

Paper 28

The Effect Of Financial Literacy And Risk Perception On The Selection Of Investment Instruments Decision Among Generation Z In Greater Jakarta And Bandung

Moch Sukma Ghifari and Atika Irawan

ICMEM

The 7th International Conference on Management in Emerging Markets

Abstract - In the last 2 years, more people aware of the urgency of investing. Indonesian Securities Central Custodian recorded that from 2018 to 2021, investors in 4 major instruments (Stock market, Mutual Funds, Capital Market, and Government Securities) are experiencing an increase in the number of investors, ranging from 45% and 82% annually. Meanwhile, the rise of this investment intention among people in Indonesia also raised fraud investment. The recent most popular one is Binary Options fraud, promoted by their brand ambassador that will incentivize every member that joins through their referral. Previous studies found that those financially literate and have a high perception of risk will be more likely to avoid fraud investment. Therefore, this study aims to assess the effect of Financial Literacy and Risk Perception on the selection of investment instrument decisions among Generation Z in Greater Bandung and Greater Jakarta. This study used a quantitative approach with 250 respondents using a questionnaire and analyzed by PLS-SEM. To conclude, this research proves that both Financial Literacy and Risk Perception significantly and positively affected Generation - Z Investment decisions.

Keywords - Financial Literacy, Investment Decision, Risk Perception

I. INTRODUCTION

During the COVID-19 Pandemic, Indonesian people are starting to realize the importance of having a reserve fund. This makes investment one of the media for storing reserve funds which are currently booming in Indonesia [1]. This is evidenced by data from [2], the number of investors in stocks, mutual funds, Government Securities, and the capital market experienced an increasing trend from 2018 to 19 October 2021. The number of investors in the four investment instruments ranged from 45% to 82% annually. Biggest increase happen in Cryptocurrency, where 12.5 million people use cryptocurrency as their investment instruments [31]. This is good sign that Indonesia are ready to step up into the future in the Metaverse that totally related with Cryptocurrency.

However, this increase in the public interest in investments is threatened by a large number of illegal investment platforms in Indonesia. In the last 5 years, the Communication and Informatics Ministry found out and blocked 3.216 illegal investment platforms that mainly are illegal Forex platforms [3]. Not only that, earlier, there are

criminal cases related to investment fraud in Indonesia that resulted in Rp84.9 billion of rupiahs loss [4] Then, there are also fraudulent digital investment cases in terms of the Binary Options instruments that are promoted as trading investments. [5] A binary option is not one of the instruments thatare verified as an investment on OJK and most binary options applications are illegal in Indonesia [3]. There are several reasons why a lot of people in Indonesia become victims of fraudulent investments. One of the reason is low level of financial literacy among Indonesian people itself, according to Ketua Satgas Waspada Investasi, Tongam L Tobing [6] Therefore, financial literacy is a very important variable in eradicating the rise of illegal investment to prevent the cases of illegal investment [7].

The increasing number of investors in Indonesia in 2022, which is expected to reach 7.75 million [8], is not in line with financial literacy for investment in Indonesia [6]. From 2011 to 2022, the Investment Alert Task Force recorded losses due to illegal investments totaling 117.5 trillion rupiah [9]. In fact, various illegal investment cases were revealed in Indonesia in 2022, with one of them causing investors to lose up to 72.13 billion rupiahs, namely the Binomo Trading case [10].

As previously stated, one of the causes of the increasing number of illegal investment cases is the increasing number of investors, which has reached 7.75 million people [8], which is not in line with the literacy rate in Indonesia, which is still at 38 percent [11]. and cause damage worth trillions of rupiah [12]. According to [13], financial literacy positively affects someone's ability to detect fraud investment, which means that someone who is financially illiterate is more likely to join fraud investment. Meanwhile, financially literate people are tend to invest in assets that have a high risk-high return principle [14], but have better knowledge and are well-prepared when they face those kinds of risks [15]

According to [16], there is an influence from financial literacy towards investment decision making. According to the research when try to compare the influence between financial literacy and investment decision, investors with a high level of financial literacy are more likely to consider and try different techniques and methods when making investment decisions, compared to investors with a low level of financial literacy that more likely to not. Furthermore, based on a study conducted by [17] the investors who have higher financial literacy

resulted in better investment decision-making due to the high-quality information that has been used to decide investment decision, awareness about the decision, and rationality in choosing what kind of investment that provide the investor's capacity and needs. This findings also corroborated with the findings of [18], who stated that financial literacy influences investment decisions and that people who invest always seek information and consider it before making an investment decision.

