

Investor Behavior in Determining Investment Decisions

Syaid Aqil Annawazir^{1*}, Kamaludin²

Universitas Bengkulu

Corresponding Author: Syaid Aqil Annawazir

syaidaqilannawazir@gmail.com

ARTICLE INFO

Keywords: Economic Development, Economic Growth, Growth Data

Received : 7, February

Revised : 21, February

Accepted: 23, March

©2025 Annawazir, Kamaludin : This is an open-access article distributed under the terms of the [Creative Commons Attribution 4.0 International](https://creativecommons.org/licenses/by/4.0/).



ABSTRACT

Examining how financial behavior more especially, overconfidence, loss aversion, illusion of control, and risk tolerance affects investment choices is the goal of this study. Data was gathered utilizing the purposive sampling method as part of a quantitative research methodology. A sample of 245 investors participated in the survey. To analyze the data, multiple linear regression was used. The results showed that risk tolerance, illusion of control, loss aversion, and overconfidence all have a big impact on investing choices. For investors and financial professionals, these findings offer insightful information that helps them comprehend financial behavior and make better investment decisions.

INTRODUCTION

Economic development is an important thing for a country, rapid economic development can cause a great impact on the progress of a country. In the era of globalization like now, economic development in every country is being carried out, one of which is in Indonesia which is in quite rapid economic growth. BPS Indonesia data shows that in 2024 Indonesia will have a growth of 5.05% compared to 2023.

This economic growth can affect various things in the economy, such as poverty, the level of community welfare and economic performance in various fields (Marca et al., 2024). One of them is in the field of investment. This economic growth has affected investors' interest in entering the capital market. This can be seen from the increasing number of investors, both from individuals and organizations. Figure 1 shows KSEI data as of January 24, 2024, the number of capital market investors recorded a growth of 218% from 3.88 million in 2020 to 12.32 million as of January 24, 2024.

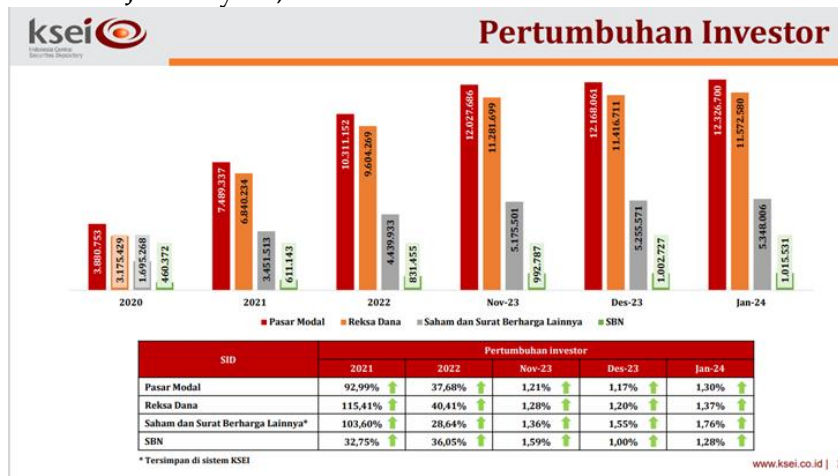


Figure 1. Indonesian Investor Growth Data

There will be more investment activities as the number of investors rises. Investor decision-making is tightly tied to the investment activities that investors engage in (Yulistiyanı et al., 2023). Investors need to be financially literate in order to make wise investment decisions (Stefani & Rahman, 2023). According to the 2024 National Survey on Financial Literacy and Inclusion (SNLIK), which was conducted by the Financial Services Authority (OJK) and the Central Statistics Agency (BPS), Indonesia has a 65.43% literacy rate and a 75.02% inclusion rate (OJK, 2024). The data indicates that while the majority of Indonesians already possess a basic understanding of financial concepts, not all of them have access to financial services. Despite its high level of literacy, Indonesia lags well behind other nations; for instance, Denmark, Sweden, and Norway have the highest financial literacy rates in the world, with 71% (Rosenfeld, 2022).

Investors will encounter both rational and irrational choices while making investing decisions, though financial knowledge and financial inclusion are undoubtedly crucial. Irrational investor judgments are based on a variety of behavioral and psychological biases, whereas rational decisions are based on the examination of market statistical data (Justyanita & Agustin, 2023). Investors can

make illogical judgments, but having financial literacy does not guarantee that they will act logically. DeBondt and Thaler have been studying these irrational investor choices since 1985, and they discovered that there is such a thing as irrational investor behavior (Kufepaksi, 2010). Overconfidence, loss aversion, illusion of control, and risk tolerance are some of the behavioral bias elements that impact investment decisions, according to the study gap in earlier studies. These illogical decisions might be influenced by behavioral biases.

Overconfidence leads to an overestimation of one's own stock price prediction skills, which encourages investors to overlook portfolio downside risks (Dwi Rakhmatulloh & Asandimitra, 2019). Sudirman & Pratiwi (2022) found that investors who suffer from overconfidence bias typically make biased choices. This finding is consistent with studies by Addinpujoartanto & Darmawan (2020) and Pradikasari & Isbanah (2018). This assertion, however, contradicts research by Dwi Rakhmatulloh & Asandimitra (2019), which finds that overconfidence has no bearing on investment choices. Yuwono & Elmadiani (2021), who have the same outcome, validate this assertion.

