



Digital Investment Strategies through Fintech and Their Effects on Financial Literacy and Financial Inclusion

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Abstract

The rapid development of financial technology (FinTech) has transformed investment practices by providing digital platforms that enhance accessibility, efficiency, and transparency. This study aims to examine the impact of digital investment strategies on financial literacy and investment inclusion in Indonesia, as well as the mediating role of financial literacy. Using a quantitative approach, data were collected from 215 respondents who actively use digital investment platforms. The analysis employs structural relationship testing to examine direct and indirect effects among variables. The findings reveal that digital investment strategies have a positive and significant effect on financial literacy and investment inclusion. Financial literacy also significantly influences investment inclusion and acts as a partial mediator in the relationship between digital investment strategies and investment inclusion. These results indicate that FinTech not only facilitates investment access but also enhances users' financial knowledge and behavior, thereby promoting sustainable investment participation. This study contributes to the digital finance literature by providing empirical evidence from an emerging market context and highlights the importance of integrating educational features into digital investment platforms to strengthen investment inclusion.

Keywords: *Digital Investment Strategy; FinTech; Financial Literacy; Investment Inclusion; Indonesia*

1. INTRODUCTION

Digital transformation in the financial sector has changed the way individuals access, understand, and use financial products, particularly investment instruments. The development of financial technology (fintech) enables individuals to invest through digital platforms with lower costs, faster processes, and

broader access to information. In developing countries such as Indonesia, fintech is viewed as a strategic instrument to address limited financial access and the low level of public participation in investment activities. The rapid advancement of digital technology has globally revolutionized the financial and investment sectors, particularly through the utilization of fintech. Fintech introduces innovations in the form of digital investment platforms that allow individuals to access financial products at lower costs, with faster processes and wider reach. In developing economies like Indonesia, fintech has become increasingly relevant due to limited access to formal investment services and relatively low levels of financial literacy. This condition positions fintech-based digital investment strategies as a potential instrument for improving the quality of financial decision-making while simultaneously expanding investment inclusion.

Empirical evidence shows a significant increase in the number of digital investment platform users in Indonesia over recent years. However, this growth in user numbers has not always been accompanied by an adequate improvement in financial understanding. Many retail investors, particularly novice investors, continue to face limited knowledge regarding risk, diversification, and long-term investment planning. This indicates that the adoption of financial technology has not yet been fully aligned with improvements in financial literacy and high-quality investment inclusion. Therefore, it is important to understand how digital investment strategies through fintech function not only as transactional tools but also as mechanisms for financial education and inclusion.

Conceptually, digital investment strategy (fintech) in this study is defined as the utilization of digital technology-based financial platforms that provide investment services, market information, and educational features to support investment decision-making. Financial literacy refers to an individual's level of understanding of basic financial concepts, risk, and investment instruments, which influence financial behavior and decision-making (Lusardi & Mitchell, 2014). Meanwhile, investment inclusion is defined as individuals' ability and participation in accessing and using formal investment products in a sustainable and responsible manner.

An integrated literature review indicates that these three concepts are closely interrelated. Financial literacy theory emphasizes that individuals with higher levels of financial understanding tend to make more rational and informed investment decisions (Lusardi & Mitchell, 2014). From a technology adoption perspective, the Technology Acceptance Model (TAM) explains that perceived ease of use and perceived usefulness of fintech technology encourage individuals to adopt and use digital investment platforms (Davis, 1989). Furthermore, Financial Inclusion Theory highlights that expanding access to formal financial services, including investment products, is a crucial factor in improving economic welfare and reducing inequality (Demirgüç-Kunt et al., 2018).

Key findings from previous studies underscore the relevance of this investigation. For instance, Demirgüç-Kunt et al. (2018) demonstrated that the digitalization of financial services significantly contributes to increased financial inclusion in developing countries. Morgan and Trinh (2019) found that fintech plays an important role in enhancing financial literacy through access to information and digital-based financial education. Meanwhile, Hasan et al. (2020) stated that fintech not only expands financial access but also encourages public participation in formal financial activities. In the Indonesian context, Putri and Rahyuda (2022) showed that the use of digital investment platforms positively affects investment interest among younger generations.

