

**THE EFFECT OF OVERCONFIDENCE, RISK TOLERANCE, HERDING BEHAVIOR,
AND LOSS AVERSION ON INVESTMENT DECISION IN THE CAPITAL MARKET**

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ABSTRACT

This study investigates the impact of overconfidence, risk tolerance, herding behavior, and loss aversion on investment decision. It utilizes an analytical approach, employing surveys as the primary research method. The study's population consists of all undergraduate entrepreneurial students from semesters 6 to 8 of the 2020-2023 cohort at the Faculty of Economics and Business at Syiah Kuala University (FEB-USK). The findings show that students' overconfidence, risk tolerance, herding behavior, and loss aversion have a negative and significant impact on their investment decision. This highlights that the ideal investment decision model for students encourages a balanced approach, consisting of one that avoids overconfidence, embraces prudent risk tolerance, steers clear of herding behavior, and mitigates excessive loss aversion.

Keywords: Investment, Overconfidence, Risk tolerance, Herding Behavior, Loss Aversion.

1. INTRODUCTION

Investment involves the allocation of capital or resources currently owned to generate future profits (Ghane et al., 2011). It typically focuses on tangible assets such as land, gold, real estate, and various commodities. However, some of the most recognized and rapidly growing investments pertain to financial assets, including stocks, bonds, deposits, and various securities. Investment activity refers to the deployment of excess capital by individuals or entities into financial instruments or shares of companies seeking financing, with the expectation of generating future profits. Investors earn returns through stock price appreciation or future dividend payments, compensating them for the duration of their investment and the associated risks.

Investment is an important indicator of a country's economic success. (Hussain & Rasheed, 2022) claim that financial literacy enhances the quality of financial services and promotes economic growth and development within a nation. Moreover, investment is intricately connected to scientific endeavors within universities, and the escalating trend of securities trading in the capital market presents an opportunity for the Indonesia Stock Exchange (IDX) to collaborate with Indonesian universities and local securities firms. This collaboration presents investment opportunities in higher education. This investment gallery functions as an extension of the Indonesia Stock Exchange, designed to engage and educate students and public investors about investments in the Indonesian capital market.

Economic activities are inextricably linked to contemporary social life. Residents must effectively manage their funds to ensure their essential necessities are fulfilled. Numerous strategies can be employed to fulfill expectations, including investment. The capital market investment in Indonesia from 2019 to 2022 has undergone a substantial rise. According to data from the Indonesian Central

Securities Depository (KSEI) in early November 2022, the total number of investors in the Indonesian capital market reached 10 million, representing 99.78% (KSEI, 2022). The Central Statistics Agency (2022) reports that the quantity of capital market investors is exceedingly low relative to Indonesia's population of approximately 275 million individuals. Based on this issue, the IDX and the Financial Services Authority (OJK) implemented an educational campaign (Milati & Zen, 2022). One initiative of the IDX aims to attract new investors by developing an investing gallery at each institution. The investment gallery serves as a powerful instrument for national education.

The Faculty of Economics and Business at Syiah Kuala University (FEB-USK) contains an Investment Gallery, created in partnership with the IDX, and is presently a direct member of RHB (Rashid Hussein Bank), one of the exchange businesses. Since the inception of the investment gallery, 499 users have employed the RHB Transmart application through the USK Investment Gallery (GI). Nonetheless, despite the amount of 4,275 students from the FEB-USK cohort 2017-2023, their involvement as members/investors in the USK investment gallery remains remarkably restricted. This results in numerous students remaining unaware of the advantages of investing, hence diminishing their interest in the practice. Investment is often viewed as a domain exclusive to those with significant wealth, such as large corporations. However, the reality is that most people can engage in investing, even individuals with limited capital. People pursue investment for a variety of goals, including funding travel, paying for education, building future assets, or managing daily expenses, among other objectives.

Investment decisions involve a series of processes in which corporate and individual investors gather or make choices based on the resources available, including capital, and the information they have. These decisions can arise from reasonable or irrational investor behavior. If all investors act rationally, the capital market in which they invest is characterized by strong and efficient conditions. These requirements ensure that all prices in the capital market include all relevant information. Making investment choices requires significant action for investors. The process of investment decision-making is crucial and delicate due to the varying biases and personal characteristics of each investor. Xue et al. (2021) identified numerous critical decisions that influence investor valuations. The decision-making process is simplified when investors are aware of the majority of the complexities, resulting in diminished financial losses.

