PROCEEDINGS THE 5th INTERNATIONAL CONFERENCE ON ECONOMICS, BUSINESS, AND MANAGEMENT RESEARCH (ICEBMR)
"Digital Economy, Human Dignity, and Inclusive Transformation in Asia"
https://econference.usd.ac.id/index.php/ICEBMR | ISSN: 3032-596X | Vol 5, 2026

EMOTIONAL BIASES AND STOCK INVESTMENT DECISIONS DURING MARKET VOLATILITY IN EMERGING COUNTRIES: DOES RISK TOLERANCE MATTER?

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DOI: https://doi.org/10.24071/icebmr.v5i1.391

Abstract
Although the number of stock investors in Indonesia continues to grow year after year, this expansion has not been accompanied by strong investment literacy. Consequently, many novice investors suffer early losses and become hesitant to continue participating in the market. This vulnerability was highlighted by the MSCI index adjustment in January 2026, which triggered severe market volatility and complicated investment decision-making. To better understand these dynamics, this quantitative study examines the effects of overconfidence, herding, loss aversion, and regret aversion on investment decisions in the Indonesian stock market, evaluating risk tolerance as a moderating variable. Novelty of this study is assessed quantitative study from homogeneous sampling method in order to isolate the result on specific behavioral relationship. The sample of this study is members of investor community that have homogeneous background, characteristics and become active investors during the 2026 MSCI event. The data were analyzed using SPSS multivariate regression. The findings reveal that overconfidence and loss aversion significantly impact investment decisions, whereas herding and regret aversion do not. Additionally, risk tolerance acts as a significant moderator only for loss aversion (where it weakens the relationship) and regret aversion (where it strengthens it). Overall, these results demonstrate that emotional biases do not uniformly dictate investor behavior and that risk tolerance does not serve as a universal buffer across all psychological traits.
Keywords*: Emotional Biases, Overconfidence, Herding, Loss Aversion, Regret Aversion, Risk Tolerance, Investment Decisions.*

1. Introduction

The rapid growth in the number of investors in Indonesia between 2022 and early 2026, as reported by the Indonesian Central Securities Depository (KSEI), was not necessarily accompanied by rational investment decision-making. Instead, the increasing participation of retail investors has been associated with speculative trading behavior, often conducted without adequate fundamental analysis (Handayani & Rosilawati, 2024; Syukur et al., 2025). This lack of investor preparedness became particularly evident during the market turmoil between November 2025 and January 2026. During this period, social media rumors concerning the potential inclusion of PT Bumi Resources Tbk (BUMI) and PT Petrindo Jaya Kreasi Tbk (PTRO) in the MSCI Global Standard Index were associated with heightened investor overconfidence (Costa et al., 2025) and herding behavior, particularly through the reinforcement of recommendations disseminated by stock market influencers (Bintoro, 2022; Trisno & Vidayana, 2023).

The situation was further intensified by uncertainty surrounding MSCI's assessment of the Indonesian equity market, particularly concerns regarding market transparency. Subsequent speculation regarding a potential downgrade of Indonesia's capital market classification to Frontier Market status, drawing comparisons with the Pakistan Stock Exchange's experience in 2021, further heightened investor uncertainty. These developments contributed to substantial selling pressure in the market and sharp declines in the prices of BUMI and PTRO shares. The resulting market instability was accompanied by temporary trading halts and significant capital outflows (Hidayati et al., 2022). Consequently, many retail investors experienced substantial losses following the rapid decline in stock prices and successive trading halts.

Such adverse market experiences may subsequently influence investors' psychological

responses and future investment behavior. In particular, investors who experience significant losses may develop loss aversion, leading them to become more reluctant to participate in the capital market. Similarly, negative investment experiences may generate regret aversion, whereby investors avoid subsequent investment opportunities to minimize the possibility of experiencing similar regret. These behavioral responses highlight the importance of examining investment decisions not only from a conventional financial perspective but also through the lens of behavioral finance.