An investor with loss aversion avoids losses because he finds it difficult to accept them (Ainia & Lutfi, 2019). An intriguing experiment was carried out by Tversky and Kahneman (1991) to demonstrate the phenomena of loss aversion bias. A lovely cup was presented to one group, and they were instructed to write down the price at which they would be willing to sell it (X). After examining the cup, the other group was asked to determine the cup's (Y) fair price. The experiment's findings demonstrated that (X) was significantly bigger than (Y). Hunguru (2020) and Isidore R & Christie (2019) confirmed that loss aversion influences investment decisions, but other researchers, including Pradhana (2018) and Ainia & Lutfi (2019), did not find the effect of loss aversion on investment decisions. These findings demonstrate that the disappointment of losing something you have already owned is greater than the joy of having it. The illusion of control is a psychological factor that convinces a person that he can influence an outcome in fact not (Karima & Sari, 2022). A study researched by Pradhana (2018) states that the illusion of control affects investment decisions, and this is in accordance with Prospect Theory.

The cause of the influence of this illusion of control is that the majority of existing investors are independent investors who do not use the services of a portfolio manager, thus causing investors to feel confident in their abilities and knowledge without taking into account risks (Pradhana, 2018). This statement is supported by (Ayudiasuti (2021) which has a consistent result, namely that the illusion of control affects investment decisions. However, the results of the study are not in line with the research conducted by Pradikasari & Isbanah (2018) which states that although the confidence that investors have in controlling is quite high, but investors do not choose to spend funds on investments that have high risk, investors tend to be cautious in making investment decisions. This statement is supported by Mutawally (2019) and Karima & Sari (2022) who state that illusion of control has no effect on investment decisions,

Risk tolerance, according to Rahma (2023), is the degree of bravery an investor has when taking chances. Compared to investors with a low risk

tolerance, those with a high-risk tolerance may make bolder choices (Hardianto & Lubis, 2022). This assertion is consistent with the opinion of Kulintang & Putri (2024), who contend that a person can make bolder financial choices if they have a high-risk tolerance. The findings, however, diverge from those of Diva & Suardana's (2023) research, which contends that a person's degree of risk tolerance does not necessarily translate into greater courage when making decisions. Baihaqqi & Prajawati's (2023) findings corroborate this claim. Which did not find the effect of risk tolerance on investment decisions.

In order to contribute to the growing body of knowledge regarding an investor's behavioral bias, researchers are interested in the effects of overconfidence, loss aversion, illusion of control, and risk tolerance on investment decisions. This is because there are still a lot of discrepancies in earlier studies on these variables.

LITERATURE REVIEW

Decision Theory

Decision theory is a theory in individual and group decision-making and is used in all fields (Ayudiasuti, 2021). In his book Hansson (1994) stated that decision theory is a theory related to the many conditions or possibilities in decision-making actions. In the decision-making process, a person faces three situations, namely, uncertainty, risk and definite situation (Ayudiasuti, 2021). An uncertain situation is when a decision has many possibilities and probabilities of all possible outcomes of an unknown outcome, a risk situation is a situation in which there can be a variety of possible outcomes in determining the decision and probability, the outcome can be guessed by the decision-maker, and an exact situation is a situation where there is a definite outcome when making an accurate decision (Hansson, 1994)

Prospect Theory

This prospect theory was first proposed by Kahnemen (1979) where this theory discusses human decision-making decisions with uncertain outcomes. According to Hofmeyr (2019) prospect theory is when a person is told to make decisions in uncertain times, which cannot be separated from the choice of loss and profit. This theory reveals that a person will not always act according to the basics of financial theory under risk and certainty, one adds various uncertain psychological factors to rational choices (Pradikasari & Isbanah, 2018).

Behavioral Finance Theory

According to Shefrin (2005), behavioral finance is the science of how human psychological phenomena affect financial behavior. Meanwhile, according to Pompian (2006), behavioral finance is the science of how humans apply psychology and information retrieval in finance by considering the existing risks to improve the rate of return. Based on the theory that has been put forward, it can be interpreted that all individual actions are influenced by psychological factors, both based on rational and irrational attitudes.

Overconfidence

According to Hamzah et al. (2023), overconfidence is the attitude of a person who believes too much in his or her abilities and knowledge in investing. Overconfidence results in investors becoming more overestimating the knowledge they have when and underestimating the predictions made because investors exaggerate their abilities (Nofsinger, 2005). Investors who are overconfident tend to value a risk very little and conversely, a person who values a risk very high means that he is not overconfident.

In the research Fridana & Asandimitra (2020), it is argued that the higher the level of overconfidence a person will be, the higher the investment activities will be, while investors with a low level of overconfidence will be more careful in carrying out investment activities. The results of the research of Widiastuti et al. (2024) state that overconfidence affects investment decisions. However, it is refuted by research conducted by Vorobyova et al. (2022) and Suci Sudani & Putri Pertiwi (2022) which states that overconfidence has no effect in determining investment decisions.

H1: Overconfidence affects investment decisions

Loss aversion

Loss aversion is an attitude of avoiding losses and is included in the section of prospect theory (Pompian, 2006). The loss has a greater burden than the profit because the high frequency of evaluation of an investment in risky assets will push the level of investor dissatisfaction even higher as well (Tang & Asandimitra, 2023)

In the research conducted by Candy & Vincent (2021) stated that there is a positive influence of loss aversion on the investment decision process, this is in line with research conducted by Al-Dahan et al. (2019) which states that loss aversion has a significant positive influence on investment decisions. But another study conducted by Armansyah (2021) found different results, namely loss aversion has no influence on investment decisions.