Corporate analysts, institutional investors, and merchants encounter numerous hurdles, including market volatility, regulatory inconsistency, economic unpredictability, and an abundance of options in investment decision-making. Prudent investors must recognize the hazards intrinsic to financial decisions. Conversely, decisions derived from little or unclear information and flawed data assessment often result in erroneous outcomes (Ullah et al., 2017). Investors must assess the risks associated with investments based on prevailing trends. Additional information may be required if any factors alter the decision, or the evidence will be futile. The quantity of evidence is determined by how decision-makers utilize it for investments. An informed decision-maker may function as an informant, irrespective of the specifics (Arifin, 2018). Proficient investors can make informed investing judgments by establishing confidence or employing knowledge and risk management appropriately (Sivarajan & de Bruijn, 2021).

To see the initial picture related to the decision of invisibility, overconfidence, risk tolerance, herding behavior, and loss aversion, a random preliminary study was conducted on thirty (30) students of the FEB-USK. However, there is an indicator that is still not well realized in terms of

investment decisions, namely regarding the determination of investment policies that avoid losses. Based on the observations made by the researcher on respondents who responded to the initial survey, the majority of students do not know stocks and investments well and comprehensively because so far they have only listened to information about stocks and investments for study purposes but have never realized it with more real things, such as by buying stocks and deciding to invest.

Overconfidence is an emotional bias in which a person considers himself to be quite knowledgeable and skilled in making decisions. Overconfidence leads investors to overrate their investment skills and undervalue professional forecasts or advice, as they overestimate their own capabilities (Nofsinger & Sias, 1999). If an investor shows overconfidence in their choices, they tend to ignore existing concerns, which ultimately results in increased risk in their investment choices. Overconfident investors are more prone to substantial losses due to their aggressive trading, often lacking a comprehensive financial understanding, which frequently leads to considerable financial detriment. Investors may purchase overvalued stocks due to the herding phenomenon. A significant challenge is frequently the disparity in choosing appropriate and optimal investments in the market, which typically yields minimal returns for investors. A recent study reveals that emotional and psychological elements, including overconfidence and risk tolerance, substantially affect individual investors' investment decisions, notwithstanding the constraints of basic and technical analysis. Investors possessing confidence in their investment acumen and prior successes will engage in financial market transactions with more frequency (Pikulina et al., 2017). Nevertheless, overconfident investors frequently diminish their stock prices due to poor investment decisions. Research conducted by (Addinpujoartanto & Darmawan, 2020) identified a favorable correlation between overconfidence behavior and investing decisions in Indonesia. Nonetheless, bias does not entirely manifest in investment decisions. Wang & Nuangjamnong (2022) found that investors who show an overconfident attitude tend to buy stocks that do not generate returns.

An individual's risk tolerance will influence the selection of investment type. Investors possessing a high-risk tolerance typically select high-risk investing alternatives with the expectation of substantial returns. Under other conditions, millennial stock investors with a diminished risk tolerance may exercise caution in their investment decisions, as high-risk ventures are typically associated with the potential for big profits (Wardani & Lutfi, 2016). Certain conclusions have been derived from research undertaken by Lathifatunnisa & Nur Wahyuni (2021); Zahida (2021); Adilyani & Mawardi (2020) and Hikmah et al., (2020) stated that risk tolerance has a positive relationship and a significant influence on investment decision. (Ni Putu Priscilia Kartika Dewi & Krisnawati, 2020) demonstrates that risk tolerance significantly influences investment decisions. This is reinforced by Darwati et al. (2022); Nurdinda et al., (2020), and Angga Budiarto and Susanti (2017) prove that risk tolerance affects investment decision. Different opinions were found in Lestari & Wardani (2020) and Salerindra (2020), stating that risk tolerance has a negative impact on investment decision. Faidah et al., (2020), also show that risk tolerance does not have an impact on investment decision. Based on the observations made by the researcher, it is known that students are willing to invest with a high level of risk but also have high-profit potential. This situation is considered attractive because of the potential for a lucrative profit level to be obtained. Then, the willingness of students to invest even with debt increasingly shows immaturity in investing because they are too self-imposed and tempted by the potential profits to be obtained. Furthermore,

even though it has a less safe potential in terms of risks that are likely to be obtained, students who invest still prioritize the profits that will be obtained in the future. With this immature thinking, students are very vulnerable to the level of losses obtained in investing. Another observation found a phenomenon in which students do not think that risks always lead to losses. It is assumed that with high risk, of course, it will also have a high return side so that it still has the opportunity to make a profit even though the risk is also high. Finally, their willingness to provide loans in investing, even without collateral, is very risky to be abused by irresponsible parties and only prioritize their personal interests. With the absence of caution from students in investing, there is a great potential for the future to suffer losses and be used by the most important parties for their own interests.

