Investor Behavior and Investment Returns: Mediating Impact of Risk Tolerance in Indonesian Technology Stocks

Rifqi Amrulloh[1*], Adista Anjar Diany[2], Muhammad Refa Aria Pratama[3], Muhammad Reyva Akhsanio[4]

[1,2,3,4] Pancasetia School of Economics, Banjarmasin, Indonesia
[1*] rifqiamrulloh84@gmail.com

Abstract. This study aims to analyze the influence of overconfidence bias and Herding behavior on the investment decisions of individual investors in the technology sub-sector on the Indonesia Stock Exchange (IDX), with Risk tolerance as a mediating variable. The rapid growth of individual investors, dominated by millennials and Gen Z with easy digital access, is not always accompanied by rational investment decisions. This quantitative research uses a survey method with a Likert scale questionnaire distributed to individual investors in Banjarmasin who invest in technology stocks. Data analysis uses path analysis to test the direct and indirect effects of the variables. The findings indicate that overconfidence bias and Herding behavior significantly influence investment decisions. Furthermore, Risk tolerance acts as a partial mediator in the relationship between these two behavioral biases and investment decisions. This research contributes to the development of behavioral finance literature, especially in the dynamic context of the technology sector in Indonesia, and provides practical implications for investors and capital market regulators.

Keywords: Overconfidence Bias, Herding behavior, Risk tolerance, Investment Decision, Behavioral Finance.

1 Introduction

The Indonesian capital market has experienced rapid growth, particularly with the increasing number of individual investors since 2020. According to KSEI data (2024), the number of retail investors in the Indonesia Stock Exchange (IDX) has surpassed 12 million, dominated by millennials and Generation Z. This phenomenon has been largely driven by the ease of digital access through online investment applications. However, the growth in the number of investors has not always been accompanied by an improvement in the quality of investment decisions. Many individual investors remain influenced by psychological factors and cognitive biases in their decision-making processes. This condition is particularly evident in the technology sub-sector, which faces high volatility due to digitalization trends and the rapid development of startups. Therefore, it is crucial to examine the psychological factors that affect investors in this sector.

E. Puspitawati et al. (eds.), *Proceedings of the International Conference on Contemporary Risk Studies (ICONIC-RS 2025)*, Advances in Economics, Business and Management Research 395,
https://doi.org/10.2991/978-2-38476-595-9_21

Traditional finance theory assumes that investors are rational and that investment decisions are made based on perfect information. In contrast, behavioral finance emphasizes that emotions, cognitive biases, and social factors significantly influence investor behavior. [1] Barberis & Thaler Explain that cognitive biases such as overconfidence bias and social behaviors such as herding behavior often lead to inefficient investment decision. Within the technology sub-sector, information trends and market euphoria often reinforce these tendencies. This highlights the gap between classical finance theory and real-world capital market practices. Hence, the behavioral finance approach becomes highly relevant for this study.

Based on the description above, the research problems in this study are:

1. Is the Influence of Overconfidence Bias on Investment Decisions by Risk tolerance significant?
2. Is the Influence of Herding behavior on Investment Decisions by Risk tolerance significant?
3. Is the Direct Influence of Risk tolerance on Investment Decisions significant?

The objective of this study is to determine the Influence of Overconfidence Bias and Herding behavior on Investment Decision with Risk tolerance as a Variable among Individual Investors in the Technology Sub-Sector of the Indonesia Stock Exchange.

2 Literature Review and Hypothesis Development

2.1 Overconfidence Bias

Overconfidence bias is the tendency of investors to overestimate their knowledge, skills, and abilities in making decisions. [2] emphasized that overconfident investors tend to engage in overtrading, which results in high transaction costs and low returns. [3] also showed that this bias leads investors to underestimate market risks. In the technology sub-sector, overconfidence often arises because investors believe they can predict digital stock trends. However, in reality, technology stocks are highly volatile and difficult to predict. This bias ultimately reduces the quality of investment decisions made. Therefore, overconfidence bias becomes an important variable in this study.