Nevertheless, several issues remain insufficiently explained in the existing literature. First, most studies focus on fintech as a general tool for financial inclusion, without explicitly positioning it as a digital investment strategy integrated with financial literacy improvement. Second, empirical studies examining the simultaneous relationship between digital investment strategies, financial literacy, and

investment inclusion within a single framework remain limited, particularly in Indonesia. Third, the mechanism through which financial literacy mediates the relationship between digital investment strategies and investment inclusion has not been extensively examined.

Based on these research gaps, this study is designed to analyze the role of fintech-based digital investment strategies in enhancing financial literacy and investment inclusion in Indonesia. This study argues that fintech not only expands access to investment opportunities but also improves users' financial understanding through educational features and information transparency, ultimately promoting more inclusive and sustainable investment participation. By integrating these three key concepts into a single research model, this study aims to provide a more comprehensive understanding of fintech's role in building an inclusive digital investment ecosystem.

Overall, this introduction highlights the relevance and urgency of the study by cohesively linking empirical phenomena, theoretical frameworks, and prior research findings. Accordingly, this study is expected to contribute significantly to the academic literature and serve as a reference for policymakers and fintech industry practitioners in designing digital investment strategies oriented toward improving financial literacy and investment inclusion.

2. METHODOLOGY

2.1 Research Type and Design

This study employs a quantitative approach using a survey method. The quantitative approach is chosen because the study aims to examine the relationships among numerically measurable variables, namely digital investment strategy through fintech (X), financial literacy (M), and investment inclusion (Y). The survey method involves distributing structured questionnaires to respondents as the primary data collection instrument. Data analysis is conducted using Structural Equation Modeling–Partial Least Squares (SEM-PLS), which is appropriate for research models involving latent variables, reflective indicators, and mediation relationships.

2.2 Research Location and Period

The study is conducted in Indonesia, focusing on individuals who use fintech-based investment platforms, such as digital mutual funds, online stock trading, peer-to-peer lending, and digital gold investment applications. The research period is planned to last for six months, encompassing instrument development, data collection, validity and reliability testing, data analysis, and report writing.

2.3 Population and Sample

The population of this study consists of all Indonesian individuals who have experience using fintech applications for investment purposes. The sample is selected using a purposive sampling technique, with the following criteria: At least 18 years old. Possession of an account on a fintech investment application (e.g., Bibit, Ajaib, Bareksa, Pluang, and similar platforms). Prior experience conducting investment transactions through the application.

In SEM-PLS analysis, sample size is commonly determined using the rule of thumb, which suggests that the minimum sample size should be ten times the number of indicators of the construct with the largest number of indicators. As this study employs 18 indicators, the minimum required sample size

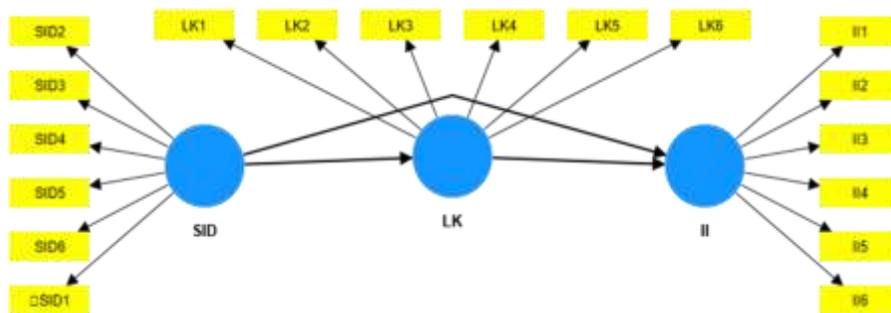
is 180 respondents. To enhance validity, the target sample size is set at 215 respondents. The questionnaire was distributed through Google Forms.

2.4 Variable Operationalization

This study uses three main variables: Independent Variable (X): Digital Investment Strategy through Fintech. Mediating Variable (M): Financial Literacy. Dependent Variable (Y): Investment Inclusion. Measured based on the dimensions and indicators of each variable using a five-point Likert scale (1–5).

2.5 Validity and Reliability Analysis

This study utilizes SmartPLS software with SEM-PLS as the data analysis method. The analysis includes evaluation of the measurement model (outer model) to assess validity and reliability, as well as evaluation of the structural model (inner model) to examine the relationships among variables in the study.



2.6. Data Analysis

After the validity and reliability tests were completed, the next step involved evaluating the inner model. The inner model assessment included testing the Coefficient of Determination (R^2), Predictive Relevance (Q^2), Effect Size (f^2), Goodness of Fit (GoF), and hypothesis testing using the t-test.

