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The Influence of Overconfidence, Herding Behavior, and Self-Control on Investment Decisions: Moderation of Financial Literacy among Stock Investors in Pontianak City

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Abstract

Sound investment decisions are essential for achieving long-term financial goals, yet many investors are influenced by behavioral biases rather than rational analysis, particularly in regions with rapid investor growth and limited financial literacy. This study examines the effects of overconfidence, herding behavior, and self-control on stock investment decisions, with financial literacy as a moderating variable, among stock investors in Pontianak City. This research employed an associative quantitative approach using primary data collected through questionnaires from 150 stock investors. The variables analyzed included overconfidence, herding behavior, self-control, investment decisions, and financial literacy. Data were analyzed using instrument tests, classical assumption tests, and Moderated Regression Analysis (MRA), supported by correlation, determination, F-test, and t-test analyses with SPSS. The results indicate that overconfidence, herding behavior, and self-control simultaneously have a significant effect on investment decisions. Partially, overconfidence and self-control significantly influence investment decisions, while herding behavior does not. Financial literacy significantly strengthens the relationship between overconfidence and investment decisions but does not moderate the effects of herding behavior and self-control. The inclusion of financial literacy increased the model's explanatory power from 28.4% to 38.4%. The study concludes that behavioral biases, particularly overconfidence, play a crucial role in investment decisions, and financial literacy serves as an important moderating factor in reducing irrational decision-making among investors.

Keywords: Investment Decision, Overconfidence, Herding Behavior, Self-Control, Financial Literacy

Introduction

Sound investment decisions are key to investors' success in achieving long-term financial goals. In an increasingly dynamic and complex capital market, investors' ability to make rational and measured decisions is a determining factor in investment success. However, in practice, investment decisions are not always based on rational considerations and in-depth analysis. Many investors, especially new investors with limited financial literacy, tend to make decisions based on emotions, social pressure, or overconfidence in their own abilities.

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Understanding how behavioral biases such as overconfidence, herding behavior, and weak self-control influence stock investment decisions among investors with limited financial literacy still requires further study, particularly in regions with rapid stock investor growth but with financial literacy levels that still need to be improved. Rapid investor growth can indicate herding behavior in investment decisions. According to Bikhchandani & Sharma (2000), herding behavior is the tendency of investors to follow the majority's decisions based on the actions of others rather than analyzing personal information.

The rapid increase in investors reflects a pattern where potential investors see many people investing in stocks and then follow suit without adequate risk analysis. This phenomenon is exacerbated by the ease of access to information through social media and digital investment platforms. A study by Sugianto et al. (2024) found that the growth of young investors in the Indonesian capital market correlates with a tendency to make investment decisions based on social media recommendations and following popular trends.

In addition to herding behavior, overconfidence is also a behavioral bias that often influences investment decisions. According to Singh et al. (2024), overconfidence is the tendency of investors to overestimate their own abilities and the accuracy of their information, which manifests in transactions without in-depth analysis, underestimating risks, and impulsive decisions. The combination of overconfidence and limited financial literacy creates a vulnerable environment for investment losses.

Another important behavioral bias is weak investor self-control. Tangney et al. (2004) explained that self-control is an individual's ability to regulate behavior, thoughts, and emotions to achieve long-term goals. In the context of investing, low self-control makes it difficult for investors to refrain from buying during sharp price rises (FOMO) or selling during market corrections due to panic.

The growth of stock investors requires special attention because new investors with limited financial literacy tend to be more susceptible to behavioral biases. Limited financial literacy creates a situation where investors lack sufficient knowledge about how the stock market works, pricing mechanisms, fundamental and technical analysis, and risk management strategies.