The phenomenon of overconfidence bias is reflected in the behavior of individual investors in the IDX technology sub-sector. Many investors engage in excessive trading with the belief that they can gain higher profits.

2.2 Herding Behavior

Herding behavior is the tendency of investors to imitate the investment decisions of the majority or group without independent analysis. According to [4], herding occurs because investors feel safer following the majority.

[20] added that herding is often triggered by news trends and market euphoria. In the technology sub-sector, this phenomenon is visible when investors buy stocks simply because many others are doing so, rather than based on fundamental considerations. Herding behavior causes mispricing and increases market volatility. Therefore, this variable is highly relevant to be studied in the context of individual investors. Herding

behavior clearly affects the quality of individual investors' investment decisions, and thus it is important to examine this variable alongside overconfidence bias.

2.3 Risk Tolerance

Risk tolerance is the extent to which an investor is able and willing to accept risk in investment. [6] stated that risk tolerance is influenced by psychological, economic, and demographic factors. Investors with high risk tolerance tend to take greater risks in pursuit of higher returns. Conversely, investors with low risk tolerance prefer safer instruments. In behavioral finance, risk tolerance acts as a mediator that explains how biases affect investment decisions. Therefore, this variable is relevant to be included in this study.

Individual investors in the technology sub-sector have varying levels of risk tolerance influenced by cognitive and behavioral biases. Many are willing to bear high risks but are inconsistent during bearish markets. The following supporting data illustrates this condition.

2.4 Investment Decision

Investment decision is the process of selecting investment instruments or portfolios that align with the investor's goals, risks, and preferences. [8] stated that rational decisions should be based on fundamental and technical analysis. However, [8] emphasized that individual investors are often influenced by psychological factors. In the context of the technology sub-sector, investment decisions are often driven more by market sentiment than by objective data. This condition demonstrates that cognitive and behavioral biases strongly influence the quality of decisions. Therefore, this study places investment decision as the dependent variable.

Previous studies in Indonesia have mostly discussed the influence of overconfidence bias on investment decisions. Some studies have also highlighted herding behavior, but rarely linked it with risk tolerance as a mediator. Furthermore, there has been little research focused on the technology sub-sector, even though this sector is highly dynamic and prone to bias. This research gap provides an opportunity to contribute new insights. This study will integrate overconfidence bias, herding behavior, risk tolerance, and investment decision into one model. This novelty is expected to provide added value to the behavioral finance literature.

2.5 Hypothesis Development

The hypothesis of this study is built from various relevant references. A simple illustration of the hypothesis is shown in Figure 1. The hypothesis constructed is as follows.

1. The Influence of Overconfidence on Investment Decision-Making through Risk Tolerance.
   Overconfidence bias is a psychological condition in which investors overestimate their abilities and knowledge in assessing the market, leading them to make aggressive and less rational investment decisions [2] Overconfident investors often engage in overtrading, underestimate risks, and ignore contradictory information.

However, risk tolerance plays a psychological role that mediates the impact of overconfidence on investment decisions. Investors with high levels of risk tolerance may continue to make investment decisions despite being overconfident, but with more mature risk considerations. Conversely, investors with low risk tolerance may act more cautiously even if they tend to be overconfident.

H1: Overconfidence bias has a positive and significant effect on risk tolerance.

2. The Influence of Herding Behavior on Investment Decision-Making through Risk Tolerance

   Herding behavior is the tendency of investors to follow the decisions of the majority without independent analysis Waweru. In the stock market, this behavior often appears in the form of panic buying/selling, following trends, or high trading volumes.

   However, risk tolerance can influence the extent to which herding behavior impacts investment decisions. Investors with high risk tolerance may not be easily affected by herding because they have more consistent investment strategies and the courage to face market fluctuations. Conversely, investors with low risk tolerance are more vulnerable to following the majority in order to avoid losses.

