

## **IMPLEMENTATION OF FINANCIAL TECHNOLOGY IN MEDIATING THE EFFECT OF FINANCIAL LITERACY ON INVESTMENT DECISIONS**

**Julita<sup>1\*</sup>**

Universitas Muhammadiyah Sumatera Utara

\*Email : [julita@umsu.ac.id](mailto:julita@umsu.ac.id)

### **ABSTRACT**

Investment decisions are a process where a financial actor organizes and allocates funds in the form of money or goods owned into a form of investment that can be profitable in the future. The presence of fintech has had a positive impact on improving the economy because the volume and value of shopping transactions continues to increase. However, behind this positive side, the culture of online and cashless shopping raises problems, namely consumerism which can affect a person's financial behavior (Ulinuha, et al., 2020). The existence of financial technology can make it easier for someone to carry out financial transactions. This research aims to find out the role of financial technology in mediating the influence of financial literacy on investment decisions. The population in this study was 681 students who were active at North Sumatra State Universities, with the sample determination method using a purposive random sampling technique and using the Slovin formula to obtain a sample of 88 respondents. The analysis technique used in this research is SEM-PLS. The results of the data analysis carried out show that a) financial literacy has a positive and significant effect on investment decisions, b) financial technology has no effect on investment decisions, and c) financial technology is unable to mediate the influence of financial literacy on investment decisions. This means that even with technological developments in the financial sector, we are not able to improve investment decisions even though we already have an understanding or knowledge of existing financial institution products/services.

**Keywords: Financial Literacy, Financial Technology, Investment Decisions**

### **INTRODUCTION**

Financial literacy is a must for every individual to avoid financial problems. Financial problems often occur because individuals lack financial knowledge and poor financial management habits. This can be seen from lifestyle patterns that are not balanced with income, chaotic debt management, continuous financial deficits, not keeping records properly and not having financial goals. Based on the results of the National Survey of Financial Literacy and Inclusion (SNLIK) conducted by the Financial Services Authority (OJK) in 2022, the level of financial literacy reached 49.68% and financial inclusion reached 85.10%. This indicates that many people are beginning to be able to access financial services and products but do not understand what they are accessing. The lack of financial literacy in Indonesia causes people to experience losses, either due to declining economic conditions and inflation or because of the development of an economic system that tends to be wasteful

because society is increasingly consumerist. Many people use home loans and credit cards, but due to minimal knowledge, quite a few experience losses or there are often differences in calculations between consumers and banks. Many people do not invest or cannot access the capital market and money market because they do not have sufficient knowledge about these matters. Meanwhile, financial education is still a big challenge in Indonesia. Financial education is a long process that encourages individuals to have financial plans for the future in order to achieve prosperity according to the pattern and lifestyle they live. This low level of public financial literacy shows that the community's ability to manage and make financial decisions is still relatively low. And this will have an impact on the financial decisions taken by the community. People who do not understand the concept of finance will spend their income on transactions, making loans and paying high loan interest (Lusardi, Annamaria. Scheresberg, 2013; Lusardi, Annamaria. Tufano, 2015). They also tend to make larger loans compared to the amount of money saved (Stango, Victor. Zinman, 2013). It is important to understand how people know about finance and the extent to which their knowledge influences decision making (Lusardi, 2019). One of the things behind the implementation of financial literacy is the importance of the younger generation to know the basic concepts of financial decisions before they make important financial decisions, especially in the current era of technological development. Financial literacy in order to choose and consider various types of financial products and services to be used needs to be improved in the current era of technological development, including in the financial sector (Morghan and Trinh, 2019). According to Bank Indonesia Regulation Number 19/12/PBI/2017, fintech is the use of financial system technology that produces new products, services, technology and/or business models and can have an impact on monetary stability, financial system stability, efficiency, smoothness, security, and reliability of the payment system. Financial technology is an innovation that provides convenience and comfort for people in the financial sector, because people can carry out transactions just with smartphones and the internet. The presence of financial technology has had a positive impact on improving the economy because the volume and value of shopping transactions continues to increase. However, behind this positive side, the culture of online and cashless shopping raises problems, namely consumerism which can affect a person's financial behavior (Ulinuha, et al., 2020). The existence of financial technology can make it easier for someone to carry out financial transactions.

