

The Influence of Herding Behavior and Overconfidence on Investment Decisions: The Mediating Role of Financial Literacy

Farid Alwan^{1*}, Linda Ayu Oktoriza², Diana Puspitasari³, Amalia Nur Chasanah⁴

¹⁻⁴ Universitas Dian Nuswantoro, Indonesia

*211202409104@mhs.dinus.ac.id

Abstract

This study aims to analyze the influence of herding behavior and overconfidence on investment decisions and to examine the mediating role of financial literacy among retail investors. The research employed a quantitative approach using data collected from 160 active retail investors through a structured questionnaire. Data analysis was conducted using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS 4.1.1.6. The findings indicate that herding behavior and overconfidence have a positive and significant effect on investment decisions. Both behavioral biases also positively and significantly influence financial literacy. However, financial literacy does not have a significant effect on investment decisions. Furthermore, the results reveal that financial literacy fails to mediate the relationship between herding behavior and investment decisions as well as the relationship between overconfidence and investment decisions. These findings suggest that psychological factors play a more dominant role than financial knowledge in shaping investment decisions. In practice, social pressures such as fear of missing out (FOMO) and excessive confidence in personal abilities encourage investors to make decisions based on emotions and heuristics rather than rational financial considerations. Therefore, although investors may possess adequate financial literacy, such knowledge is often insufficient to function as a rational filter when psychological biases strongly influence investment decision-making.

Keywords: herding behavior, overconfidence, financial literacy, investment decision, retail investors.

Introduction

The rapid technological advancements and financial inclusion have significantly facilitated access to the capital market. According to the IDX, the number of stock investors increased by 36.82% from 2025 to 20.3 million. In terms of investor participation, the average number of active investors transacting as of December 29, 2025, reached 901,000 per month. Retail investors still dominate the transaction portion, accounting for 99.73%. This contradicts the assumption of rationality in traditional financial theory, where investment decisions are often driven by psychological factors (Kumar et al., 2026). This behavioral shift is exacerbated by the massive influence of social media, which has given rise to the phenomenon of Financial Nihilism. This concept was popularized by Kyla Scanlon through Bloomberg, who described how apathy and distrust of the traditional financial system actually encourages the younger generation to take extreme financial risks. This speculative environment ultimately makes investors highly susceptible to behavioral biases, particularly Herding Behavior and Overconfidence.

Behavioral biases such as Herding Behavior and Overconfidence have been shown to frequently trigger irrational Investment Decisions, and Herding Behavior encourages investors to simply follow trends amid market fluctuations, which often triggers asset price bubbles and reduces market efficiency (Naomi et al., 2018; Sibarani & Suparno, 2024). On the other hand, Overconfidence causes investors to overestimate their analytical skills, leading them to underestimate risks and engage in excessive trading based on overly optimistic expectations (Costa et al., 2025; Karki et al., 2024). To mitigate the negative impact of these biases, financial literacy is recognized as a crucial foundation for rational decision-making (Ahmad & Shah, 2022). However, this clashes with the reality on the ground. Data from the Financial Services Authority (OJK)'s 2025 National Survey of Financial Literacy and Inclusion (SNLIK) shows a sharp disparity, with the financial inclusion index reaching 80.51%, while the financial literacy index has only reached 66.45%. This gap makes investors vulnerable to psychological biases. Furthermore, empirical evidence regarding the role of financial literacy remains inconclusive. Mahmood et al. (2024) found no significant impact on financial literacy, while Ahmad & Shah, (2022) demonstrated its crucial contribution. These discrepancies in findings underscore the need for further investigation.

Based on these considerations, this study proposes Financial Literacy as a mediating variable to better explain the relationship between Herding Behavior, Overconfidence, and Investment Decisions. Financial Literacy as a mediator is particularly relevant in the digital era, where investors are exposed to abundant financial information but can still be influenced by psychological biases. Therefore, this study aims to examine the influence of Herding Behavior and Overconfidence on Investment Decisions and investigate whether Financial Literacy mediates this relationship among retail investors. These findings are expected to contribute to the behavioral finance literature by providing a deeper understanding of the mechanisms underlying Investment Decision-making.

Literature Review

Behavioral finance has emerged as an important extension of traditional finance by incorporating psychological and emotional factors into the financial decision-making process. Traditional financial theories, such as Efficient Market Hypothesis And Modern Portfolio Theory, assumes that investors act rationally, possess complete information, and consistently seek to maximize expected utility. However, numerous studies have shown that investor behavior often deviates from these assumptions, particularly under conditions of market uncertainty and volatility. Behavioral finance provides a more realistic explanation by recognizing that investors are susceptible to cognitive and emotional biases that influence their judgments and actions (Kumar et al., 2026). This perspective is closely related to Prospect Theory, which states that individuals evaluate gains and losses differently and often rely on subjective perceptions rather than objective probabilities when making decisions under risk (Kahneman & Tversky', 1979). Consequently, investment decisions are not only driven by rational analysis but are also shaped by psychological tendencies that can lead to systematic deviations from optimal decision-making.

