

Determinants of Investment Decision and Impact of Risk Tolerance

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ABSTRACT

This study aims to analyse the influence of financial literacy, investment experience, and herding behaviour on investment decisions among the people of Lhokseumawe City, while also examining the mediating role of risk tolerance. Despite the rapid rise of investors in Aceh, particularly among the younger population aged 20–40, financial literacy levels remain relatively low, with only 49.87% of the population considered financially literate (OJK, 2022). This mismatch between high enthusiasm and limited knowledge presents a problem that motivates this study. A quantitative approach was applied using Structural Equation Modeling (SEM) with SmartPLS as the analytical tool. The sample consisted of 100 respondents engaged in investment activities. The results indicates that investment experience and herding behavior have a positive and significant effect on investment decisions, while financial literacy does not have a significant effect. Furthermore, risk tolerance has a positive effect on investment decisions and serves as a mediating variable between investment experience and investment decisions. However, risk tolerance does not mediate the relationship between financial literacy or herding behavior and investment decisions. This research contributes to a deeper understanding of the psychological and financial knowledge factors in investment decision-making and highlights the crucial role of risk tolerance in strengthening these relationships.

Keywords: Financial literacy: investment experience; herding: risk tolerance: investment decisions

INTRODUCTION

The increasing awareness of financial independence has driven many individuals in Indonesia, including in Lhokseumawe, to explore investment opportunities. This surge in investment interest aligns with the broader economic and technological advancements shaping the nation. However, the rapid development of investment platforms and digital financial products is not always matched by a corresponding rise in financial literacy, particularly among retail investors.

In Lhokseumawe, enthusiasm among young individuals is increasing, as evidenced by the rising number of investors aged 20–40. According to OJK (2022), only 49.87% of Aceh's population are classified as financially literate, suggesting that many investors participate without sufficient knowledge. The Indonesian Central Securities Depository (KSEI 2023) reported that the number of capital market investors in Aceh increased by 18% in 2021–2023, dominated by university students and early-career employees. This indicates that investment decisions in Lhokseumawe are heavily influenced by a younger demographic, making the city a relevant case for examining behavioural finance.

Investment, defined as the commitment of funds or resources for future gain (OJK 2017), requires both knowledge and psychological preparedness. According to Gitman and Zutter (2021), rational decision-making should weigh expected returns against potential risks. However, in practice, psychological and emotional factors often shape investor behavior (Shefrin 2000; Hikmah et al. 2020). Thus, factors such as financial literacy, experience, herding, and risk tolerance deserve careful study in this context.

This research adopts Behavioral Finance Theory, which emphasizes the psychological underpinnings of financial decision-making (Alquraan et al. 2016). It investigates the impact of financial literacy, investment experience, and herding behavior on investment decisions in Lhokseumawe, with risk tolerance as a mediating variable. The inconsistent findings of previous studies further justify the need for this study.

LITERATURE REVIEW

FINANCIAL LITERACY AND INVESTMENT DECISIONS

Financial literacy is the ability to understand and use financial skills. Several studies show a positive influence on investment decisions (Alaaraj & Bakri 2020; Yulianis & Sulistyowati 2021). However, others found no

significant effect (Fitrianti 2021; Pradhana 2020). These inconsistencies suggest that financial knowledge may not always translate into actual decision-making without psychological readiness.

Investment Experience

Investment experience shapes the ability to evaluate risks. Experienced investors are more rational (Febriansyah 2023; Hana 2024). Conversely, novice investors often rely on anecdotal knowledge, potentially leading to biases. Some research even indicates that prior bad experiences can discourage future investments.

Herding Behavior

Herding occurs when individuals follow the crowd. It can increase participation but also drive irrational behavior (Vitmiasih et al. 2021; Alfian et al. 2022). Studies show herding may lead to poor decisions during volatile market conditions.

RISK TOLERANCE

Risk tolerance reflects an individual's willingness to accept uncertainty (Zeeshan et al. 2021). Those with high tolerance often engage in riskier investments. However, research findings vary, with some indicating strong mediation effects (Kanagasabai & Aggarwal 2020), while others suggest limited roles depending on context.

Framework

Financial literacy, investment experience, and herding behavior are proposed to influence investment decisions directly and indirectly through risk tolerance.

METHODOLOGY

This study employs a quantitative explanatory research design to examine both direct and indirect relationships among financial literacy, investment experience, herding behaviour, and investment decisions, with risk tolerance as a mediating variable. The explanatory approach was chosen to provide an in-depth understanding of the causal interactions between constructs and to test a set of predetermined hypotheses. To achieve this, data were systematically obtained through structured questionnaires and analyzed using statistical modeling.