## **LITERATURE REVIEW**

### **Financial Literacy**

Financial literacy is defined as knowledge or ability to manage personal finances, as well as financial understanding of savings, insurance and investment (Septiani & Wuryani, 2020). A person's competency in financial management refers to the skills and abilities developed to use resources to achieve a goal. Financial literacy is an important part of a person's life because it allows a person to make the right financial decisions (Susanti et al ., 2018).

**Financial Technology**

Financial Technology (FinTech) has a broad meaning and understanding. According to Miswan, (2019) Financial Technology or what is usually called FinTech is a new financial service model developed through innovation in the field of information technology. Fintech is a new financing model which is the result of a combination of financial services and technology (B. Rahardjo, 2019). FinTech can help business actors provide convenience in terms of technology-based financial management. Platform models and types of fintech in society are better known by the terms: Gojek, Tokopedia, Bukalapak, and so on (Sahroni et al., 2020).

**Investation decision**

Investment decisions are choices made to collect income from an asset to gain future profits (Novianggie & Asandimitra, 2019). Based on research gaps in previous research, there are several factors that influence investment decisions, including financial literacy, overconfidence, herding, risk tolerance, and risk perception. Financial literacy is a basic understanding regarding knowledge and attitudes in managing finances (Putri & Rahyuda, 2017). Good financial understanding will make someone good when making decisions and vice versa. These results are supported by research (Novianggie & Asandimitra, 2019), (Putri & Hamidi, 2019), (Sari, 2017), (Chen, Haiyang and Volpe, 2016) which states that the influence of the financial literacy variable has a positive effect. In contrast to research conducted by (Pradiksari & Isbana, 2018), (Budiarto, 2017), (Ariani et al, 2016) the results of financial literacy do not have an influence on a person's decision to invest.

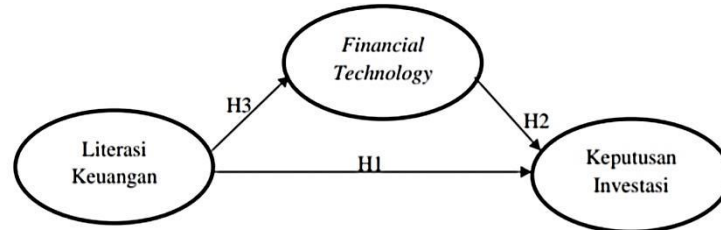
**Hypothesis**

Financial literacy is knowledge, skills and beliefs that influence attitudes and behavior to improve decision making and financial management to achieve prosperity. Financial literacy tends to have better control in determining various investments because it has a lot of financial information. The higher a person's level of financial literacy, the wiser the person is in making decisions. According to Mahwan & Herawati (2021; Putri & Hamidi (2019); Upadana & Herawati (2020) Financial literacy has a positive effect on investment decisions. Investors who have good financial literacy will avoid deviant behavior and be more rational in their actions. Financial Technology is one a business based on software and modern technology that provides financial services. The term FinTech or financial technology is a combination of financial management using technology systems that has become a public concern because this service provides many service features to make things easier from a financial perspective, such as being used in cooperative, banking and financial institutions. insurance (Winarto, 2020). Based on the test results of Junianto & Kohardinata (2021); Rasuma Putri & Rahyuda (2017) stated that financial technology has a significant positive effect on the investment decisions of young entrepreneurs in North Luwu. Based on the theoretical basis and results of previous research, the following hypothesis and conceptual framework can be formulated:

## Proceeding 2<sup>nd</sup> Medan International Economics and Business

Volume 2, Issue 1, 2024

“Human Resource Transformation and Collaborative Innovation to Build Independent and Competitive Business in the Digital Era”



**Figure 1. Conceptual Framework**

H1: Financial literacy has a positive and significant effect on investment decisions.

H2: Financial technology has a positive and significant effect on investment decisions.

H3: Financial technology mediates the influence of financial literacy on investment decisions.