Herding Behavior refers to the tendency of investors to imitate the actions of other market participants rather than relying on their own independent information and analysis. This phenomenon often occurs when investors believe that other individuals have superior information or when they seek certainty by following the majority decision. According to Yang et al. (2025), Herding Behavior becomes particularly prominent during periods of market uncertainty and high volatility, where investors face difficulties in interpreting available information. In such situations, observing and following the actions of others becomes a shortcut to reduce uncertainty. To measure this tendency, this study adopts indicators from Adil et al. (2022) and Ritika & Kishor, (2020) which include stock selection imitation, imitation of investment volume, imitation of strategy changes. In addition, the high dependence on external information, and a sense of comfort when experiencing loss together is a crucial benchmark for seeing the extent to which investors are influenced by market crowds. Previous empirical studies have found that Herding Behavior significantly influence investment decision-making by encouraging investors to align their actions with prevailing market sentiment rather than objective financial analysis (Bhutto et al., 2025; Khalingga et al., 2024). Therefore, Herding Behavior considered to be an important determinant of decisions in contemporary financial markets.

H₁: Herding Behavior has a positive and significant effect on Investment Decisions.

Overconfidence is defined as an individual's tendency to overestimate their knowledge, skills, judgment, and ability to accurately predict future events. In the investment context, overconfident investors often believe they possess superior information and analytical skills compared to other market participants (Costa et al., 2025). Such investors tend to underestimate risk, overestimate expected returns, and engage in more frequent trading activities. This triggers a fatal error where investors become blind to market signals due to a sense of invulnerability to losses. They tend to act aggressively by taking on levels of risk far beyond their financial capacity, which can result in poor investment decisions. Research has shown that Overconfidence can cause investors to rely heavily on their own intuition and personal judgment and ignore conflicting information or external advice (Ahmad & Shah, 2022). Based on the views of Costa et al., (2025) and Adil et al. (2022), this psychological bias can be identified through Overconfidence in the accuracy of self-information (overprecision), feel better than the average investor (overplacement), exaggerating the actual abilities possessed (overestimation), and this bias is also reflected in the illusion that investors have control over market outcomes (illusion of control) and the tendency to always associate investment success with one is own greatness (self-attribution). Understanding the prevalence and intensity of overconfidence bias is highly crucial in the investment context. This is expected to facilitate the formulation of more effective strategies and preventive measures to mitigate its impact on investment

decisions (Ahmad & Shah, 2022); Hassan Metwally, 2023). Based on the explanation above, the following hypothesis is formulated:

H₂: Overconfidence has a positive and significant effect on Investment Decisions.

Financial Literacy has also been recognized as an important factor influencing investment behavior. Financial literacy refers to an individual's ability to understand, evaluate, and apply financial knowledge when managing personal finances and making Investment Decisions. Investors with higher levels of Financial Literacy are generally better able to assess risks, interpret financial information, compare investment alternatives, and develop appropriate investment strategies (Silva et al., 2022). Previous studies have shown that Financial Literacy can reduce the adverse impact of behavioral bias by encouraging more rational and informed decision-making processes (Ahmad & Shah, 2022). Financially literate investors are more likely to make decisions based on objective analysis rather than emotional reactions or cognitive shortcuts. Despite this theoretical expectation, empirical evidence regarding the impact of Financial Literacy to Investment Decisions still varied. Some studies reported a significant positive relationship, while others found no significant effect, indicating the need for further investigation into the role of Financial Literacy within the behavioral finance framework. In addition to its direct influence on Investment Decisions, Financial Literacy can also be associated with behavioral biases such as Herding Behavior And Overconfidence. This level of Financial Literacy can be evaluated through investors' understanding of key concepts such as compound interest, time value of money, and the importance of risk diversification. Referring to Ahmad & Shah, (2022) and Adil et al. (2022) additional indicators that include understanding related to the impact of inflation as well as investors' subjective assessment of their own knowledge capacity (subjective knowledge).

H₃: Financial Literacy has a significant effect on Investment Decisions.

Herding behavior in financial markets occurs when investors simply chase the momentum of price fluctuations. This phenomenon is generally triggered by informational cues specifically when investors assume that other market participants possess superior knowledge as well as by psychological pressures to conform (Nurastuti et al., 2025). Adil et al. (2022) assert that investor decision-making is heavily influenced by their level of financial literacy and behavioral biases. From a theoretical perspective, the discipline of behavioral finance underscores a strong connection between financial education and various individual economic behavioral traits (Mahmood et al., 2024). Nurastuti et al. (2025) provide empirical evidence that herding behavior has a positive and significant effect on financial literacy. This study highlights how herding behavior exerts a positive influence on financial literacy.

H₄: Herding Behavior has a positive and significant effect on Financial Literacy.