Despite financially literate person more likely to create better decision, [19] stated in their research studies that financial literacy has no impact on investment decision in terms of profitability. It means that whether someone is financially literate or not, it will not affect how many return they get from the investment. The raised awareness of investment is happen on every generation, especially Generation-Z. According to data from Bursa Efek Indonesia (BEI), Generation Z dominated up to 81 percent of investors from a total of 7.75 million investors in Indonesia until January 21, 2022. Therefore, the purpose of this study is to determine whether Financial Literacy influences Generation Z's investment decisions when selecting an investment instrument to get better and broad insights about the condition of investors in Indonesia.

Financial Literacy and Investment Decision

According to [20] research, Financial Literacy Influences Individual Investor Investment Preferences, which means that if investors' have lower level of financial literacy, they prefer to choose deposits and foreign currency as their investment instruments. As their financial literacy become better, investors tend to create more diversified and better portofolio. Furthermore, millennials that financially literate and aware about the differences between stock and mutual funds more likely to take a risks in their investment decision, while those who are not aware with the difference is more likely to be risk-averse about their investment decision. [21]

Moreover, [17] and [18] found the same results regarding the Influences and Relationship between Financial Literacy and Investment Decisions. Those studies found that Financial Literacy affects the Investment Decision of investors before they invest their money in one of the investment instruments by mastering the instrument insight related to risk, return, etc. In contrast, [19] study found that there are no relationship between financial literacy and investment decision in terms of profitability. As a result, the following hypothesis is proposed in this study:

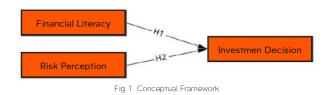
H1: Financial Literacy positively affects the Investment Decision

Risk Perception and Investment Decision

According to [22], Risk Perception are significantly and positively affected investors' investment decision in Tehran Stock Exchange. This statement also supported by [23] who through their research also stated that risk perception is affecting investors' investment decisions, specifically in the mutual funds market. [24] stated the similar result with different outcomes. The result also stated Risk Perception significantly affects Investment Decision, but negatively, which means that the better investors' risk perception, the less likely they will put large funds in risky investments. On the other hand, [25] and [26] stated otherwise. They came up with the same conclusion, which is Risk Perception does not have any effect on investors' investment decisions. Therefore, this study will test whether Risk Perception affects Investment Decision. The hypothesis proposed is as follows:

H2: Risk Perception positively affects the Investment Decision.

Hence, there is a conceptual model proposes in this study to examine the Effect of Financial Literacy and Risk Perception on the Selection of Investment Instruments Decision Among Generation Z in Greater Jakarta and Bandung (Figure 1).



II. METHODOLOGY

In this study, researcher will used Quantitative Approach as the Research Approach. A quantitative approach is an approach to explaining a phenomenon and gathering information from the phenomenon itself using a mathematical approach [27]. This approach is used to quantify Financial Literacy, Investment Decision, and Risk Perception. To conduct the research, the researcher used questionnaire-based survey research methods. The researcher will employ the survey method, which is a method for data gathering by creating a question for the respondents [28]. In this study, the survey was conducted online through online questionnaires to the respondents, who are Gen-Z that invested in one of the instruments that have already been verified by OJK. A semi-formal structured questionnaire was used as the tool with multiple-choice and open-ended questionnaire

to collect socio-demographic and behavioral information and Likert-scale question to asses Financial Literacy, Risk Perception, and Investment Decision variable. The Likert-scale questions required respondents to select a level of agreement on a scale of one to five, with one indicating a strongly disagree answer and five indicating a strongly agree answer.

This research population is comprised of Generation Z investors that have invested within the past year. The researcher will select samples from Greater Jakarta (Jakarta, Bogor, Depok, Tangerang, and Bekasi) and Greater Bandung (Bandung and Cimahi). These regions were selected because, according to [12], DKI Jakarta and Jawa Barat are the provinces with the highest proportion of Generation Z residents, and the cities listed above are the most populous in each province.