### METHODS

The research approach taken is quantitative with causal associative research. Associative causal is a research problem formulation that asks about the relationship between two or more variables. A causal relationship is a relationship that is cause and effect. In this research there are independent variables (which influence) and dependent variables (influenced). Causal associativity in this research is used to determine the extent of the causal relationship of the influence of Financial Literacy and Risk Perception on Investment Decisions. The variables of this research are Financial Literacy (X), Financial Technology (M) and Investment Decisions (Y). The objects of this research were students at the Faculty of Islamic Economics and Business, North Sumatra State Islamic University

The population in this study was 681 students. The sample collection was purposive sampling. Purposive sampling is a technique for selecting samples randomly with certain considerations or criteria. The sample criteria are:

1. Students who are still active at North Sumatra State Universities.
2. Have ever invested in the money market or capital market.

Determining the sample size can be done using statistical calculations, namely by using the Slovin formula and obtaining a sample size of 88 respondents.

### RESULTS AND DISCUSSION

Respondent characteristics according to gender aim to describe or describe the respondent's identity based on the respondent's gender. This can be grouped into two groups, namely men and women. The characteristics of respondents based on gender can be seen in table 1 as follows:

**Table 1. Characteristics of Respondents Based on Gender**

No	Gender Characteristics	Number of people)	Percentage (%)
1	Man	31	35.2
2	Woman	57	64.8
<b>Total</b>		<b>88</b>	<b>100</b>

## Proceeding 2<sup>nd</sup> Medan International Economics and Business

Volume 2, Issue 1, 2024

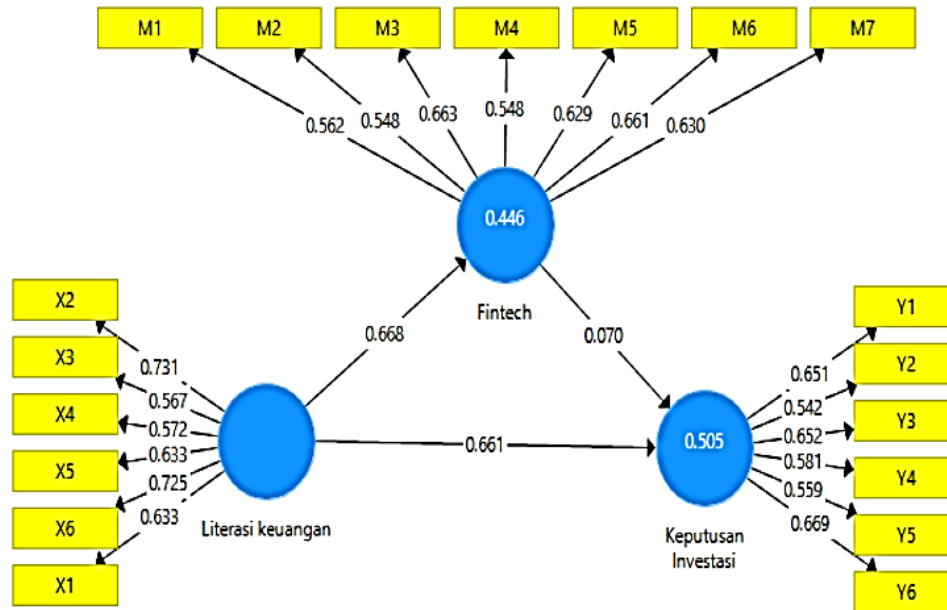
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Based on Table 1 above, it can be explained that the characteristics of respondents based on gender, reported by male respondents were 31 people or 35.5%, while female respondents had a distribution of 57 people or 64.8%. The characteristics of respondents according to age aim to describe or describe the identity of respondents based on the age level of the respondents used as research samples. The characteristics of respondents based on age can be seen in table 2 as follows:

**Table 2. Characteristics of Respondents Based on Age Level**

No	Age Level	Number of people)	Percentage (%)
1	21-25 years old	65	73.9
2	26-30 years old	21	23.9
3	> 30 years	2	2.3
<b>Total</b>	<b>88</b>	<b>100</b>	