Investors often engage in irrational behavior by imitating other people's investment choices without conducting due diligence (Qasim et al., 2019). This behavior is referred to as herding behavior. Herdging's behavior can have a detrimental impact on investment decisions, as a lack of careful consideration can lead to losses that are influenced by other investors' choices, thus impacting future results. Research by Chang et al. (2000) shows that herding has a significant impact on investment decision. Liem & Sukamulja (2017) states that herding has an impact on investment decision-making. The research of Pranyoto et al. (2020) shows rejection. This study shows that herding does not affect investment decision. The impact of herding on investment decision-making is still uncertain. Based on the observations made by the researcher, students in general do not have a strong stance in their decision to invest. They are still overwhelmed with inconsistencies in taking a stance so they tend to follow the majority of other investors. Then, as well as those related to the response or reaction to the circumstances that take place during the investment period which also tend to follow investors in general. This is based on their lack of ability to analyze and lack of courage in predicting circumstances during investment. Furthermore, news of stock price movements is often used as a reference in investing so that they are used to following various information both from print and online media to update developments about stock prices. Even though they invest through the majority of decisions taken by other investors and learn on their own by relying on information through stock development news, students still have confidence that their actions in investing are appropriate and appropriate.

Loss aversion refers to the psychological tendency of investors to consider losses more significant than equivalent gains at a neutral threshold (F. R. Khan, 2015). Loss aversion refers to the tendency to prioritize loss retention over profit gain in Gupta & Ahmed (2016). Loss aversion is a biased behavior that contradicts investors' predictions of heightened risk and diminished rewards (Areiqat et al., 2019). Loss aversion bias denotes the phenomenon wherein individuals exhibit greater sensitivity to losses than to benefits (Haigh & List, 2005). The study's results indicate that loss aversion positively influences individual investment decisions (A. R. Khan et al., 2017). An aversion to loss indicates that an individual may be more attuned to detrimental factors rather than advantageous ones. An individual is considered loss averse if their caution is predominantly directed towards potential detriments rather than benefits (Haigh & List, 2005). Based on the observations made by the researcher, a number of facts were obtained that the prudent principle that students have in investing is highly dependent on changes in market prices. This situation is quite ideal, especially for beginners in investing who are always faced with uncertainty, so they must have a cautious attitude in every decision they make in investing. Then, with the potential for losses, it is very urgent for students to invest because they are afraid that it will be risky in the

future. Furthermore, even though there is a potential profit, with the potential loss in certain stocks, students are reluctant to rush to make further investments. Finally, even though it is not the majority, it turns out that there are still students who dare to take stocks that still have the potential risk of loss. This is done because these stocks also have greater profit potential in general.

Based on the background and various phenomena, it is clear that there is a connection between overconfidence, risk tolerance, herding behavior, loss aversion, and investment decision making. This article tries to explain the connections by testing these variables with the hypothesis:

H1 : overconfidence affects investment decision

H2 : risk tolerance affects investment decision

H3 : herding behavior affects investment decision

H4 : loss aversion affects investment decision

2. METHOD

This study investigates the overconfidence, risk tolerance, herding behavior, and loss aversion impact on investment decision. This employs an analytical framework, utilizing surveys as the methodological approach. Before doing the research fieldwork, the research instrument was developed as a questionnaire containing statements regarding the variables. The research population consists of all innovative students in semesters 6 to 8 of the 2020-2023 cohort participating in undergraduate programs at the FEB-USK. It employs the Slovin formula to ascertain the sample size when sampling the total population. The Slovin formula produces the following calculations.

$$n = \frac{N}{\{1 + (N \times e^2)\}}$$

Information:

n = Number of samples

N = Total population

e = Tolerasi error

From a total population of 560 students, who have the status of active investors and are currently undergoing undergraduate education in semester 6 to semester 8, the sample size used in this research is :

$$n = \frac{N}{\{1 + (N \times e^2)\}}$$
$$n = \frac{560}{\{(1 + (560 \times 0.05^2))\}}$$
$$n = 233$$

Data analysis and interpretation are crucial in research for addressing study objectives and elucidating specific occurrences. Data analysis entails the condensation of data into a format that facilitates comprehension and interpretation. This study employs a causality model to analyze links and influences, applying Structural Equation Modelling (SEM) to test the proposed hypothesis. SEM approaches to find the dimensions of a concept while measuring the influence or level of interaction between identified elements (Ferdinand, 2014). This study uses SEM-AMOS analysis

to examine the hypothesis.

