Available at https://journalenrichment.com/index.php/jr/

Enrichment: Journal of Multidisciplinary Research and Development

THE INFLUENCE OF FINANCIAL LITERACY AND OVERCONFIDENCE ON INVESTMENT DECISIONS WITH RISK TOLERANCE AS A MEDIATING VARIABLE
(A Study on Stock Investors in Bali Province)

Kadek Dewi Sawitri*, Ica Rika Candraningrat
Universitas Udayana, Indonesia
Email: dewisawitri83@gmail.com, candraningrat@unud.ac.id

ABSTRACT

Investment decisions are influenced not only by rational calculations but also by psychological biases that affect investor behavior. Grounded in behavioral finance and prospect theory, this study aims to analyze the influence of financial literacy and overconfidence on investment decisions, with risk tolerance as a mediating variable. The research involved 250 stock investors in Bali Province, selected through purposive sampling. Data were collected via structured questionnaires and analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The results reveal that financial literacy and overconfidence each have a significant and positive effect on investment decisions. Furthermore, both variables also positively influence risk tolerance, which itself significantly impacts investment decision-making. Risk tolerance mediates the effects of financial literacy and overconfidence on investment decisions, indicating that knowledgeable and confident investors are more willing to take calculated risks aligned with their long-term financial goals. The study contributes theoretically to the development of behavioral finance by confirming the mediating role of risk tolerance in investment behavior. Practically, the findings suggest that financial education and awareness of overconfidence biases are essential in enhancing rational investment behavior. Policymakers and financial institutions are encouraged to develop targeted financial literacy programs and investor profiling tools based on risk tolerance to support more strategic and resilient investment decisions.

Keywords: *Investment Decision; Financial Literacy; Overconfidence; Risk Tolerance; Behavioral Finance; Prospect Theory*

INTRODUCTION

The capital market is one of the important pillars in the global economic system which functions as an intermediary institution that connects parties who need funds with parties who have excess funds (Tandelilin, 2017, p. 25). The development of the capital market is reflected in the growth in the number of investors which shows that public interest in the capital market continues to increase.

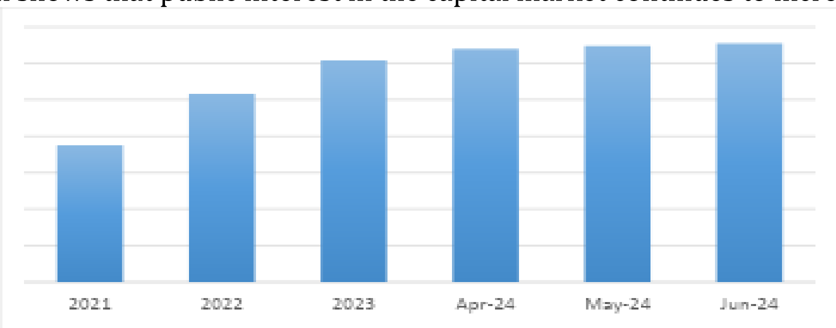

Figure 1. Number of Capital Market Investors
Source: Indonesian Central Securities Depository (2024)

Based on Figure 1, data on the number of investors in the capital market experienced a positive increase, in June 2024 there was an increase of 1.10 percent compared to May 2024. The trend of increasing the number of investors in Indonesia is also shown by the growth of investors in Bali

DOI: 10.55324/enrichment.v3i2.355

Province. Based on development data Single Investor Identification Bali Province, the number of investors increased by 10.93 percent in the second semester of 2022 compared to the previous semester, namely 173,066 to 191,979 investors. In semester I.
In 2023, the number of investors in Bali Province will increase by 9.45 percent, reaching 210,154 investors (OJK, 2023). The increase in the number of investors reflects the high public interest in the capital market as an investment vehicle.

Investment is a commitment of a certain amount of funds or other resources made at this time with the aim of obtaining a certain amount of profit in the future (Tandelilin, 2017, p. 2). Investors in investing need to consider several main factors, such as the risks faced, potential returns (return), and diversify assets to reduce risk, so investors need to make good investment decisions. An investment decision is a decision to allocate or place a certain amount of funds in a certain type of investment with the aim of generating profits in the future within a certain period of time (Logitama et al., 2021). According to Tandelilin (2017, p. 6), in the investment decision process the fundamental thing that needs to be understood is the linear relationship between return expected and the risk of an investment, meaning the greater return expected, the greater the risk that must be faced and vice versa.

Choosing the form of investment is an important thing that investors need to consider, one of which is stock investment. Stock investment is one of the capital market instruments that investors are interested in because it is able to provide an attractive rate of return. Decision making made by investors is supported by financial behavior which is able to describe investor behavior in considering investment decisions

Behavioral finance in finance is the study of investment behavior which is based on the belief that investors do not always act rationally (Logue & Francis, 2016, p. 330). Behavioral finance studying how humans respond and react to existing information in an effort to make decisions that can optimize the rate of return by paying attention to risk through elements of human attitudes and actions as determining factors in investing (Suriani, 2022, p. 3).

Behavioral finance plays an important role in understanding that financial decisions are influenced by psychological and emotional factors, not just logic and rational considerations. This approach explains that investors do not always act rationally in managing their financial assets, but can also be influenced by behavioral biases that can lead to less than optimal investment decisions. One of the theories that is the basis in behavioral finance is prospect theory developed by Kahneman & Tversky in 1979. This theory highlights how psychological biases play a role in financial decision making, especially in situations of uncertainty and risk. Prospect theory explains that investors can act irrationally when making financial decisions, and there is an asymmetry in the way investors react to gains and losses (Darmayanti et al., 2022).

Investment decisions made by investors can be influenced by market behavior and rational and irrational investor behavior (Rasheed et al., 2018). Conventional financial theory through efficient market hypothesis explains that investors collectively are very rational so they will make the right decisions to maximize collective profits adjusted to the risks of all investors (Arnott et al., 2008:183). The view of investors being rational is different from the current phenomenon that the decisions made by investors are not always rational. Candraningrat Research et al., (2023) explain that apart from providing rational/cognitive responses, investors can also provide irrational/emotional responses when making decisions. Rebellow & Suri (2019) revealed that investors make decisions because they are hasty or too careful. The irrational state of these investors can influence share prices in the market, thereby pushing share price movements away from their fair value due to activities panic buying And panic selling.