Based on Table 2, it can be seen that the majority of respondents have an age range of 21-25 years, with a total frequency of 65 people or around 73.9% of the total population or sample. Meanwhile, respondents with an age range of 26-30 years only consisted of 21 people or around 23.9% of the total population or sample. Meanwhile, respondents with an age range above 30 years only consisted of 2 people or around 2.3% of the total population or sample. This research uses PLS data analysis techniques with the Smart PLS Program. Based on the results of data processing using PLS, then evaluate the structural equation model. In this evaluation, there are two basic evaluations, namely: 1) evaluation of the measurement model (outer model) to determine the validity and reliability of the indicators that measure latent variables, and 2) evaluation of the structural model (inner model) to determine the accuracy of the model. Before the model evaluation is carried out, it can be reiterated that the research instrument (questionnaire) as a data collection tool is a valid and reliable instrument. Evaluation of measurement models checks the validity and reliability of indicators that measure latent constructs or variables. In this research, the three variables, namely: income (P), financial literacy (LK), and investment decisions (KI), are measurement models with reflective indicators, so that the evaluation of the measurement model is carried out by checking the convergent and discriminant validity of the indicators, as well as composite reliability for indicator blocks. 1) Convergent Validity aims to measure the validity of indicators as construct measures which can be seen in the outer loading (Smart PLS output). An indicator is considered valid if it has an outer loading value above 0.500. Apart from that, the outer loading value can determine the contribution of each indicator to the latent variable. The outer loading of an indicator with the highest value shows that the indicator is the strongest measure or in other words the most important in the latent variable. As for the results of checking the outer model, it can be seen the outer loading of each indicator on a variable, as presented in Figure 2:


**Figure 2. Outer Model**

By looking at the information in Figure 2, it can be seen that the indicators that measure each variable are valid indicators as variable measurements because they have an outer loading value above 0.500. Discriminant validity, this evaluation is carried out by comparing the square root of average extracted (AVE) value for each latent indicator with the correlation between other latent indicators in the model. The recommended AVE value is greater than 0.50 Composite Reliability, aimed at evaluating the reliability value between the indicator blocks of the constructs that form it. Composite reliability results are said to be good if they have a value above 0.70. To check discriminant validity and composite reliability values in the measurement model can be presented in Table 3:

**Table 3. Discriminant Validity and Composite Reliability Values**

Variable	AVE	Composite Reliability
<b>Financial Literacy (X)</b>	0.724	0.803
<b>Financial Technology (M)</b>	0.678	0.780
<b>Investment Decision (Y)</b>	0.724	0.810

The information obtained in Table 3 shows that the three variables show an AVE value greater than 0.500. The results obtained indicate that the model has good discriminant validity. Table 5 shows that the composite reliability value of the three latent variables is above 0.700, so it can be said that the indicator block reliably measures the variables. Based on the results of evaluating the convergent and discriminant validity of each indicator as well as the composite reliability for the indicator block, it can be concluded that the indicators as measures of each latent variable are valid and reliable measures. Hypothesis testing is carried out with a t-test on each path of partial direct influence and through mediating variables. In

## Proceeding 2<sup>nd</sup> Medan International Economics and Business

Volume 2, Issue 1, 2024

“Human Resource Transformation and Collaborative Innovation to Build Independent and Competitive Business in the Digital Era”

the following section, the results of partial direct influence testing and mediation variable testing are described.

**Table 4. Path Coefficient Test Results**

Relationship Between Variables	Path Coefficient	Sig	Information
Financial Literacy → Investment Decisions	0.661	0,000	Significant
Fintech → Investment Decisions	0.070	0.539	Not significant
Financial Literacy → FIntech → Investment Decisions	0.047	0.558	Not significant