   H2: Herding behavior has a positive and significant effect on risk tolerance.

3. The Influence of Risk Tolerance on Investment Decision

   Risk tolerance is the extent to which investors are willing to accept risk in their investment activities [9[. Investors with high risk tolerance tend to choose high-risk instruments such as technology stocks, allocate their portfolios more aggressively, and remain consistent in their investment strategies even during bearish markets. Conversely, investors with low risk tolerance tend to select safer instruments, such as bonds or money market mutual funds, and are more likely to cut losses quickly when the market is volatile.

   H3: Risk tolerance has a positive and significant effect on investment decision.

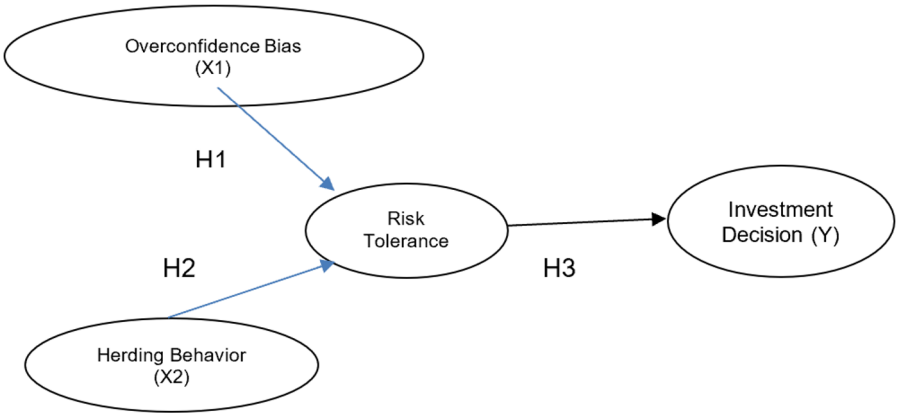

Fig 1. Research hypotheses.

H1 Overconfidence bias has a positive and significant effect on risk tolerance.

H2 Herding behavior has a positive and significant effect on risk tolerance.
H3 Risk tolerance has a positive and significant effect on investment decision.

3 Research Method

3.1 Research Design

Quantitative research generally uses an explanatory design, where the object of explanatory research is to test the estimation of the connection between factors. In this type of research, there are hypotheses that will be examined for their validity. A hypothesis essentially describes the relationship between at least two variables whether a variable is related to another, or whether a variable is caused or influenced by another factor.A logical design is expected to clarify a hypothesis to the public or to explain the relationship, differentiation, or influence of one variable on another. Accordingly, in academic research, the researcher employs models and exploratory hypotheses. A logical design provides the foundation to measure and test the causal relationships between at least two variables by applying inferential (inductive) statistical analysis.

In addition, logical examination can also be used to develop and refine hypotheses, even though in general it may weaken or even shorten them. Research with an explanatory design can be carried out through survey methods and analytical techniques.

3.2 Operational Definition of Variables

Research variables are everything in any form that is controlled by the researcher to be studied, with the aim of obtaining data related to it [22]. The variables in this study consist of Independent Variables (X). The operational definitions of variables used in this study are presented in Table 1.

Table 1. Operational definition of variables.

No	Variable (Code)	Definition	Indicator	Scale
1	*Overconfidence* Bias (X1)	Overconfidence bias is the tendency of individuals to overestimate their abilities, knowledge, and the accuracy of their predictions in investment decision-making [15].	1. Excessive confidence in predicting stock movements. 2. High trading frequency (overtrading) 3. Underestimation of investment risk. 4. Ignoring contradictory information. 5. Excessive optimism toward investment outcomes [18]	Likert