3. RESULT

Validity Testing

According to the analytical results presented in Table 1, all claims are deemed legitimate as they have a significance level below 5%. The correlation value of 0.1286 for each statement exceeds the crucial value of the product-moment correlation. This indicates that these assertions are meaningful and possess construct validity, namely internal consistency, as they assess the same dimensions.

Table 1. Validity

Statement No.		Variable	Correlation Coefficient	Critical Value 5% (N=233)	Information
1.	OC1	Overconfidence (X ₁)	0.688	0.1286	Valid
2.	OC2		0.721		
3.	OC3		0.887		
4.	OC4		0.697		
5.	OC5		0.821		
6.	RT1	Risk Tolerance (X ₂)	0.520	0.1286	Valid
7.	RT2		0.685		
8.	RT3		0.728		
9.	RT4		0.599		
10.	RT5		0.693		
11.	HB1	Herding Behavior (X ₃)	0.688	0.1286	Valid
12.	HB2		0.751		
13.	HB3		0.711		
14.	HB4		0.732		
15.	HB5		0.692		
16.	LA1	Loss Aversion (X ₄)	0.718	0.1286	Valid
17.	LA2		0.623		
18.	LA3		0.630		
19.	LA4		0.612		
20.	ID1	Investment Decision (Y)	0.701	0.1286	Valid
21.	ID2		0.633		
22.	ID3		0.659		
23.	ID4		0.739		
24.	ID5		0.722		

Table 1 indicates that all variables employed in this study are valid, as they exhibit a correlation coefficient over the essential threshold of 0.1286 for product-moment correlation, thereby

confirming the validity of all questions in the research questionnaire for further analysis. Therefore, all indicator items for each variable in this study are considered appropriate for subsequent analysis.

Reliability Testing

This study employs a reliability test utilizing Cronbach's Alpha to evaluate the dependability of the questionnaires, a method frequently applied in social science research. This study is employed to elucidate the link between the constructed scale and the pre-existing variable scale. Reliability testing aims to assess the degree of statistical consistency in measurement data, specifically by computing the Cronbach Alpha coefficient using the SPSS software. The findings are detailed in Table 4.3, indicating that the instrument utilized in this investigation demonstrates reliability, since the alpha value exceeds 0.60 (Malhotra, 2011).

Table 2. Reliability (Alpha)

No.	Variable	Indicator Items	Alpha Value	Remark
1.	Overconfidence (X_1)	5	0.714	Reliable
2.	Risk Tolerance (X_2)	5	0.699	Reliable
3.	Herding Behavior (X_3)	5	0.783	Reliable
4.	Loss Aversion (X_4)	4	0.812	Reliable
5.	Investment Decision (Y)	5	0.833	Reliable

According to Table 2, the alpha values for each variable of the respondents' perceptions are as follows: overconfidence (X_1) of 0.714; risk tolerance (X_2) of 0.699; herding behavior (X_3) of 0.783; loss aversion (X_4) of 0.812; and investment decision (Z) of 0.833. The reliability indicates that all research variable indicators satisfy the credibility criterion of Cronbach's Alpha, with an alpha over 0.60.

Confirmatory Factor Analysis (CFA)

This confirmatory factor analysis (CFA) functions as a stage of measuring indicators that form latent variables in the research model. This research model consists of four exogenous variables and one endogenous variable, bringing the total to 24 indicators. Figure 1 illustrates the results of CFA across constructs in this investigation.