Against this backdrop, this study examines the effects of emotional biases, including overconfidence, herding, loss aversion, and regret aversion on investment decisions among retail investors. Furthermore, the study investigates risk tolerance as a moderating variable to determine whether investors' tolerance for risk influences the relationship between emotional biases and investment decisions. By focusing on the period surrounding the January 2026 MSCI-related market volatility, this study seeks to provide a more comprehensive understanding of how psychological biases and individual risk preferences shape retail investor behavior during periods of heightened market uncertainty.

2. Literature Review

2.1 Grounded theory

This study is grounded in Prospect Theory, developed by Kahneman and Tversky in 1979 (Bintoro, 2022). The theory was introduced in their seminal article, *Prospect Theory: An Analysis of Decision under Risk*, and subsequently extended in 1992 to provide a more comprehensive explanation of decision-making under conditions of risk and uncertainty (Ariefin Addinpujoartanto & Darmawan, 2020). Prospect Theory is a behavioral economic theory that explains how individuals evaluate potential gains and losses and how these evaluations influence decision-making under uncertain conditions. Unlike traditional economic models, which generally assume that individuals make rational decisions based on objective information, Prospect Theory recognizes that psychological factors and subjective perceptions of gains and losses can substantially influence individual choices. In the context of investment, this perspective provides a theoretical foundation for understanding why investors may deviate from rational decision-making when confronted with market volatility, uncertainty, and potential financial losses.

Behavioral finance is an important field of financial research that integrates psychological perspectives with conventional financial theory to explain how individuals actually make economic and investment decisions. The field seeks to identify and explain market anomalies by examining systematic deviations from the rational decision-making assumptions of traditional finance (Corzo et al., 2024). Human behavior in financial markets is influenced not only by objective information and economic considerations but also by cognitive and emotional factors. Among these factors, emotional biases represent an important component of investment decision-making because emotions can substantially influence how individuals process information, evaluate risk, and respond to changes in financial markets (Cotrus et al., 2012, as cited in Kumar & Chaurasia, 2024). Accordingly, behavioral finance provides a relevant theoretical perspective for examining how overconfidence, herding, loss aversion, and regret aversion influence investment decisions.

2.2 *Emotional Biases*

Overconfidence refers to an excessive level of confidence in one's own knowledge, abilities, judgments, or capacity to control outcomes. Investors exhibiting overconfidence tend to perceive themselves as more knowledgeable, skilled, or capable of predicting market movements than they actually are. Consequently, overconfident investors may overestimate the accuracy of their information and underestimate the risks associated with their investment decisions. They may also attribute successful investment outcomes to their own abilities while attributing unsuccessful outcomes to external market conditions (Yanti & Endri, 2024). In financial markets, this bias can encourage investors to trade more frequently and take greater

risks because they believe that their judgments are superior to those of other market participants.

Herding behavior refers to the tendency of investors to follow the investment decisions or actions of other investors rather than relying primarily on their own information and analysis. This behavior may occur when investors perceive the decisions of other market participants as a source of information, particularly under conditions of uncertainty or limited information. Retail investors may imitate the investment behavior of other investors, influential market participants, or broader investor groups in the expectation of obtaining similar returns (Wayan Rona & Kadek Sinarwati, 2021). In this context, herding can reduce investors' reliance on independent analysis and increase their tendency to make investment decisions based on collective market behavior.

Loss aversion refers to the tendency of individuals to perceive losses as psychologically more significant than equivalent gains. In investment decision-making, investors exhibiting loss aversion may place greater emphasis on avoiding losses than on obtaining comparable investment gains (Limarus & Pamungkas, 2023). This tendency can influence investors' willingness to accept risk and may lead them to alter, delay, or avoid investment decisions when the perceived possibility of loss is high. The psychological impact of a financial loss is generally greater than the psychological satisfaction associated with an equivalent gain, making loss aversion an important factor in understanding investor behavior under conditions of market uncertainty (Kumar & Chaurasia, 2024).