Overconfident investors tend to overestimate the accuracy of their analysis, which ultimately leads to the adoption of more aggressive trading strategies (Nurastuti et al., 2025). Psychological studies indicate that excessive self-confidence can cause individuals to evaluate their capacity and knowledge far beyond their actual abilities (Ahmad & Shah, 2022). Nurastuti et al. (2025) provide empirical evidence that the phenomenon of overconfidence has a positive and significant effect on financial literacy. This study highlights how overconfident behavior exerts a positive influence on financial literacy.

H₅: Overconfidence has a positive and significant effect on Financial Literacy.

Financial Literacy function not only as independent determinants of Investment Decisions but also as outcomes influenced by behavioral factors. Financial Literacy can serve as a significant mediating mechanism in the relationship between behavioral biases and Investment Decisions. Within the framework of behavioral finance theory, financial knowledge is often viewed as a cognitive resource that enables investors to evaluate information more critically and objectively. Through a stronger understanding of financial concepts, investors may be better equipped to assess investment alternatives and avoid decisions driven solely by emotions or cognitive shortcuts. Therefore, Financial Literacy can play a significant role in reducing the influence of irrational tendencies that often characterize investment behavior. Investors with adequate financial knowledge are generally better able to recognize behavioral biases and adjust their decisions accordingly. As a result, they may be able to make more informed and rational investment choices despite experiencing various psychological pressures. However, empirical evidence regarding the mediating role of Financial Literacy the results are still inconsistent across previous studies. Some researchers argue that

Financial Literacy can mitigate the negative consequences of behavioral biases by encouraging more disciplined decision-making processes. Conversely, other studies show that psychological factors often exert a stronger influence on investment behavior than financial knowledge itself. These findings imply that Financial Literacy may not always be sufficient to offset the effects of cognitive and emotional biases in the investment context (Mahmood et al., 2024). The inconsistency of previous findings suggests that the relationship between behavioral biases, Financial Literacy, and Investment Decisions is still not adequately understood. Therefore, further empirical investigation is needed, particularly among retail investors operating in a rapidly evolving and increasingly digital environment.

H₆: Financial Literacy mediates the relationship between Herding Behavior and Investment Decisions.

H₇: Financial Literacy mediates the relationship between overconfidence and Investment Decisions.

Financial decision-making is not solely based on numerical calculations. Instead, the behavioral finance approach offers a more comprehensive dimension by explicitly incorporating psychological aspects as a key consideration in the decision-making process (Adil et al., 2022). According to the parameters developed by Adil et al. (2022), this investment decision variable is measured using a series of indicators that include return expectation & satisfaction, historical performance analysis, affective/subjective evaluation, trading behavior satisfaction, and macro environmental consideration is also an essential determinant of the direction of the investor's final decision.

Based on the theoretical arguments and empirical evidence discussed above, this study proposes a research model that examines the direct effects of Herding Behavior and Overconfidence on Investment Decisions, the effect of this behavioral bias on Financial Literacy, and the role of mediation Financial Literacy in explaining the relationship between bias and Investment Decisions.

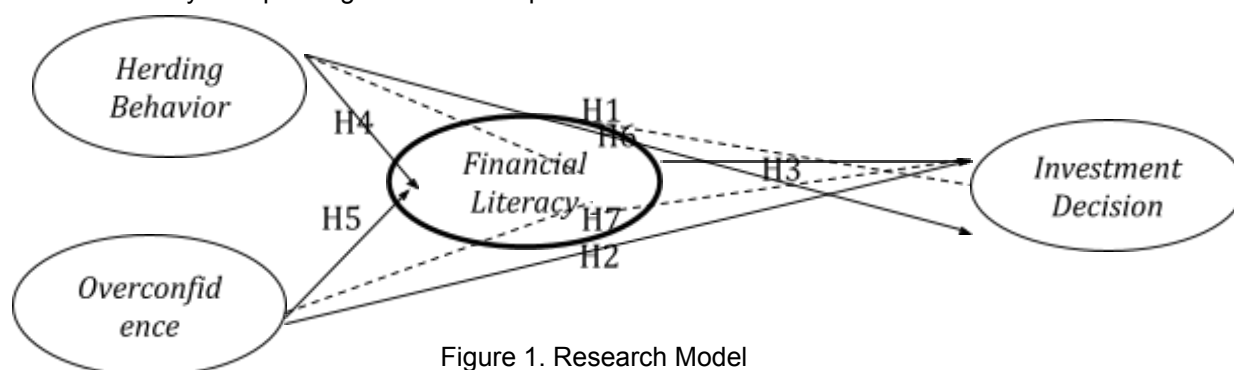


Figure 1. Research Model

Method

This study uses a quantitative research design to test the relationship between Herding Behavior, Overconfidence, Financial Literacy, and Investment Decisions. This study focuses on active retail investors in the Indonesian stock market. The target population consists of investors of various age groups with direct or indirect exposure to capital market activities. To ensure the relevance of the findings in the context of behavioral finance, this study specifically targets individual investors experienced in stock investing. Inclusion criteria required respondents to be active investors aged between 17 and 55 years and have investment experience ranging from less than one year to more than three years. This criterion was established to capture behavioral biases across different levels of maturity and experience attainment. Furthermore, because the exact population size of stock investors could not be determined in this study, the minimum sample size was calculated using the indicator-based approach suggested by (Hair et al., 2019), which recommends multiplying the number of indicators by five to ten observations. Based on these guidelines, a minimum sample size of 100 respondents was deemed sufficient to achieve reliable statistical estimates and hypothesis testing.