The collective behavior of investors shapes stock market characteristics through decision-making patterns that are often influenced by psychological biases. Investment behavior biases include loss aversion, overconfidence, framing effect, And herding effect (Logue & Francis, 2016:330). Bias loss aversion make investors more afraid of loss than happy to make a profit that triggers disposition effect and discourage investors from selling assets at a loss, framing influence decisions through the way information is presented, herding effect occurs when investors follow the actions of others, and overconfidence which occurs when most investors are too confident, considering their abilities to be higher than average (Logue & Francis, 2016, p. 330).

Psychological biases can cause investors to make decisions that are not completely rational, thereby contributing to stock market anomalies. Stock market anomalies refer to deviations in stock price movements that cannot be explained by the efficient market hypothesis, where stock prices should rationally reflect all available information. Investors' psychological biases create unusual transaction patterns that can cause stock prices to move unexpectedly. Some shares can experience an increase or decrease in price that is not in accordance with their fundamental value because investors are too optimistic or pessimistic in assessing investment prospects (Abideen et al., 2023). Investment decisions influenced by bias can cause an imbalance in stock transaction activity, because prices do not reflect fundamental values, thereby creating unexpected opportunities and risks for other investors and disrupting efficiency market.

Table 1. Share Transaction Data for Bali Province

Period	Stock Transactions					
	Frequency	**%D**	**Volume**	**%D**	**Mark**	**%D**
Smt I - 2022	4.357.030,00	-7,15%	41.963,38	-12,96%	20.507,14	-8,65%
Smt II- 2022	3.602.000,00	-17,33%	52.176,80	24,34%	21.219,40	3,47%
Smt I - 2023	2.609.558,00	-27,55%	23.823,06	-54,34%	10.705,03	-49,55%
January	465.263,00	5,64%	4.761,28	10,70%	1.971,51	-8,54%
February	461.301,00	-0,85%	4.542,82	-4,59%	2.035,15	3,23%
March	503.096,00	9,06%	4.675,92	2,93%	1.904,55	-6,42%
April	328.871,00	-34,63%	2.813,32	-39,83%	1.345,45	-29,36%
May	499.074,00	51,75%	4.038,48	43,55%	1.949,82	44,92%
June	351.953,00	-29,48%	2.991,24	-25,93%	1.498,56	-23,14%

Source : (OJK, 2023)

Based on Table 1 Stock Transaction Data for Bali Province, there was a significant decrease in the frequency, volume and value of stock transactions from the first semester of 2022 to the first semester of 2023. Transaction frequency decreased from 4,357,030 in Smt I-2022 to 2,609,558 in Smt I-2023 (-27.55 percent), transaction volume decreased from 41,963.38 to 23,823.06 (-54.34 percent), and the transaction value fell from 20,507.14 to 10,405.70 (-49.55 percent). The significant decline occurred due to investors' psychological biases influencing investment decision making. A significant decline indicates a change in investor behavior over a certain period of time. The fluctuations that occur do not fully reflect market fundamental conditions, but are more influenced by investors' emotional reactions to information or market uncertainty.

Investors' emotional reactions to information or market uncertainty cause shares to be sold simultaneously as a form of avoidance of potential losses. This condition creates negative market sentiment which encourages mass selling, thus further exacerbating the decline in value, volume and frequency of stock transactions. Some investors responded to their sales when share prices on the market fell, which was followed by other investors who also sold shares (Candraningrat et al., 2018). Mass selling conditions created an irrational decline in share prices and resulted in a decline in the volume and frequency of share transactions. Dwiarti Research et al., (2024) explain that investors tend to act irrationally in carrying out stock transactions in the capital market because the decisions taken by investors are unconsciously influenced by psychological behavior.

Irrational attitudes often arise in making investment decisions because investors do not have adequate financial literacy. The Financial Services Authority (OJK) defines financial literacy as knowledge, skills and beliefs that influence attitudes and behavior to improve the quality of decision making and financial management to achieve financial prosperity. The higher the level of financial literacy an investor has, the more rational the investor will be in making investment decisions (Putri & Simanjuntak, 2020).

Financial literacy and inclusion index survey conducted by OJK (2022) with the top parameters of the financial literacy index consisting of knowledge, skills, beliefs, attitudes and behavior showing results The financial literacy of the Indonesian people in 2022 will increase by 49.68 percent compared to 2019 which was 38.03 percent. The level of financial literacy in Bali Province has also increased in 2022 by 57.66 percent compared to the previous year's 38.06 percent. Investors who have financial literacy understand the basic principles of financial risk and benefit from taking high financial risks to achieve long-term financial targets. Dwiarti Research et al., (2024) explained that the better a person's understanding of financial literacy, the better their personal financial management will be. Behavioral finance can help investors make the right decisions and reduce mistakes, especially when facing investment complexity. Financial education positively influences investors' awareness and attitudes towards financial products and financial planning tools (Lusardi & Mitchell, 2014).

Knowledge of financial information and information analysis helps investors achieve higher returns on riskier investments (Darmayanti et al., 2023). Research conducted by Aren & Zengin (2016) found that there is a significant relationship between financial literacy and investment preferences. Investors with a low level of financial literacy tend to choose deposits and foreign currencies, while investors with a high level of literacy tend to create portfolios or buy shares and choose financial products according to their needs, make good financial plans, avoid risky investments, and understand the benefits and risks (Noor et al., 2020). Results of research conducted by Putri & Simanjuntak (2020), Kawamura et al., (2021), Weixianget al., (2022), and Thesman, (2024) who stated that financial literacy has a positive effect on investment decision making. Differences in research results conducted by Putri & Isbanah (2020), Junianto & Kohardinata (2020), and Yuliani & Nurwulandari (2023) found that financial literacy had no effect on investment decision making.