Regret aversion refers to the tendency of individuals to avoid making decisions because they anticipate experiencing regret if the outcome is unfavorable. In investment contexts, investors may avoid certain investment opportunities or maintain existing positions to minimize the possibility of experiencing regret associated with an incorrect investment decision (Sukma Ardini et al., 2023). Regret aversion can therefore cause investors to become more conservative or passive in their investment behavior. It may also encourage investors to follow the decisions of other market participants because collective decision-making can reduce the perceived personal responsibility for an unfavorable outcome (Kumar & Chaurasia, 2024). Thus, regret aversion may influence both the willingness to participate in the market and the manner in which investors make investment decisions.

2.3 *Risk Tolerance*

Financial risk tolerance refers to the degree to which an individual is willing and able to accept uncertainty and potential financial losses in pursuit of investment returns. It is an important factor in determining how individuals allocate and manage their financial resources, as differences in risk tolerance can lead investors to adopt different investment strategies (Harahap et al., 2022). Risk tolerance also influences how investors process market information and respond to market volatility (Sudirman et al., 2023). In this study, risk tolerance is positioned as a moderating variable because investors with different levels of willingness to accept risk may respond differently to emotional biases. Accordingly, the effect of overconfidence, herding, loss aversion, and regret aversion on investment decisions may vary depending on the investor's level of risk tolerance.

2.4 *Investment Decisions*

An investment decision refers to an investor's decision to allocate financial resources to an investment instrument, including the decision to buy, hold, or sell stocks. Investors generally make investment decisions with the expectation of obtaining future returns while considering the risks associated with the investment (Handayani & Rosilawati, 2024). However, investment decisions are not always based on comprehensive financial or fundamental analysis. Particularly among retail investors, decisions may be influenced by short-term information, social media content, market sentiment, and announcements concerning domestic or global market indices. Consequently, investment decisions can be understood as the outcome of an interaction between financial considerations, market information, psychological factors, and

individual risk preferences.

The Jakarta Composite Index (JCI), or *Indeks Harga Saham Gabungan* (IHSG), is an indicator of the overall movement and performance of stocks listed on the Indonesia Stock Exchange (IDX) (Hasan et al., 2023). The JCI serves as an important benchmark for investors in evaluating aggregate market performance and assessing broader developments in Indonesia's capital market. Changes in the index may be influenced by domestic economic conditions, global market developments, investor sentiment, and external shocks. During periods of heightened market uncertainty, changes in investor sentiment can contribute to substantial movements in stock prices and market indices (Hidayati et al., 2022). Therefore, the JCI provides an important contextual indicator for examining investor behavior during periods of elevated market volatility, including periods associated with major global index-related announcements.

2.5 *Hypothesis Development*

Overconfidence may cause investors to overestimate their knowledge, analytical abilities, and capacity to predict market movements. Investors exhibiting high levels of overconfidence are more likely to believe that their investment judgments are accurate and that they can outperform other market participants. This perception may encourage more frequent trading and greater willingness to assume investment risk. Rona and Sinarwati (2021) found that overconfidence has a positive and significant effect on investment decisions, indicating that investors with higher levels of overconfidence tend to be more active in making investment decisions. Based on this theoretical argument and previous empirical findings, the first hypothesis is formulated as follows:

H1: Overconfidence has a positive effect on investment decisions.

Herding occurs when investors follow the investment behavior of other market participants rather than relying primarily on their own information and analysis. Under conditions of uncertainty, investors may perceive the decisions of other investors as an additional source of information or as an indication of appropriate market behavior. Wibowo et al. (2023) suggest that herding can influence investment decisions because investors may feel more secure when their decisions are consistent with those of other market participants. Consequently, investors who exhibit stronger herding tendencies are more likely to base their investment decisions on collective market behavior. Therefore, the second hypothesis is formulated as follows:

H2: Herding has a positive effect on investment decisions.