Primary data were collected digitally using a structured questionnaire distributed via Google Forms across various stock investor communities and social media platforms. All measurement items were rated using a five-point Likert scale ranging from 1 "strongly disagree" to 5 "strongly agree". The questionnaire consisted of four constructs: Herding Behavior, Overconfidence, Financial Literacy, and Investment Decisions. Data analysis was carried out using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS 4.1.1.6. The measurement model assessment includes indicator reliability and validity. The indicator reliability is evaluated using Outer Loading, while internal

consistency reliability is assessed through Cronbach's Alpha and the value Composite Reliability. Convergent validity was examined using Average Variance Extracted (AVE). Discriminant validity was assessed using cross-loading to ensure that the indicators have a stronger load on their respective constructs than on other constructs. Evaluation of the structural model includes assessing the coefficient of determination (R^2), effect size (f^2), and hypothesis testing. To test the significance of the hypothesized relationship using the procedure Bootstrapping. Next, the mediation effect is evaluated to determine whether Financial Literacy serves as an intermediary mechanism that connects Herding Behavior And Overconfidence with Investment Decision.

Results and Discussion

This study utilized a purposive sampling technique based on three predetermined criteria. First, respondents were required to be active retail investors with investment experience ranging from less than one year to more than three years. Second, eligible participants had to be between 17 and 55 years of age. Third, respondents were required to possess educational qualifications ranging from senior high school or vocational high school level to a master's degree or higher. These criteria were established to ensure that all participants possessed characteristics relevant to the objectives of the study. The determination of the sample size was based on the requirements of the research model. Given that the model consisted of 20 indicators, the minimum recommended sample size was calculated to be 140 respondents. This calculation ensured that the study satisfied the minimum statistical requirements for data analysis. Following the questionnaire distribution process, a total of 160 valid responses were successfully obtained. The number of collected responses exceeded the minimum sample size requirement established for the study. This indicates that the research achieved an adequate level of respondent participation. Furthermore, all respondents were active retail investors who fulfilled the predefined selection criteria, ensuring the suitability of the sample.

Table 1. Respondent Characteristics

Category	Group	N	%
Gender	Male	92	57.5
	Female	68	42.5
	Total	160	100
Age	17–25 years	81	50.6
	26–35 years	46	28.7
	36–45 years	24	15.0
	46–55 years	9	5.6
	Total	160	100
Investment Experience	Less than 1 year	42	26.3
	1–3 years	71	44.4
	More than 3 years	47	29.4
	Total	160	100

Source: Primary data processed by the authors (2026).

Based on the data presented in table 1, the demographic characteristics of the respondents reveal a slight predominance of male investors, who comprised 57.5% of the total sample, while female investors accounted for the remaining 42.5%. This distribution indicates a relatively balanced representation of both genders within the study despite the higher proportion of male participants. With respect to educational background, the majority of respondents possessed a bachelor's degree or an equivalent qualification (S1/D4), representing 64.4% of the overall sample. This finding suggests that most participants had attained a relatively high level of formal education. In terms of investment experience, respondents with one to three years of investing experience constituted the largest group, accounting for 44.4% of all participants. The results indicate that the sample was predominantly composed of investors who had accumulated a moderate level of market exposure. Such characteristics provide an overview of the demographic composition of the respondents involved in this study. Furthermore, these demographic specifically attributes may also contribute to a better understanding of the behavioral patterns observed in the subsequent analyses.

In PLS-SEM analysis, the evaluation of the outer model, or measurement model, is conducted to ensure that each questionnaire item accurately and consistently measures its intended latent construct. This assessment constitutes a critical prerequisite before proceeding to subsequent stages of analysis, as it establishes the validity and reliability of the measurement instrument. Accordingly, the outer model evaluation in this study comprised several procedures, including convergent validity testing based on outer loading values, discriminant validity assessment using the Fornell–Larcker criterion, reliability analysis through Composite Reliability and Cronbach's Alpha coefficients, and model fit evaluation using the Standardized Root Mean Square Residual (SRMR) value. The study results should be clearly presented and supported with relevant tables and figures. This section should also discuss the principles and generalizations derived from the findings, along with any exceptions, issues, theoretical and practical implications, and recommendations.