H2: Loss aversion affects investment decisions

Illusion of control

According to Langer (1975) the illusion of control is a much higher expectation and possibility of personal success than the objective possibility should be. The illusion of control describes the tendency of humans to accept the belief that they can control and influence outcomes when in reality they cannot (Pompian, 2006). Investors will tend to choose to invest in stocks rather than bonds when they have this property because stocks have greater risk than bonds (Ayudiasuti, 2021).

Research conducted by Mutawally & Asandimitra (2019) states that the illusion of control has no effect on investment decisions because investors at one time feel that they can control their investments, but on the other hand, the investor can't. It is different from the results carried out by Ayudiasuti (2021) which states that the illusion of control is influential in determining investment decisions.

H3: Illusion of control affects investment decisions

Risk tolerance

According to Hardianto & Lubis (2022), risk tolerance is the level of ability that a person can accept in taking an investment risk. In choosing assets and spending the amount of funds invested, it is often greatly influenced by the risk tolerance of investors (Kulintang & Putri, 2024). Differences in risk tolerance attitudes can be caused by several factors such as age, occupation, socioeconomic status, income, wealth, and the amount of expected income (Rahma, 2023).

Research from Pradikasari & Isbanah (2018) results that risk tolerance affects investment decisions. It is the same with the research of Perayunda & Mahyuni (2022) which states that risk tolerance affects investment decisions because this is supported by the theory of behavior finance which explains that risk tolerance is one of the psychological attitudes of investors that affect investment decision-making. This is different from the results of research by Kusumaningrum et al. (2019) and Widiastuti et al. (2024) which did not find the effect of risk tolerance on investment decisions.

H4: Risk tolerance affects investment decisions

This study was made by looking at Decision Theory, Behavioral Finance Theory, Prospect Theory and the results of previous research which is the hypothesis of this study, this study intends to test the influence of behavioral finance on investment decisions explained with the help of Decision Theory, Behavioral Finance Theory, and Prospect Theory. The dependent variables used in this study are investment decisions and independent variables used in this study, namely, overconfidence, loss aversion, illusion of control, and risk tolerance. The research model that can be described from this study is as follows.

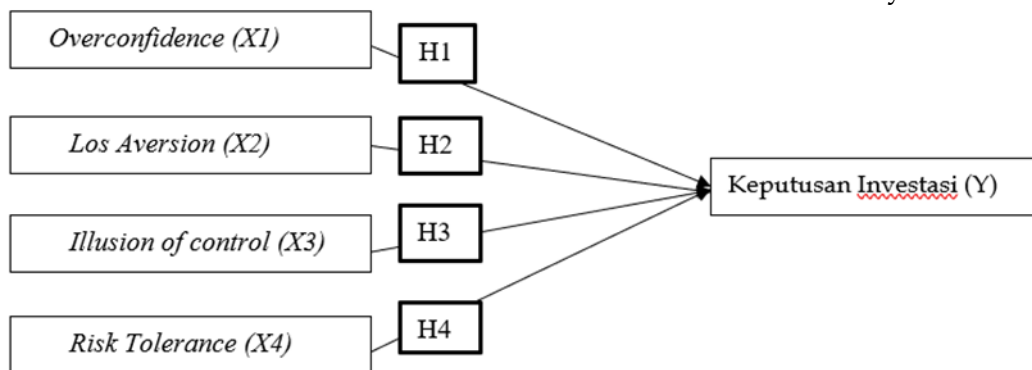


Figure 2. Conceptual Framework

METHODOLOGY

This study's quantitative approach uses primary data gathered through the distribution of online surveys using Google Forms. The responders will be asked to assess each item on a Likert scale, which ranges from (1) strongly disagree to (5) strongly agree. The study's population consists of Indonesian investors. Purposive sampling is the method used, and the criteria are: (1) Indonesians who are active in capital market investing; and (2) Indonesians who are capital market investors and have Single Investor Identification (SID). There are 245 individuals in the study's samples. The Statistical Package for the Social Sciences (SPSS) version 29 program will be used to process the gathered data.

The multiple linear regression approach is used in the data analysis test. Validity and reliability tests will be used to assess the quality of the data by comparing the r-count to the r-table of the data that has been deemed legitimate. Following that, a traditional assumption test comprising tests for heteroscedasticity, multicollinearity, and normality was carried out. The T-test, F-test, and coefficient of determination were then used to test the hypothesis.

The independent variables in this study were Overconfidence (X1), Loss Aversion (X2), Illusion Of Control (X3), and Risk Tolerance (X4). The dependent variable of this study is Investment Decision (Y).

Table 1. Operational Definition and Measurement of Research Variables

Variable	Definition	Indicator	Source
<i>Overconfidence</i> (X1)	Overconfidence is a feeling of confidence in the ability to predict things that will not go wrong.	<ol style="list-style-type: none"> 1. Choosing the right investment 2. Trust your own abilities 3. Trust your knowledge 4. Confident in choosing investments 	(Hardianto & Lubis, 2022)
<i>Loss Aversion</i> (X2)	The term "loss aversion" describes the varying degrees of psychological repercussions that persons may experience from wins or losses of the same magnitude.	<ol style="list-style-type: none"> 1. Focus on losses rather than profits 2. Feeling worried when there is a price drop 3. Refusing to increase investment when market performance is poor. 4. More important losses than profits 5. Do not sell stocks that are falling in value and sell stocks that are rising in value. 	(Ahmad et al., 2019)
<i>Illusion Of Control</i> (X3)	The illusion of control is a great belief in	<ol style="list-style-type: none"> 1. Ignoring risks 2. Thinking everything is easy to do 	(Ainun, 2019)