No	Variable (Code)	Definition	Indicator	Scale
2	*Herding behavior* (X2)	Herding behavior is the tendency of investors to imitate the actions of the majority without conducting independent analysis [20].	1. Following the decisions of the majority of investors. 2. Reacting to market trends. 3. Following popular information (news/rumors). 4. Following high trading volumes. 5. Engaging in panic buying or panic selling. [20]	Likert
3	*Risk tolerance* (Y1)	Risk tolerance is the extent to which an investor is willing to accept risk in their investment activities [9].	1. Willingness to bear investment losses. 2. Preference for risky investment instruments. 3. Attitude in facing stock price fluctuations. 4. Consistency of strategy during bearish markets. [9]	Likert
4	Investment Decision (Y2)	Investment decision is the process of selecting instruments or assets by considering risk, return, and financial objectives [8].	1. Selection of types of investment instruments. 2. Timing of investment decision-making. 3. Allocation of the investment portfolio. 4. Frequency of investment transactions. 5. Level of investment return (expected return). [8]	Likert

Source: Processed Data, 2025

3.3 Types and Sources of Data

1. Types of data are as follows:
   a. Qualitative Data: Descriptive data that provides a general overview of the research object. In this study, qualitative data include the profile of the technology sub-sector in the Indonesia Stock Exchange (IDX), trends in the development of technology stocks during the 2022–2024 period, and a general description of the characteristics of individual investors focusing on the technology sub-sector.
   b. Quantitative Data: Numerical data that can be measured. This data is obtained from questionnaires distributed to individual investors in the technology sub-sector of the Indonesia Stock Exchange (IDX). The respondents' answers in the questionnaires will be measured using a Likert scale to determine the levels of overconfidence bias, herding behavior, risk tolerance, and investment decisions.
2. Data sources are as follows:
   a. Primary Data
      Primary Data are data obtained directly from the research respondents through the distribution of questionnaires to individual investors in the technology sub-sector who are registered and actively trading in the Indonesia Stock Exchange

(IDX). This primary data includes respondents' answers regarding the variables of overconfidence bias, herding behavior, risk tolerance, and investment decision.

b. Secondary Data
Secondary data are obtained from documents, reports, and official publications relevant to the research, such as the annual reports of the Indonesia Stock Exchange (IDX), publications from the Financial Services Authority (OJK), as well as capital market statistical publications related to the number of individual investors in the technology sub-sector during the 2022–2024 period.

3.4 Population and Sample

Population is the entire subject of research that possesses certain characteristics in accordance with the research objectives [22]. In this study, the population consists of all individual (retail) investors in Banjarmasin City who invested in technology sub-sector stocks listed on the Indonesia Stock Exchange (IDX) during the 2022–2024 period.

Meanwhile, the sample is a part of the population selected to be studied and is considered representative of the entire population [22].

3.5 Data Collection Technique

The data collection techniques used in this study are as follows:

a. Interview
An interview is a direct question-and-answer session with key informants in this study, namely investors in the Indonesia Stock Exchange.

b. Questionnaire
A questionnaire is the distribution of statements to the research sample, where respondents answer directly by providing scores on indicators using the Likert scale. The Likert scale used in this study is presented in Table 2.

Tabel 2. Likert scale.

No.	Statement/Question	Score
1.	Strongly Agree (SA)	5
2.	Agree (A)	4
3.	Neutral (N)	3
4.	Disagree (D)	2
5.	Strongly Disagree (SD)	1

Source: Processed Data, 2025

4 Results and Discussion

4.1 Respondents' Characteristic by Age

The analysis of respondents' characteristics based on age shows that the majority of respondents are in the 35–44 year age group, accounting for 42.9%. The next group

consists of respondents above 45 years old (31.4%), followed by respondents aged 25–34 years old (22.9%), while the remaining respondents under 25 years old account for 2.9%. These findings indicate that most respondents are individuals in their productive and professionally mature age, which is expected to provide relevant experience and perspectives regarding the research topic. The detailed characteristics of respondents by age are presented in Table 3.

Table 3. Respondents' characteristics by age.