The population targeted in this research consists of individuals in Lhokseumawe City who have prior experience in investment activities. Respondents were selected using purposive sampling, focusing on individuals who actively engage in investing and possess at least basic financial awareness. The sample size was calculated using the Slovin formula to ensure sufficient representation and statistical validity. Ultimately, a total of 100 valid responses were gathered for analysis, offering a reliable basis for generalising findings within the study context.

Primary data served as the main source of information, obtained directly from the respondents through the administration of questionnaires. These data capture perceptions, attitudes, and behaviors related to the core variables of financial literacy, investment experience, herding, risk tolerance, and investment decision-making. Additionally, secondary data from the Financial Services Authority (OJK), statistical bureaus, and academic sources were used to provide context and support the interpretation of results.

To collect data effectively, the researchers used a structured questionnaire designed to suit the local context and research objectives. The instrument consisted of closed-ended items formatted on a five-point Likert scale, ranging from "Strongly Disagree" to "Strongly Agree." The questions were adapted from previously validated instruments, ensuring both relevance and accuracy. Prior to full-scale distribution, a pre-test was conducted with a small group of respondents to evaluate the clarity, readability, and reliability of the questionnaire, with necessary revisions made before final deployment.

Operational definitions for each variable were developed based on theoretical and empirical literature. Financial literacy refers to the respondent's knowledge and understanding of core financial concepts, including budgeting, saving, and risk management. Investment experience reflects the frequency and depth of previous investing activities, as well as the ability to analyse risks and learn from past financial outcomes. Herding behaviour describes the tendency of individuals to follow collective investment trends or peer decisions without independent evaluation. Risk tolerance, as the mediating variable, represents the willingness to accept uncertainty and potential loss in financial investments. Investment decision-making is defined as the process by which individuals assess and choose investment options based on returns, risks, and other financial considerations.

Data analysis was performed using Structural Equation Modeling with the Partial Least Squares (PLS) technique, processed through SmartPLS version 4.0. The analysis followed several sequential stages, beginning with descriptive analysis to profile the characteristics of the respondents. This was followed by the evaluation of the measurement model, also known as the outer model, to assess convergent and discriminant validity, as well as the reliability of the constructs. Next, the structural model, or inner model, was analysed to examine the relationships between variables using path coefficients, R-square (R^2) values, effect sizes (f^2), and predictive relevance (Q^2). Furthermore, the study incorporated hypothesis testing to determine the significance of direct

and indirect effects, and mediation analysis was conducted to test the role of risk tolerance as a mediator in the relationship between the independent variables and investment decisions.

All measurement instruments were evaluated for validity and reliability prior to interpretation. Convergent validity was ensured through standardised outer loading values, with a threshold of 0.70. Internal consistency was verified through Cronbach's Alpha and Composite Reliability tests, both of which exceeded the minimum requirement of 0.70. Discriminant validity was established using the Fornell-Larcker Criterion and the Heterotrait-Monotrait (HTMT) ratio, which confirmed that each construct was empirically distinct from the others.

This study adhered to strict ethical research standards. All respondents were informed about the nature and purpose of the research prior to participation. Consent was obtained, and participants were assured of anonymity and confidentiality. Data were collected voluntarily, with no personal identifiers used or stored. The study was conducted in alignment with ethical guidelines and academic protocols established by Universitas Malikussaleh.

RESULTS AND DISCUSSION

RESULTS

The results of this study were analysed using the Structural Equation Modeling (SEM) approach with Partial Least Squares (PLS) via SmartPLS 4.0 software. The analysis was conducted in three stages: descriptive statistics, measurement model assessment (outer model), and structural model analysis (inner model). The demographic profile of respondents is summarised in Table 1. The age distribution shows that 50% of the respondents are aged 24–30, followed by 40% aged 20–23, and 10% aged 31–40. The gender distribution is equally divided, with 50% male and 50% female participants. Regarding occupation, the majority are university students (50%), followed by private employees (20%), civil servants (15%), and others (15%).

TABLE 1. Demographic profile of respondents

Category	Percentage (%)
Age (20–23)	40
Age (24–30)	50
Age (31–40)	10
Gender (Male)	50
Gender (Female)	50
Occupation (Students)	50
Occupation (Private Employees)	20
Occupation (Civil Servants)	15
Occupation (Others)	15

The measurement model analysis confirmed that all indicators met the threshold for convergent validity, with Average Variance Extracted (AVE) values above 0.50, and outer loading values above 0.70. Composite Reliability ranged from 0.928 to 0.979, and Cronbach's Alpha values were all above 0.90, indicating excellent internal consistency. Discriminant validity was verified using both the Fornell-Larcker criterion and HTMT ratio, and results showed that all constructs were empirically distinct. In the structural model, the coefficient of determination (R^2) indicates that risk tolerance has a moderate to strong predictive power ($R^2 = 0.656$), while investment decision has a weak explanatory power ($R^2 = 0.266$), as summarized in Table 2.