	predicting outcomes, but in reality, it is not.	<ol style="list-style-type: none"> 3. Thinking is able to determine the outcome of a decision 4. Able to overcome all problems that will arise in the future 5. Can anticipate if a problem occurs in the middle of the road 	(Vicky, 2021)
<i>Risk Tolerance (X4)</i>	Risk tolerance is the extent to which investors can provide a certain risk tolerance to the expected return.	<ol style="list-style-type: none"> 1. Dare to take big risks 2. Leaving funds to make investments 3. Buying investment assets without thinking twice 4. Investing in activities that provide great profits 	(Wulandari & Iramani, 2014)
Keputusan Investasi (Y)	An investment decision is a choice made based on two or more alternatives to invest capital in the hope of great returns in the future.	<ol style="list-style-type: none"> 1. Instinct 2. Intuition 3. Return 4. Risk 5. Period 	(Rasheed et al., 2018) dan (Vicky, 2021)

RESEARCH RESULT

The data that has been collected through a questionnaire has been collected as many as 245 respondents in accordance with the criteria that have been set. The characteristics of the 245 respondents who answered the questionnaire can be seen in the following table.

Table 2. Characteristics Responden

No	Gender	Frequency	Percentage
1	Man	113	46,1%
2	Woman	132	53,9%
	Total	245	100%

No	Age	Frequency	Percentage
1	< 25 Years	54	22%
2	25 - 35 Years	105	42,9%

3	36 - 45 Years	74	30,2%
4	> 45 years	12	4,9%
Total		245	100%
No	Domicile	Frequency	Percentage
1	Sumatra Island	58	23,7%
2	Java	90	36,7%
3	Sulawesi Island	44	18%
4	Kalimantan Island	29	11,8%
5	Papua Island	24	9,8%
Total		245	100%
No	Last education	Frequency	Percentage
1	High School or Equivalent	45	18,4%
2	D1/D2/D3	51	20,8%
3	S1 (Sarjana)	143	58,4%
4	S2 (Magister)	5	2%
5	S3 (Doctor)	1	0,4%
Total		245	100%
No	Monthly Income	Frequency	Percentage
1	< Rp. 1.500.000	21	8,6%
2	Rp. 1.500.000- 3.000.000	50	20,4%
3	Rp. 3.000.000- 5.000.000	111	45,3%
4	Rp. 5.000.000-10.000.000	54	22%
5	> Rp. 10.000.000	9	3,7%
Total		245	100%
No	Investing Experience	Frequency	Percentage
1	< 1 year	46	18,8%
2	1-3 years	97	39,6%
3	3-5 years	74	30,2%
4	> 5 years	28	11,45%
Total		245	100%

A total of 245 respondents answered the questionnaire, the dominant respondent criteria for gender were 132 women (53.9%) and 113 men (46.1%). Based on age, most respondents filled in aged 25-35 years. A total of 54 (22%) respondents were under 25 years old, 105 respondents (42.9%) were 25-35 years old, 74 respondents (30.2%) were 36-45 years old, and 12 respondents (4.9%) were over 45 years old.

Based on the domicile of the majority of respondents filling the island of Java. A total of 58 respondents (23.7%) were domiciled on the island of Sumatra, 90 respondents (36.7%) were domiciled on the island of Java, 44 respondents (18%) were domiciled on the island of Sulawesi, 29 respondents (11.8%) were domiciled on the island of Kalimantan, and 24 respondents (9.8%) were domiciled on the island of Papua. Based on the last education, the majority of respondents filled in S1 (Bachelor). A total of 45 respondents (18.4%) graduated from high school or equivalent, 51 respondents (20.8%) graduated from

D1/D2/D3, 143 respondents (58.4%) graduated from S1 (Bachelor), 5 respondents (2%) graduated from S2 (Master), and 1 respondent (0.4%) graduated from S3 (Doctorate). Based on monthly income, the majority of respondents fill Rp. 3-5 million. A total of 21 respondents (8.6%) has an income of less than 1.5 million per month, 50 respondents (20.4%) have an income of 1.5-3 million per month, 111 respondents (45.3%) have an income of 3-5 million per month, 54 respondents (22%) have an income of 5-10 million per month, and 9 respondents (3.7%) have an income of more than 10 million per month. Based on investment experience, the majority of respondents fill in 1-3 years. A total of 46 respondents ((18.8%) have less than 1 year of investment experience, 97 respondents ((39.6%) have 1-3 years of investment experience, 74 respondents (((30.2%) have 3-5 years of investment experience and 28 respondents ((11.4%) have more than 5 years of investment experience.

Validity Test

This study evaluated the validity test results by obtaining a calculated R value higher than the R table value (1.254). The variables – overconfidence, loss aversion, illusion of control, risk tolerance, and investment decisions – were deemed valid since the Pearson Spearman value or r-calculated exceeded the r-table value of 0.05.

Reliability Test

The reliability test was conducted on the variables of overconfidence, loss aversion, illusion of control, risk tolerance, and investment decisions using Cronbach's alpha. The results showed that the Cronbach's alpha value for the overconfidence variable was 0.716, for loss aversion was 0.790, for illusion of control was 0.748, for risk tolerance was 0.705, and for investment decisions was 0.730. Since all variables had Cronbach's alpha values exceeding 0.70, they were considered reliable.

