

## **The Influence of Overconfidence Bias on Stock Investment Decisions**

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### **Abstract**

This study concludes that stock trading activity, stock investment risk, and stock diversification have positive effects on stock investment decisions. First, stock trading activity positively influences stock investment decisions, indicating that the higher the intensity of trading activities carried out by investors, the greater their tendency to make stock investment decisions. This phenomenon reflects investors' active involvement in the capital market, driven by overconfidence bias and the ease of access to information through digital platforms such as Stockbit. However, the magnitude of this influence is relatively small, suggesting that the increase in investment decisions reflects the quantity rather than the quality of decisions. Second, stock investment risk has a positive influence and is identified as the most dominant factor affecting stock investment decisions. This finding indicates that investors' awareness of risk encourages them to conduct more in-depth evaluations before investing. Risk is no longer perceived as a barrier, but rather as a driver of more cautious, rational, and well-planned investment decision-making. Third, stock diversification positively affects stock investment decisions. Investors who are more rational and well-educated tend to understand the importance of portfolio risk diversification, making them more confident and strategic in making investment decisions. Overall, the findings indicate that stock trading activity, stock investment risk, and stock diversification simultaneously have positive effects on stock investment decisions, with stock investment risk being the most dominant factor. These findings support heuristic theory, which states that investors rely on practical rules and self-confidence in decision-making. However, in the context of modern investors using digital platforms such as Stockbit, investment behavior tends to be more rational and analysis-based.

**Keywords:** Stock Trading Activity, Stock Investment Risk, Stock Diversification, Stock Investment Decision, Heuristic Theory, Investor Behavior, Capital Market, Digital Investment Platform.

### **1. Introduction**

Decision-making plays an important role in financial behavior, especially for investors. These decisions are often influenced by behavioral biases, market volatility, and the tendency to take advantage of opportunities in order to maximize profits (Ahmed & Noreen, 2021). Investor behavior in selecting investment instruments reflects how they make stock investment decisions. Each investor has a different approach in determining their investments (Pereira & Coelho, 2020).

Stock investment decisions are influenced by various factors, such as limited information, risk, and investor behavior (Sattar et al., 2020). Investors often do not make rational decisions because they are influenced by cognitive biases, emotions, intuition, and past experiences, which can lead to investment mistakes and financial losses (Niu & Harvey, 2022; Pereira & Coelho, 2020). One dominant bias is overconfidence bias, namely excessive confidence in one's ability to analyze and predict the market. This condition causes investors to underestimate risks, engage in

excessive trading, take high risks, and lack portfolio diversification (Sattar et al., 2020; Nilson & Bonander, 2020; Broekema & Kramer, 2021).

Investors also tend to maintain inappropriate investment decisions, thereby increasing transaction costs and reducing investment value (Ul Abdin et al., 2022). Therefore, stock investment decisions should be made rationally through financial statement analysis, company performance evaluation, and consideration of investment risks and returns (Rasheed et al., 2018).

The development of the Indonesian capital market, marked by the increasing number of retail investors and stock transaction activities, has also increased the complexity of investment decision-making. New-generation retail investors generally actively use technology and online investment forums, but they remain vulnerable to cognitive biases in decision-making (Bryzgalova et al., 2023).

Heuristic theory explains that investors tend to use simplifications in decision-making under complex and uncertain market conditions by relying more on intuition, personal experience, and easily accessible information rather than comprehensive rational analysis (Rasheed et al., 2018). From the behavioral finance perspective, heuristics form the basis for the emergence of overconfidence bias, encouraging investors to trade more actively, take higher risks, and reduce portfolio diversification (Marciano et al., 2024; Boulland et al., 2023).

Previous studies indicate that overconfidence bias has a positive effect on stock investment decisions (Febri et al., 2022; Ellen & Yuyun, 2018). Therefore, this study uses stock trading activity, stock investment risk, and stock diversification as approaches to explain the effect of overconfidence bias on investors' stock investment decisions.

The phenomenon of overconfidence bias can be observed from the increasing activity of retail investors on the Indonesia Stock Exchange, where retail investor transaction contributions reached 44% in the first semester of 2025 and increased to 52% in early 2026 (IDXChannel, 2025; Liputan6, 2026). High trading activity does not always reflect rational investment decisions, as investors often feel capable of accurately predicting the market, leading to overtrading, high-risk taking, and inadequate portfolio diversification (Wibowo et al., 2023; Marciano et al., 2024). This condition increases the potential for investment losses, especially in volatile stock markets.