Inappropriate investor behavior in selecting and making investment decisions is influenced by various factors that cause irrational behavioral tendencies or known as behavioral biases in the decision-making process (Candraningrat et al., 2023). Overconfidence has become a major focus in the study of behavioral biases because of its large impact on investment decision making. Investors by nature overconfidence tend to take higher risks and ignore rational analysis even in the face of losses. Biased overconfidence Compared to other biases, it has a greater impact on investment decisions because investors who are influenced by this bias in investing tend to overestimate their abilities and ignore relevant information, resulting in riskier and irrational decision making.

Research conducted by Abideen et al., (2023) explains that overconfidence is the most influential factor in changes in stock prices and trading volume which has a negative impact on investment decisions, making the market inefficient. Investors with attitude overconfidence often rely on self-confidence, knowledge and skills to increase investment results (Soraya et al., 2023). Bias overconfidence is one of the implications of prospect theory which shows that a person can behave irrationally due to individual psychological factors (Koma & Jatiningsih, 2024). These cognitive biases can lead investors to overestimate their understanding of market trends, the performance of certain securities, or their ability to predict future outcomes (Candraningrat et al., 2023).

Investors' confidence can increase trading activity because they can predict market movements and take advantage of existing opportunities and provide moral and mental encouragement to continue investing and take actions that investors who lack confidence might avoid. Results of research conducted by Parveen et al., (2020), Fridana & Asandimitra, (2020), Yuliani & Nurwulandari (2023, Almansour et al., (2023), Candraningrat et al., (2023), and Thesman, (2024) found that overconfidence has a significant positive influence on investment decisions. Research conducted by Yuwono & Elmadiani, (2021) and Adiputra et al., (2023) said that overconfidence does not have a significant effect on investment decision making.

The research results show that financial literacy and overconfidence does not have a significant effect on investment decisions, so it is necessary to consider other factors in obtaining a relationship with investment decisions. Investors cannot make investment decisions based solely on knowledge or confidence in the prospects of an instrument, because higher returns can reasonably be obtained only by assuming higher risks. Investors manage risk by choosing implicitly or explicitly the level of risk they are willing to bear by determining risk tolerance (Logue & Francis, 2016: 10).

Investors' attitudes in determining their investment risk tolerance are adjusted to the stock portfolio they own. Investors who choose low risk invest in instruments with a lower overall risk level, while investors who choose high risk invest in instruments with a higher overall risk level (Mubaraq et al., 2021). Risk tolerance can help investors understand the intensity of risks associated with investments and support individuals to be able to accept and adapt to the risks involved in order to achieve their investment goals (Hussain & Rasheed, 2022). Attitude risk tolerance leads to the level of risk that investors are willing to accept in accordance with the potential return expected in the future. Positive relationship risk tolerance investment decisions are supported by the results of research conducted by Mubaraq et al., (2021) and Soraya et al. (2023).

The level of risk tolerance in investment is influenced by financial literacy and level factors overconfidence on investment decisions. Good financial literacy provides individuals with a deep understanding of the various types of risks involved in investing as well as strategies for managing those risks. Research conducted by Sharma (2020) explains that a high level of financial literacy encourages risk tolerance and helps investors form diversified portfolios and make the right decisions in facing risk. Results of research conducted by Hussain & Rasheed (2022) and Song et al. (2023) found that financial literacy had a positive and significant effect on risk tolerance.

Attitude overconfidence causes investors to feel overconfident in their abilities which influences levels risk tolerance. Research conducted by Soraya et al. (2023) explain that investors who are optimistic about the success of their investments are not easily influenced by issues and opinions of other investors to make decisions that could cause losses. Courage in taking greater risks will help investors gain greater opportunities for success. The results of research conducted by Raheja & Dhiman (2019) and Hussain & Rasheed (2022) support the results that overconfidence positive and significant effect on risk tolerance.

Based on the phenomenon and results of previous research, it is important to understand how stock investors in Bali Province make investment decisions. The trend of increasing the number of stock investors which is not followed by balanced transaction activity shows that there are factors that influence investment decisions, so investors need to consider various aspects that can support good investment decision making. This research aims to analyze the significance of the influence of financial literacy on stock investment decisions among investors in Bali Province. Benefits of research This research is expected to contribute to providing information and input for various parties involved in the capital market, especially investors, securities companies and the Indonesian Stock Exchange (BEI).

This study aims to analyze the influence of financial literacy and overconfidence on investment decisions, with risk tolerance as a mediating variable. Compared to previous studies such as Sharma (2020), Soraya et al. (2023), Parveen et al. (2020), and Thesman (2024), which primarily investigated direct relationships between financial literacy, overconfidence, risk tolerance, and investment decisions, the novelty of this research lies in its integrative model that comprehensively tests both direct and mediating effects of risk tolerance in the relationship between financial literacy and investment decisions as well as overconfidence and investment decisions using the context-specific sample of stock investors in Bali Province. While studies like Soraya et al. (2023) and Raheja & Dhiman (2019) addressed mediation, this study enriches the behavioral finance discourse by applying prospect theory in a regional context (Bali) and provides nuanced insights through a PLS-SEM approach to explain how risk tolerance strengthens investor readiness in fluctuating markets. This regional focus and dual mediation framework make it distinct in empirical scope and application.

METHOD

This research explains the influence of financial literacy, overconfidence, and risk tolerance as a mediating variable for investment decisions. This research was selected based on the phenomena found and described in the background, then the selection of variables and problem formulation were carried out through theoretical and literature studies. All data used in this research is supported by empirical theories which aim to prove the hypothesis.

This research uses quantitative data. The quantitative data in this research is a tabulation of data from stock investor questionnaires in Bali Province which will be processed into quantitative data on a Likert scale. The data collection method used in this research is by using a questionnaire online by using platform Google Form. In this research, questionnaires were distributed to stock investors in Bali Province and then the respondents' answers were immediately received and saved by the researcher.

