Herding Behavior and Risk Perception: Psychological Determinants of Investment Choices in Emerging Markets

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ABSTRACT
This research investigates the influence of behavioral factors—overconfidence, risk aversion, and herding behavior—on investment decision-making. Anchored in the principles of behavioral finance, the study emphasizes the psychological underpinnings that drive financial behavior beyond traditional rational models. Using a quantitative approach with a sample of 110 investors in Indonesia, the findings reveal that herding behavior exerts the strongest positive impact on investment decisions, highlighting the pivotal role of social influence in financial markets. Risk aversion also significantly shapes investment choices, indicating that investors with a higher tendency to avoid risk prefer more secure and stable assets. Meanwhile, overconfidence, though positively associated with investment decision-making, demonstrates a comparatively smaller effect. These results underscore the necessity for interventions aimed at improving investors' critical thinking and reducing susceptibility to cognitive and emotional biases. The study contributes to the growing body of literature on behavioral finance by offering empirical evidence on how individual psychological traits affect investment behavior in emerging markets. Future research is encouraged to expand the model by incorporating variables such as financial literacy, emotional intelligence, and market sentiment.

Keywords: *Behavioral Finance; Investment Decision-Making; Overconfidence; Risk Aversion; Herding Behavior*

1. INTRODUCTION

Investment decision-making is significantly influenced by behavioral biases, particularly in increasingly complex and dynamic financial markets. One of the most notable cognitive biases is overconfidence, which occurs when investors overestimate their ability to predict market movements or evaluate financial information (Zahera & Bansal, 2018). Overconfident investors often display excessive trust in their judgment, ignoring external advice and underestimating risks. This behavior may result in frequent trading, poor diversification, and ultimately suboptimal investment outcomes (Aljifri, 2022). Such tendencies highlight the critical role of psychological overconfidence in shaping financial decisions, sometimes leading investors to make aggressive moves without fully considering potential downsides.

Risk aversion bias, another essential factor in investment decision-making, reflects the tendency of individuals to prefer certainty over uncertainty, even when the uncertain option may yield a higher expected return (Kahneman & Tversky, 1979). Risk-averse investors typically exhibit a strong preference for low-risk assets, often sacrificing greater potential gains for perceived safety. This bias can significantly influence portfolio composition and investment strategies, particularly in volatile market conditions. High levels of risk aversion may lead investors to underinvest in equities or other growth-oriented assets, thereby affecting long-term wealth accumulation (Gambetti & Giusberti, 2019). Understanding the impact of risk aversion is crucial for explaining conservative investment behavior, especially among less experienced or more anxiety-prone investors.

Another prominent behavioral bias is herding behavior, where investors mimic the actions of the majority, often without conducting independent analyses (Raafat, Chater, & Frith, 2009). Herding behavior is especially evident during periods of market uncertainty or speculative bubbles, where fear of missing out or social pressure drives collective action. Research suggests that herding can exacerbate market volatility, inflate asset bubbles, and lead to market inefficiencies (Quaicoe & Eleke-Aboagye, 2021). In the digital age, with the rise of social media and real-time financial news, investors—particularly younger generations—are even more vulnerable to the effects of herding, often basing their investment choices on trending market sentiment rather than fundamental evaluations.

Previous studies have highlighted the importance of these behavioral biases in shaping investment decisions. For instance, research by Bakar and Yi (2016) examined the influence of overconfidence, risk aversion, and herding behavior among Malaysian retail investors, finding that these biases significantly affect investment patterns and asset preferences. Similarly, Ahmad and Shah (2020) emphasized the moderating role of financial literacy in mitigating the negative impacts of behavioral biases, suggesting that better-informed investors are less susceptible to these cognitive errors.

However, the literature reveals inconsistencies regarding the magnitude and direction of these biases' effects on investment decisions. While some studies indicate that overconfidence leads to higher investment activity and risk-taking (Barber & Odean, 2001), others argue that contextual factors such as market conditions and investor demographics moderate this relationship (Metawa & Safa, 2018). Likewise, findings related to herding behavior vary across cultural and market contexts, necessitating further empirical investigation.

Given these inconsistencies, this study aims to examine the direct effects of overconfidence bias, risk aversion bias, and herding bias on investment decision-making. The research will contribute to a more nuanced understanding of how psychological factors influence investor behavior, providing insights valuable for both individual investors and financial advisors. By addressing the gaps and ambiguities in existing literature, the study seeks to refine behavioral finance theories and offer practical implications for enhancing investment decision quality.

Research into forecasting behavior further reveals that overconfident investors consistently demonstrate lower prediction accuracy. Liu and Tan (2021) confirmed a negative correlation between confidence levels and forecasting performance, suggesting that heightened self-assurance does not necessarily lead to better financial outcomes. Gender dynamics also play a role, with male investors generally displaying higher levels of financial knowledge but simultaneously being more vulnerable to overconfidence bias (Ansari, Albarrak, Sherfudeen, & Aman, 2022).