Overconfidence bias also causes investors to be more willing to take risks and actively trade stocks, even though this may reduce investment utility (Arifin & Soleha, 2019; Ellen & Yuyun, 2018). Previous research shows that portfolio diversification, investment risk, and investor behaviors such as overconfidence and herd behavior influence stock investment decisions (Patricia et al., 2024; Fathin & Wahyudi, 2023). However, findings regarding the effect of overconfidence bias remain inconsistent (Rezki et al., 2019; Ranti, 2019). Based on this phenomenon, this study aims to analyze the effect of overconfidence bias on stock investment decisions through stock trading activity, stock investment risk, and stock diversification among Stockbit Securities users.

Previous studies have generally discussed the effect of overconfidence bias on investment decisions in a broad sense and have not specifically examined investor behavior dimensions such as trading activity, investment risk, and portfolio diversification. Most prior studies also tended not to elaborate on variable dimensions in detail, resulting in findings that are general and less comprehensive. This study not

only seeks to identify final outcomes but also provides a comprehensive understanding of the stock investment decision-making process. Therefore, each dimension and indicator is explained in detail through a questionnaire instrument that has undergone a pilot test stage.

## 2. Method

### Type of Research

This study employed a quantitative approach to analyze the effect of overconfidence bias on stock investment decisions. The research was conducted online by distributing questionnaires through the digital platform Stockbit.

### Source of Information

This study used primary data with a population consisting of stock investors who use Stockbit Securities. Samples were selected using purposive sampling techniques with the criteria that investors had been registered and actively trading stocks for at least the past year. The number of Stockbit Securities users is approximately five million users (Playstore, 2026). The study involved 500 respondents based on Roscoe's sample size guideline, which states that an appropriate sample size ranges from 30–500 respondents (Sugiyono, 2019).

### Data Collection Method

Data were collected through an online questionnaire with closed-ended questions using a 10-point Likert scale. The questionnaire, which had undergone a pilot test, was distributed through the Stockbit forum. The use of a 10-point scale was chosen because it can detect response variations more sensitively and improve measurement reliability (Johnson & Grant, 2016). After collecting 500 samples, the data were analyzed using Warp PLS 7.0.

### Data Analysis Method

Data analysis was conducted using path analysis with the assistance of Warp PLS 7.0 software. Model evaluation was carried out through outer model testing using CFA, as well as inner model and significance testing (Ghozali & Latan, 2017).

## 3. Result and Discussion

### Descriptive Statistics of Stock Trading Activity Variables.

**Table 1.** Descriptive Statistics

Item	Statement	Mean	Standard Deviation
<b>Stock Trading Activity Variables</b>			
ATS1	I feel overconfident, leading me to engage in trading activities (transactions/trading) more frequently (overprecision).	5.39	1.24
ATS2	In the last 3 months, I have actively traded stocks.	5.42	1.18
ATS3	I feel overconfident, causing me to act immediately (buy/sell) on the information I have (overreaction).	5.36	1.25

ATS4	I often make transactions immediately after reading news related to certain stocks without waiting for additional information.	5.48	1.21
ATS5	I feel overconfident, leading me to allocate more funds to a stock than appropriate (overplacement).	5.40	1.22
ATS6	I often add capital to increase my stock trading volume.	5.35	1.26
<b>Stock Investment Risk Variables</b>			
RIS1	I feel overconfident, leading me to make riskier decisions more boldly (overestimation).	5.44	1.28
RIS2	I feel comfortable with significant changes in investment value within a short period.	5.41	1.26
RIS3	I often experience drastic increases and decreases in portfolio value.	5.38	1.27
RIS4	I feel comfortable with stocks whose price movements are difficult to predict.	5.46	1.30
RIS5	I tend to hold stocks even when they experience large price declines.	5.40	1.25
RIS6	I believe that I can manage high risks with a good strategy.	5.42	1.29
<b>Stock Diversification Variable</b>			
DS1	I feel that owning many stocks actually makes risk management simpler.	5.37	1.28
DS2	I prefer to concentrate investment funds in one or two selected stocks.	5.43	1.30
DS3	I prefer focusing on a few stocks that I believe perform well rather than spreading investments across many stocks.	5.39	1.31
DS4	I feel that owning too many stocks actually makes risk management more complicated.	5.40	1.33
DS5	I believe that having a diversified stock portfolio can reduce risk while still providing good profit opportunities.	5.41	1.29
<b>Stock Investment Decision Variables</b>			
KIS1	You feel satisfied with the actual returns obtained from your investments.	5.32	1.20
KIS2	You tend to prioritize returns on the investment products you have chosen.	5.29	1.23
KIS3	You tend to seek information about the returns you will receive in the future.	5.33	1.22
KIS4	You have a stop-loss tolerance for each stock.	5.31	1.19
KIS5	You tend to choose stocks categorized as blue-chip/big-cap portfolio stocks.	5.34	1.21
KIS6	In your opinion, high risk may result in losing part or all of your investment capital.	5.30	1.25
KIS7	You tend to determine stock returns within a specific time horizon.	5.32	1.22