RESULTS AND DISCUSSION

The Influence of Financial Literacy on Stock Investment Decisions

Statistical test results show that financial literacy has a positive influence on investment decisions made by stock investors in Bali Province. The results of this research show that the majority of stock investors in Bali Province have a high level of financial literacy as indicated by the average financial literacy score being in the high category. High financial literacy allows investors to understand basic financial concepts such as risk, return, and investment strategy. Financial literacy indicators in this research include financial knowledge (financial knowledge), financial behaviour (financial behavior), and financial attitude (financial attitude).

Investors who own financial knowledge Good ones are better able to understand information related to investment instruments and capital markets so they tend to be more rational in making decisions. Financial behavior explained that investors with financial literacy are more accustomed to making financial plans, investing in a disciplined manner, and avoiding speculative decisions. Financial attitude plays a role in encouraging investors to be more careful in facing risks, so that investment decisions are more optimal.

Increasing financial literacy allows investors in Bali Province to develop more effective investment strategies and avoid making decisions based solely on emotions. The results of this study are in line with behavioral finance which states that a higher level of financial literacy allows investors to understand risks, return, as well as better investment strategies. Investors with good financial literacy tend to be more rational in making investment decisions, reduce the tendency to be influenced by cognitive biases, and are better able to analyze market information before determining investment steps.

These results also support Noor's research et al., (2020) which states that investors with good financial understanding are more likely to invest in assets that suit their risk profile and financial goals. The higher the financial literacy an investor has, the greater the investor's possibility of carrying out investment activities to meet long-term needs. The results of this research are in line with research by Putri & Simanjuntak (2020), Kawamura et al. (2021), Weixianget al. (2022), Abidin et al., (2024).

Influence Overconfidence on Stock Investment Decisions

The results of statistical tests show that overconfidence has a positive influence on investment decisions made by stock investors in Bali Province. The results of this study indicate that the level overconfidence among stock investors in Bali Province, it is indicated by the high average score on the indicators overestimation, overplacement, And overprecision. Overestimation refers to an investor's excessive confidence in his or her ability to analyze the market. Overplacement reflects the tendency of investors to consider their investment decisions to be better than other investors. Overprecision demonstrate excessive confidence in the accuracy of the information they use in making investment decisions.

Investors who have levels overconfidence high tend to be braver in taking risks and make stock transactions more often. High self-confidence encourages investors to participate more actively in the stock market with the confidence of being able to predict market movements accurately. The results of this study are in line with behavioral finance which states that overconfidence can influence investment decisions because overconfident investors tend to overestimate their ability to assess risk and return investment. Investors with levels overconfidence have high confidence in predicting market movements, so they are more likely to make aggressive investment decisions and make more frequent transactions compared to more rational investors.

The results of this research are in line with Areiqat's findings et al., (2019) which explains that overconfidence has a significant positive effect on investment decisions because investors need to have reasonable self-confidence to utilize their skills and knowledge in certain conditions to increase investment returns. The more confident an investor is, the greater the courage to make decisions and the belief that investing will always make a profit. Investors' self-confidence can encourage higher activity in the stock market, increase transaction volume, and choose shares with high profit potential, even though the risks they face are also greater. Positive relationship between overconfidence on investment decisions is supported by the results of research conducted by Parveen et al., (2020), Fridana & Asandimitra, (2020), Almansour et al., (2023), Candraningrat et al., (2023), and Thesman, (2024).

The Influence of Financial Literacy on Risk Tolerance

Statistical test results show that financial literacy has a positive influence on risk tolerance made by stock investors in Bali Province. The results of this research show that the majority of stock investors in Bali Province have a high level of financial literacy as indicated by the average financial literacy score being in the high category and having a high risk tolerance in investing. Financial literacy is measured by indicators financial knowledge (financial knowledge), financial behaviour (financial behavior), and financial attitude (financial attitude).

Investors with financial knowledge A good one can assess the potential profits and losses of an investment more accurately, so that they are better prepared to face risks and are not easily affected by market fluctuations. Financial behavior relates to how investors apply their understanding in everyday financial decisions that help face uncertainty with more confidence and reduce the risk of excessive losses. Financial attitude reflects how investors assess risks and opportunities in investment decisions. Investors who have a positive attitude towards investing and believe in long-term strategies will be more open to risk, in contrast to individuals who tend to be pessimistic and avoid risk because they are afraid of possible losses.

The results of this study are in line with behavioral finance which states that a higher level of financial literacy allows investors to better understand the risks and potential returns of an investment, thereby increasing risk tolerance. Investors who have good financial literacy tend to be more confident in facing market uncertainty and are better prepared to make investment decisions that suit their risk profile. The results of this research are in line with research by Yuliani & Nurwulandari (2023) which explains that investors with a high level of financial literacy are more likely to choose securities with a risk level that is more in line with their preferences because they understand how risk can be managed and balanced with the potential for long-term profits.

Prospect theory states that investors with good financial literacy tend to be more consistent in taking financial risks. A good understanding of finances encourages decision making based on objective risk evaluation, not just because of fear of loss. Investors who lack financial literacy tend to be more risk averse because of uncontrollable uncertainty. The results of this research show that financial literacy can play an important role in shaping the character of investors who are more willing to take risks but remain rational in managing their investments. The results of this research are in line with the findings of Putri & Simanjuntak (2020), Kawamura et al. (2021), Weixianget al. (2022).

Influence Overconfidence to Risk Tolerance

The results of statistical tests show that overconfidence have a positive influence on risk tolerance made by stock investors in Bali Province. The results of this research show that the majority of stock investors in Bali Province have a level overconfidence The high score is indicated by the average score overconfidence who are in the high category and have a high risk tolerance in investing. Overconfidence in this study it was measured by three main indicators, namely overestimation, overplacement, And overprecision.