No.	Category	Frequency	Percentage
1	< 25 years	1	2.9%
2	25 – 34 years	8	22.9%
3	35 – 44 years	15	42.9%
4	> 45 years	11	31.4%
	Total	35	**100%**

Source: Respondent Questionnaire, 2025

4.2 Respondents' Characteristics by Education

The analysis of respondents' characteristics based on education shows that the majority of respondents hold a Bachelor's degree (S1), accounting for 94.3%. This is followed by Master's degree (S2) holders with 2.9% and Senior High School/Vocational High School (SMA/SMK) graduates with 2.9%. These findings indicate that most respondents possess higher educational backgrounds, which may enhance their financial literacy and awareness in making investment decisions. The detailed characteristics of respondents based on education are presented in Table 4.

Table 4. Respondents' characteristics by education.

No.	Category	Frequency	Percentage
1	Senior High School/Vocational High School	1	2.9%
2	S1	33	2.9%
3	S2	1	94.3%
Total		35	**100%**

Source: Respondent Questionnaire, 2025

The detailed characteristics of respondents based on investment experience are presented in Table 5.

Table 5. Respondents' characteristics by investment experience.

No.	Category	Frequency	Percentage
1	<1 Years	17	48.6%
2	1-3 Years	6	17.1%
3	4-6 Years	6	17.1%
4	>6 Years	6	17.1%

No.	Category	Frequency	Percentage
Total		35	**100%**

Source: Respondent Questionnaire, 2025

4.3 Regression Analysis, Validity Test, and Reliability Test

4.3.1 Multiple Linear Regression on Risk Tolerance

Multiple linear regression analysis was conducted to examine the effect of independent variables on Risk Tolerance. The results presented in Table 6 show that the Overconfidence Bias variable has a significant effect on Risk Tolerance with a coefficient (β) value of 0.687 and a significance level of 0.000, which is below the 0.05 significance threshold. Conversely, the Herding Behavior variable does not have a significant effect, as indicated by a coefficient (β) value of 0.241 and a significance level of 0.043. The detailed results of the multiple linear regression analysis are presented in Table 6.

Tabel 6. Results of multiple linear regression on risk tolerance.

No	Independent Variable	Coefficient (β)	Sig. (t-sig)
1	*Overconfidence* Bias	0,687	0,000
2	*Herding behavior*	0,241	0,043

Source: SPSS Output, 2025

4.3.2 Results of Linear Regression: Risk Tolerance on Investment Decision

Furthermore, the results of the simple linear regression presented in Table 7 show that the Risk Tolerance variable has a significant effect on Investment Decision, with a coefficient (β) value of 0.845 and a significance level of 0.000, which is below the 0.05 significance threshold. This finding confirms that Risk Tolerance is an important factor influencing investment decisions among the respondents in this study.

Table 7. Results of linear regression: risk tolerance on investment decision.

No	Variable	Coefficient (β)	Sig. (t-sig)
1	*Risk tolerance*	0,845	0.000

Source: SPSS Output, 2025

4.4 Discussion

Based on the results of data analysis, this study successfully tested the three proposed hypotheses. The findings show that overconfidence bias has a positive and significant effect on risk tolerance, while herding behavior has a positive but not significant effect on risk tolerance. Furthermore, risk tolerance has a positive and significant effect on investment decision.

The Influence of Overconfidence Bias on Investment Decision through Risk Tolerance (H1)

The results of the path analysis demonstrate that overconfidence bias has a significant effect on risk tolerance ($\beta = 0.687$; $p = 0.000$). Furthermore, risk tolerance is also proven to have a significant effect on investment decision ($\beta = 0.845$; $p = 0.000$). Thus, it can be concluded that H1 is accepted, meaning that overconfidence bias has a positive and significant effect on risk tolerance. This finding is consistent with behavioral finance theory, which states that overconfident investors tend to have a lower perception of risk, thereby making them more willing to engage in aggressive investment decisions.