KIS8	You tend to sell stocks when there is an upward trend.	5.35	1.23
KIS9	You tend to buy stocks when there is a downward trend.	5.31	1.21
KIS10	Your investment period is long-term (> 1 year).	5.29	1.20

Source: Processed primary data, 2025.

Table 1 shows that the variables of stock trading activity (5.39), stock investment risk (5.42), stock diversification (5.40), and stock investment decisions (5.32) were all categorized as moderate. These findings indicate that respondents were actively involved in stock investment while maintaining rational and cautious behavior. Investors regularly traded stocks, were moderately willing to face risks, and understood the importance of diversification, although they still tended to focus on selected stocks. Investment decisions were generally based on considerations of returns, risks, and market trends rather than impulsive behavior.

The relatively low standard deviations across all variables indicate consistent responses among respondents. The results also support heuristic theory in behavioral finance, suggesting that investors combined intuition, experience, and simple decision rules with rational analysis in making investment decisions. Although some tendencies toward overconfidence were observed, respondents generally remained within reasonable and controlled investment behavior.

**Table 2.** Descriptive Statistics of Research Variables

Variable	Mean	Category
Stock Trading Activity (ATS)	5.39	Moderate
Stock Investment Risk (RIS)	5.42	Moderate
Stock Diversification (DS)	5.40	Moderate
Stock Investment Decision (KIS)	5.32	Moderate

**Advanced Descriptive Analysis (Cross-Step Demographics).**

**Table 3.** Cross-step demographics of gender and education.

Gender	D1/D2/ D3/DIV	Senior High School/Vocational High School or Lower	Bachelor's Degree (S1)	Master's Degree (S2)	Doctoral Degree (S3)	Row Total
Male (%)	49%	73.60%	62.50%	80%	61.80%	100%
Female (%)	51%	26.40%	37.50%	20%	38.20%	100%

Source: Processed primary data, 2025.

Cross-section results show that male and female respondents are evenly distributed across all education levels, with males being more dominant at the undergraduate, master's, and doctoral levels. However, females also represent a significant proportion of those with higher education. This indicates that both groups have a good level of education, enabling them to understand stock investment information.

This is evident from the questionnaire responses to the stock investment decision variable, where respondents considered returns, risks, and investment timeframe before making a decision. A good level of education helps investors

understand stock trading activities, investment risks, and the importance of stock diversification.

This finding aligns with research by Damanik (2025), which states that higher education can increase awareness and confidence in financial decision-making, including investment. In general, higher education reflects more mature financial literacy, thus improving the quality of investment decisions.

**Table 4.** Cross-section of gender demographics by occupation.

Gender	Student	Civil Servant	Private Employee	Entrepreneur	Housewife	Other Freelancer	Other Trader	Row Total
Male (%)	78%	68%	58%	84%	0%	78%	93%	100%
Female (%)	23%	32%	42%	16%	100%	22%	7%	100%

Source: Processed primary data, 2025.

Cross-section results show that men and women come from various occupations, such as civil servants, private employees, self-employed, and freelancers. This indicates that stock investments are made by people from various professional backgrounds. Both groups are also active in productive economic activities, allowing them to allocate income to stock investments.

However, the proportion of women in high-risk occupations, such as trading or self-employment, remains relatively low. This finding aligns with research by Lusiyanti and Wicaksono (2020), which states that social factors and household responsibilities influence women's involvement in productive economic activities. Furthermore, Yunisvita et al. (2021) explain that men tend to dominate high-risk occupations and financial sectors compared to women.