Based on the results of the path coefficient test in Table 4, it shows that the financial literacy variable has a positive influence of 0.661 with a significance level of 0.000 on investment decisions. This means that the better the level of financial literacy, the better the investment decisions will be in investing. As has been said, financial literacy can influence investment decisions. The better the level of financial literacy, the higher the investment decisions. Knowledge of financial literacy which includes general knowledge, savings and loans, emergency expenses and investment will make it easier for someone to be interested in investing. A person's financial understanding will provide benefits for him in supporting his investment activities. This research is in line with research conducted by (Dewi and Purbawangsa, 2018); (Putri and Rahyuda, 2017); (Lindananty and Angelina, 2021) which states that there is an influence of financial literacy on investment decisions. The financial technology variable shows a positive but not significant influence. FinTech is claimed to have a futuristic business model with flexibility, security and efficiency, because it utilizes applications or websites that can be accessed online. Financial technology is used to develop information technology to improve services in the financial industry. The results of this research are supported by research by Wahyudi et al., (2020) that financial technology is a combination of knowledge and financial management with its ability to provide several services to make it easier for less fortunate people to use financial technology such as used in cooperative financial institutions, banking and insurance. Based on the results of the analysis carried out, it shows that the financial technology variable is unable to mediate the influence of financial literacy on investment decisions. This means that even with technological developments in the financial sector, we are not able to improve investment decisions even though we already have an understanding or knowledge of existing financial institution products/services.

### CONCLUSION

Based on the results of the analysis carried out, it can be concluded as follows: Financial literacy has a positive and significant effect on investment decisions among students. Financial technology does not influence students' investment decisions. Financial technology is unable to mediate the influence of financial literacy on investment decisions. Students realize the importance of financial literacy in managing funds, because financial literacy is the most important factor in making investments because having financial

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## Proceeding 2<sup>nd</sup> Medan International Economics and Business

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Volume 2, Issue 1, 2024

“Human Resource Transformation and Collaborative Innovation to Build Independent and Competitive Business in the Digital Era”

understanding will help in making investment decisions which will be very useful in the future.

### REFERENCES

- Ariani et al. (2016). Locus of Control and Ethnicity on Investment Decision Making. *Journal of Business and Banking* , 5 Number2 , 257–270. <https://doi.org/10.14414/jbb.v5i2.550>
- B. Rahardjo, BKI (2019). The Influence of Financial Technology (Fintech) on the Development of MSMEs in Magelang City. *Proceedings of the National Seminar and Call For Papers, Faculty of Economics, Tidar University*, 347–356.
- Budiarto, A. (2017). The Influence of Financial Literacy, Overconfidence, Regret Aversion Bias, and Risk Tolerance on Investment Decisions (Study of investors at PT. Sucorinvest Central Gani IDX Investment Gallery, Surabaya State University). *Journal of Management Science (JIM)* , 5 (2), 1–9.
- Chen, Haiyang and Volpe, R.P. (2016). An Analysis of Personal Financial Literacy Among College Students. *Zhongguo Jiguang/Chinese Journal of Lasers* , 43 (8), 107–128. <https://doi.org/10.3788/CJL201643.0811001>
- Geradi, MAD 2023. The Role of Financial Technology in Mediating the Influence of Financial Literacy on Investment Decisions. *Polgan Minfo Journal*, 12(1).
- Junianto, Y., & Kohardinata, C. 2021. Financial Literacy Effect and Fintech in Investment Decision Making. *Primanomics: Journal of Economics & Business*, 19(1), 1–19. <https://doi.org/10.31253/pe.v19i1.515>
- Lusardi, A., De Bassa, CS and Avery, M. 2019. Millennial Mobile Payment Users: A Look into their Personal Finances and Financial Behaviors'. Available at: [www.gflec.org](http://www.gflec.org).
- Lusardi, Annamaria. Scheresberg, C. de B. 2013. Financial Literacy and High-Cost Borrowing in the United States, National Bureau of Economic Research. Cambridge. doi: <https://doi.org/10.1017/CBO9781107415324.004>
- Lusardi, Annamaria. Tufano, P. 2015. Debt literacy, financial experiences, and overindebtedness, *Journal of Pension Economics and Finance*. doi: <https://doi.org/10.1017/S1474747215000232>
- Mahwan, I., & Herawati, NT 2021. The Influence of Financial Literacy, Risk Perception, and Locus of Control on Investment Decisions of Young Entrepreneurs in Singaraja. *Accounting Student Science*, 12(03), 768–780.
- Miswan, A. (2019). Development and Impact of Financial Technology (Fintech) on the Sharia Financial Industry in Central Java. *Wahana Islamika: Journal of Islamic Studies*, 5(1), 32–45.
- Morgan, PJ and Trinh, LQ 2019. Fintech and Financial Literacy in the Lao PDR', *SSRN Electronic Journal*, (933). doi: <https://doi.org/10.2139/ssrn.3398235>
- Novianggie, V., & Asandimitra, N. (2019). The Influence of Behavioral Bias, Cognitive Bias, and Emotional Bias on Investment Decisions for College Students with Financial Literacy as the Moderating Variable. *International Journal of Academic Research in Accounting, Finance and Management Sciences* , 9 (2), 92–107. <https://doi.org/10.6007/IJARAFMS/v9-i2/6044>