This situation forces investors to rely on unverified sources of information, such as recommendations from friends, family, or social media influencers, without the ability to evaluate the quality and accuracy of the information. According to Lusardi & Mitchell (2024), investors with low financial literacy tend to make decisions based on readily available information without conducting in-depth analysis. This is evident in several detrimental behaviors: buying stocks simply because they are popular on social media, not having a clear strategy when prices drop, and not understanding the importance of diversification, thus investing all their funds in only one or two stocks.

The pattern of changes in trading volume that occurred simultaneously with the growth in the number of investors provides interesting information to study. The significant increase in trading volume in 2021 may indicate that new investors were not only opening accounts but also actively trading. According to Barber & Odean (2001), investors with overconfidence in their abilities tend to trade more frequently because they feel they can predict market movements well.

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An interesting phenomenon occurred in 2023-2024: trading volume decreased while the number of investors continued to increase. This indicates a change in investor behavior, possibly due to loss experiences or increased caution. The decrease in volume while the number of investors continued to increase may indicate that some investors became less active or even passive in trading after experiencing certain market conditions.

The combination of rapid investor growth (92.5% in three years), fluctuating trading volume, and financial literacy levels below the national average create conditions vulnerable to behavioral biases. Psychological biases such as overconfidence, herding behavior, and weak self-control can pose a risk of significant financial loss for investors with limited financial literacy.

Several previous studies have examined the relationship between behavioral biases and investment decisions. Kamaliah (2023) found that financial literacy and self-control significantly positively influence investment decisions. Hariyanto et al. (2024) showed that herding behavior during bullish market conditions significantly positively influences abnormal returns across all sectors. Azzahra & Radiman (2025) found that herding behavior significantly positively influences investment decisions, and financial literacy was shown to moderate the relationship between herding behavior and investment decisions.

Although various studies have made important contributions, gaps remain to be filled. Previous research has been mostly conducted in large cities on Java Island with different demographic characteristics and financial literacy. Research on the influence of behavioral biases (overconfidence, herding behavior, and self-control) on investment decisions, moderated by financial literacy, in Pontianak City is still limited.

Theoretically, this research contributes to enriching behavioral finance studies by testing the consistency of previous findings across different regional contexts, while simultaneously integrating three behavioral bias variables with financial literacy moderation. Practically, the research findings are expected to inform regulators (OJK and BEI) in designing more effective educational programs and provide guidance for investors in making more rational investment decisions.

Methods

The research method used by the author is an associative method. According to Sugiyono (2019): "The associative method aims to determine the relationship between two or more variables." Associative research in this study is to determine the relationship between Overconfidence, Herding Behavior and self-control on Investment Decisions moderated by Financial Literacy in stock investors in Pontianak City.

Data Collection Techniques

The data used in this study consists of primary and secondary data. Primary data was obtained directly from the research object through a questionnaire data collection technique. According to Hidayat (2019), primary data is data obtained directly by organizations, institutions, agencies, or individuals from the research object. Questionnaires are used as a data collection tool because they are able to obtain relevant data with a high level of validity and reliability, as stated by Sukendra & Atmaja (2020) that a questionnaire is a series of written questions answered by

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respondents and directly related to the research topic. In this study, the questionnaire contains a list of questions or statements regarding the influence of overconfidence, herding behavior, and self-control on investment decisions moderated by financial literacy on stock investors in Pontianak City. In addition to primary data, this study also uses secondary data obtained through literature studies. According to Siregar (2017), secondary data is data published or used by organizations that are not direct data processors. Literature studies were conducted by reviewing various literature sources relevant to the research, which according to Sugiyono (2017) are related to the values, culture, and norms that develop in the social situation being studied.

Research Variables

According to Sugiyono (2017), a research variable is anything in any form determined by the researcher to be studied so that information is obtained regarding it and then conclusions are drawn. The variables used in this study consist of independent variables, dependent variables, and moderating variables. Independent variables are variables that influence or cause changes in the emergence of dependent variables (Sugiyono, 2019), which in this study include overconfidence (X1), herding behavior (X2), and self-control (X3). Dependent variables are variables that are influenced or become the result of the presence of independent variables (Sugiyono, 2017), namely investment decisions (Y) which are influenced by overconfidence, herding behavior, and self-control with financial literacy as a moderating variable. Moderating variables are variables that influence, either strengthening or weakening, the relationship between the independent variables and the dependent variable (Sugiyono, 2017), which in this study is financial literacy (Z).