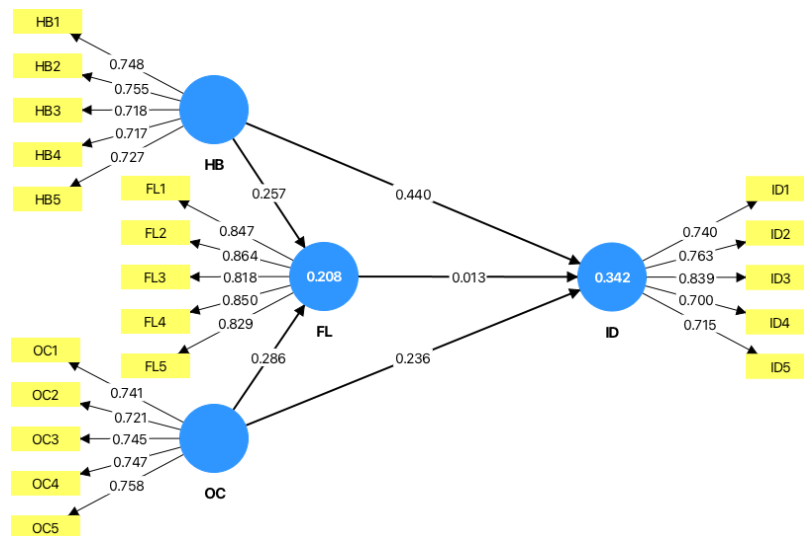


Figure 2. Outer Model

Convergent validity is considered satisfactory when the loading factor value of each indicator reaches ≥ 0.70 . This threshold indicates that the construct is able to explain more than half of the variance in its indicators. Based on the data analysis results, all indicators across every variable in this study have exceeded this threshold (> 0.70). Therefore, referring to the criteria proposed by Hair et al. (2020), all measurement items in this study are deemed to have established convergent validity.

Table 2. Convergent Validity

Construct	Item	Mean
Herding Behavior (X1)	HB1	4.206
	HB2	4.281
	HB3	4.300
	HB4	4.287
	HB5	4.281
Overconfidence (X2)	OC1	4.294
	OC2	4.269
	OC3	4.306
	OC4	4.237
	OC5	4.300
Financial Literacy (Z)	FL1	4.219
	FL2	4.188
	FL3	4.169
	FL4	4.175
	FL5	4.200
Investment Decision (Y)	ID1	4.338
	ID2	4.281
	ID3	4.300

ID4	4.306
ID5	4.350

Source: Data processed, 2026.

Based on the results presented in table 2, both the herding behavior and overconfidence constructs demonstrate relatively high mean scores across their respective indicators. For the herding behavior variable, the mean values range from 4.206 (HB1) to 4.300 (HB3), indicating a strong tendency among retail investors to be influenced by the actions and decisions of other market participants. Similarly, the overconfidence variable records mean scores between 4.237 (OC4) and 4.306 (OC3). These findings suggest that retail investors generally possess a high level of confidence in their own knowledge, judgment, and investment capabilities. Such tendencies may influence how investors interpret market information and respond to investment opportunities. The investment decision construct also exhibits relatively high mean values, with the lowest score recorded at 4.281 (ID2) and the highest at 4.350 (ID5). This result indicates that retail investors tend to display considerable confidence when making decisions regarding the allocation of their investment funds. The consistently high scores further suggest a proactive approach toward investment-related decision-making activities. In addition, the financial literacy variable demonstrates strong mean values ranging from 4.169 (FL4) to 4.219 (FL1). These findings imply that respondents generally possess a satisfactory level of financial knowledge and understanding. Such a condition reflects the ability of retail investors to comprehend basic financial concepts and investment-related information. Overall, the descriptive statistics indicate that the respondents exhibit relatively high levels of herding behavior, overconfidence, financial literacy, and confidence in their investment decisions.

Discriminant validity in this study was assessed using the Fornell–Larcker criterion to verify that each latent construct exhibited sufficient empirical distinctiveness from the others. According to this approach, the square root of the Average Variance Extracted (AVE) for a given construct must exceed its correlations with all other constructs included in the model. Satisfying this requirement indicates that a construct explains a greater proportion of variance in its own indicators than the variance it shares with other latent variables, thereby confirming adequate discriminant validity.

Table 3. Discriminant Validity

	Financial Literacy	Herding Behavior	Investment Decision	Overconfidence
Financial Literacy	0.842			
Herding Behavior	0.375	0.733		
Investment Decision	0.270	0.543	0.753	
Overconfidence	0.392	0.414	0.423	0.742

Source: Data processed, 2026.

The results of the discriminant validity assessment based on the Fornell–Larcker criterion demonstrate that all constructs successfully met the required thresholds, as evidenced by the square root of AVE values consistently exceeding the corresponding inter-construct correlations. Specifically, Financial Literacy recorded a square root of AVE value of 0.842, which was substantially higher than its correlations with Overconfidence (0.392) and Herding Behavior (0.375). A comparable pattern was observed for Herding Behavior (0.733), Investment Decision (0.753), and Overconfidence (0.742), where each diagonal value remained greater than all correlation coefficients within the respective rows and columns. These findings confirm that each construct captures a distinct conceptual domain and shares limited overlap with the others. Consequently, the measurement model demonstrates strong discriminant validity and fully satisfies the Fornell–Larcker criterion, indicating that all constructs are empirically unique and clearly distinguishable from one another.