In addition, Generation Z was selected as the topic of this study because, according to OJK Data from the year 2022, Generation Z comprised up to 88 percent of the total number of investors in Indonesia. This was one of the reasons why this generation was selected as the focus of this research. Since the target population could not be determined with any certainty, the researchers employed a sampling strategy designed for such a situation and determined that they would require 385 participants at a minimum based on the sample size calculation with a 95% confidence level of 0.5 standard deviation. Therefore, to minimize the mistakenly filled questionnaire, researchers targeted to get 400 respondents for this study.

After all the data was gathered from the questionnaires through online questionnaires via Google Form, the data will be analyzed using the Descriptive Analysis and Statistical Analysis. As the Statistical Analysis, Partial Least Square (PLS) method will be conducted it will assess the reliability analysis test, validity analysis test, collinearity analysis test, Coefficient of Determination test, Stone-Giesser (G) test, F Square Effect Size, Total Indirect and Total Effect.

III. RESULTS

A questionnaire-based survey was conducted from May to June 2022 as part of the quantitative approach analysis data collection. The survey received 467 responses, with 410 meeting the criteria and passing the screening questions. As a result, in this data analysis, we only use the 410 data points. In conclusion, the questionnaire met the third chapter's minimum sample size requirement. Those data has been collected in form of likert scale (1: Strongly disagree - 5: Strongly agree) and analyze using PLS-SEM method

Table 1 - RESEARCH MEASUREMENT

Indicator	Label	Mean	
I have better understanding of how to invest my money	FLI	3.455	
I am prepared to risk some of my own money when saving or making an investment	FL2	3.611	
I have better understanding of financial instruments such as bonds, stock, mutual fund etc	FL3	3.249	
I set long term financial goals and strive to achieve them	FL4	4.134	
I have the ability to maintain financial records for my income and expenditure	FL5	3.848	

Indicator	Label	Mean
A diversified portfolio reduces risk	RP1	3,888
The higher an investment's yield or rate of return, the greater is its associated risk	RP2	4,213
The investment that I choose is definitely right and will perform well	RP3	3,880
The investment I choose has good performance and convincing results	RP4	4,088

Indicator	Label	Mean
I decide my investment considering the prospects of future products	IDI	4,296
My decision is based on the references of market conditions	ID2	4,137
My decision is based on the benchmark of investment performance	ID3	4,125
The rate of return on your recent stock investment meets your expectation.	ID4	3,758
I considered the statements of government officials about the company.	ID5	3,748
I considered past performance of the firm's stock before investing.	ID6	4,066

The indicator of FL4 "I set long term financial goals and strive to achieve them" has the highest mean score of 4.134 in table 4.3 on the Financial Literacy variable, indicating that most respondents are already literate for long-term financial goals and have a desire to achieve them. For the Risk Perception variable, the highest mean score is 4.213 for the indicator RP2, "The higher an investment's yield or rate of return, the greater its associated risk," indicating that the majority of respondents have a better risk perception regarding the relationship between investment

yield or rate of return and risk. Meanwhile, the highest mean for the Investment Decision variable is 4.296 for indicator ID1, which stated "I decide my investment considering the prospects of future products," It demonstrates that the prospect of the company is the most important factor influencing respondents' investment decisions.

Hypothesis Testing

This section will explain about the PLS analysis that used to test the hypothesis as well as the significance, interpreted by the T-Values. Table 2 displays the result of hypothesis testing.

Table 2 - Hypothesis Testing

Hypothesis	Structural Path	T Satistics (IO/STDEVI)	P Values	Result
H1	Financial Literacy -> Investment Decision	6.509	0.000	Accepted
H2	Risk Perception -> Investment Decision	11.422	0.000	Accepted

According to the first hypothesis, financial literacy has a positive impact on the decision to make an investment. Because the T-statistics of this hypothesis are 6.509, which is greater than 1.96 with a significance level point of 0.05, the hypothesis is accepted. The significance level point was 0.05. As a consequence of this, we can reach the following conclusion: Financial Literacy has a favorable effect on Investment decisions.

According to the second hypothesis, risk perception has a positive impact on investment decision making. Given that the T-statistic is 11.422, which is higher than 1.96 and the significance level point is set at 0.05, this finding is significant. As a result, the hypothesis can be validated and a conclusion drawn if there is a positive influence of risk perception on investment decision-making.