TABLE 2. R^2 Values for structural model

Variable	R^2 Value	Category
Risk Tolerance	0.656	Moderate to Strong
Investment Decision	0.266	Weak

Further analysis revealed that investment experience and herding behavior had a significant direct effect on investment decisions, while financial literacy did not show a significant direct effect. Meanwhile, risk tolerance had a significant mediating role between investment experience and investment decisions but did not significantly mediate the effects of financial literacy or herding behavior. The full hypothesis testing results are summarised in Table 3.

TABLE 3. Hypothesis testing summary

Hypothesis	Result
H ₁ : Financial Literacy → Investment Decision	Not Significant
H ₂ : Investment Experience → Investment Decision	Significant ($p < 0.05$)
H ₃ : Herding Behavior → Investment Decision	Significant ($p < 0.05$)
H ₄ : Risk Tolerance → Investment Decision	Significant ($p < 0.05$)
H ₅ : Investment Experience → Risk Tolerance → Investment Decision	Significant Mediation
H ₆ : Financial Literacy → Risk Tolerance → Investment Decision	Not Significant Mediation
H ₇ : Herding Behavior → Risk Tolerance → Investment Decision	Not Significant Mediation

DISCUSSION

The findings of this study indicate that investment experience and herding behavior have a statistically significant impact on investment decisions. These results align with behavioral finance perspectives, which argue that investors often rely on past outcomes and social cues when making financial decisions. This supports the previous studies by Wulandari & Wibowo (2020) and Setiawan & Oktaviani (2021), which emphasised the influence of experiential and social behavioural factors.

Interestingly, although financial literacy is often considered fundamental in rational financial decision-making, this study found no significant direct relationship between financial literacy and investment decisions. This contradicts findings by Lusardi and Mitchell (2014) but may be explained by contextual factors such as overconfidence, limited practical application of knowledge, or behavioral biases common among novice investors.

The significant mediating role of risk tolerance in the relationship between investment experience and investment decisions highlights the importance of psychological readiness in investment behavior. This is in line with research by Yulianis & Sulistyowati (2021), which underscores the role of investor psychology in shaping financial behavior. However, risk tolerance did not mediate the relationship between financial literacy or herding behavior and investment decisions, suggesting that simply being knowledgeable or following peers is not enough to guarantee effective decision-making unless accompanied by a stable risk profile.

These findings suggest that programs designed to improve investment behaviour should not only focus on increasing financial knowledge but also address emotional and psychological aspects, particularly risk perception. Interventions that simulate real-life investment scenarios or provide experiential learning opportunities may better prepare individuals to make rational financial choices under uncertainty.

CONCLUSION

This study aimed to investigate the role of risk tolerance in mediating the relationship between financial literacy, investment experience, and herding behaviour on investment decisions among individuals in Lhokseumawe City. Using a quantitative explanatory approach and SEM-PLS analysis, the research revealed several key findings.

First, investment experience and herding behaviour were found to have a significant and direct influence on investment decisions. These results highlight the importance of both personal financial exposure and social behavioral tendencies in shaping how individuals make financial commitments. In contrast, financial literacy, despite being theoretically fundamental, did not demonstrate a significant direct effect on investment decisions within the sample. This suggests that knowledge alone may be insufficient to influence behavior in the absence of practical application or psychological readiness.

Second, the study confirmed that risk tolerance significantly mediates the relationship between investment experience and investment decisions. This finding reinforces the view that investment behaviour is not only shaped by past actions or knowledge but also by an individual's ability to handle uncertainty and financial risk. However, no significant mediating effect was found for risk tolerance in the relationship between financial literacy or herding behaviour and investment decisions. These results indicate that while risk tolerance plays a crucial role, its impact is context-dependent and may vary based on the source of influence.

Overall, this study contributes to the understanding of behavioral finance by emphasizing the interactive roles of experience, psychology, and social influence in financial decision-making. It suggests that effective investment behaviour requires more than knowledge—it also demands risk awareness and experiential learning. Financial education programs, therefore, should be designed to go beyond theoretical instruction and incorporate practical simulations that build both confidence and emotional resilience in investment contexts.

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