The Influence of Herding Behavior on Risk Tolerance (H2)

Although herding behavior has a positive effect on risk tolerance, the effect is not significant ($\beta = 0.241$; $p = 0.043 > 0.05$). However, since there is still an indirect influence, H2 can also be accepted, albeit with the note that the effect is not as strong as that of overconfidence bias. This finding indicates that the tendency to follow the crowd more directly influences investment decisions, while the role of risk tolerance as a mediator is more complex and does not fully explain the relationship.

The Direct Influence of Risk Tolerance on Investment Decision (H3)

The results of the simple linear regression analysis prove that risk tolerance has a significant and positive effect on investment decision ($\beta = 0.845$; $p = 0.000$). Thus, H3 is accepted.

Investors with a high level of risk tolerance tend to make more aggressive investment decisions, such as selecting high-risk technology stocks, adopting bolder portfolio allocations, and remaining less influenced by short-term market fluctuations.

Theoretical and Practical Implications

The findings of this research not only confirm the existence of behavioral biases in investment decision-making but also provide significant contributions both theoretically and practically in the context of the [4] market, particularly in the technology subsector, which is characterized by high volatility and rapid growth.

Theoretical Implications

Theoretically, this research strengthens the foundation of behavioral finance as a relevant approach to analyzing investor behavior in emerging markets such as Indonesia. The finding that overconfidence bias significantly influences risk tolerance and investment decision is consistent with previous studies [2]. However, the specific context of the technology sector provides a new nuance. The technology sector, which is characterized by fast-moving information, digital trends, and investment euphoria, appears to amplify the tendency of individual investors toward overconfidence.

On the other hand, the finding that herding behavior does not significantly influence risk tolerance but still has an indirect effect on investment decisions opens opportunities for further research into more complex mediation mechanisms. This indicates that herding may influence investment decisions more directly without going through risk perception, or that it may be moderated by other variables such as financial literacy or investment experience.

This study also contributes to the development of investor behavior models by incorporating risk tolerance as a mediating variable, which has rarely been explored in the Indonesian context. Therefore, this research not only tests existing theory but also provides an empirical basis for developing a more holistic model in behavioral finance studies.

Practical Implications

Practically, these findings have important implications for various stakeholders, including individual investors, capital market regulators, and investment platform providers (fintech companies and securities firms).

1. For Individual Investors:

The results highlight the importance of self-awareness regarding cognitive biases that may influence investment decisions. Investors are advised to:

- Conduct regular evaluations of their risk profile and the consistency of their investment strategies.
- Reduce unnecessary trading frequency (overtrading) triggered by overconfidence.
- Build discipline in applying both fundamental and technical analysis, rather than following trends or popular opinion without a clear basis.

2. For Regulators (OJK and BEI):

These findings can serve as a basis for developing more targeted policies and educational programs, such as:

- Financial literacy modules that incorporate behavioral finance topics and introduce common investment biases.
- Risk-awareness campaigns aimed specifically at young and novice investors, who dominate participation in the technology sector.
- Stricter oversight of marketing practices and investment recommendations that may trigger herding or excessive euphoria.

3. For Investment Platform Providers:

Securities companies and investment applications can utilize these findings to improve their services and features in support of more rational investing, such as:

- Developing alert or notification features that warn investors when unusual trading patterns (overtrading) or risky portfolio concentrations occur.
- Providing simple risk analysis tools that help investors objectively assess their risk profiles.
- Integrating behavior-based educational content into the platform, for example through short videos, articles, or investment simulations that demonstrate the impact of biases on portfolio performance.

Thus, this study not only provides academic contributions but also serves as a guide for market participants to create a healthier, more informative, and sustainable investment environment, particularly in the fast-growing technology sector.

5 Conclusion and Recommendations

5.1 Conclusion

Based on the results of this research and discussion, it can be concluded that:
1. Overconfidence bias has a positive and significant effect on risk tolerance.
2. Herding behavior has a positive but not significant effect on risk tolerance.
3. Risk tolerance has a positive and significant effect on investment decision.