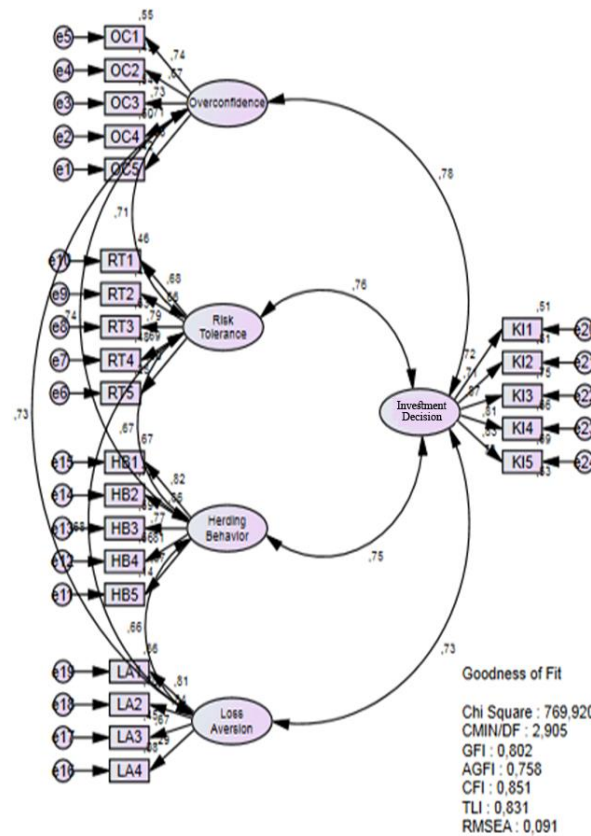


Figure 1. CFA First Test

The loading factor, which shows each indicator's contribution to the variable it represents, is shown in the following table:

Table 3. Loading Factor First Test

			Estimate
OC5	<---	Overconfidence	.650
OC4	<---	Overconfidence	.706
OC3	<---	Overconfidence	.734
OC2	<---	Overconfidence	.674
OC1	<---	Overconfidence	.743
RT5	<---	Risk_Tolerance	.403
RT4	<---	Risk_Tolerance	.690
RT3	<---	Risk_Tolerance	.792
RT2	<---	Risk_Tolerance	.663
RT1	<---	Risk_Tolerance	.676
HB5	<---	Herding_Behavior	.370
HB4	<---	Herding_Behavior	.813
HB3	<---	Herding_Behavior	.765
HB2	<---	Herding_Behavior	.856
HB1	<---	Herding_Behavior	.821
LA4	<---	Loss_Aversion	.290
LA3	<---	Loss_Aversion	.673
LA2	<---	Loss_Aversion	.836
LA1	<---	Loss_Aversion	.812
ID1	<---	Investment_Decision	.717
ID2	<---	Investment_Decision	.712
ID3	<---	Investment_Decision	.868
ID4	<---	Investment_Decision	.814
ID5	<---	Investment_Decision	.831

Table 2 indicates that the 5th indicator, risk tolerance, the 5th indicator, herding behavior, and the 4th indicator, loss aversion, do not meet the inclusion criteria for further data processing due to their loading factor values being below 0.5; consequently, these indicators are excluded. Figure 2 depicts the results of the revised measurement model subsequent to the elimination of the indicator.

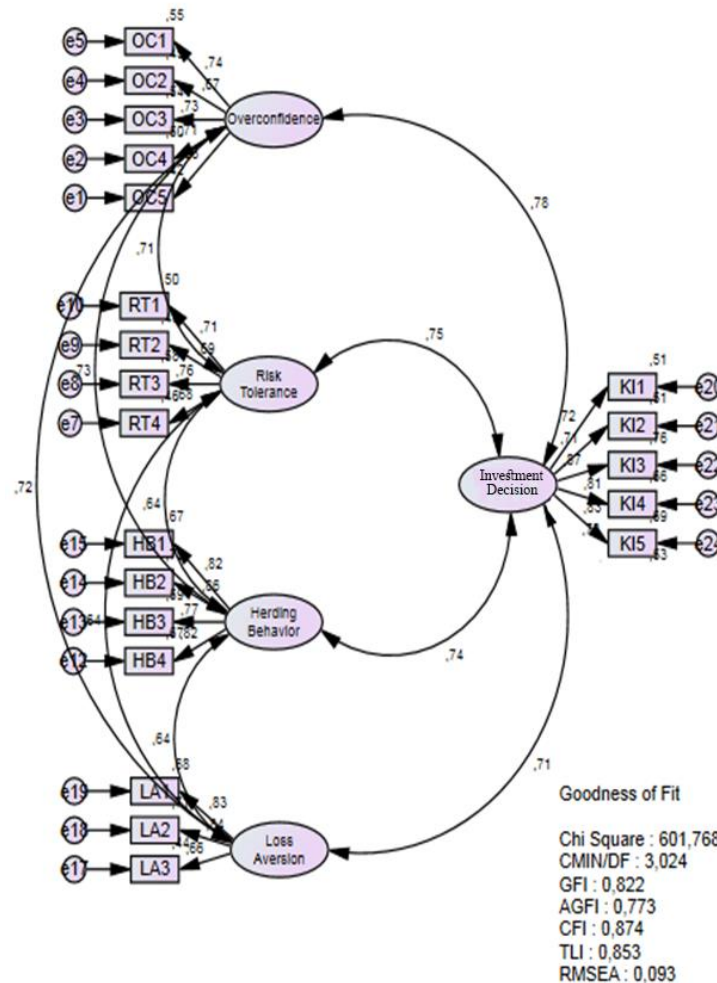


Figure 2. CFA Second Test

The loading factors after the model revision are shown in the table below.