Overall, overconfidence bias tends to compromise rational investment decision-making, leading to suboptimal asset allocation and increased exposure to financial risks.

H1: Overconfidence bias has a significant effect on Investment Decision.

Research by Weber, Siebenmorgen, and Weber (2005) shows that risk-averse investors are more likely to avoid equity markets altogether, particularly during periods of heightened uncertainty. Similarly, Grable (2000) emphasizes that individuals with higher levels of risk aversion often have lower participation rates in stock markets, and their portfolios exhibit a conservative bias.

The impact of risk aversion can be context-dependent. For example, individuals facing financial instability or uncertainty, such as during economic recessions, tend to demonstrate higher risk aversion (Rooij, Lusardi, & Alessie, 2011). Furthermore, studies suggest that even investors with substantial financial knowledge can be influenced by emotional factors, causing them to prioritize the avoidance of loss over the pursuit of gain (Barberis, 2013).

Given its implications, risk aversion bias is a significant determinant of investment behavior and portfolio composition, often leading investors to make overly cautious financial decisions that may limit wealth accumulation.

H2: Risk aversion bias has a significant effect on Investment Decision.

Beyond financial markets, herding is prevalent in consumer decision-making as well. Pavlović-Höck (2022) found that individuals frequently base purchase decisions on information from others, though the effect diminishes after the purchase is completed. This supports the idea that social influence is most powerful during the decision-making phase.

Given the risks of market bubbles and crashes associated with herding, Youssef and Waked (2022) recommend that investors seek advice from professional analysts rather than relying solely on collective trends, especially in times of market volatility.

H3: Herding bias has a significant effect on Investment Decision.

These psychological biases, along with factors like financial literacy and market sentiment, significantly influence investment decisions. Investors guided by these biases are less likely to make rational, diversified choices and may overlook fundamental analysis, leading to inefficient portfolios and missed opportunities for growth. Understanding how these biases affect decision-making is crucial for developing strategies that improve investor behavior, enhance market efficiency, and foster more informed, long-term financial decision-making.

2. RESEARCH METHODS

This research examines the influence of three key behavioral biases as independent variables: overconfidence bias, risk aversion bias, and herding bias. These cognitive biases are expected to significantly affect the investment decision-making process. The dependent variable in this study is investment decision-making, which reflects how these behavioral biases influence an investor's choices in financial markets.

The target population for this research consists of individual investors in Indonesia. There are no restrictions regarding age, gender, occupation, or type of investment, as long as the respondents have experience investing in financial instruments such as stocks, bonds, mutual funds, or other related assets. Focusing on Indonesian investors ensures the findings are contextually relevant to the local market environment.

The sample size for this study was determined using the guidelines suggested by Hair et al. (2014), which recommend a minimum ratio of five respondents per indicator in structural equation modeling. Based on these considerations, a total of 110 respondents were selected using purposive sampling techniques. This method ensures that the participants meet the required criteria of having actual investment experience.

Data were collected through a structured online questionnaire, distributed via social media platforms and investment communities between March and April 2025. The questionnaire consisted of two main sections: demographic information and behavioral factors influencing investment decisions. To ensure the reliability and validity of the measurements, all questionnaire items were adapted from previous studies with established scales.

The data analysis will be conducted using SPSS version 22.0. Descriptive analysis, reliability tests, validity tests, and hypothesis testing (through multiple regression analysis) will be performed to examine the proposed relationships between behavioral biases and investment decision-making. This methodological approach ensures robust statistical results, allowing for a comprehensive understanding of how overconfidence, risk aversion, and herding behavior impact investors' financial choices in the Indonesian market.

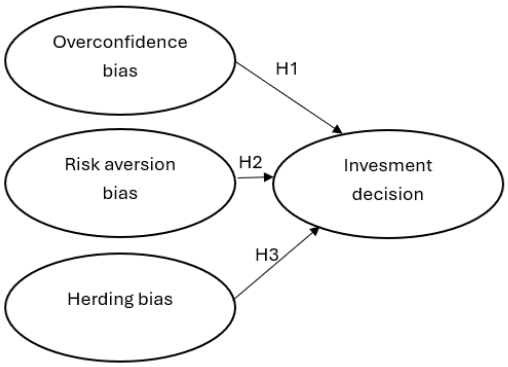

Figure 1. Research Model

3. RESULTS AND DISCUSSIONS

3.1. Validity and Reliability Test

Validity and reliability tests were conducted to ensure that the indicators for each variable are accurate and consistent. The corrected item-total correlation (r-count) must exceed 0.187 (based on the r-table for 110 samples), and Cronbach's Alpha must be above 0.6. All items have an r-count above 0.187 and Cronbach's Alpha values above 0.8, indicating excellent reliability. Thus, the instruments used are considered valid and reliable.