3. Results and Discussion

3.1 Outer Model (Validity Test)

According to Hair et al. (2022), an outer loading value is considered valid when it exceeds 0.70. In this study, the outer loading values of all indicators across the research variables met the criteria for convergent validity, as all values were above 0.70. Therefore, the loading factors of all indicators were deemed acceptable. Table 3.5 presents the results of the outer loading analysis.

Table 3.5 Results of Outer Loading Analysis (Factor Loadings)

	II	LK	SID
II1	0,797		
II2	0,814		
II3	0,795		
II4	0,799		
II5	0,768		
II6	0,817		
LK1		0,825	
LK2		0,819	
LK3		0,759	
LK4		0,790	
LK5		0,811	
LK6		0,796	
SID2			0,776
SID3			0,792
SID4			0,784
SID5			0,805
SID6			0,781
SID1			0,810

Reliability Test

Reliability was assessed using Composite Reliability (CR) and Cronbach’s Alpha. According to Hair et al. (2021), Composite Reliability values should exceed 0.70 ($CR > 0.70$), indicating good internal consistency among the indicators measuring a construct, although values above 0.60 are still considered acceptable. Cronbach’s Alpha values should also be greater than 0.70 to demonstrate adequate reliability.

Table 3.7 Results of Composite Reliability Test

Construct	Cronbach’s Alpha	Composite Reliability
II	0.886	0.913
LK	0.888	0.914
SID	0.880	0.909

The results indicate that all constructs exhibit satisfactory reliability, as both Cronbach’s Alpha and Composite Reliability values exceed the recommended thresholds.

3.2 Inner Model (Structural Model) Evaluation

1. Inner Model Test Results (Path Coefficient, R-square, and Effect Size)

a. Path Coefficient

Path coefficients indicate the direction and strength of the relationships among latent variables.

SID \rightarrow FL (0.657) This value indicates that the Digital Investment Strategy through fintech has a strong and positive effect on Financial Literacy. In other words, the higher the implementation of Digital Investment Strategy through fintech, the more significantly Financial Literacy increases. FL \rightarrow II (0.292) This coefficient shows a positive but relatively moderate effect. Financial Literacy contributes to Investment Inclusion; however, its influence is not as strong as the effect of Digital Investment Strategy through fintech on the other variables. SID \rightarrow II (0.504) This value indicates that the Digital Investment Strategy through fintech has a positive and fairly strong direct effect on Investment Inclusion. Thus, Digital Investment Strategy through fintech plays an important role in enhancing Investment Inclusion, both directly and indirectly through Financial Literacy.

b. R-square

R-square values indicate how much variance of the dependent variables can be explained by the independent variables. FL ($R^2 = 0.432$) This means that 43.2% of the variance in Financial Literacy is explained by the Digital Investment Strategy through fintech, while the remaining variance is influenced by other factors outside the model. This value falls into the moderate category. II ($R^2 = 0.533$) A total of 53.3% of the variance in Investment Inclusion is explained jointly by Digital Investment Strategy through fintech and Financial Literacy. This value indicates that the model has good explanatory power.

c. Effect Size (f^2)

Effect size (f^2) indicates the magnitude of the contribution of each independent variable to the dependent variable. SID \rightarrow FL ($f^2 = 0.761$) This value represents a large effect size, indicating that Digital Investment Strategy through fintech has a very strong contribution to explaining Financial Literacy. FL \rightarrow II ($f^2 = 0.104$) This falls into the small effect category, suggesting that Financial Literacy provides a limited contribution to Investment Inclusion. SID \rightarrow II ($f^2 = 0.309$) This value indicates a medium effect size, showing that Digital Investment Strategy through fintech has a fairly significant contribution to Investment Inclusion.