Table 3. Normality Test Results

	Unstandardized Residual
N	245
Test Statistic	0,053
Asymp. Sig. (2-tailed) ^c	0,093

Source: SPSS Data Processing Output 29, 2025

Based on the results of the normality test that has been carried out using the Kolmogorov-smirnov test, it produces an Asymp value. Sig. (2-tailed) by 0.093 > 0.05. Then it can be seen that the data has been distributed normally.

Table 4. Hasil Uji Multikolinearitas

Model	Collinearity Statistics	
	Tolerance	VIF
Overconfidence	0,445	2,248
Loss Aversion	0,427	2,341
Illusion of Control	0,341	2,930
Risk Tolerance	0,472	2,117

Source: SPSS Data Processing Output 29, 2025

Based on the results of the multicollinearity test, the Tolerance values of overconfidence (0.445), loss aversion (0.427), illusion of control (0.341), and risk tolerance (0.472) were greater than 0.1 and the VIF values of overconfidence (2.248), loss aversion (2.341), illusion of control (2.930), and risk tolerance (2.472) is smaller than 10. It can therefore be concluded that no multicollinearity issue is present.

Table 5. Results of the Heteroscedasticity Test (Gglejser Test)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Mr.
	B	Std. Error	Beta		
1 (Constant)	2,609	0,512		5,096	0,000
Overconfidence	-0,022	0,042	-0,049	-0,513	0,608
Loss Aversion	0,032	0,032	0,096	0,988	0,324
Illusion of Control	-0,072	0,038	-0,206	-1,903	0,058
Risk Tolerance	-0,004	0,039	-0,010	-0,111	0,912

Source: SPSS Data Processing Output 29, 2025

Based on the results of the heteroscedasticity test, the significance values of overconfidence (0.608), loss aversion (0.324), illusion of control (0.058), and risk tolerance (0.912) were greater than 0.05. So it can be concluded that there is no heteroscedasticity problem.

Table 6. Determination Coefficient Test Results (R²)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.822 ^a	0,676	0,670	1,862

Source: SPSS Data Processing Output 29, 2025

Based on the results of the determination coefficient test, it shows that the determination value or Adjusted R Square of 0.670 is equal to 67%. So it can be interpreted that overconfidence, loss aversion, illusion of control, and risk tolerance as independent variables have an influence on investment decisions as dependent variables by 67%. While the remaining 33% were influenced by other factors that were not studied in this study.

Table 7. Simultaneous Test Results (Test F)

Model		Sum of Squares	df	Mean Square	F	Mr.
1	Regression	1734,393	4	433,598	125,089	<,001b
	Residual	831,917	240	3,466		
	Total	2566,310	244			

Source: SPSS Data Processing Output 29, 2025

The results obtained were 125.089 F-count value greater than F-table (2.409) and 0.01 significance value was smaller than 0.05. It can be interpreted that the independent variables of overconfidence, loss aversion, illusion of control, and risk tolerance affect investment decisions as dependent variables simultaneously.

Table 8. Partial Test Results (T-Test)

Model	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
	B	Std. Error			
1 (Constant)	2,812	0,799		3,520	0,001
Overconfidence	0,157	0,066	0,131	2,373	0,018
Loss Aversion	0,102	0,050	0,115	2,050	0,041
Illusion of Control	0,272	0,059	0,292	4,635	0,000
Risk Tolerance	0,454	0,061	0,398	7,447	0,000

Source: SPSS Data Processing Output 29, 2025

The results obtained were the T-calculated value of overconfidence (2.373) with a significance of $0.018 < 0.05$, loss aversion (2.050) with a significance of $0.041 < 0.05$, illusion of control (4.635) with a significance of $0.001 < 0.05$ and risk tolerance (7.447) with a significance of $0.001 < 0.05$. So that the variables overconfidence, loss aversion, illusion of control, and risk tolerance have a significant influence on investment decisions because the T-count is larger than the T-table (1,970).

DISCUSSION

Based on the results that have been tested, it shows that this overconfidence variable has a T-count value $>$ the T-table and has a significance less than 0.05. So H1 is accepted that overconfidence has an influence on investment decisions. This aligns with behavioral finance theory, which suggests that psychological factors influence financial behavior. This is because respondents who feel they have experience and mature knowledge will invest more often so that they are too confident in the decisions they have determined. This result is supported by research conducted by Widiastuti et al. (2024) and Fridana & Asandimitra (2020) who argue that the higher a person's level of overconfidence, the higher the investment activity will be, while investors with a low level of overconfidence will be more cautious in carrying out investment activities.

Based on the results that have been tested, it shows that this loss aversion variable has a T-count value $>$ T-table and has a significance less than 0.05. So H2 is accepted that loss aversion has an influence on investment decisions. This result is in accordance with behavioral finance theory and prospect theory because a person who has a high level of loss aversion will tend to be more careful in making investment decisions, this is because too many respondents are too worried when they experience losses rather than happy when they make a profit. This aligns with behavioral finance theory, which states that human psychological factors impact financial behavior. which states that loss aversion has a significant positive influence on investment decisions.

Based on the results that have been tested, it shows that this illusion of control variable has a T-count value $>$ T-table and has a significance less than 0.05. So H3 accepts that the illusion of control has an influence on investment decisions. This result is in accordance with behavioral finance theory and prospect theory, the cause of the influence of this illusion of control is because under certain conditions investors will feel very confident in predicting the outcome so that investors will carry out investment activities more often. This result is supported by research conducted by Ayudiasuti (2021) and Pradhana (2018), which states that the illusion of control has an effect on investment decisions.