Table 1. Validity and Reliability Test

Variable	Item Code	r_count	Cronbach Alpha	Criterion
Overconfidence (OC)	OC1	.724	.842	Valid
	OC2	.768		Valid
	OC3	.737		Valid
Risk Aversion (RA)	RA1	.712	.826	Valid
	RA2	.701		Valid

	RA3	.685		Valid
Herding (HE)	HE1	.793	.860	Valid
	HE2	.769		Valid
	HE3	.782		Valid
Investment Decisions (ID)	ID1	.781	.871	Valid
	ID2	.799		Valid
	ID3	.765		Valid
Overconfidence (OC)	OC1	.724	.842	Valid
	OC2	.768		Valid
	OC3	.737		Valid

3.2 T-Test and Coefficient Regression

From Table 5, all three independent variables (overconfidence, risk aversion, and herding) significantly influence investment decisions, as indicated by significance values below 0.05.

Herding has the strongest positive influence on investment decisions with a regression coefficient of 0.387. This suggests that investors tend to follow the crowd when making investment decisions.

Risk aversion has a moderate positive influence (coefficient 0.273), indicating that investors who are more cautious also tend to make more considered investment decisions.

Overconfidence shows a positive but smaller influence (coefficient 0.198), meaning that while confident investors tend to act decisively, their confidence only moderately impacts their decision-making quality.

Table 2. T-Test

Variable	Sig.	Coefficient Regression	Information
OC*ID	.031	.198	Hypothesis accepted
RA*ID	.004	.273	Hypothesis accepted
HE*ID	.000	.387	Hypothesis accepted

4. CONCLUSION

The results of the study confirm that all three hypotheses are supported, indicating that Overconfidence Bias (OC), Risk Aversion Bias (RA), and Herding Behavior (HE) significantly impact investment decisions (ID). The t sig for these relationships are 0.031 (OC), 0.004 (RA), and 0.000 (HE), all below the 0.05 significance level, and the regression coefficients are positive: OC*ID (0.198), RA*ID (0.273), and HE*ID (0.387). These findings emphasize that each of these biases plays a crucial role in shaping how investors make decisions in the financial market.

Overconfidence Bias (OC): Overconfidence bias, where investors overestimate their knowledge and abilities, was found to significantly influence investment decisions. Overconfident investors tend to overtrade, underestimate risks, and hold onto losing investments too long, assuming that the market will eventually correct itself. As a result, they often fail to make optimal investment decisions, leading to suboptimal asset allocation and potential financial losses. To mitigate overconfidence bias, financial advisors should provide educational tools that help investors assess their risk profiles and make more informed decisions based on rational analysis rather than inflated self-belief. Advisors could also recommend regular portfolio reviews and performance assessments, helping investors reflect on past decisions and adjust their strategies accordingly. Automated investment tools or stop-loss mechanisms can also help counteract overconfidence by imposing a disciplined, rule-based approach to decision-making.

Risk Aversion Bias (RA): Risk aversion bias occurs when investors are overly cautious and prefer safer, lower-return investments, even when higher-risk investments may offer greater potential for growth. The study confirmed that risk-averse investors tend to avoid stocks or other riskier assets, opting instead for bonds or savings accounts, which may result in missed opportunities for higher returns. Financial institutions and advisors should help clients understand their true risk tolerance through risk assessment questionnaires and discussions about long-term financial goals. Advisors could suggest building diversified portfolios that include both low- and high-risk assets, ensuring that risk-averse investors are not overly cautious and are exposed to potential higher returns. Additionally, educating investors on the risks of avoiding market exposure during periods of economic growth could encourage them to take calculated risks aligned with their financial objectives.

Herding Behavior (HE): Herding behavior, where investors follow the crowd without conducting their own independent analysis, was found to significantly influence investment decisions. During periods of market uncertainty or high volatility, investors are more likely to mimic the actions of others, leading to overbuying or overselling, which can distort asset prices and create bubbles or crashes. This behavior can amplify market inefficiencies and lead to irrational investment decisions. To combat herding behavior, financial advisors should emphasize the importance of independent research and rational decision-making. Investors should be encouraged to base their decisions on fundamental analysis rather than on social influence or market trends. Advisors can provide tools that help investors track long-term investment performance and remind them to stick to a disciplined investment strategy. Educating investors about the risks of following trends during market instability can also reduce the tendency to follow the crowd.

Finally, the study underscores that Overconfidence Bias, Risk Aversion Bias, and Herding Behavior each have a significant influence on investment decisions. Financial advisors and institutions should focus on educating investors about these biases and provide decision-support tools to encourage more rational, informed, and long-term investment strategies. By recognizing and addressing these psychological biases, investors can improve their financial decision-making processes, resulting in better investment outcomes.

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