Loss aversion describes the tendency to place greater psychological weight on potential losses than on equivalent gains. In investment decision-making, investors with strong loss-averse tendencies may become more cautious when faced with the possibility of financial loss. Limarus and Pamungkas (2023) argue that concerns about capital losses can influence investors' preferences and choices regarding investment instruments. Consequently, loss aversion may affect investors' willingness to initiate, maintain, or alter their investment positions. Based on this theoretical perspective and previous empirical evidence, the third hypothesis is formulated as follows:

H3: Loss aversion has a significant effect on investment decisions.

Regret aversion refers to investors' tendency to avoid decisions that may subsequently cause feelings of regret. In financial markets, investors may become reluctant to make investment decisions when they anticipate that an unfavorable outcome could lead to regret or self-blame. Nurdinda et al. (2020) demonstrate that anticipated regret can influence investment decision-making, as investors may become more selective in choosing investment alternatives to minimize the possibility of experiencing regret from future losses. Therefore, regret aversion is expected to influence how investors evaluate and make investment decisions. Based on this argument, the fourth hypothesis is formulated as follows:

H4: Regret aversion has a significant effect on investment decisions.

Risk tolerance may alter the extent to which overconfidence translates into investment decisions. Investors with high risk tolerance may be more willing to act on their beliefs and judgments, even when those judgments are influenced by overconfidence. Conversely, investors with lower risk tolerance may be less likely to translate their confidence into aggressive investment decisions because their willingness to accept potential losses is limited. Sudirman et al. (2023) indicate that risk tolerance is related to investors' willingness to accept risk and their responses to market conditions. Therefore, the relationship between overconfidence and investment decisions may differ according to investors' levels of risk tolerance. Accordingly, the fifth hypothesis is formulated as follows:

H5: Risk tolerance moderates the effect of overconfidence on investment decisions.

The effect of herding behavior on investment decisions may depend on investors' tolerance for financial risk. Investors with high risk tolerance may be more willing to follow collective market behavior even when such behavior involves substantial uncertainty or potential losses. In contrast, investors with low risk tolerance may be less likely to translate herding tendencies into investment actions because their limited willingness to accept risk constrains their responses to market signals. Thus, risk tolerance may strengthen or weaken the relationship between herding behavior and investment decisions. Based on this theoretical argument, the sixth hypothesis is formulated as follows:

H6: Risk tolerance moderates the effect of herding on investment decisions.

Loss aversion is closely related to investors' perceptions and acceptance of financial risk. Investors with stronger loss-averse tendencies may be more sensitive to potential losses and therefore less willing to accept investment risk. However, the behavioral consequences of loss aversion may differ according to an individual's level of risk tolerance. Investors with relatively high risk tolerance may be more capable of maintaining investment positions despite experiencing potential losses, whereas investors with low risk tolerance may respond more strongly to perceived downside risk. Therefore, risk tolerance may alter the relationship between loss aversion and investment decisions. Accordingly, the seventh hypothesis is formulated as follows:

H7: Risk tolerance moderates the effect of loss aversion on investment decisions.

Regret aversion may influence investment decisions by causing investors to avoid choices that they perceive could result in future regret. However, the extent to which anticipated regret affects investment behavior may depend on investors' willingness to tolerate financial risk. Investors with high risk tolerance may be more willing to accept uncertain outcomes despite the possibility of regret, whereas investors with low risk tolerance may be more likely to avoid investment opportunities perceived as risky. Nurdinda et al. (2020) emphasize the importance of risk-related considerations in investment decision-making. Thus, risk tolerance may function as a psychological mechanism that changes the strength of the relationship between regret aversion and investment decisions. Based on this argument, the eighth hypothesis is formulated as follows:

H8: Risk tolerance moderates the effect of regret aversion on investment decisions.