The subsequent stage involved assessing the internal consistency of the measurement model through Composite Reliability analysis. According to the guidelines proposed by (Hair et al., 2021), a construct is considered reliable when its Composite Reliability value reaches or exceeds the recommended threshold of 0.70. The results indicate that all constructs successfully satisfied this criterion, demonstrating adequate internal consistency. Specifically, Herding Behavior achieved a Composite Reliability value of 0.853, Overconfidence recorded 0.860, Financial Literacy attained 0.924, and Investment Decision obtained 0.867. Furthermore, it is also found that these values confirm that the

indicators associated with each construct consistently measure their respective latent variables and provide reliable representations of the underlying concepts.

Table 4. Reliability

Construct	Cronbach's Alpha	Composite Reliability (rho_a)	Composite Reliability (rho_c)	Average Variance Extracted (AVE)
Herding Behavior	0.786	0.786	0.853	0.583
Overconfidence	0.798	0.806	0.860	0.551
Financial Literacy	0.898	0.911	0.924	0.708
Investment Decision	0.811	0.839	0.867	0.567

Source: Data processed, 2026

In addition to reliability assessment, the overall adequacy of the measurement model was evaluated through model fit analysis using the Standardized Root Mean Square Residual (SRMR) index. Hair et al. (2020) suggest that a model demonstrates a satisfactory fit when the SRMR value does not exceed 0.08, although values ranging from 0.08 to 0.10 may still be considered acceptable under certain circumstances. The results revealed an SRMR value of 0.078, which falls below the recommended threshold and therefore indicates a good level of model fit. This finding confirms that the discrepancy between the observed covariance matrix and the model-implied covariance matrix remains minimal. Considering the satisfactory outcomes obtained from convergent validity, discriminant validity, and reliability assessments, the measurement model can be regarded as statistically robust and methodologically sound. Consequently, the outer model fulfilled all required evaluation criteria and was deemed suitable for further analysis. The study could therefore proceed to the next stage, namely the assessment of the structural model (inner model).

Table 5. Model Fit

Indicator	Saturated Model	Estimated Model
SRMR	0.078	0.078
d_ULS	1.289	1.289
d_G	0.405	0.405
Chi-square	370.031	370.031
NFI	0.753	0.753

Source: Data processed, 2026.

The structural model evaluation, commonly known as the inner model assessment, was conducted using SmartPLS to examine the hypothesized relationships among the latent constructs included in the research framework. This stage of analysis focuses on assessing the causal relationships proposed in the conceptual model. The primary objective is to determine whether the hypothesized paths between variables are statistically supported by the empirical data. In evaluating these relationships, three key indicators were considered, namely path coefficients, t-statistics, and p-values. Path coefficients provide information regarding the direction and magnitude of the effects among constructs. Meanwhile, t-statistics and p-values are used to assess the statistical significance of the proposed relationships. A statistically significant result indicates that the relationship between variables is unlikely to occur by chance. Beyond hypothesis testing, the quality of the structural model was also evaluated through the coefficient of determination (R^2). This indicator reflects the predictive capability of the model in explaining endogenous constructs. Specifically, R^2 measures the proportion of variance in endogenous variables that can be explained by exogenous variables within the model. Higher R^2 values indicate greater explanatory power and stronger predictive accuracy. Therefore, the assessment of the inner model provides a comprehensive understanding of both the significance of the proposed relationships and the overall predictive performance of the research framework.

To evaluate the explanatory capacity of the model, the coefficient of determination (R^2) was employed as a key assessment metric. This approach is consistent with contemporary methodological literature, which emphasizes the importance of R^2 values in determining the predictive and explanatory strength of a model and its associated predictor variables. As presented in Table 6, the Financial Literacy construct achieved an R^2 value of 0.208, indicating that 20.8% of its variance is accounted for by the variables included in the model, while the remaining 79.2% is attributable to factors beyond the

proposed framework. Meanwhile, the Investment Decision construct recorded an R^2 value of 0.342, suggesting that the model explains 34.2% of the variance in investment decision-making behavior. Based on the criteria established by Hair et al. (2021), both R^2 values fall within the weak explanatory category, although the value for Investment Decision approaches the threshold of a moderate level of explanatory power. In addition, the adjusted R^2 values of 0.198 for Financial Literacy and 0.329 for Investment Decision further demonstrate the stability and robustness of the model after accounting for the number of predictor variables incorporated into the analysis.