**Table 5.** Cross-section demographics by gender and age.

Gender	1945 or Older	1946–1964	1965–1980	1981–1996	1997 or Younger	Row Total
Male (%)	75.0%	69.6%	60.2%	65.5%	66.5%	100%
Female (%)	25.0%	30.4%	39.8%	34.5%	33.5%	100%

Source: Primary data processed, 2025.

The cross-step results show that most respondents belong to the younger age group, particularly those born in 1997 and later. In this group, the proportion of male and female respondents is relatively balanced, indicating that interest in stock investment is growing among both young men and women.

Young generations tend to be more familiar with technology and digital investment applications such as Stockbit. This is reflected in the questionnaire results on stock trading activities, where respondents were fairly active in conducting stock transactions and quickly responding to market information. In addition, younger age is associated with greater willingness to face investment risks, although investment decisions still fall within a moderate category.

**Table 6.** Cross-step gender demographics with length of investment.

Gender	< 2018	2018–2019	2020–2022	> 2022	Row Total
Male (%)	69.01%	61.61%	58.20%	71.77%	100%
Female (%)	30.99%	38.39%	41.80%	28.23%	100%

Source: Processed primary data, 2025.

The cross-step results show that both male and female respondents have investment experience across different time periods. The proportion of female respondents increased during 2020–2022, indicating growing female participation in stock investment.

These findings suggest that investment experience is not limited to a particular gender. Longer investment experience enables investors to better understand market fluctuations, investment risks, and stock diversification strategies. This is consistent with the questionnaire results, which indicate that respondents have moderate levels of trading activity, risk awareness, and stock diversification.

**Table 7.** Cross-step demographics of gender with income to invest.

Gender	5% or Less	>5% to 10%	>10% to 15%	>15%	Row Total
Male (%)	81.19%	65.22%	73.87%	50.87%	100%
Female (%)	18.81%	34.78%	26.13%	49.13%	100%

Source: Processed primary data, 2025.

The cross-step results show that both male and female respondents allocate part of their income to stock investment. In fact, in the category of investment allocation above 15%, the proportion of female respondents is nearly equal to males.

These findings indicate that both genders have a good awareness of the importance of stock investment as part of financial management. This supports the questionnaire results on investment decisions and stock diversification, where respondents tend to invest in a fairly planned manner while considering risk management.

**Table 8.** Cross-step demographics of gender by status.

Gender	Unmarried	Married	Row Total
Male (%)	73.10%	62.25%	100%
Female (%)	26.90%	37.75%	100%

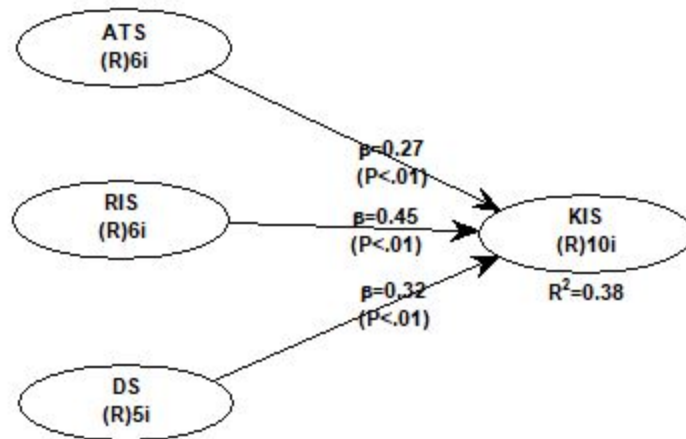
Source: Processed primary data, 2025.

The cross-step results show that both male and female respondents are found in both married and unmarried groups.

This condition is related to the questionnaire results on stock investment risk and investment decisions, where respondents tend to consider both risk and return before making investment decisions. Thus, stock investment is carried out not only for short-term purposes but also as part of long-term financial planning.

### Outer Model Results

The results of the model evaluation using WARP PLS 7.0 are as follows:



**Figure 1.** Outer Model Results

Source: Processed primary data, 2025.