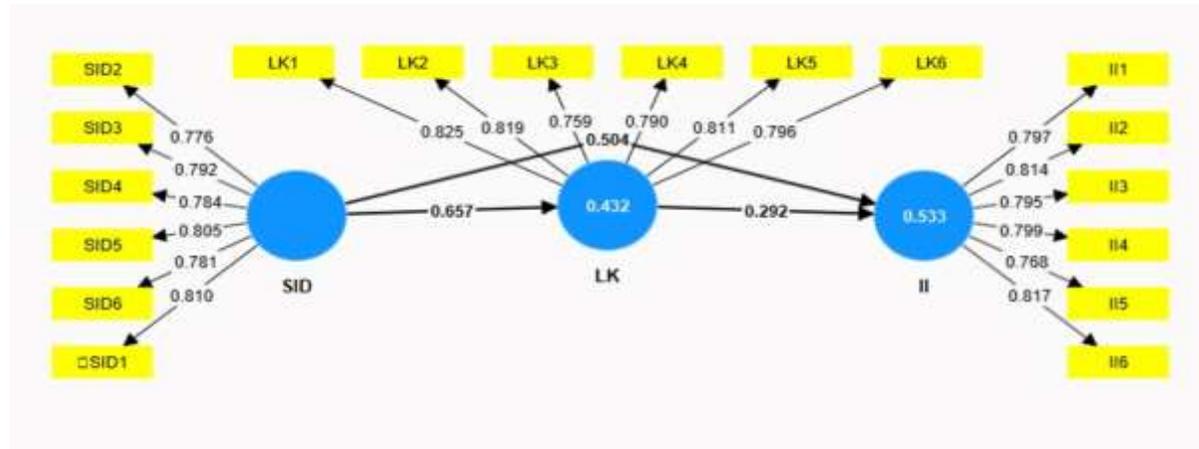
2. Mediation Test Results

The mediation test aims to examine whether Financial Literacy mediates the relationship between Digital Investment Strategy and Investment Inclusion. SID \rightarrow FL \rightarrow II (p-value = 0.000) A p-value of 0.000 (< 0.05) indicates that the indirect effect of Digital Investment Strategy through fintech on Investment Inclusion via Financial Literacy is statistically significant. This result confirms that Financial Literacy acts as a mediating variable in the relationship between Digital Investment Strategy through fintech and Investment Inclusion.

3. Hypothesis Testing Results

Hypothesis testing was conducted to examine the significance of the relationships among variables in the structural model. SID \rightarrow FL (p-value = 0.000) Since the p-value is less than 0.05, Digital Investment Strategy through fintech has a positive and significant effect on Financial Literacy. Therefore, the hypothesis stating that Digital Investment Strategy through fintech influences Financial Literacy is accepted. FL \rightarrow II (p-value = 0.000) This result indicates that Financial Literacy has a significant effect on Investment Inclusion. An increase in Financial Literacy leads to higher Investment Inclusion; thus, the hypothesis is accepted. SID \rightarrow II (p-value = 0.000) This finding demonstrates that Digital Investment Strategy through fintech has a positive and significant direct effect on Investment Inclusion. Accordingly, the hypothesis concerning this relationship is accepted.

Hypothesis	Path	Coefficient	t-statistic	p-value	Conclusion
H1	X → M	0.657	12.45	0.000	Significant
H2	M → Y	0.292	6.22	0.000	Significant
H3	X → Y	0.504	4.15	0.000	Significant



4. DISCUSSION

1. The Effect of Digital Investment Strategy (Fintech) on Financial Literacy (H1)

The results of this study indicate that digital investment strategies (fintech) have a positive and significant effect on financial literacy. This finding suggests that the use of digital investment applications not only facilitates investment transactions but also enhances respondents' understanding of basic financial concepts, types of investment instruments, as well as risk and return calculations. This result is consistent with previous studies stating that access to digital financial services can improve financial literacy through a learning-by-doing mechanism. Lusardi and Mitchell (2014) emphasized that financial literacy develops through individuals' direct interaction with financial products and information. Furthermore, Morgan and Trinh (2019) found that fintech contributes to improved financial understanding by providing easily accessible, transparent, and real-time information. Therefore, the findings of this study reinforce the view that fintech functions as a medium for digital financial education, particularly in the context of developing countries such as Indonesia.

2. The Effect of Digital Investment Strategy (Fintech) on Investment Inclusion (H2)

The empirical results show that digital investment strategies have a positive and significant effect on investment inclusion. This implies that fintech is able to expand public participation in investment activities through ease of access, relatively low transaction costs, and flexibility in terms of time and location. This finding is consistent with financial inclusion theory, which posits that technological innovation is a key factor in reducing structural barriers to accessing financial services. Empirically, this study supports the findings of Demirgüç-Kunt et al. (2018), who demonstrated that the digitalization of financial services increases public participation in the formal financial system. In addition, Ozili (2018) argued that fintech plays a crucial role in expanding financial and investment inclusion through cost

efficiency and product innovation. Thus, this study confirms that digital investment strategies not only improve access but also promote the sustainability of investment activities.