Table 6. R-Square

Construct	R-Square	R-Square Adjusted
Financial Literacy	0.208	0.198
Investment Decision	0.342	0.329

Source: Data processed, 2026

The decision-making process in hypothesis testing is based on two main criteria that must be met simultaneously at a 5% significance level, a t-statistic value ≥ 1.96 and p-value ≤ 0.05 . Furthermore, the strength of the relationship between variables is assessed using the path coefficient (β). According to Hair et al., (2021), a coefficient value close to +1 indicates a very strong relationship, while a value close to 0 indicates a very weak or even no effect. Based on the test results at the 5% significance level, four of the five hypotheses were directly supported, while one hypothesis was rejected.

Herding Behavior was found to have a positive and significant direct effect on Investment Decisions, with a p-value of 0.000, which is far below the significance limit of 0.05, and the t-statistic value convincingly exceeds the minimum criterion of 1.96. Based on these figures, the first hypothesis (H1) in this study is declared accepted.

Overconfidence was also found to have a positive and significant effect on Investment Decisions with a p-value of 0.012 ($p < 0.05$) and a t-statistic that meets the minimum acceptance requirements of 1.96. Referring to these results, the second hypothesis (H2) in this study is supported and declared accepted.

The test measuring the direct influence of variables Financial Literacy on Investment Decisions showed insignificant results. The analysis findings recorded a p-value of 0.844, which exceeds the significance tolerance limit ($p > 0.05$), and is supported by a low t-statistic value of 0.197 ($t < 1.96$). Based on these statistical values, the third hypothesis (H3) is convincingly rejected.

In testing the relationship between the following variables, it was found that Herding Behavior provide a positive and statistically significant effect on Financial Literacy Investors. The analysis findings show a p-value of 0.016 ($p < 0.05$) and a t-statistic calculation that exceeds the threshold of 1.96. Thus, the results of this test determine that the fourth hypothesis (H4) is accepted.

The analysis findings in this study also show a similar relationship pattern for the Overconfidence variable, where this variable has a direct positive and significant effect on Financial Literacy. This finding is fully supported by the p-value of 0.002 ($p < 0.05$) and the t-statistic results that consistently exceed the threshold of 1.96. Based on these test results, the fifth hypothesis (H5) is supported and declared accepted.

The indirect effects analysis revealed that Financial Literacy failed to mediate the relationship between Herding Behavior with Investment Decisions. The failure of this mediation is validated by the test results which show a very large p-value, namely 0.868 ($p > 0.05$), and accompanied by a t-statistic value of 0.167 ($t < 1.96$), because none of the significance requirements are met, the sixth hypothesis (H6) is declared rejected.

In line with the previous mediation test, the results of the indirect effect analysis on the Overconfidence variable showed an insignificant relationship. The hypothesis that positions Financial Literacy as a mediating variable between Overconfidence and Investment Decisions recorded a p-value of 0.862 ($p > 0.05$) and a t-statistic of 0.173 ($t < 1.96$). Based on the results obtained outside the required limits, the seventh hypothesis (H7) was rejected.

Discussions

The findings show that Herding Behavior provide a positive and significant influence on Investment Decisions. In other words, the stronger an investor's tendency to follow the majority's actions, the more likely they are to engage in investment activity. This phenomenon can be explained by the psychological comfort investors experience when their decisions align with the prevailing market consensus. In uncertain market conditions, the collective behavior of other investors is often perceived as a reliable source of guidance. As a result, investment choices are often driven by market trends rather than objective evaluations. Furthermore, this finding is consistent with previous research showing that Herding Behavior accelerate investment implementation because individuals tend to imitate the actions of others rather than relying solely on independent judgment (Kartini & Nahda, 2021; Bhutto et al., 2025). This consistency highlights the enduring role of social influence in shaping investors' decision-making processes.

This study also revealed that Overconfidence provide a positive and significant influence on Investment Decisions. Overconfident investors are generally more willing to act in financial markets because they perceive their knowledge, intuition, and analytical skills as superior to those of other investors. This high level of confidence often fosters the illusion of control and the illusion of knowledge. As a result, they tend to trust their own judgment more than objective market information. This tendency to overestimate expected profits while minimizing potential losses can distort the decision-making process. Consequently, overconfident investors often make more aggressive transactions and engage in higher trading activity. They may also react more quickly to perceived opportunities without conducting a comprehensive evaluation of available information. These findings are consistent with a study by Ahmad & Shah, (2022), which found that Overconfidence is one of the most influential behavioral biases affecting investment decision-making. Therefore, Investment Decisions are shaped not only by objective information and market conditions, but also by investors' subjective beliefs about their own abilities.