Based on the results that have been tested, it is shown that this risk tolerance variable has a T-count value $>$ T-table and has a significance less than 0.05. So H4 is accepted that risk tolerance has an influence on investment decisions. This is consistent with behavioral finance theory, which asserts that psychological phenomena influence financial behavior. This is because most of the respondents who answered included having a high level of risk-taking. Judging from the type of investor, respondents are included in the risk seeker type, where respondents dare to take high risks to get greater profits. This shows that when investors have a high risk tolerance, investors are more daring to face risks in making investment decisions. This result is supported by research conducted by Pradikasari & Isbanah (2018) and Perayunda & Mahyuni (2022) which states that risk tolerance affects investment decisions because this is supported by behavioral finance theory which explains that risk tolerance is one of the psychological attitudes of investors that affect investment decision-making.

CONCLUSIONS AND RECOMMENDATIONS

Based on the results of the research and discussion, conclusions were reached, namely (1) overconfidence has a significant influence on investors' investment decisions in Indonesia. This happens because Indonesian investors believe in their abilities so they ignore risks and start increasing their investment activities. (2) loss aversion has a significant influence on investors' investment decisions in Indonesia. This happens because investors who have a high loss aversion will tend to be more careful in determining investment decisions due to worry when experiencing losses. (3) Illusion of Control has a significant influence on investors' investment decisions in Indonesia. This happens because investors

feel very confident that they can predict future results so that investors will carry out investment activities more often. (4) risk tolerance has a significant influence on investors' investment decisions in Indonesia. The majority of Indonesian investors are included in the type of risk seekers, where they dare to take high risks in order to get big profits. This shows that when investors have a high risk tolerance, investors are more daring to face risks in making investment decisions. These findings have important implications for investors and financial practitioners in understanding financial behavior and making more informed investment decisions.

The advice that can be given is that investors are expected not to be too confident in making investment decisions even though they have a lot of knowledge and experience so that they can make more rational decisions. Investors should not avoid losses too much so that investment profits are not maximized. Investors should not believe too much in the predictions that have been made so that they do too much investment activities. Investors should not be too brave to take risks just because they are chasing big profits. All independent variables in this study only contributed 67%, the remaining 33% were influenced by variables outside this study and it is hoped that further research can develop further.

This study has limitations in the data collection method that only uses online questionnaires and does not use the interview method. This method makes respondents fill in data not under the supervision of the researcher and does not rule out the possibility that the answers from the respondents will tend to be biased, depending on the atmosphere and conditions when the respondents fill in the data.

ADVANCED RESEARCH

The recommendation for further research is to add other variables that affect investment decisions and use more detailed measurement instruments to get more accurate results.

REFERENCES

- Addinpujoartanto, N. A., & Darmawan, S. (2020). Pengaruh overconfidence, regret aversion, loss aversion, dan herding bias terhadap keputusan investasi di Indonesia. *Jurnal Riset Ekonomi Dan Bisnis*, 13(3), 175. <https://doi.org/10.26623/jreb.v13i3.2863>
- Ahmad, Y. A., Abu-Rumman, A., Al-Alani, Y. S., & Alhorani, A. (2019). Impact of behavioral finance on stock investment decision applied study on a sample of investors at Amman stock exchange. *Academy of Accounting and Financial Studies Journal*, 23(2), 1-16.
- Ainia, N. S. N., & Lutfi, L. (2019). The influence of risk perception, risk tolerance, overconfidence, and. *Journal of Economics, Business & Accountancy Ventura*, 21(3), 401-413.
- Ainun. (2019). *Pengaruh illusion of control , overconfidence dan emosi terhadap keputusan investasi*.
- Al-Dahan, N. S. H., Hasan, M. F., & Jadah, H. M. (2019). Effect of cognitive and emotional biases on investor decisions: An analytical study of the Iraq stock