Table 4. Loading Factor Second Test (After Indicator Disposal)

	Estimate
OC5 <--- Overconfidence	.650
OC4 <--- Overconfidence	.706
OC3 <--- Overconfidence	.733
OC2 <--- Overconfidence	.674
OC1 <--- Overconfidence	.744
RT4 <--- Risk_Tolerance	.678

	Estimate
RT3 <--- Risk_Tolerance	.765
RT2 <--- Risk_Tolerance	.690
HB4 <--- Herding_Behavior	.818
HB3 <--- Herding_Behavior	.770
HB2 <--- Herding_Behavior	.857
HB1 <--- Herding_Behavior	.819
LA3 <--- Loss_Aversion	.664
LA2 <--- Loss_Aversion	.844
LA1 <--- Loss_Aversion	.827
ID1 <--- Investment_Decision	.716
ID2 <--- Investment_Decision	.711
ID3 <--- Investment_Decision	.869
ID4 <--- Investment_Decision	.815
ID5 <--- Investment_Decision	.831
RT1 <--- Risk_Tolerance	.709

Table 4 reveals that all indicators meet the criteria for inclusion in the next phase of data processing, as all loading factors > 0.5.

Goodness of Fit (GoF)

The model can be evaluated using several methods. In the SEM test, there is no single statistical test to assess the model. Fit index and cut-off values to determine the acceptance or rejection of the model (Ferdinand, 2014).

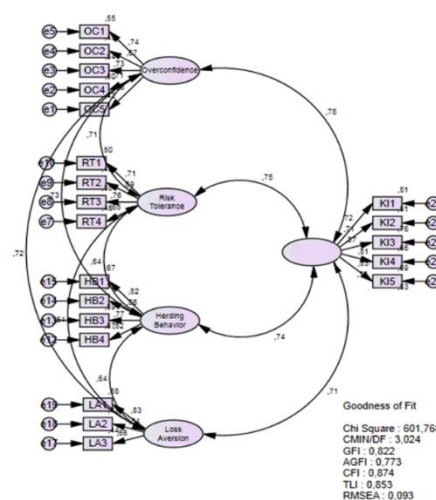


Figure 3. GoF Test

From the results above, the value of chi-square=601.768 was obtained; RMSEA=0.093; $\chi^2/df=3.024$; CFI=0.874; TLI=0.853; GFI=0.822; and AGFI=0.773. These results mean that the majority of criteria have displayed the results of poor fit indices. Therefore, the analysis must be carried out respecification (Hair et al., 2006). The results of the feasibility test show a marginal fit, with all possible factor load values; therefore, the respecification analysis should be performed by examining the Modification Indices (MI) and combining the indicators with substantial MI values. The next results were obtained from the respecification analysis based on the MI examination.

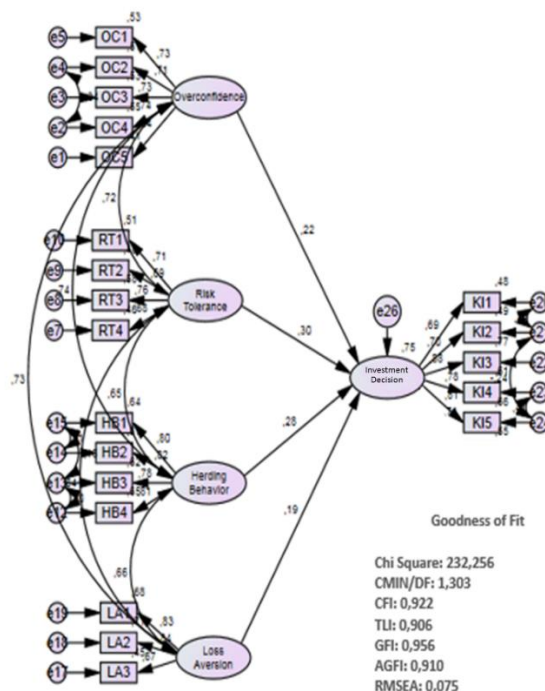


Figure 4. Model Respecification

Table 5. GoF After Respecification

GoF Index	Cut-off Value	Result	Model Evaluation
Chi-Square	< 240.995	232.256	Good
RMSEA	≤ 0.08	0.075	Good
GFI	≥ 0.90	0.956	Good
AGFI	≥ 0.90	0.910	Good
CMIN/DF	≤ 2.00	1.303	Good
TLI	≥ 0.90	0.906	Good
CFI	≥ 0.90	0.922	Good