3. Research Methods

3.1 *Research Design*

This study employed a quantitative research approach using primary data collected through an online questionnaire distributed to investor community of Kolese De Britto High School which considers have homogeneous characteristics and similar values on responding situation on this study. The questionnaire was developed using a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree), to measure respondents' perceptions of behavioral biases, risk tolerance, and investment decisions.

The sampling technique employed in this study was non-probability sampling using purposive sampling. According to Hardani et al. (2020), purposive sampling is a sampling technique in which respondents are selected based on predetermined criteria that are considered relevant to the objectives of the study. This technique was considered appropriate because the study required respondents with specific characteristics relevant to the research context, particularly respondent who have experience or involvement in stock market investment.

The study targeted a sample of 100 respondents. The sample size was determined with reference to the minimum sample requirements for regression analysis commonly applied in behavioral finance research (Bintoro, 2022; Yanti & Endri, 2024). The selected respondents were expected to provide sufficient empirical observations for examining the relationships between emotional biases, risk tolerance, and investment decisions.

3.2 *Data Analysis*

The collected data were analyzed using the Statistical Package for the Social Sciences (SPSS). Before conducting hypothesis testing, the questionnaire items were evaluated through validity and reliability tests. The validity test was conducted to determine whether each measurement item adequately represented the construct being measured, while the reliability test was performed to assess the internal consistency of the measurement instruments.

After the instruments were confirmed to be valid and reliable, classical assumption tests were conducted. These tests included the normality test, multicollinearity test, heteroscedasticity test, and autocorrelation test. These procedures were performed to assess whether the data met the assumptions required for the regression analysis.

Following the classical assumption tests, hypothesis testing was conducted using multiple linear regression analysis and moderated regression analysis. The analysis also included the F-test to evaluate the overall significance of the regression model and the adjusted coefficient of determination (Adjusted R^2) to assess the explanatory power of the independent variables. The results were subsequently interpreted and discussed in relation to the theoretical framework and previous empirical findings.

3.3 *Regression Model*

Model 1 was used to examine the direct effects of overconfidence, herding, loss aversion, and regret aversion on investment decisions.

$$Y=\alpha+1X1+2X2+3X3+4X4+e.$$

To examine whether risk tolerance moderates the relationships between emotional biases and investment decisions, the second regression model was formulated as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 M + \beta_6 X_1 * M + \beta_7 X_2 * M + \beta_8 X_3 * M + \beta_9 X_4 * M + e$$

Model 2 was employed to determine whether risk tolerance significantly moderates the effects of overconfidence, herding, loss aversion, and regret aversion on investment decisions. The moderating effects were assessed through the significance of the interaction terms (X_1M), (X_2M), (X_3M), and (X_4M). A statistically significant interaction coefficient indicates that the relationship between the corresponding emotional bias and investment decisions varies according to the respondent's level of risk tolerance.

The hypotheses concerning the direct effects of emotional biases on investment decisions were evaluated using the statistical significance of the corresponding regression coefficients in Model 1. The hypotheses concerning the moderating role of risk tolerance were evaluated using the significance of the interaction terms in Model 2.

A significance level of 5% was adopted. A p-value below 0.05 indicates a statistically significant relationship, whereas a p-value greater than 0.05 indicates that the corresponding hypothesis is not statistically supported. The direction and magnitude of the regression coefficients were also considered when interpreting the nature of the relationships between the variables.