3. The Effect of Financial Literacy on Investment Inclusion (H3)

The findings demonstrate that financial literacy has a positive and significant effect on investment inclusion. Respondents with higher levels of financial literacy tend to be more active, consistent, and sustainable in conducting investments through digital platforms. This result is in line with Van Rooij et al. (2011), who found that individuals with higher financial literacy have a greater probability of participating in the stock market. Klapper et al. (2013) also emphasized that low financial literacy is one of the main barriers to financial and investment inclusion. From a behavioral perspective, this finding is supported by Ajzen's (1991) Theory of Planned Behavior, which explains that knowledge and understanding enhance perceived behavioral control, thereby increasing individuals' confidence in making investment decisions.

4. The Mediating Role of Financial Literacy (H4)

The results indicate that financial literacy mediates the relationship between digital investment strategies and investment inclusion. This means that the influence of fintech on investment inclusion is not only direct but also occurs indirectly through improvements in users' financial literacy. This finding supports a process-based explanation, in which fintech is understood as a mechanism for building financial cognitive capacity before encouraging investment behavior. The result is consistent with Xiao and O'Neill (2016), who stated that financial literacy mediates the relationship between financial access/education and individual financial behavior. In addition, Grohmann et al. (2018) found that financial literacy is a key mechanism linking financial access with participation and financial well-being. Therefore, this study provides empirical evidence showing that digital investment strategies effectively enhance investment inclusion through improvements in financial literacy.

5. CONCLUSION

1. Digital investment strategy through fintech has a positive effect on financial literacy. Access to fintech-based investment applications encourages an improvement in public understanding of investment instruments, risk management, and personal financial management.
2. Digital investment strategy through fintech has a positive effect on investment inclusion. Ease of use, low transaction costs, and high accessibility motivate individuals to participate more actively in investment activities.
3. Financial literacy has a positive effect on investment inclusion. Individuals with higher levels of financial literacy are better able to make appropriate and consistent investment decisions.
4. Financial literacy mediates the effect of digital investment strategy on investment inclusion. The positive impact of fintech on investment inclusion becomes more optimal when supported by improved financial literacy among the public.

Overall, this study emphasizes the crucial role of financial technology (fintech) as a catalyst for enhancing both financial literacy and investment inclusion. It also highlights the importance of integrating fintech development with national financial education programs.

REFERENCE

- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319–340.
- Demirgüç-Kunt, A., Klapper, L., Singer, D., Ansar, S., & Hess, J. (2018). *The Global Findex Database 2017: Measuring financial inclusion and the fintech revolution*. World Bank. <https://doi.org/10.1596/978-1-4648-1259-0>
- Grohmann, A., Klühs, T., & Menkhoff, L. (2018). Does financial literacy improve financial inclusion? Cross country evidence. *World Development*, 111, 84–96. <https://doi.org/10.1016/j.worlddev.2018.06.020>
- Hasan, M., De Renzis, T., & Schmied, J. (2020). *Digital financial services and financial inclusion*. International Monetary Fund Working Paper No. 20/164.
- Klapper, L., Lusardi, A., & Van Oudheusden, P. (2015). *Financial literacy around the world: Insights from the Standard & Poor's ratings services global financial literacy survey*. World Bank.
- 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>
- Morgan, P. J., & Trinh, L. Q. (2019). *Fintech and financial literacy in the digital age*. Asian Development Bank Institute Working Paper No. 928.
- Ozili, P. K. (2018). Impact of digital finance on financial inclusion and stability. *Borsa Istanbul Review*, 18(4), 329–340. <https://doi.org/10.1016/j.bir.2017.12.003>
- Van Rooij, M., Lusardi, A., & Alessie, R. (2011). Financial literacy and stock market participation. *Journal of Financial Economics*, 101(2), 449–472. <https://doi.org/10.1016/j.jfineco.2011.03.006>
- World Bank. (2020). *Digital financial services*. World Bank Group.
- Xiao, J. J., & O'Neill, B. (2016). Consumer financial education and financial capability. *International Journal of Consumer Studies*, 40(6), 712–721. <https://doi.org/10.1111/ijcs.12285>

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