According to Table 5, the measurement model analysis yielded a chi-square value of 232.256. The indices are as follows: “ $\chi^2/df=1.303$; RMSEA=0.075; GFI=0.956; TLI=0.906; AGFI=0.910; and CFI=0.922”, all of which satisfy the criteria and indicate a good fit. Overall, the goodness of fit test demonstrates that the measurement model adheres to the conformity criteria,

validating the model output as a research finding regarding the relationship between indicators and corresponding constructs.

Measurement Test Conclusion

Table 4 indicates that the goodness of fit test demonstrates the current measurement model satisfies the fit criteria, so confirming that the model's output constitutes a research finding pertaining to the link between indicators and relevant constructs. Figure 2 demonstrates that the loading factor value for each indication exceeds 0.05, signifying that the indicator satisfies the criterion in SEM.

Structural Test

Furthermore, the SEM analysis of the comprehensive model was performed after assessing the unidimensionality of the indicators that formed the latent variables by confirmatory factor analysis. The assessment of data processing results in the SEM phase of the comprehensive model involves conducting conformance evaluations and statistical analysis. Figure 4 (model specification) illustrates the output of the structural test, and the results per hypothesis is shown in Table 6 below.

Table 6. Regression Weight

Influence Between Variables	Estimate		S.E.	C.R.	P
	Std.	Unstd			
Overconfidence towards investment decision	-0.362	0.126	0.106	3.132	0.033
Risk tolerance towards investment decision	-0.312	0.248	0.073	3.512	***
Herding behavior towards investment decision	-0.478	0.316	0.067	5.002	0.001
Loss aversion towards investment decision	-0.439	0.210	0.084	4.301	0.022

Table 6 reveals the statistical equation, that is : Investment decision = -0,362 overconfidence -0,312 risk tolerance -0,478 herding behavior -0,439 loss aversion. It is explained as follows.

H1 Test : Overconfidence on Investment Decision

H1 test reveals that the results meet the requirements for acceptance of H1, namely a CR 3.132 > 1.96, and p 0.033 < 0.05, meaning the impact is significant. The estimated value for the overconfidence on investment decision is -0.362; showing an increase in overconfidence of 1 unit resulted in a decrease in investment decision of 0.362 units. A significant facet of ethical prejudice that has garnered much attention from analysts in the financial sector is overconfidence. (Nur Aini & Lutfi, 2019). Overconfidence is an unwarranted sense of self-confidence that is rooted in emotional motivation, introspection, and cognitive ability. Overconfidence increases the emotions and knowledge that a person feels, thus making them feel confident about the outcome of an event, which is often inconsistent with reality (Nur Aini & Lutfi, 2019). People who show Overconfidence tend to ignore relevant information, as they rely too much on their views and knowledge, thus ignoring other important data. The bad impact of overconfidence can cause someone to make decisions that need to be avoided (Pradikasari & Isbanah, 2018).

H2 Test : Risk Tolerance on Investment Decision

H2 test reveals that the results meet the requirements for acceptance of H2, namely a CR 3.512, which exceeds 1.96, and $p\ 0.000 < 0.05$, meaning the impact is significant. The estimated value for the risk tolerance on investment decision is -0.312, suggesting that a 1-unit increase in tolerance resulted in a 0.312 decrease in the investment decision variable. (Kahneman & Tversky, 1979) prospect theory asserts that individuals assess losses and gains divergently, prompting them to base decisions on expected profits instead of actual losses. An investor's propensity to avoid or accept risk will depend on the particular circumstances at hand. Prospect theory asserts that an investor tends to assess the certainty of an outcome more positively than that of an uncertain result. The risk tolerance of millennial investors will impact their investment choices. Millennial investors often demonstrate a high-risk tolerance, choosing more risky investment categories in expectation of significant returns. Furthermore, investors with a low-risk tolerance are generally more cautious in their investment choices due to their concerns regarding high-risk opportunities, despite the considerable potential for profits (Wardani & Lutfi, 2016). This research is based on the research of Lathifatunnisa & Nur Wahyuni (2021); Zahida (2021); Adielyani & Mawardi (2020) and Hikmah et al. (2020) stated that risk tolerance affects investment decision in a profitable and significant way. Putu Priscilia Kartika Dewi & Krisnawati (2020) show that risk tolerance has a significant impact on investment decision. This is reinforced by the research of Darwati et al. (2022); Nurdinda et al. (2020) and Angga Budiarto and Susanti (2017) proved that risk tolerance affects investment decision.