Investors with overestimation have the belief that their skills and insight are better so they tend to be braver in making high-risk investment decisions. This attitude causes investors to place most of their portfolios in more volatile assets without considering sufficient risk diversification. Overplacement can make investors feel that their decisions are better than other investors, which encourages them to trade more frequently and take higher risks. Investors who are overconfident in their abilities tend to ignore the advice of analysts or do not do enough research before investing, thereby increasing the likelihood of experiencing large losses. Overprecision or excessive confidence in the accuracy of the information held can cause investors to ignore uncertainty factors that can influence investment results, making it possible to take aggressive investment decisions without considering risks objectively.

The results of this study are in line with behavioral finance which states that overconfidence can improve risk tolerance investors because investors who are too confident tend to assess their ability to manage risk higher than it actually is. Investors with levels overconfidence high level of confidence in controlling investment results and understanding market movements better, so they are willing to take greater risks in investment decisions. Prospect theory supports the results of this research by explaining that investors who overconfident tend to perceive risk differently compared to more cautious investors.

Investors tend to take risks to achieve higher returns although in some cases such decisions can lead overtrading or less measured risk taking. Investors who have traits overconfident tend to feel more comfortable in facing financial risks than investors who have lower levels of self-confidence. The higher the level overconfidence an investor, the greater his tolerance for investment risk. The results of this research are in line with the findings by Parveen et al., (2020), Fridana & Asandimitra (2020), and Almansour et al., (2023), Thesman (2024).

Influence Risk Tolerance on Stock Investment Decisions

The results of statistical tests show that risk tolerance has a positive influence on investment decisions made by stock investors in Bali Province. Risk tolerance in this study it was measured through several main indicators, namely the willingness to borrow money to invest, the willingness to take more financial risks, the willingness to face the risk of losing money in investing, and the willingness to take risks in uncertain ventures.

Investors who have the willingness to borrow money to invest show the level risk tolerance because they are prepared to face additional financial obligations to pursue profitable investment opportunities. Investors with a willingness to take more financial risks also reflect a high level of risk tolerance because they understand that choosing investment instruments with high volatility such as shares, the higher the risk, the greater the potential profit. The willingness to face the risk of losing money in investing indicates that investors have a stronger mentality in dealing with market fluctuations and do not panic easily when stock prices decline, but instead see it as an opportunity to carry out better investment strategies such as average down or portfolio diversification. The willingness to take risks in uncertain ventures shows that investors who have a high risk tolerance are more flexible in making investment decisions in more dynamic sectors because they believe in the long-term potential of the investment.

The results of this research are in line with the concept behavioral finance which states that tolerance for risk is a key factor in making investment decisions. Investors with levels risk tolerance those who are taller tend to be braver in choosing investment instruments that have the potential for large profits even though there are higher risks. Investors with a low risk tolerance will tend to be more careful and choose safer investments even though they have smaller returns. The results of this research are also in line with prospect theory with the assumption that individuals have different perspectives on risk based on expected profits and potential losses. Investors who own risk tolerance High risk tolerance tends to accept uncertainty and dares to make investment decisions with greater risk, whereas investors with low risk tolerance are more likely to avoid risky investment decisions because they are more focused on avoiding potential losses rather than making big profits. The results of this research are in line with Mubaraq's findings et al., (2021), Darmayanti et al. (2023), Soraya et al. (2023), and Koma & Jatiningsih (2024).

Role Risk Tolerance Mediating the Effect of Financial Literacy on Stock Investment Decisions

The results of statistical tests show that risk tolerance able to mediate the influence of financial literacy on investment decisions made by stock investors in Bali Province. These results explain that investors with high financial literacy tend to have a higher risk tolerance and are therefore bolder in making investment decisions. Financial literacy in this study was measured through financial knowledge, financial behavior, And financial attitude each of which has a contribution in forming risk tolerance investor. Financial knowledge reflects an individual's understanding of basic financial concepts which helps investors be better prepared to face market fluctuations and not be easily influenced by emotional factors in making investment decisions. Financial behavior tend to have a higher risk tolerance because they play a role in forming investors' habits in implementing more planned risk management strategies. Financial attitude reflecting an individual's attitude towards risk and investment, investors with a positive attitude tend to be more open to risk and understand that risk does not always have to be avoided but can be managed to achieve long-term profits.

The results of this research confirm that the higher an investor's risk tolerance, the more likely the investor is to make bolder investment decisions. Investors with a high level of financial literacy have a good understanding of investment risks, so they can make more rational and measured decisions. The results of this research are in line with Sharma (2020) who revealed that investors with a high level of financial literacy tend to have a greater risk tolerance and thus are more confident in building a diversified portfolio to achieve optimal return potential.

The results of this research are in line with this perspective behavioral finance which explains that investment decisions are not only determined by rational aspects such as financial understanding, but also by psychological factors including risk tolerance. Investors who have a high level of risk tolerance are better prepared to face market fluctuations and do not panic easily when share price volatility occurs. Prospect theory explains that investors tend to avoid risk when they are in a profit situation and are more willing to take risks when facing the possibility of loss. Investors with financial literacy and high risk tolerance are able to manage bias more rationally because they understand that risk is an inseparable part of investing, so they focus more on potential long-term profits rather than being afraid of possible short-term losses.

The results of this research support that understanding risk tolerance acts as a factor that encourages investors to make bolder and more rational investment decisions. Increasing financial literacy is an important step to help investors understand risk profiles and make investment decisions that are in line with financial goals. The results of this study are in line with the findings of Hussain & Rasheed (2022) and Song et al. (2023) who found financial literacy towards risk tolerance and Darmayanti et al. (2023), and Soraya et al. (2023) who found a positive relationship between risk tolerance on investment decisions.

Role Risk Tolerance Mediating Influence Overconfidence Regarding Stock Investment Decisions

The results of statistical tests show that risk tolerance able to mediate influence overconfidence on investment decisions made by stock investors in Bali Province. Overconfidence in this research it is measured through three indicators, namely overestimation, overplacement, And overprecision which directly contributes to increasing investors' risk tolerance. Investors who have a high level of overestimation tend to believe that their ability to manage risk is good, even though in reality there is still significant uncertainty in the market. Overplacement explains the belief that their investment decisions are superior to other investors which causes investors to be bolder in making investment decisions with a higher level of risk. Investors with levels overprecision high tend to feel that the information used in decision making is accurate enough, so they are willing to take risks without considering external factors that can influence investment results.