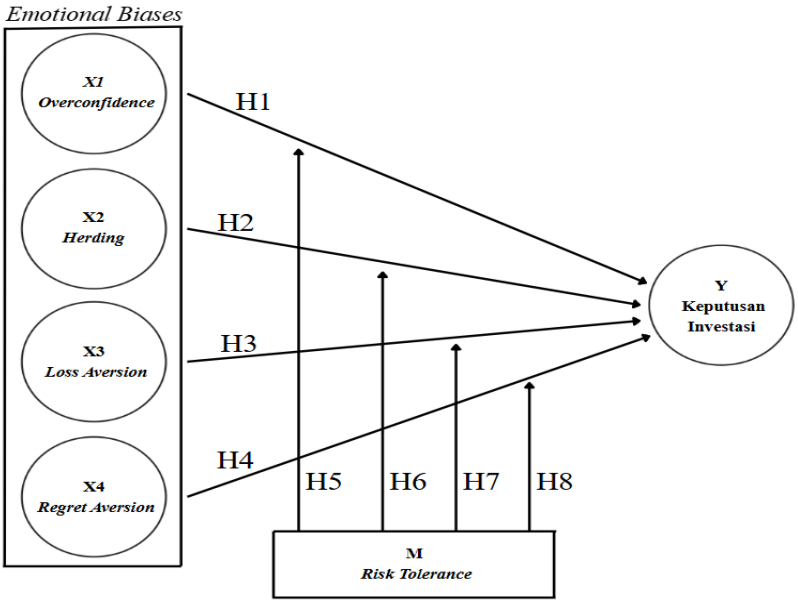


Figure 1. Research Model

4. Research Findings and Discussion

4.1 *Regression Results*

Based on the results of the regression test of variable X against variable Y, it can be seen that the sig. value of variable X1 is 0.000, X2 is 0.582, X3 is 0.000, and X4 is 0.655. The results of the significant values for variables X1 and X3 are smaller than 0.05 (alpha), meaning that variables X1 and X3 have successfully influenced variable Y. Meanwhile, for variables X2 and X4, the results of the significant values are more than 0.05 (alpha), meaning that variables X2 and X4 have not succeeded in influencing variable Y. Then also obtained beta results for the constant of 10.893, variable X1 of 0.267, X2 of 0.027, X3 of 0.315, and X4 of -0.024, resulting in the formula:

$$Y=10,893+0,267X1+0,027X2+0,315X3-0,024X4+e$$

Table 1. Result of Model 1

Coefficients		
	B	**Sig.**
(Constant)	10,893	
Overconfisence (X1)	0.267	0,000
Herding (X2)	0.027	0.582
Loss Aversion (X3)	0.315	0,000
Regret Aversion (X4)	-0.024	0.655
a. Dependent Variable : Investment Decision		

Table 2. Result of Model 2

Coefficients		
	B	**Sig.**
(Constant)	-0.973	
Overconfisence (X1)	0.176	0.611
Herding (X2)	0.298	0.414

Coefficients		
	B	**Sig.**
Loss Aversion (X3)	0.977	0,016
Regret Aversion (X4)	-0.933	0.006
Risk Tolerance (M)	0.840	0.021
Overconfidence*		
Risk Tolerance (X1M)	-0.001	0.943
Herding*		
Risk Tolerance (X2M)	-0.011	0.493
Loss Aversion*		
Risk Tolerance (X3M)	-0.036	0.050
Regret Aversion*		
Risk Tolerance (X4M)	0.036	0.011
a. Dependent Variable: Investment Decision		

Based on the results of the regression test of variable X and variable M against variable Y, it can be seen that the sig. value of variable X1 is 0.611, X2 is 0.414, X3 is 0.016, X4 is 0.021, X1M is 0.943, X2M is 0.493, X3M is 0.050, and X4M is 0.011. Variables X3, X4, X3M and X4M are smaller than or equal to 0.05 (alpha) which means they successfully influence variable Y, while variables X1, X2, X1M and X2M are greater than 0.05 (alpha) which means they do not successfully influence variable Y. Then also obtained beta results for the constant of -0.973, variable X1 of 0.176, X2 of 0.298, X3 of 0.977, X4 of -0.933, M of 0.840, X1M of -0.001, X2M of -0.011, X3M of -0.036 and X4M of 0.036, thus getting the formula results:

$$Y=-0,973+0,176X1+0,298X2+0,977X3-0,933X4+0,840M-0,001X1*M-0,011X2*M$$
$$0,036X3*M+0,036X4*M+e$$

Additionally, based on the results of the F test using the SPSS application, a significant value for the F test was obtained of 0.000. A significant value < alpha (0.05), then significant, meaning that the independent variable and the moderating variable simultaneously or together have a significant effect on the dependent variable. While, based on the results of the adjusted determination coefficient test (Adjsuted R-Squared), the adjusted R Square value of 0.465 or 46.5% shows the ability of the independent variables (overconfidence, herding, loss aversion, regret aversion) and the moderating variable (risk tolerance) to explain the variation in changes in the dependent variable (investment decisions) by 46.5% and the remaining 53.5% can be explained by other variables outside the model.

Table 3. Result of F Test

ANOVA				
Model	**Sum of Squares**	**Df**	**F**	**Sig**
Regression	498,435	5	19,103	0,000
Residual	516,612	99		
Total	1015,048	104		
Model Summary				
Model	**R**	**Rsquare**	**Adjusted R Square**	
1	0,701	0,491	0,465	

4.2 *Discussion*

The effect of overconfidence on investment decisions, showed a significance value of 0.000 < 0.05 (alpha). This indicates that overconfidence influences investment decisions. Respondent have a high level of trust in analysis or confidence in certain stocks in the Indonesian capital market. The results of this study align with research conducted by Wayan Rona & Kadek Sinarwati (2021) regarding overconfidence in investment decisions, which showed that overconfidence significantly influences investment decisions. One cause of

increased overconfidence is increased self-confidence without considering existing advice, information, and trends, resulting in overconfidence in one's abilities. This positive and significant tendency towards overconfidence is very logical given the dynamic conditions of the Indonesian stock market. When the stock market is faced with high volatility due to strong sentiment, such as the adjustment or rebalancing period of the MSCI index in early 2026, Respondent who feel overconfident will not hold back or be passive. In contrast, investors felt they had above-average abilities to "read market direction" or capitalize on price fluctuations to achieve profits (capital gains).

The effect of herding on investment decisions, showed a significance value of 0.582 > 0.05 (alpha). This indicates that herding behavior has no effect on investment decisions. Following the herd of well-known influencers or following market trends was not a determining factor for Respondent in making stock investment decisions in the Indonesian capital market. This study's findings are interesting because they differ from previous studies such as those by Wayan Rona & Kadek Sinarwati, 2021 and Limarus & Pamungkas, 2023, which found that herding or herding behavior has a positive and significant influence on investment decision-making. This difference in results may be due to the different capital market conditions when the data for this study were collected compared to previous studies. During the current study's highly volatile observation period due to highly volatile market dynamics following the announcement of changes or rebalancing of the MSCI index in early 2026, investors tend to be faced with a massive and transparent flow of information. When information is widely and quickly available, respondent are no longer simply "herding" aimlessly.

The effect of loss aversion on investment decisions, showed a significance value of 0.000 < 0.05 (alpha). This indicates that the fear of losing assets, or loss aversion, influences investment decisions. Respondent are more cautious and strive to avoid losses when making stock investment decisions in the Indonesian capital market. This is in line with previous research by Limarus & Pamungkas (2023), which also found that loss aversion influences investment decisions. The results of this study indicate that loss aversion significantly influences investment decisions. The positive influence of loss aversion indicates that the higher the level of caution of Respondent in avoiding losses, the more focused their investment decisions will be. Amidst uncertain conditions in the Indonesian stock market, especially when facing high sentiment or volatility such as the MSCI index adjustment or rebalancing period, Respondent with a loss aversion bias are less likely to act rashly. This bias encourages Respondent to implement stricter risk management strategies, such as setting cut-loss limits, diversifying their portfolios, or selecting stocks with strong fundamentals (blue-chip). Thus, the fear of loss positively guides them towards more rational and defensive investment decisions.