Before conducting the validity test, construct reliability testing was conducted to ensure that each indicator in this study consistently measured its respective variables. The test results showed that the Composite Reliability and Cronbach's Alpha values were each above 0.7 for all constructs, thus concluding that the indicators used were reliable. Furthermore, the Average Variance Extracted (AVE) test results also showed values above 0.5, indicating that all constructs met the rule of thumb for convergent validity testing.

**Table 9.** Combined Loadings and Cross Loadings.

	ATS	RIS	DS	KIS	P Value
ATS1	0.829	-0.024	0.015	0.029	<0.001
ATS2	0.848	0.006	-0.01	0.014	<0.001
ATS3	0.794	0.045	0.054	-0.036	<0.001
ATS4	0.849	-0.04	-0.033	0.074	<0.001
ATS5	0.801	-0.013	-0.037	-0.022	<0.001
ATS6	0.836	0.028	0.014	-0.063	<0.001
RIS1	-0.010	0.830	-0.003	0.039	<0.001
RIS2	-0.021	0.828	0.013	-0.02	<0.001
RIS3	0.045	0.847	0.032	-0.019	<0.001
RIS4	-0.047	0.798	-0.071	0.065	<0.001
RIS5	-0.034	0.818	0.013	-0.02	<0.001
RIS6	0.067	0.807	0.013	-0.043	<0.001
DS1	-0.014	-0.005	0.846	0.027	<0.001
DS2	-0.01	-0.068	0.808	0.049	<0.001
DS3	0.000	0.027	0.879	-0.016	<0.001
DS4	0.027	-0.012	0.809	-0.033	<0.001
DS5	-0.002	0.053	0.847	-0.026	<0.001
KIS1	-0.038	0.002	-0.011	0.831	<0.001
KIS2	0.016	0.015	0.044	0.804	<0.001
KIS3	0.025	-0.015	-0.069	0.778	<0.001
KIS4	-0.027	-0.002	-0.009	0.862	<0.001
KIS5	0.024	-0.07	0.004	0.788	<0.001
KIS6	0.008	0.024	0.025	0.805	<0.001

KIS7	0.025	0.031	0.016	0.799	<0.001
KIS8	-0.005	-0.02	0.005	0.809	<0.001
KIS9	-0.006	-0.02	-0.004	0.765	<0.001
KIS10	-0.019	0.053	-0.002	0.799	<0.001

Source: Processed primary data, 2025.

Table 9 shows that the loading value between ATS1 and ATS is 0.829, greater than the loading values from ATS1 to RIS (-0.024), from ATS1 to DS (0.015), and from ATS1 to KIS (0.029). Therefore, the ATS1 indicator variable can be declared valid. Similarly, for ATS2, the loading value between ATS2 and ATS is 0.848, greater than the loading values from ATS2 to RIS (0.006), from ATS2 to DS (-0.01), and from ATS2 to KIS (0.014). Therefore, the ATS2 indicator variable can be declared valid. Similarly, if the loading value between each indicator and its latent variable is higher than that of the other latent variables, it can be concluded that all indicators are valid.

### Inner Model Results

The following is an interpretation of this research model:

$$KIS = 0.266 \text{ ATS} + 0.447 \text{ RIS} + 0.317 \text{ DS} + \epsilon$$

With the following model equation:

$$KIS = 0.266 \text{ ATS}(p < 0.001) + 0.447 \text{ RIS}(p < 0.001) + 0.317 \text{ DS}(p < 0.001) + \epsilon$$

This interpretation indicates that the variables of stock trading activity, stock investment risk, and stock diversification have a positive effect on stock investment decisions. The equation indicates that all independent variables have a positive and significant effect on stock investment decisions, with p-values of <0.001 for each. This means that the higher the stock trading activity, stock investment risk, and stock diversification, the higher the stock investment decisions.

A more detailed explanation can be outlined as follows. The coefficient value for the stock trading activity variable is 0.266 and is positive, meaning that every one-unit increase in stock trading activity will increase stock investment decisions by 0.266, assuming other variables remain constant.

This indicates that the higher the intensity of an investor's stock trading activity, the greater their tendency to make stock investment decisions. High stock trading activity reflects active investor involvement in the capital market, thus implying increased stock investment decisions. An increase in stock investment decisions means investors are more confident and willing to purchase, add to, or diversify their stock portfolios. This indicates a greater level of investor confidence and understanding of the capital market. Furthermore, increased investment decisions also impact transaction volume and investor participation in the stock market, which ultimately can boost market liquidity and overall economic growth. In other words, when stock investment decisions increase, investors tend to be more active in seizing investment opportunities, conducting fundamental and technical analysis, and expanding their investment assets as a form of optimism regarding potential profits.