The results of this study confirm that the higher overconfidence an investor, the more likely the investor is to make bolder investment decisions. Behavioral finance explains that investment decisions are not always rational because they are influenced by psychological factors, one of which is overconfidence. Investors who overconfident tend to assess their ability to analyze the market higher than reality so they are more willing to take greater risks in investing. Increased risk tolerance results overconfidence encourage preference for investment instruments with high volatility to obtain greater profit potential. Risk tolerance acts as a bridging factor in the relationship between overconfidence and investment decisions, indicated by a tendency to have a high risk tolerance which leads to making more aggressive investment decisions.

Prospect theory explains that individuals tend to make decisions based on subjective perceptions of gains and losses rather than on the objective value of available investment options. Investors who overconfident are more likely to overestimate potential profits and underestimate existing risks, thus tending to make riskier investment decisions.

The results of this research are in line with Soraya's research et al. (2023) which explains that investors who have confidence in the success of their investments tend not to be easily influenced by issues and opinions of other investors. This attitude strengthens the positive relationship between overconfidence And risk tolerance, so that investors have a level overconfidence high levels tend to be more independent in making investment decisions and are more willing to take greater risks. The results of this research are in line with the findings of Raheja & Dhiman (2019) and Hussain & Rasheed (2022) who found a positive relationship between overconfidence to risk tolerance and Darmayanti et al. (2023), and Soraya et al. (2023) who found a positive relationship between risk tolerance on investment decisions.

CONCLUSION

This study concludes that financial literacy and overconfidence significantly and positively influence stock investment decisions among investors in Bali Province. Higher financial literacy enables investors to analyze markets and manage portfolios more rationally, while overconfidence drives more active, aggressive investment behaviors. Both factors also enhance investors' risk tolerance, which in turn positively impacts their willingness to pursue riskier investments with greater potential returns. Risk tolerance is shown to mediate the effects of financial literacy and overconfidence, leading to more strategic and goal-oriented investment decisions. To deepen future understanding, research could expand geographically, incorporate additional behavioral biases, use longitudinal designs, explore other mediating/moderating variables, apply qualitative or mixed methods, examine digital financial literacy, and assess the impact of financial education programs. These directions aim to refine models of investor behavior and support more effective financial planning and policy development.

REFERENCES

Abideen, Z. U. I., Ahmed, Z., Qiu, H., & Zhao, Y. (2023). Do Behavioral Biases Affect Investors' Investment Decision Making? Evidence from the Pakistani Equity Market. Risks, 11(6).

Abidin, G. R., Tubastuvi, N., Haryanto, E., & Rachmawati, E. (2024). The Role of Financial Knowledge , Income Level , Financial Behavior , and Regret Experience in Shaping Investment Decisions : A Study of Sme Business Owners With Locus of Control as A Mediator Intoduction. Centralization of Sorong Muhammadiyah University, 220–236.

Adiputra, I. G., Bangun, N. A., & Jullian, R. B. (2023). The Effect of Overconfidence Bias, Herding Behavior and Experienced Regret on Investment Decision Making on the Indonesia Stock Exchange. Journal of Economics, Finance and Management Studies, 06(05), 2339–2348.

Adiputra, I. G., Nataherwin, & Afara, M. S. (2024). The Influence of Financial Attitude, Experience and Risk Perception on Stock Investment Decision Making in Jakarta. Journal of Economics, Finance And Management Studies, 07(08), 5006–5016.

Afroh, I. K. F., & Hafidzi, A. H. (2024). Sharia stock investment decisions: Sharia stock literacy and risk factors and their relations with behavioral bias. Journal of Accounting and Investment, 25(1), 231–248.

Agustin, N. I., & Lysion, F. (2021). Analysis of Factors that Influence Stock Investment Decision Making among Millennial Generation Investors in Batam City with Locus of Control as a Moderating Variable. Conference on Management, Business, Innovation, Education, and Social Science, 1(1).

Almansour, B. Y., Elkrghli, S., & Almansour, A. Y. (2023). Behavioral finance factors and investment decisions: A mediating role of risk perception. Cogent Economics and Finance, 11(2), 1–20.

Anwar, M., Khan, S. Z., & Rehman, A. U. (2017). Financial Literacy, Behavioral Biases and Investor's Portfolio Diversification: Empirical Study of an Emerging Stock Market. Journal of Finance & Economics Research, 2(2), 145–164.

Areiqat, A. Y., Abu-Rumman, A., Al-Alani, Y. S., & Alhorani, A. (2019). Impact of behavioral finance on stock investment decisions applied study on a sample of investors at Amman Stock Exchange. Academy of Accounting and Financial Studies Journal, 23(2), 1–16.

Aren, S., & Zengin, A. N. (2016). Influence of Financial Literacy and Risk Perception on Choice of Investment. Procedia - Social and Behavioral Sciences, 235(2016), 656–663.

Arnott, R. D., Hsu, J. C., & West, J. M. (2008). The Fundamental Index : A Better Way to Invest. Wiley.

Atkinson, A., & Messy, F.-A. (2012). Measuring Financial Literacy: Results of the OECD Infe Pilot Study. OECD Working Papers on Finance, Insurance and Private Pensions, 15(15), 1–73.

Baihaqqy, M. R. I., Sari, M., & Ikhsan, S. (2020). The Effect of Financial Literacy on the Investment Decision. Budapest International Research and Critics Institute-Journal (BIRCI-Journal), 3(4), 3073–3083.

Candraningrat, I. R., Abundanti, N., Putri, P. A., & Febyanti, N. P. R. (2023). Bias of Investor Behavior in Making Investment Decisions in the Capital Market. Scholars Journal of Economics, Business and Management, 11(07), 136–143.