Data Analysis Techniques

Instrument Test

The instrument testing in this study consisted of validity and reliability testing. Validity testing aims to determine the extent to which a measuring instrument is able to measure what it should measure. According to Siregar (2020), validity testing is used to demonstrate the ability of a measuring instrument to measure the object being studied. The basis for decision-making in validity testing is carried out by comparing the calculated r value with the table r value, where the questionnaire item is declared valid if the calculated r value is greater than the table r value, and is declared invalid if the calculated r value is less than the table r value. Validity testing in this study was conducted using the SPSS program. After the validity test, a reliability test was conducted on the statement items that had been declared valid. According to Sugiyono (2018), reliability testing is the degree of consistency and stability of data or findings, where an instrument is said to be reliable if it produces consistent data over time. The reliability test in this study used the Cronbach's Alpha method with a minimum limit value of 0.60. A questionnaire is considered reliable if the Cronbach's Alpha value is greater than 0.60, whereas if the value is less than 0.60, the questionnaire is considered unreliable. Reliability testing in this study was also conducted using SPSS.

Classical Assumption Tests

The classical assumption tests used in this study include the normality test, multicollinearity test, and linearity test. The normality test aims to determine whether the data used in the study is normally distributed. According to Siregar (2020), the normality test is used to determine whether the data population is normally distributed. A good regression model is one with a normal or near-normal data distribution. The normality test in this study was conducted using the Kolmogorov-Smirnov (K-S) test, with the decision-making criteria being that if the significance value is greater than or equal to 0.05, the data are considered normally distributed. Furthermore, the multicollinearity test is used to determine whether there is a correlation between the independent variables in the regression model. According to Siregar (2020), multicollinearity testing is performed by examining the Tolerance and Variance Inflation Factor (VIF) values. Multicollinearity is not present if the Tolerance value is greater than 0.10 and the VIF value is less than 10. Furthermore, the linearity test is used to determine whether the regression model specifications used are appropriate. According to Ghozali (2018), the linearity test aims to determine whether the relationship between the independent and dependent variables is linear. Linearity testing is performed using the Test for Linearity, with the criterion that the regression model is considered linear if the significance value is greater than 0.05.

Statistical Analysis

The statistical analysis used in this study included Moderated Regression Analysis (MRA), correlation coefficient analysis, coefficient of determination analysis, simultaneous influence test (F test), and partial influence test (t test). Moderated Regression Analysis (MRA) was used to determine whether financial literacy variables can strengthen or weaken the influence of overconfidence, herding behavior, and self-control on investment decisions. According to Ghozali (2018), moderating variables aim to determine the direction and strength of the influence of independent variables on the dependent variable. Moderation testing was conducted using hierarchical regression consisting of two equations. The first equation was used to determine the direct effect of the independent variable on the dependent variable, while the second equation was used to test the interaction effect between the independent variable and the moderating variable on the dependent variable. The MRA analysis in this study was conducted using SPSS software.

Correlation coefficient analysis was used to measure the strength and direction of the relationship between overconfidence, herding behavior, self-control, and financial literacy on investment decisions. According to Siregar (2020), the correlation coefficient is a number that indicates the degree of closeness of the relationship between variables. The analysis technique used was Pearson Product Moment, with interpretations of correlation values ranging from very weak to very strong. Next, the coefficient of determination analysis is used to determine the extent of the independent variable's contribution in explaining the variation in the dependent variable. According to Siregar (2017), the coefficient of determination indicates the extent of the independent variable's influence on the dependent variable, with the coefficient of determination ranging between zero and one. A value close to one indicates that the independent variable has a strong ability to explain the variation in the dependent variable.