The effect of regret aversion on investment decisions, showed a significance value of 0.655 > 0.05 (alpha). This indicates that regret aversion has no effect on investment decisions. Respondent do not experience regret aversion when making stock investment decisions in the Indonesian capital market. This finding indicates a difference or contradiction with previous research by (Nurdinda et al., 2020), which stated that regret aversion significantly influences stock investment decisions in the Indonesian capital market. Regret aversion emerged when investors delayed making investment decisions due to fear of loss.

5. Conclusion

Based on the results of the data analysis, this study demonstrates that investment decisions are significantly influenced by overconfidence and loss aversion, whereas herding and regret aversion do not exhibit significant direct effects. These findings indicate that respondents' investment decisions are primarily driven by confidence in their own judgment and sensitivity to potential losses rather than by a tendency to follow collective market behavior or avoid anticipated regret.

Furthermore, risk tolerance plays an important role as a moderating variable in the

relationships between emotional biases and investment decisions. The moderation analysis suggests that differences in investors' willingness to accept financial risk influence the extent to which emotional biases shape investment behavior. In particular, risk tolerance alters how respondents respond to emotional considerations, indicating that investors with different levels of risk tolerance may translate psychological biases into investment decisions in different ways. Overall, these findings highlight the importance of integrating behavioral finance perspectives with individual risk preferences to better understand investment decision-making during periods of heightened market uncertainty.

5.1 *Practical and Academic Implications*

For retail investors, the finding that overconfidence and loss aversion significantly influence investment decisions underscores the importance of maintaining an appropriate balance between confidence and caution. While confidence can encourage decisive action, excessive confidence may increase the likelihood of speculative behavior if it is not supported by objective analysis. Similarly, sensitivity to potential losses can encourage more careful decision-making but may also lead to overly conservative investment behavior when not managed effectively.

Given the moderating role of risk tolerance, investors are encouraged to develop a clearer understanding of their own risk preferences before making investment decisions. A more structured and systematic investment approach, including the development of a written trading plan, portfolio diversification, and the use of risk-management tools such as stop-loss and take-profit orders, may help investors make more consistent decisions while minimizing the influence of emotional biases during periods of market volatility.

From an academic perspective, future behavioral finance research should seek to expand and refine the present research model. Because this study employed a relatively homogeneous sample, future studies should include more diverse respondent groups, including female investors, investors from different educational backgrounds, and participants from various regions and demographic groups in Indonesia. Such broader sampling would improve the external validity and generalizability of future research findings while providing a more comprehensive understanding of investor behavior across different population groups.

5.2 *Research Limitations*

First, the study employed a relatively homogeneous sample, consisting exclusively of male respondents from a single educational background. This limited demographic diversity may restrict the generalizability of the findings to broader populations of retail investors with different demographic characteristics. There was a time gap between the occurrence of the market phenomenon examined and the data collection period. The study focused on market conditions during November 2025 to January 2026, whereas data were collected between April and May 2026. This interval may have introduced recall bias, as respondents may not have accurately remembered the emotions, perceptions, and decision-making processes they experienced during the period of heightened market volatility associated with the MSCI-related news.

Additionally, the study relied on an online questionnaire as the primary data collection instrument. Although online surveys facilitate efficient data collection, they are also susceptible to self-report bias, including social desirability bias. Respondents may have provided answers that reflected socially desirable or idealized investment behavior rather than accurately reporting the psychological responses they experienced during periods of market uncertainty.

Finally, this study examined risk tolerance as the sole moderating variable in the relationship between emotional biases and investment decisions. However, investment decision-making is influenced by numerous additional internal and external factors that were not incorporated into the research model. Variables such as financial literacy, investment

experience, trading frequency, investment capital, income level, and access to market information may also moderate the influence of emotional biases on investment decisions. Future studies are therefore encouraged to incorporate these variables to develop a more comprehensive explanation of investor behavior in the Indonesian capital market.

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