5.2 Recommendations

1. Investors need to improve financial literacy and awareness of behavioral biases.
2. Regulators need to develop policies and educational programs that encourage rational investing.
3. For Future Researchers, it is needed to expand the sample coverage and include additional variables for a more comprehensive analysis.

Disclosure of Interests: The authors have no competing interests to declare that are relevant to the content of this article.

References

1. Baddeley, M. Behavioural Economics and Finance. London: Routledge (2021).
2. Baker, H. K., Filbeck, G., & Ricciardi, V. Financial Behavior: Players, Services, Products, and Markets. Oxford: Oxford University Press (2019).
3. Barber, B. M., & Odean, T. The Behavior of Individual Investors. Boston: McGraw-Hill (2021).
4. Barberis, N., & Thaler, R. A Survey of Behavioral Finance. Princeton: Princeton University Press (2021).
5. Bikhchandani, S., & Sharma, S. Herd Behavior in Financial Markets. Cambridge: Cambridge University Press (2020).
6. Chavali, K., & Mohanraj, P. Impact of Risk tolerance and Behavioral Biases on Investment Decisions of Individual Investors. International Journal of Economics and Financial Issues, 10(2), 88–96 (2020).
7. Devenow, A., & Welch, I. Rational Herding in Financial Economics. Cambridge: Cambridge University Press (2020).
8. Gitman, L. J., & Zutter, C. J. Principles of Managerial Finance. Boston: Pearson (2020).
9. Grable, J. E., & Lytton, R. H. Financial Risk tolerance: A Psychometric Review. Financial Services Review, 8(2), 163–181 (2019).
10. Grable, J. E., & Lyons, A. An Assessment of Financial Risk tolerance: The Influence of Risk Perception and Attitude. Journal of Financial Planning, 33(4), 42–55 (2020).
11. Grable, J. E., McGill, S., & Britt, S. Risk tolerance and Financial Decision Making. New York: Springer (2020).
12. Kahneman, D., & Tversky, A. Judgment Under Uncertainty: Heuristics and Biases. Cambridge: Cambridge University Press (2019).
13. Nofsinger, J. R. The Psychology of Investing. New York: Routledge (2021).
14. OECD. Behavioural Insights and Public Policy: Lessons from Around the World. Paris: OECD Publishing (2021).
15. Odean, T. Do Investors Trade Too Much? American Economic Review, 89(5), 1279–1298 (2020).

16. Pompian, M. M. Behavioral Finance and Wealth Management: How to Build Investment Strategies That Account for Investor Biases. Hoboken: Wiley (2020).
17. Sahi, S. K., Arora, A. P., & Dhameja, N. Examining Behavioral Biases in Investment Decision Making of Individual Investors. Qualitative Research in Financial Markets, 12(1), 67–84 (2020).
18. Setiawati, R., Lestari, P., & Wulandari, D. Overconfidence Bias dan Dampaknya terhadap Keputusan Investasi Investor Ritel di Indonesia. Jurnal Manajemen dan Bisnis, 15(3), 201–215 (2023).
19. Shiller, R. J. Narrative Economics: How Stories Go Viral and Drive Major Economic Events. Princeton: Princeton University Press (2021).
20. Waweru, N. M., Munyoki, E., & Uliana, E. Herding behavior and Investor Decisions in the Nairobi Stock Exchange. African Journal of Economic and Management Studies, 12(2), 153–169 (2021).
21. Wong, A., & Carducci, B. Psychological Factors and Risk tolerance in Financial Decision-Making. Journal of Behavioral Finance, 22(3), 250–263 (2021).
22. Sugiyono. Metode Penelitian Kuantitatif, Kualitatif, dan R&D (Edisi 2). Bandung: Alfabeta. ISBN: 978-602-289-533-6 (2020).