Conversely, the findings indicate that having a higher level of Financial Literacy does not necessarily lead to more effective or proactive investment decision-making. Although financially literate individuals may have a stronger understanding of financial concepts and investment principles, this knowledge is not always translated into practical behavior in financial markets. From a behavioral finance perspective, investors often rely on heuristics and intuitive judgment when making investment choices. These cognitive shortcuts are often used to simplify complex financial information and reduce decision-making effort. During periods of market uncertainty and volatility, emotional responses become more influential than rational analysis. As a result, investors may deviate from theoretically sound financial principles despite having adequate financial knowledge. Fear, optimism, and other psychological factors can dominate the decision-making process and shape investment behavior. Consequently, financial literacy alone may not be sufficient to guide investors toward rational investment decisions. This finding is consistent with research conducted by Mahmood et al. (2024) and Kasoga, (2021), which also reported that Financial Literacy does not significantly affect Investment Decisions. Their research highlights that psychological biases often exert a stronger influence on investor behavior than objective financial considerations.

Positive relationship between Herding Behavior and Financial Literacy. This can be explained by investors' active involvement in investment communities, online discussion forums, and various social media platforms. Individuals motivated to follow market trends often seek information from various sources to stay informed about the latest developments. Through these interactions, they are continuously exposed to financial concepts, investment strategies, and technical market discussions. This repeated exposure allows investors to acquire new knowledge and gradually improve their understanding of financial issues. Consequently, participation in the investment environment can inadvertently contribute to the development of Financial Literacy. This finding is consistent with research conducted by Ahmad & Shah, (2022) and Nurastuti et al. (2025), which showed a positive relationship between Herding Behavior and Financial Literacy. Consequently, behavioral tendencies can serve not only as a source of cognitive bias but also as an important driver of financial learning.

Overconfidence appears to encourage investors to seek additional information and strengthen their understanding of financial matters. Investors with higher levels of self-confidence often believe in their ability to interpret market information and make sound investment decisions. To maintain and justify

this confidence, they may actively engage in learning activities and information-seeking behaviors. Strong self-confidence can motivate individuals to expand their financial knowledge and expertise. Similar to Herding Behavior, this finding is consistent with research conducted by Ahmad & Shah, (2022) and Nurastuti et al. (2025), which showed a positive relationship between Overconfidence and Financial Literacy.

The findings demonstrate that Financial Literacy does not mediate its influence on Investment Decisions. These results suggest that investors' acquired financial knowledge does not always translate into practical decision-making when investment opportunities arise. While investors may have an adequate understanding of financial concepts and investment principles, this knowledge is often overshadowed by psychological influences during the decision-making process. In today's digital era, driven by the social media phenomenon of Financial Nihilism, investors are continuously bombarded by speculative and real-time market noise. Consequently, even highly financially literate investors can easily succumb to herd pressure and the illusion of control resulting from overconfidence. Under these conditions, financial literacy becomes less effective as a mechanism for encouraging rational and informed investment behavior. Emotional reactions and cognitive shortcuts continue to play a dominant role in the execution of investment transactions. These findings are consistent with research conducted by Ewanda et al. (2026) and Kasoga, (2021), which also reported that Financial Literacy does not significantly reduce the influence of behavioral bias on Investment Decisions. Therefore, these results imply that psychological factors may remain more influential than financial knowledge in shaping investment behavior.

Conclusion

This study examines the influence Herding Behavior and Overconfidence to Investment Decisions, as well as the role of mediation Financial Literacy among retail investors. The findings show that Herding Behavior and Overconfidence has a positive and significant influence on Investment Decisions. These results suggest that psychological factors play a significant role in shaping investor behavior, as individuals tend to be influenced by market sentiment, social pressure, and overconfidence in their own abilities when making investment decisions. The study also found that Herding Behavior and Overconfidence positively and significantly influence Financial Literacy. These findings suggest that investors who actively follow market trends or have strong confidence in their investment abilities are more likely to seek out financial information and expand their financial knowledge. However, Financial Literacy apparently did not have a significant influence on Investment Decisions. Therefore, this study proves that there is no mediation (*non-mediation*) where Financial Literacy completely failed to mediate the relationship between Herding Behavior and Investment Decisions, as well as the relationship between Overconfidence and Investment Decisions.

These findings suggest that financial knowledge alone may not be sufficient to mitigate the influence of psychological biases on investment decision-making. Even when investors possess adequate levels of financial literacy, their decisions may still be heavily influenced by emotional and cognitive factors. Psychological tendencies such as fear of missing out (FOMO) and overconfidence can influence investment decisions. Overconfidence is often a stronger influence on investor behavior than rational financial considerations. Consequently, investors may continue to make decisions based on emotions, perceptions, and subjective judgments despite having access to relevant financial knowledge. Therefore, the findings suggest that behavioral biases remain a more influential determinant of investment decisions than financial literacy among retail investors. This conclusion reinforces the importance of behavioral finance in explaining investment behavior in contemporary financial markets. However, despite its contribution to the existing literature, this study is not without limitations. The sample was limited to 160 respondents and consisted primarily of Generation Z and Millennial investors. Consequently, the generalizability of the findings to a broader investor population is limited. Future research is encouraged to investigate additional mediating variables, including risk tolerance, risk perception, and loss aversion, which may provide a more comprehensive explanation.

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