2nd International Conference on Technology Innovation and Its Applications (ICTIIA)* (pp. 1-5). IEEE.

Zulfa Qur'anisa, et al. (2024). Peran Fintech Dalam Meningkatkan Akses Keuangan Di Era Digital. GEMILANG: Jurnal Manajemen dan Akuntansi. https://doi.org/10.56910/gemilang.v4i3.1573