- exchange. *International Journal of Innovation, Creativity and Change*, 9(10), 30–47.
- Armansyah, R. F. (2021). Over Confidence, Mental Accounting, and Loss Aversion In Investment Decision. *Journal of Auditing, Finance, and Forensic Accounting*, 9(1), 44–53. <https://doi.org/10.21107/jaffa.v9i1.10523>
- Ayudiasuti, L. (2021). Analisis pengaruh keputusan investasi mahasiswa. *Jurnal Ilmu Manajemen*, 9(3), 1138–1149. <https://doi.org/10.26740/jim.v9n3.p1138-1149>
- Baihaqqi, I. K., & Prajawati, M. I. (2023). Pengaruh Risk Tolerance dan Religiusitas terhadap Keputusan Investasi dengan Literasi Keuangan sebagai Variabel Moderasi. *Ekonomi, Keuangan, Investasi Dan Syariah (EKUITAS)*, 4(3), 960–968. <https://doi.org/10.47065/ekuitas.v4i3.2448>
- Candy, C., & Vincent, K. (2021). Analisis pengaruh behavioural finance terhadap pengambilan keputusan investasi investor di kepulauan riau. *Jesya (Jurnal Ekonomi & Ekonomi Syariah)*, 4(2), 864–873. <https://doi.org/10.36778/jesya.v4i2.403>
- Diva, I. B. B. K., & Suardana, K. A. (2023). Pengaruh literasi keuangan, toleransi risiko, dan faktor demografi terhadap keputusan investasi mahasiswa. *E-Jurnal Ekonomi Dan Bisnis Universitas Udayana*, 12(05), 810. <https://doi.org/10.24843/eeb.2023.v12.i05.p02>
- Dwi Rakhmatulloh, A., & Asandimitra, N. (2019). Pengaruh Overconfidence, Accounting Information, dan Behavioural Motivation Terhadap Keputusan Investasi di Kota Surabaya. *Jurnal Ilmu Manajemen (JIM)*, 7, 796–806.
- Fridana, I. O., & Asandimitra, N. (2020). Analisis faktor yang memengaruhi keputusan investasi (studi pada mahasiswi di surabaya). *Jurnal Muara Ilmu Ekonomi Dan Bisnis*, 4(2), 396. <https://doi.org/10.24912/jmieb.v4i2.8729>
- Hamzah, A., Syarifudin, S., & Nurhayati, E. (2023). Determination Analysis of Investment Decision-Making. *JIMFE (Jurnal Ilmiah Manajemen Fakultas Ekonomi)*, 9(2), 15–26. <https://doi.org/10.34203/jimfe.v9i2.7211>
- Hansson. (1994). Decision theory. *The Cambridge History of Moral Philosophy. International Encyclopedia of Education, Third Edition*, 706–717. <https://doi.org/10.1017/9781139519267.054>
- Hardianto, H., & Lubis, S. H. (2022). Analisis literasi keuangan, overconfidence dan toleransi risiko terhadap keputusan investasi saham. *E-Jurnal Akuntansi*, 32(3), 684. <https://doi.org/10.24843/eja.2022.v32.i03.p10>
- Hofmeyr, A. (2019). Prospect theory in the wild: how good is the nonexperimental evidence for prospect theory? *Journal of Economic Methodology*, 26(1), 13–31. <https://doi.org/10.1080/1350178X.2018.1561072>
- Hunguru, P. (2020). Determinants of investment decisions: A study of individual investors on the zimbabwe stock exchange. *Applied Economics and Finance*, 7(5), 38. <https://doi.org/10.11114/aef.v7i5.4927>
- Isidore R, R., & Christie, P. (2019). The relationship between the income and behavioural biases. *Journal of Economics, Finance and Administrative Science*, 24(47), 127–144. <https://doi.org/10.1108/JEFAS-10-2018-0111>
- Justyanita, & Agustin, N. I. (2023). Analysis impact of financial behavior on cryptocurrencies investment decisions for the millennial generation in

- indonesia. *EKOMABIS: Jurnal Ekonomi Manajemen Bisnis*, 4(02), 197–214.
- Kahneman. (1979). Prospect theory: An analysis of decision under risk. *Encyclopedia of Statistical Sciences*, 47(3469), 263–291. <https://doi.org/10.1002/0471667196.ess0533>
- Karima, N. A., & Sari, N. R. (2022). Pengaruh Literasi Keuangan, Illusion of Control dan Overconfidence terhadap Keputusan Investasi pada Investor di Tulungagung. *BUDGETING : Journal of Business, Management and Accounting*, 4(1), 74–88. <https://doi.org/10.31539/budgeting.v4i1.4274>
- Kufepaksi, M. (2010). Investor Overconfident Dalam Penilaian Saham: Perspektif Gender Dalam Eksperimen Pasar. *Kinerja*, 14(2), 131–150. <https://doi.org/10.24002/kinerja.v14i2.44>
- Kulintang, A., & Putri, E. (2024). Peran literasi keuangan, risk tolerance, overconfidence serta financial technology dalam mendorong keputusan investasi. *Jurnal Riset Akuntansi & Perpajakan (JRAP)*, 11(1), 39–55. <https://doi.org/10.35838/jrap.2024.011.01.04>
- Kusumaningrum, T. M., Isbanah, Y., & Paramita, R. A. S. (2019). Factors Affecting Investment Decisions: Studies on Young Investors. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 9(3), 10–16. <https://doi.org/10.6007/ijarafms/v9-i3/6321>
- Langer. (1975). The illusion of control. *Journal of Personality and Social Psychology*, 32(2), 311–328. <https://doi.org/10.4324/9781351258760-33>
- Marca, I. A. F., Oentoro, Y. P., & Yasin, M. (2024). Pertumbuhan ekonomi sebagai cerminan perkembangan perekonomian suatu negara. *Jurnal Manajemen Dan Bisnis Ekonomi*, 2(3), 40–47. <https://doi.org/10.54066/jmbe-itb.v2i3.1898>
- Mutawally, F. W., & Asandimitra, N. (2019). Pengaruh financial literacy, risk perception, behavioral finance dan pengalaman investasi terhadap keputusan investasi mahasiswa surabaya. *Jurnal Ilmu Manajemen (JIM)*, 7(4), 942–953.
- Nofsinger, J. R. (2005). Social Mood and Financial Economics. *Journal of Behavioral Finance*, 6(3), 144–160. https://doi.org/10.1207/s15427579jpfm0603_4
- OJK. (2024). *Survei Nasional Literasi dan Inklusi Keuangan (SNLIK) 2024*. [https://www.ojk.go.id/id/berita-dan-kegiatan/publikasi/Documents/Pages/Survei-Nasional-Literasi-dan-Inklusi-Kuangan-\(SNLIK\)-2024/Survei Nasional Literasi dan Inklusi Keuangan \(SNLIK\) 2024.pdf](https://www.ojk.go.id/id/berita-dan-kegiatan/publikasi/Documents/Pages/Survei-Nasional-Literasi-dan-Inklusi-Kuangan-(SNLIK)-2024/Survei%20Nasional%20Literasi%20dan%20Inklusi%20Keuangan%20(SNLIK)%202024.pdf)
- Perayunda, I. G. A. D., & Mahyuni, L. P. (2022). Faktor-faktor yang mempengaruhi keputusan investasi cryptocurrency pada kaum milenial. *EKUITAS (Jurnal Ekonomi Dan Keuangan)*, 6(3), 351–372. <https://doi.org/10.24034/j25485024.y2022.v6.i3.5224>
- Pompian, M. M. (2006). Behavioral Finance and Wealth Management. In *Behavioral Finance and Wealth Management*. <https://doi.org/10.1002/9781119202400>
- Pradhana, R. W. (2018). Pengaruh Financial Literacy, Cognitive Bias, dan Emotional Bias Terhadap Keputusan Investasi (Studi Pada Investor Galeri Investasi Universitas Negeri Surabaya). *Jurnal Ilmu Manajemen*, 6(3), 108–117. <https://jurnalmahasiswa.unesa.ac.id/index.php/jim/article/view/23849>