Candraningrat, I. R., Salim, U., Indrawati, N. K., & Ratnawati, K. (2018). Influence of Framing Information and Disposition Effect in Decision of Investment: Experimental Study on Investor Behavior at Indonesia Stock Exchange Representative on Denpasar, Bali. International Review of Management and Marketing, 8(3), 59–68.

Chandra, P. (2018). Investment Analysis and Portfolio Management Fourth Edition CFM-MH Professional Series in Finance (Fourth Edi). Tata McGraw Hill Education Private Limited.

Darmayanti, N. P. A., Wiagustini, N. L. P., Artini, L. G. S., & Candraningrat, I. R. (2023). Driving Millennials To Be Investors: The Case Of Investment Decision Performance In Indonesian Capital Market. Quality - Access to Success, 24(196), 167–174.

Darmayanti, N. P. A., Wiagustini, N. L. P., Sri Artini, L. G., & Candraningrat, I. R. (2022). Revisiting Investor Behavior in Risky Investment Decision Making. Minds Journal: Idea And Inspiration Management, 9(1), 1–18.

Dwiarti, R., Hazmi, S., Casmi, E., Wahyuningsih, T. H., & Mursalini, W. I. (2024). Analysis of Financial Literacy and Financial Behavior Toward Investment Decisions on Millennial: Technological Advancement as A Moderating Variable. International Journal of Scientific Research and Management (IJSRM), 12(01), 5812–5820.

Fridana, I. O., & Asandimitra, N. (2020). Analysis of Factors That Influence Investment Decisions (Study of Female Students in Surabaya). Muara Journal of Economics and Business, 4(2), 396–405.

Grežo, M. (2020). Overconfidence and Financial Decision-Making: a Meta-Analysis. Review of Behavioral Finance, 13(3), 276–296.

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., Black, W. C., & Andersom, R. E. (2019). Multivariate Data Analysis (8th ed.). Cengage Learning.

Hair, J. J. F., M. Hult, G. T., M. Ringle, C., Sarstedt, & Marko. (2022). A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM) ([3 ed]). SAGE Publications, Inc.

Hermansson, C., & Jonsson, S. (2021). The Impact of Financial Literacy and Financial Interest on Risk Tolerance. Journal of Behavioral and Experimental Finance, 29, 100450.

Hussain, S., & Rasheed, A. (2022). Empirical Study on Financial Literacy, Investors' Personality, Overcondence Bias and Investment Decisions and Risk Tolerance as Mediator Factor. Research Square.

Huston, S. J. (2010). Measuring Financial Literacy. The Journal of Consumer Affairs, 44(2), 296–316.

Ismiyanti, F., & Mahadwartha, P. A. (2020). Investment Experience to Expected Return: Consequences of risk behavior. Advances in Business, Management and Entrepreneurship, 310–313.

Junianto, Y., & Kohardinata, C. (2020). Financial Literacy Effect and Fintech in Investment Decision Making. Primanomics: Journal of Economics & Business, 18(3), 1–19.

Kawamura, T., Mori, T., Motonishi, T., & Ogawa, K. (2021). Is Financial Literacy Dangerous? Financial Literacy, Behavioral Factors, and Financial Choices of Households. Journal of the Japanese and International Economies, 60.

Koma, D. R. A., & Jatiningsih, D. E. S. (2024). The Effect of Overconfidence Bias, Risk Tolerance, and Herding Bias on Stock Investment Decisions with Financial Literacy as a Moderation Variable. KnE Social Sciences, 2024, 303–336.

Indonesian Central Securities Depository. (2024). Indonesian Capital Market Statistics. In KSEI. www.ksei.co.id

Lestari, M., Pangestuti, D. C., & Fadila, A. (2022). Analysis of Financial Literacy, Income and Risk Perception on Investment Decisions and Financial Behavior as Intervening Variables. ACCURACY: Journal of Accounting and Finance Research, 4(1), 34–46.

Logitama, A., Setiawan, L., & Hayat, A. (2021). Control Behaviors Affecting Investors Investment Decision Making (Studies on Students at Higher Education South Kalimantan). Journal of Management Science, 4(3), 1–11.

Logue, D.E., & Francis, J.C. (2016). Investments: Analysis and Management. (13th Editi). John Wiley & Sons, Inc.

Lusardi, A., & Mitchell, O. S. (2014). The economic importance of financial literacy: Theory and evidence. Journal of Economic Literature, 52(1), 5–44.

Mubaraq, M. R., Anshori, M., & Trihatmoko, H. (2021). The Influence of Financial Knowledge and Risk Tolerance on Investment Decision Making. Journal of Business Economics and Entrepreneurship, 10(2), 140–153.

Noor, M., Fourqoniah, F., & Aransyah, M. F. (2020). Investigation of Financial Inclusions, Financial Literation, and Financial Rechnology in Indonesia. Journal of Regional Financing and Development Perspectives, 8(3), 257–268.

Ogunlusi, O. E., & Obademi, O. (2021). The Impact of Behavioural Finance on Investment Decision-making: A Study of Selected Investment Banks in Nigeria. Global Business Review, 22(6), 1345–1361.

FSA. (2013). Financial Literacy. https://www.ojk.go.id/id/kanal/edukasi-dan-perlindungan-konsumen/Pages/Literasi-Keuangan.aspx

FSA. (2022). Results of the 2022 National Survey of Financial Literacy and Inclusion. In Financial Services Authority. ojk.go.id

FSA. (2023). Capital Market Statistics Report Semester I/2023. In Financial Services Authority (Vol. 11, Issue 1). www.ksei.co.id

Oppong, C., Salifu Atchulo, A., Akwaa-Sekyi, E. K., Grant, D. D., & Kpegba, S. A. (2023). Financial Literacy, Investment and Personal Financial Management Nexus: Empirical evidence on Private Sector Employees. Cogent Business and Management, 10(2), 1–20.