Furthermore, the coefficient value for the stock investment risk variable is 0.447 and is positive. This means that every one-unit increase in stock investment risk will increase stock investment decisions by 0.447, assuming other variables remain constant. This coefficient value is the largest compared to other variables, thus

concluding that stock investment risk is the most dominant factor influencing stock investment decisions. In other words, the greater the investment risk faced, the more investors will be encouraged to make more careful stock investment decisions, both in selecting stock types, considering market conditions, and determining investment strategies. Meanwhile, the coefficient value for the stock diversification variable is 0.317 and is positive.

This means that every one-unit increase in stock diversification will increase stock investment decisions by 0.317, assuming other variables remain constant. This indicates that the higher the level of stock portfolio diversification an investor pursues, the greater their tendency to increase their investment decisions. Stock diversification plays a crucial role in reducing the risk of loss by spreading capital across various stock instruments, thus allowing investors to feel more secure and confident in making stock investment decisions. Therefore, it can be concluded that all independent variables in this study—stock trading activity, stock investment risk, and stock diversification—have a positive influence on stock investment decisions.

The stock investment risk variable has the largest influence, followed by stock diversification and finally, stock trading activity. This indicates that investors' investment decisions are largely determined by their perception of risk, the diversification strategy they employ, and how actively they trade stocks.

The coefficient of determination ( $R^2$ ) of 0.376 indicates that 37.6% of the variation in stock investment decisions (KIS) can be explained by stock trading activity (ATS), stock investment risk (RIS), and stock diversification (DS), while the remaining 62.4% is influenced by other variables outside the model. The predictive relevance ( $Q^2$ ) value is also 0.376, indicating that the model has good predictive ability and can produce accurate and consistent results when tested on new data.

Furthermore, the effect size ( $f^2$ ) value indicates that ATS has a small effect on KIS (0.063), RIS has a moderate effect (0.208), and DS has a small effect (0.105). Thus, the stock investment risk variable has the most dominant influence on stock investment decisions compared to the other two variables.

### Hypothesis Testing Results

After learning the model evaluation results, the next step is hypothesis testing. The following are the original sample values and the T-statistic for this research's hypothesis testing:

**Table 10.** Hypothesis Testing Results.

	T statistic	Sampel original	P value	Conclusion
ATS → KIS	3.290	0.266	<0.001	H <sub>0</sub> rejected
RIS → KIS	4.864	0.447	<0.001	H <sub>0</sub> rejected
DS → KIS	2.496	0.317	<0.001	H <sub>0</sub> rejected

Source: Processed primary data, 2025.

Table 10 shows the effect of stock trading activity on stock investment decisions. The T-statistic for stock trading activity is 3.290 with a T-table of 1.96, indicating that stock trading activity has an influence on stock investment decisions. The original sample value is positive at 0.266, indicating that stock trading activity has a positive effect on stock investment decisions, thus rejecting H<sub>0</sub>.

The results show the effect of stock investment risk on stock investment decisions. The T-statistic for stock investment risk is 4.864 with a T-table of 1.96, indicating that stock investment risk has an influence on stock investment decisions. The original sample value is positive at 0.447, indicating that stock investment risk has a positive effect on stock investment decisions, thus rejecting H<sub>0</sub>.

However, stock diversification has an effect on stock investment decisions. The T-statistic for stock diversification is 2.496 with a T-table of 1.96, indicating that stock diversification has an influence on stock investment decisions. The original sample value is positive at 0.317, so stock diversification has a positive direction towards stock investment decisions, thus, H<sub>0</sub> is rejected.

## **Discussion**

### **The Effect of Stock Trading Activity on Stock Investment Decisions**

The first hypothesis proposed in this study is that stock trading activity has a positive effect on stock investment decisions. The results of the study prove that stock trading activity positively influences stock investment decisions. Hypothesis testing showed a T-statistic value of 3.290, which is higher than the T-table value of 1.96, with a positive original sample value of 0.266 and a P-value < 0.001. Thus, H<sub>0</sub> is rejected and H<sub>1</sub> is accepted. Although the effect size  $f^2$  is relatively small (0.063), this result remains meaningful because it indicates that the more frequently investors trade, the more stock investment decisions they make. Every action of buying, selling, or holding stocks represents a decision that requires consideration of risks and returns. Therefore, increased stock trading activity directly increases the number of stock investment decisions made.