- Pradikasari, E., & Isbanah, Y. (2018). Pengaruh financial literacy, illusion of control, overconfidence, risk tolerance, dan risk perception terhadap keputusan investasi pada mahasiswa di kota surabaya Surabaya. *Jurnal Ilmu Manajemen (JIM)*, 6(4), 424–434.
- Rahma, N. (2023). Analisis faktor yang memengaruhi keputusan investasi generasi millennial. *Jurnal Ilmu Manajemen*, 11(3), 522–535. <https://journal.unesa.ac.id/index.php/jim/article/view/24721>
- Rasheed, M. H., Rafique, A., Zahid, T., & Akhtar, M. W. (2018). Factors influencing investor's decision making in Pakistan. *Review of Behavioral Finance*, 10(1), 70–87. <https://doi.org/10.1108/rbf-05-2016-0028>
- Rosenfeld, J. (2022). *Financial Literacy Around the World: Top 10 Countries and the US*. <https://finance.yahoo.com/news/financial-literacy-around-world-top-120017481.html?form=MG0AV3>
- Shefrin, H. (2005). Developing behavioral asset pricing models. In *A Behavioral Approach to Asset Pricing*.
- Stefani, A. N., & Rahman, T. (2023). Peran bias perilaku dalam hubungan antara literasi keuangan, karakteristik sosiodemografi dan locus of control dengan keputusan investasi saham syariah. *Journal of Management and Digital Business*, 3(2), 57–72. <https://doi.org/10.53088/jmdb.v3i2.597>
- Suci Sudani, F., & Putri Pertiwi, I. F. (2022). Financial Information Analysis to Minimize Availability Bias, Representative Bias, Anchoring Bias and Adjustment Bias, and Overconfidence Bias in Investment Decision Making (Study on Investors at the Sharia Investment Gallery of UIN Raden Mas Said. *Social Science Studies*, 2(5), 446–460. <https://doi.org/10.47153/sss25.3852022>
- Sudirman, W. F. R., & Pratiwi, A. (2022). Overconfidence Bias dalam Pengambilan Keputusan Investasi: Peran Perbedaan Gender. *Muhammadiyah Riau Accounting and Business Journal*, 3(2), 081–092. <https://doi.org/10.37859/mrabj.v3i2.3493>
- Tang, I. M. H., & Asandimitra, N. (2023). Pengaruh mental accounting, regret aversion bias, herding bias, loss aversion, risk perception, dan financial literacy terhadap keputusan investasi investor generasi z. *Jurnal Ilmu Manajemen*, 11(2), 458–473.
- Tversky, A., & Kahneman, D. (1991). Loss Aversion In Riskless Choice: A Reference-Dependent Model. *The Quarterly Journal of Economics*, 106(4), 1039–1061. <http://www.jstor.org/stable/2937956?>
- Vicky, M. (2021). *Pengaruh Financial Literacy, Illusion of Control, Overconfidence, Risk Perception, Risk Tolerance Dan Experienced Regret Terhadap Keputusan Investas*. 1–125. https://repository.uin-suska.ac.id/56849/1/SKRIPSI_GABUNGAN.pdf
- Vorobyova, K., Alkadash, T. M., & Nadam, C. (2022). Investigating Beliefs, Attitudes, And Intentions Regarding Strategic Decision-Making Process: An Application Of Theory Planned Behavior With Moderating Effects Of Overconfidence And Confirmation Biases. *Specialusis Ugdyimas / Special Education*, 2022(43), 1.
- Widiastuti, Soleha, E., Zakiatul Hidayah, Z., & Meirani, N. (2024). Analisis risk tolerance dan overconfidence terhadap keputusan investasi di bursa efek

- indonesia. *Jurnal Pendidikan Ekonomi Dan Kewirausahaan*, 8(1), 263.
<https://doi.org/10.29408/jpek.v8i1.25274>
- Wulandari, A., & Iramani, R. (2014). Studi experienced regret, risk tolerance, overconfidance dan risk perception pada pengambilan keputusan investasi. *Journal of Business and Banking*, 4(1), 55.
<https://doi.org/10.14414/jbb.v4i1.293>
- 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*.
<https://doi.org/10.4108/eai.6-3-2021.2306475>