IV. DISCUSSION

Financial Literacy positively affects the Investment Decision

According to the testing of the hypotheses, there is a relationship between Financial Literacy and Investment decisions. This relationship is accepted, which means that Financial Literacy has a positive effect on Investment Decisions. Due to the fact that the T-statistics is greater than 1.96 when compared to the significance level of 0.05, the hypothesis is supported. Previous research by [21], [20], [17], [29], and [18] found that financial literacy had a positive impact on investment decisions. This finding is consistent with those findings.

Moreover, according to the results of the questionnaire,

Financial Literacy has an effect on Investment Decision, which is represented by indicators ID1 (I decide my investment considering the prospects of future products), ID2 (My decision is based on the references of market conditions), and ID3 (My decision is based on the benchmark of investment performance). These three indicators are the ones that are most closely related to Financial Literacy, and they are all above the threshold of 4, specifically 4.296, 4.137, and 4.125 respectively. These scores suggest that respondents believe that their needs on Financial Literacy when they decide what they need to do to their investment, or, to put it another way, that respondents believe that Financial Literacy is affecting their Investment Decision.

Risk Perception positively affects the Investment Decision

The second hypothesis, which stated that a positive relationship exists between risk perception and investment decision, was confirmed by the analysis of the data. The reason for this is that the T-statistics are significantly higher than 1.96 when compared to the significance level of 0.05. Previous research by [26], [22], [23], [24], [30], and [25] investigated whether risk perceptions had a positive effect on investment decisions. This finding is consistent with those findings. [23] investigated whether risk perceptions had a positive effect on investment decisions.

The findings were also reflected in the questionnaire. All of the indicators that are related to Risk Perception have scores that are higher than 3.5. These indicators are ID4 (The rate of return on your recent stock investment meets your expectation), ID5 (I considered the statements of government officials about the company), and ID6 (I considered the past performance of the firm's stock before investing). The scores for these indicators are 3.758, 3.748, and 4.066 respectively. This demonstrates that respondents' perceptions of risk have an effect on their decisions regarding whether or not they will invest, or, to put it another way, their investment decisions.

V. CONCLUSION

The research aims to assess the effect of financial literacy and risk perception towards Gen-Z investment decisions around Greater Jakarta and Greater Bandung. The data was collected through the use of questionnaires that were directed to Gen-Z residents of Greater Jakarta and Greater Bandung who had invested in the previous calendar year. The analysis of the data included both descriptive analysis and a PLS analysis. The recommendations and implications for future research will be provided by the findings and the results of this research. The answer to the research question that was brought up in the prior

chapter can be found in the conclusion.

For the first research question, which is "Does financial literacy affect Gen-Z's investment decision?" After conducting the analytical test, it is possible to conclude that financial literacy influences Gen-Z investment decisions. According to the PLS analysis, financial literacy has a positive effect on investment decisions, which is consistent with the descriptive analysis. Some respondents look at the stock's previous performance, while others analyze how it relates to someone's financial literacy level. That is how Financial Literacy influences the investment decisions of Generation Z.

For the second research question, which is "Does risk perception affect Gen-Z's investment decision?" It was found through research and analysis that has already been done that risk perception is another factor that affects the investment decision made by Generation Z. It also fits in with the descriptive analysis, which found that respondents weigh the amount of risk involved in a potential investment before deciding where to put their money. That is how Risk Perception plays a role in the investment decisions made by Generation Z.

For the third research question, which is "What kind of investment that more preferred by financially literate and financially illiterate Gen-Z in Jabodetabek and Bandung?" According to the findings of the descriptive study, it was discovered that respondents who had a higher level of financial literacy had a greater likelihood of investing in gold and stocks. In the meantime, respondents with lower levels of financial literacy are more likely to invest on stocks, despite the fact that stocks are known as one of the most complicated investments compared to the other investments mentioned above.

Therefore, as a recommendation, this study has already identified a number of issues concerning financial literacy and investment decision-making among Indonesians, such as fraud and a lack of financial literacy. According to the results of this study's questionnaire, both the government and private financial institutions can help each other to encourage Indonesians to increase their financial literacy level, such as by organizing socialization and events that raise financial literacy awareness among Indonesians in order to avoid bad occurrences in the near future. However, This study only looks at financial literacy and risk perception in relation to investment decisions. There are several limitations to this study that should be addressed in future research, such as a larger sample size (all of Indonesia or different generations) that could yield different results and a better understanding of the investment situation. As a result, this study is only valid in Indonesia, and the limitations that have already been mentioned can be improved for future research.