Parveen, S., Satti, Z. W., Subhan, Q. A., & Jamil, S. (2020). Exploring Market Overreaction, Investors' Sentiments and Investment Decisions in an Emerging Stock Market. Borsa Istanbul Review, 20(3),

224–235.
Pompian, M. M. (2012). Behavioral Finance and Investor Types Managing Behavior to Make Better Investment Decisions.
Putri, P. T., & Simanjuntak, M. (2020). The Role of Motivation, Locus of Control and Financial Literacy on Women Investment Decisions Across Generations. In Journal of Consumer Sciences E (Vol. 5, Issue 2).
Putri, R. A., & Isbanah, Y. (2020). Factors that Influence Investment Decisions among Stock Investors in Surabaya. Journal of Management Science, 8, 197–209.
Putri, W., & Hamidi, M. (2019). The Influence of Financial Literacy, Financial Efficacy, and Demographic Factors on Investment Decision Making (Case Study of Master of Management Students, Faculty of Economics, Andalas University, Padang). Scientific Journal of Management Economics Students, 4(1), 398–412.
Raheja, S., & Dhiman, B. (2019). Relationship Between Behavioral Biases and Investment Decisions: The Mediating Role of Risk Tolerance. DLSU Business and Economics Review, 29(1), 31–39.
Rahyuda, K. (2016). Business Research Methods (2017 Revised Edition). Denpasar: Udayana University Press.
Rasheed, M. H., Rafique, A., Zahid, T., & Akhtar, M. W. (2018). Factors Influencing Investor's Decision Making in Pakistan : Moderating The Role of Locus of Control. Review of Behavioral Finance, 10(1), 70–87.
Rasyid, R., Linda, M. R., Patrisia, D., Fitra, H., & Susanti, Y. (2018). The Effect of the Locus of Control, Financial Knowledge and Income on Investment Decisions. Advances in Economics, Business and Management Research, 57, 258–265.
Rawat, B. R. (2024). Influence of Overconfidence and Loss Aversion Biases on Investment Decision : The Mediating Effect Of Risk Tolerance. Far Western Review, 2(1), 57–73.
Rebellow, A. M., & Suri, P. (2019). Role of demographic factors on decisionmaking styles of indian corporate executives-public and private sectors. Journal of Management Information and Decision Sciences, 22(3), 308–321.
Reilly, F. K., Brown, K. C., & Leeds, S. J. (2019). Investment Analysis and Portfolio Management. (11th Editi). Cengage Learning, Inc.
Safryani, U., Aziz, A., & Triwahyuningtyas, N. (2020). Analysis of Financial Literacy, Financial Behavior, and Income on Investment Decisions. Scientific Journal of Unitary Accounting, 8(3), 319–332.
Schindler, M. (2007). Rumors in Financial Markets: Insights Into Behavioral Finance. John Wiley & Sons.
Sharma, D. R. (2020). Impact of financial literacy and Risk Tolerance on Investment Decision. International Journal of Management and Humanities, 4(11), 53–56.
Sivarajan, S., & Brujin, O. de. (2021). Risk Tolerance, Return Expectations, and Other Factors Impacting Investment Decisions. The Journal of Wealth Management Spring, 23(4), 10–30.
Song, C. L., Pan, D., Ayub, A., & Cai, B. (2023). The Interplay Between Financial Literacy, Financial Risk Tolerance, and Financial Behaviour: The Moderator Effect of Emotional Intelligence. Psychology Research and Behavior Management, 16, 535–548.
Soraya, R., Risman, A., & Siswanti, I. (2023a). The Role of Risk Tolerance in Mediating the Effect of Overconfidence Bias, Representativeness Bias and Herding on Investment Decisions. Journal of Economics, Finance and Management Studies, 06(07), 3324–3335.
Soraya, R., Risman, A., & Siswanti, I. (2023b). The Role of Risk Tolerance in Mediating the Effect of Overconfidence Bias, Representativeness Bias and Herding on Investment Decisions. Journal of Economics, Finance and Management Studies, 06(07), 1–12.
Stella, G. P., Filotto, U., & Maria Cervellati, E. (2020). A Proposal for a New Financial Literacy Questionnaire. International Journal of Business and Management, 15(2), 34.
Suriani, S. (2022). Financial Behavior (1st ed.). We Write Foundation.
Tandelilin, E. (2017). Capital Markets Portfolio Management and Investment. Yogyakarta: PT. Canisius.
Tandon, D. (2024). A Report on Investment Differs from Gambling: A Comprehensive Study on Technical Analysis in Investment Decision-Making. International Journal For Multidisciplinary Research, 6(1), 1–56.
Thesman, M. (2024). The Role of Financial Literacy and Overconfidence in Investment Decision Making (Case Study on Master of Management Students of Diponegoro University, Semarang). International Jurnal Islamic Education, Recearch and Multiculturalism (IJIERM), 6(1), 193–211.

Weerasekara, C., Heenkenda, J., Hapugoda, J., & Senevirathne, A. (2018). Antecedents and Consequences of Financial Literacy : a Case of Retail Investors At the Colombo Stock. Journal of Humanities and Social Sciences, 11(1).

Weixiang, S., Qamruzzaman, M., Rui, W., & Kler, R. (2022). An Empirical Assessment of Financial Literacy and Behavioral Biases on Investment Decision: Fresh Evidence from Small Investor Perception. Frontiers in Psychology, 13, 1–18.

Yuliani, D., & Nurwulandari, A. (2023). The Influence of Financial Literacy, Investment Experience, and Overconfidence on Investment Decisions in National University Master of Management Study Program Students with Risk Tolerance as an Intervening Variable. International Journal of Social Service and Research, 3(10), 2399–2411.

Yuwono, W., & Elmadiani, C. (2021). The Effect of Emotional Contagion, Availability Bias, Overconfidence, Loss Aversion, and Herding on Investment Decisions in the Millennial Generation During the Beginning of the Covid-19 Pandemic. International Conference on Law, Social Science, Economics, and Education.

Zhang, Y., & Zheng, X. (2015). A Study of The Investment Behavior Based on Behavioral Finance. European Journal of Business and Economics, 10(1), 1–5.