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## Proceeding 2<sup>nd</sup> Medan International Economics and Business

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Volume 2, Issue 1, 2024

“Human Resource Transformation and Collaborative Innovation to Build Independent and Competitive Business in the Digital Era”

- Pradikasari, E., & Isbanah, Y. (2018). The Influence of Financial Literacy, Illusion of Control, Overconfidence, Risk Tolerance, and Risk Perception on Investment Decisions among Students in the City of Surabaya. *Journal of Management Science (JIM)* , 6 (4), 424–434.
- Putri, MT, & Ibrahim, M. 2017. The Influence of Profitability and Investment Decisions on the Value of Pulp & Paper Companies Listed on the Indonesian Stock Exchange. *Jom Fisip*, 4(2), 1-12.
- Putri, WW, & Hamidi, M. 2019. The Influence of Financial Literacy, Financial Efficacy, and Demographic Factors on Investment Decision Making (Case Study of Master of Management Students, Faculty of Economics, Andalas University, Padang). *Scientific Journal of Management Economics Students*, 4(1), 398–412.
- Rasuma Putri, NMD, & Rahyuda, H. 2017. The Influence of Financial Literacy Level and Sociodemographic Factors on Individual Investment Decision Behavior. *Udayana University Economics and Business E-Journal*, 9, 3407–3434. <https://doi.org/10.24843/eeb.2017.v06.i09.p09>
- Sahroni, Susanti, Sutoro, M., Mukrodi, & Apriansyah, M. 2020. Growing New Entrepreneurs. *ABDI ABDI LAKSANA Community Service Journal*, 1(2), 156–160.
- Sari, DR (2017). The Influence of Financial Literacy, Income, and Education on Investment Decisions of Ethnic Chinese Families in Surabaya. *Journal of Business and Banking*
- Septiani, RN, & Wuryani, E. (2020). The Influence of Financial Literacy and Financial Inclusion on the Performance of MSMEs in Sidoarjo. *Udayana University Management E-Journal* , 9 (8), 3214. <https://doi.org/10.24843/ejmunud.2020.v09.i08.p16>
- Stango, Victor. Zinman, J. 2013. American Finance Association Exponential Growth Bias and Household Finance. *The Journal of Finance*, 64(6), pp. 2807–2849.
- Susanti, A., Ismunawan, Pardi, ., & Ardyan, E. (2018). Level of Education, Financial Literacy and Financial Planning on the Financial Behavior of MSMEs in Surakarta. *Business Review* , 18 (1), 45–56. <https://doi.org/10.35917/tb.v18i1.93>
- Upadana, IW, & Herawati, NT 2020. The Influence of Financial Literacy and Financial Behavior on Student Investment Decisions. *Scientific Journal of Accounting and Humanics*, 126-135.
- Wahyudi, W., Tukan, BAP, & Pinem, D. 2020. Analysis of the Effect of Financial Literacy, Financial Technology, Income, and Locus of Control on Lecturer Financial Behavior. *AFEBI Management and Business Review*, 5(1), 37–46. <https://doi.org/10.47312/ambr.v5i1.293>
- Winarto, WWA 2020. The role of Fintech in Micro, Small and Medium Enterprises (MSMEs). *Jesya (Journal of Sharia Economics & Economics)*, 3(1), 61–73. <https://doi.org/10.36778/jesya.v3i1.132>