H3 Test : Herding Behavior on Investment Decision

H3 test reveals that the results meet the requirements for acceptance of H3: a CR 5.002, exceeding 1.96, and $p\ 0.001 < 0.05$, meaning the impact is significant. The estimated value for the herding behavior on investment decision is -0.478; consequently, a 1-unit increase in herding behavior leads to a 0.478 reduction in the investment decision variable. Herding conduct denotes an individual's propensity to replicate the behaviors or choices of others, especially within financial markets. This phenomenon has garnered considerable attention in the analysis of retail investor behavior (Quan et al., 2023). Several studies have examined the influence of herding on retail investors, elucidating its causes, effects, and possible mitigating variables. (Dewan & Dharni, 2019) studied the trading habits of a sizable sample of retail investors. Evidence of swarming behavior among retail investors was observed, resulting in suboptimal investment performance. (Kumar & Goyal, 2015) employ the notion of fashion, conventions, and cultural change as a conduit for knowledge dissemination. This significant study offers a theoretical framework for comprehending herding behavior. Researchers contend that individuals emulate the behaviors of others due to the perception that such actions impart significant information. The consequences of actions can be significantly profound. This may lead to increased market volatility, exacerbate price bubbles or collapses, and distort asset valuations. Furthermore, herding behavior may drive individual investors to deviate from their risk preferences or long-term investment strategies, potentially leading to inferior investment outcomes (Saraih et al., 2017). Analyzing the influence of herding behavior on retail investor activities provides insight into market dynamics, investor psychology, and the functioning of financial markets. Through the examination of the factors and outcomes of herding, policymakers, market participants, and regulators can devise measures to mitigate its negative impacts and encourage educated decision-making among retail investors

(Mishra & Mishra, 2023).

H4 Test : Loss Aversion on Investment Decision

H4 test reveals that the results meet the requirements for acceptance of H4: a CR 4.301, surpassing 1.96, and $p\ 0.022 < 0.05$, meaning the impact is significant. The estimated value for the loss aversion on investment decision is -0.439, signifying that a 1 unit increase in loss aversion is associated with a -0.439 alteration in the investment decision variable. Pompian (2018: 88) characterizes loss aversion as the tendency to prioritize the prevention of losses over the attainment of equivalent gains. Loss aversion is a phenomenon wherein investors prioritize the evasion of losses over the acquisition of gains due to their apprehension of potential losses. As an individual encounters higher losses, their inclination to evade additional losses intensifies. Research on loss aversion demonstrates that investors perceive the anguish of losses at twice the intensity of the satisfaction obtained from winnings. The notion of loss aversion originated from prospect theory, indicating that investors do not shun risk, but rather seek to evade losses. The psychological impact of losses exceeds that of profits. Investors generally experience greater distress from possible losses than from similar potential returns. Consequently, they will exercise greater caution in their investments to mitigate the chance of loss (Barberis & Thaler, 2002). Loss aversion bias causes individuals to exhibit heightened sensitivity to negative outcomes compared to positive ones. An individual is considered loss-averse when their attention is directed towards unfavorable aspects rather than advantageous ones (Haigh & List, 2005).

4. CONCLUSION

The results prove that students' overconfidence significantly can affect investment decision negatively, risk tolerance significantly can affect investment decision negatively, herding behavior significantly can affect investment decision negatively, and loss aversion significantly can affect investment decision negatively. This highlights that the ideal investment decision model for students encourages a balanced approach, consisting of one that avoids overconfidence, embraces prudent risk tolerance, steers clear of herding behavior, and mitigates excessive loss aversion. These findings underscore the importance of an ideal investment decision model for students. The insights gained from this model can serve as a foundation for further research, particularly in exploring how the variables identified in this study might be tested in relation to other factors influencing investment behavior. It also leads to a variety of valuable recommendations for practitioners, particularly students who are navigating the complexities of investment decisions. It is crucial for them to cultivate a sense of humility and avoid excessive confidence in their skills or knowledge, as overestimating one's abilities can lead to poor decision-making. Moreover, staying well-informed about market trends and emerging investment opportunities is essential. Engaging with current research and analysis not only enhances their understanding but also empowers them to make informed choices in a dynamic financial landscape.

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