REFERENCES

- Dirgantara, H., 2022. Tumbuh Lebih Dari 90% Sepanjang 2021, Kini Investor Pasar Modal Capai 7,49 juta. [online] KOMPAS.com. Available at: https://investasi.kontan.co.id/news/tumbuh-lebih-dari-90-sepanjang-2021-kini-investor-pasar-modal-capai-749-juta [Accessed 2 April 2022].
- ksei.co.id. 2022. Statistik Pasar Modal Indonesia. [online] Available at: https://www.ksei.co.id/files/ Statistik_Publik_Desember_2021.pdf> [Accessed 28 March 2022].
- Rizkinaswara, L., 2022. Kementerian Kominfo Blokir 3.216 Konten Investasi Ilegal. [online] Ditjen Aptika. Available at: https://aptika.kominfo.go.id/2022/04/ pemerintah-pelototi-industri-fintech/> [Accessed 30 March 2022].
- Okezone.com. 2022. Deretan Penipuan Investasi Terbesar di Indonesia, Kerugian Capai Ratusan Miliar. [online] Available at: https://nasional.okezone.com/read/2022/01/13/337/2531652/deretan-penipuan-investasi-terbesar-di-indonesia-kerugian-capai-ratusan-miliar> [Accessed 28 March 2022].
- Ariesta, A., 2022. Ini Fakta-fakta Kasus Binomo yang Menghebohkan, Korban Rugi hingga Rp2,4 Miliar. [online] idxchannel.com. Available at: hingga-rp24-miliar> [Accessed 28 March 2022].
- Kencana, M., 2022. Investasi Bodong Bikin Rugi Rp 117 T, Literasi Keuangan Jadi Kunci. [online] liputan6. com. Available at: https://www.liputan6.com/bisnis/read/4705116/investasi-bodong-bikin-rugi-rp-117-t-literasi-keuangan-jadi-kunci [Accessed 28 March 2022].
- Effendi, K. A., Ichsani, S., Saputera, D., Hertina, D., Wijaya, J. H., & Hendiarto, R. S. 2021. The Importance of Financial Literacy in Preventing Illegal Fintech in MSMEs in Indonesia. Review of International Geographical Education Online, 11(6), pg 316-322.
- 8. Sidik, S., 2022. Investor di BEI Tembus 7,75 Juta, Didominasi Milenial & Gen-Z. [online] CNBC Indonesia. Available at: https://www.cnbcindonesia.com/market/20220125105039-17-310196/investor-dibei-tembus-775-juta-didominasi-milenial-gen-z [Accessed 30 March 2022].
- 9. Safitri, K., 2022. Total Kerugian akibat Investasi Bodong Capai Rp 117,5 Triliun, Bisakah Uangnya Kembali?.