Theoretically, these findings are consistent with heuristic theory. Investors tend to use past information to predict future outcomes, for example by assuming that stocks currently rising in value will continue to increase. This heuristic mindset encourages investors to trade more frequently because they feel capable of predicting market movements. Investors with overconfidence bias believe that their decisions are superior to those of other investors, which motivates them to increase their stock trading activities.

Bouteska et al. (2023) proved that overconfidence bias increases trading volume in the United States stock market. Inghelbrecht and Tedde (2024) also showed that this bias triggers excessive trading, while Almansour et al. (2023) emphasized that this phenomenon is universal across countries. Li (2022) found that overconfident Chinese investors tend to trade more actively even though their portfolios are less diversified.

These findings are also supported by the respondent profile in this study. The majority of respondents were male (65.4%) and belonged to the younger generation (55% born in 1997 or later). More than half of the respondents also allocated more than 10% of their income to investment. Literature shows that male investors and younger generations are more vulnerable to overtrading due to high self-confidence and the desire for quick profits (Broekema & Kramer, 2021). Broekema and Kramer (2021) found that overconfident investors, generally from male and younger age groups, tend to have less diversified portfolios and make more aggressive investment decisions. These demographic factors explain the high level of stock trading activity, which directly affects investment decision-making activities.

Overall, this study shows that stock trading activity contributes to increasing the quantity of stock investment decisions, although its influence is relatively small. This

means that the quality of decisions is still determined by investors' analytical abilities and portfolio strategies. High trading activity reflects a high level of investor involvement in the market, but it does not guarantee optimal outcomes. Therefore, investors need to control behavioral biases so that stock trading activities remain aligned with the quality of decisions made.

In the context of Stockbit, access to real-time information and community discussions encourages investors to make decisions quickly. However, these decisions are often not based on in-depth analysis. This phenomenon demonstrates that the relationship between stock trading activity and stock investment decisions is strongly influenced by psychological factors, particularly overconfidence bias.

Thus, stock trading activity increases investor involvement and the number of stock investment decisions, but it is not always accompanied by improvements in decision quality. Experienced and cautious investors tend to balance transaction activities with fundamental analysis, making them less susceptible to behavioral biases. The results of this study confirm that the more frequently investors trade, the more decisions they produce, but a greater number of decisions does not necessarily mean better decisions. Therefore, investors need to combine high trading activity with sound strategies and thorough analysis in order to make more effective and rational stock investment decisions.

### **The Effect of Stock Investment Risk on Stock Investment Decisions**

The second hypothesis proposed in this study is that stock investment risk has a positive effect on stock investment decisions. The results indicate that stock investment risk positively affects stock investment decisions. The T-statistic value of 4.864 is greater than 1.96, with a positive original sample value of 0.447 and a P-value < 0.001. Thus, H<sub>0</sub> is rejected and H<sub>2</sub> is accepted, indicating that the higher the risk perception possessed by investors, the stronger their tendency to make stock investment decisions. The effect size  $f^2$  value of 0.208 shows that stock investment risk is the most dominant variable compared to trading activity and stock diversification.

From the perspective of heuristic theory, investors do not always assess risk objectively but rather based on the most easily accessible information. On the Stockbit platform, investors obtain various real-time information regarding price volatility, market sentiment, and community opinions. As a result, the perceived risk actually encourages them to conduct deeper evaluations before investing. Therefore, risk is not seen as a barrier but rather as a trigger for caution and stronger investment decisions.

Kumar (2024) supports these findings by showing that high risk perception can improve the quality of stock investment decisions because investors become more analytical in managing their portfolios. Almansour et al. (2023) also found that risk is a major determinant of investment decisions across countries. The consistency of these findings confirms that risk awareness strengthens investor confidence rather than reducing it.

The demographic characteristics of respondents further clarify these findings. The majority of respondents were male, 71% were married, and more than half allocated over 10% of their income to stocks. These conditions indicate that financial responsibility and large capital exposure make investors more serious in analyzing risks. However, this awareness does not reduce their investment interest; instead, it improves decision quality because they become more selective and long-term oriented.