- [online] KOMPAS.com. Available at: https://money.kompas.com/read/2022/04/06/081500626/total-kerugian-akibat-investasi-bodong-capai-rp-117-5-triliun-bisakah-uangnya [Accessed 2 April 2022].
- 10. Purwanti, T., 2022. Binomo 'Makan' 118 Korban, Kerugian Hingga Rp 72 M. [online] CNBC Indonesia. Available at: https://www.cnbcindonesia.com/ investment/20220510165232-21-337911/binomomakan-118-korban-kerugian-hingga-rp-72-m [Accessed 28 March 2022].
- Sikapiuangmu.ojk.go.id. 2022. HASIL SURVEI LITERASI DAN INKLUSI KEUANGAN NASIONAL MENINGKAT. [online] Available at: https://sikapiuangmu.ojk.go.id/ FrontEnd/CMS/Article/20549> [Accessed 28 March 2022].
- Badan Pusat Statistik. 2021. Proporsi Populasi Generasi Z dan Milenial Terbesar di Indonesia. [online] Available at: https://databoks.katadata.co.id/datapublish/2021/05/24/proporsi-populasi-generasi-z-dan-milenial-terbesar-di-indonesia [Accessed 1 April 2022].
- Chariri, A., Sektiyani, W., Nurlina, N., & Wulandari, R. W. 2018. Individual characteristics, financial literacy and ability in detecting investment scams. Jurnal Akuntansi dan Auditing, 15(1), 91-114
- Khan, M.S.R., Rabbani, N. and Kadoya, Y., 2021. Can Financial Literacy Explain Lack of Investment in Risky Assets in Japan?. Sustainability, 13(22), p.12616
- Ramadhanty, G., Rochim, M.A., Astuti, P. and Leon, F.M., 2022. Pengaruh Kontrol, Sikap Keuangan, dan Strategi Pensiun Terhadap Rencana Pensiun Dimoderasi Oleh Jenis Kelamin Pada Kalangan Dewasa Muda. Business Management Analysis Journal (BMAJ), 5(1), pp.24-42.
- Khalid, R., Javed, M. U., & Shahzad, K. (2018). Impact of Behavioral Biases on Investment Decision Making with Moderating Role of Financial Literacy. Jinnah Business Review, 6(2), 34-41.
- 17. Alaaraj, H. and Bakri, A., 2020. The effect of financial literacy on investment decision making in Southern Lebanon. International Business and Accounting Research Journal, 4(1), pp.37-43.
- 18. Baihaqqy, M.R.I. and Sari, M., 2020. The Correlation between Education Level and Understanding of Financial Literacy and Its Effect on Investment Decisions in Capital Markets. Journal of Education and e-Learning Research, 7(3), pp.303-313.

- Senda, D.A., Rahayu, C.W.E. and Rahmawati, C.H.T., 2020.
 The effect of financial literacy level and demographic factors on investment decision. Media Ekonomi Dan Manajemen, 35(1), pp.100-111.
- 20. Aren, S. and Zengin, A.N., 2016. Influence of financial literacy and risk perception on choice of investment. Procedia-Social and Behavioral Sciences, 235, pp.656-663
- Sabri, N. A. A., & Afigah, N. 2016. The relationship between the level of financial literacy and investment decision-making millennials in Malaysia. Taylor's Business Review, 6, 39-47.
- 22. Baghani, M., & Sedaghat, P. 2014. Effect of Risk Perception and Risk Tolerance on Investors' Decision Making in Tehran Stock Exchange.
- 23. SindhuK., P., & Kumar, S.R. 2014. Influence of Risk Perception of Investors on Investment Decisions: An Empirical Analysis.
- 24. Ainia, N.S.N. and Lutfi, L., 2019. The influence of risk perception, risk tolerance, overconfidence, and loss aversion towards investment decision making. Journal of Economics, Business, & Accountancy Ventura, 21(3), pp.401-413.
- 25. Mulyani, E., Fitra, H., & Honesty, F. F. 2021, November. Investment Decisions: The Effect of Risk Perceptions and Risk Propensity for Beginner Investors in West Sumatra. In Seventh Padang International Conference On Economics Education, Economics, Business and Management, Accounting and Entrepreneurship (PICEEBA 2021) (pp. 49-55). Atlantis Press.
- 26. Lestari, W., 2013. Religiusitas dan persepsi risiko dalam pengambilan keputusan investasi pada perspektif gender. Journal of Business and Banking, 3(2), pp.189-200.
- 27. Sukamolson, S. 2007. Fundamentals of quantitative research. Language Institute Chulalongkorn University, 1(3), 1-20.
- 28. Schoenherr, T., Ellram, L.M. and Tate, W.L., 2015. A note on the use of survey research firms to enable empirical data collection. Journal of Business Logistics, 36(3), pp.288-300.
- 29. Adil, M., Singh, Y., & Ansari, M. S. (2021). How financial literacy moderate the association between behaviour biases and investment decision?. Asian Journal of Accounting Research.

- 30.Saputro, R.E.H. and Lestari, D., 2019. Effect of Financial Literacy and Risk Perception on Student Investment Decisions in Jakarta. Review of Management and Entrepreneurship, 3(2), pp.107-132.
- 31. Dzulfiqar Fathur Rahman (2022). Jumlah Investor Kripto RI Lampaui Saham, Reksa Dana, dan SBN. [online] Katadata.co.id. Available at: https://databoks.katadata.co.id/datapublish/2022/04/12/jumlah-investor-kripto-rilampaui-saham-reksa-dana-dan-sbn [Accessed 10 Jul. 2022].