These findings are consistent with Fossen et al. (2023), who found that wealthy individuals tend to invest more carefully rather than avoid risk. Similarly, Cardak and Martin (2023), as well as Honjo et al. (2024), found that family responsibilities strengthen caution in decision-making while maintaining active and planned investment behavior. Overall, the results of this study indicate that risk is not an inhibiting factor but rather a major driving factor in shaping stock investment decisions on the Stockbit platform.

Investors who understand and recognize risks tend to act more rationally, consistently, and confidently in managing their portfolios. Risk awareness functions as a control mechanism that helps investors reduce uncertainty without losing orientation toward profit opportunities. Thus, risk serves as an instrument for forming mature and rational decisions, rather than merely being viewed as potential losses to avoid.

### **The Effect of Stock Diversification on Stock Investment Decisions**

The third hypothesis proposed in this study is that stock diversification has a positive effect on stock investment decisions. The test results show a T-statistic value of 2.496, which is greater than the T-table value of 1.96, with a positive original sample value of 0.317 and a P-value < 0.001. Based on the testing criteria, these results indicate that stock diversification positively affects stock investment decisions. Thus, H<sub>0</sub> is rejected and H<sub>3</sub> is accepted, meaning that stock diversification has a positive effect on stock investment decisions.

These findings indicate that the better the diversification strategy implemented by investors, the stronger their tendency to make well-planned stock investment decisions. These results are consistent with heuristic theory, which suggests that investors often make decisions based on subjective judgments and personal beliefs. In this context, diversification behavior may be influenced by excessive confidence in investors' abilities to select stocks. Overconfident investors tend to assume that their diversification strategies are already optimal, even though their decisions may still be influenced by intuition and personal bias (Broekema & Kramer, 2021).

These findings may reflect heuristic-driven behavior in which investors feel confident that they have spread risk effectively, even though their decisions are still influenced by overconfidence bias. This is consistent with the findings of Trejos et al. (2018) and Combrink and Lew (2019), who explained that heuristic bias often makes investors feel secure with limited portfolio compositions while still perceiving their decisions as adequate diversification.

The respondent profile also supports these findings. Most respondents (55%) belonged to the younger generation born in 1997 or later, who are known to actively use financial technology and have broad access to investment information. In addition, the majority of respondents (63%) had at least a bachelor's degree, indicating a relatively good level of financial literacy. These characteristics make them more cautious and aware of the benefits of diversification in reducing risk.

The results of this study also reinforce the view of Inghelbrecht and Tedde (2024) that overconfidence behavior does not always negatively affect stock investment decisions. Under certain conditions, self-confidence can actually encourage investors to make more active stock investment decisions, as long as they are supported by adequate knowledge and proper risk management (Inghelbrecht & Tedde, 2024).

#### 4. Conclusion

This study yielded the following conclusions:

1. Stock trading activity has a positive effect on stock investment decisions. The results show that the higher the intensity of investors' trading activity, the greater their tendency to make stock investment decisions. This phenomenon reflects investors' active involvement in the capital market, driven by overconfidence bias and easy access to information on digital platforms like Stockbit. However, the magnitude of the effect of trading activity is relatively small, so the increase in investment decisions reflects the quantity of decisions, not necessarily their quality.
2. Stock investment risk has a positive effect on stock investment decisions. The investment risk variable proved to be the most dominant factor influencing stock investment decisions, with the highest coefficient value compared to other variables. These results indicate that investors' awareness of risk actually encourages them to conduct more in-depth evaluations before investing. Risk is no longer viewed as an obstacle, but as a driver for more careful, rational, and planned stock investment decisions.
3. Stock diversification has a positive effect on stock investment decisions. Stock diversification has been shown to have a positive effect on stock investment decisions. This suggests that more rational and highly educated investors tend to understand the importance of portfolio risk diversification, resulting in more confidence and strategic stock investment decisions.
4. Overall, the results of this study indicate that the three independent variables—stock trading activity, stock investment risk, and stock diversification—have a positive effect on stock investment decisions, with stock investment risk being the most dominant factor. This finding supports the heuristic theory, which states that investors use rules of thumb and self-confidence in decision-making. However, in the context of modern investors on digital platforms like Stockbit, this behavior tends to be more rational and analytical.

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