The simultaneous influence test, or F-test, is used to determine whether overconfidence, herding behavior, and self-control significantly influence investment decisions, both with and without financial literacy as a moderating variable. According to Ghozali (2018), the F-test is used to

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assess the influence of all independent variables simultaneously on the dependent variable. The basis for decision-making in this test is based on the significance value, where the null hypothesis is accepted if the significance value is greater than 0.05 and rejected if the significance value is less than 0.05. Furthermore, the partial influence test, or t-test, is used to determine the influence of each independent variable individually on the dependent variable. According to Ghozali (2018), the t-test shows the extent to which one independent variable partially influences the dependent variable, both in the equation without moderation and in the equation with financial literacy as a moderating variable.

Results and Discussion

Research Instrument Testing

Validity Testing

Validity testing is used to measure the validity of a questionnaire. A questionnaire is considered valid if the questions accurately reveal what it is intended to measure. The method used to assess the validity of the questionnaire is the product-moment correlation or Pearson's variate analysis. To determine the level of validity, a significance test is performed by comparing the calculated r with the r table for degrees of freedom (df) = n-2. In this case, n is the number of samples. In this case, the df can be calculated as 150-2, or df = 148, with an alpha of 0.05 (α 5%). The r table is 0.160. If the calculated r is greater than the r table (r > r table) and the r value is positive, then the question is considered valid. Conversely, if the calculated r is < r table, then the question is invalid. The results of the analysis can be seen in the following table.

Table 1. Validity Test

Variables	Item	Pearson Correlation	Sig.	r-count	Information
Overconfidence (X1)	O1	0.745	0	0.160	Valid
	O2	0.708	0	0.160	Valid
	O3	0.649	0	0.160	Valid
	O4	0.636	0	0.160	Valid
	O5	0.596	0	0.160	Valid
	O6	0.720	0	0.160	Valid
	O7	0.566	0	0.160	Valid
	O8	0.635	0	0.160	Valid
	O9	0.612	0	0.160	Valid
	O10	0.515	0	0.160	Valid
Herding Behavior (X2)	HB 1	0.568	0	0.160	Valid
	HB 2	0.607	0	0.160	Valid
	HB 3	0.390	0	0.160	Valid
	HB 4	0.352	0	0.160	Valid
	HB 5	0.486	0	0.160	Valid
	HB 6	0.536	0	0.160	Valid
Self Control (X3)	SC 1	0.769	0	0.160	Valid

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	SC 2	0.758	0	0.160	Valid
	SC 3	0.695	0	0.160	Valid
	SC 4	0.667	0	0.160	Valid
	SC 5	0.730	0	0.160	Valid
	SC 6	0.717	0	0.160	Valid
Keputusan Investasi (Y)	KI 1	0.693	0	0.160	Valid
	KI 2	0.813	0	0.160	Valid
	KI 3	0.704	0	0.160	Valid
	KI 4	0.684	0	0.160	Valid
	KI 5	0.687	0	0.160	Valid
	KI 6	0.775	0	0.160	Valid
Literasi Keuangan (Z)	LK 1	0.670	0	0.160	Valid
	LK 2	0.645	0	0.160	Valid
	LK 3	0.769	0	0.160	Valid
	LK 4	0.794	0	0.160	Valid
	LK 5	0.805	0	0.160	Valid
	LK 6	0.797	0	0.160	Valid
	LK 7	0.747	0	0.160	Valid
	LK 8	0.820	0	0.160	Valid

Source: Processed data, 2026.

Reliability Testing

Reliability testing is concerned with the issue of trustworthiness in an instrument. An instrument can have a high level of trustworthiness if the results of the instrument testing show consistent results. Instrument reliability relates to the accuracy of the results. Research reliability uses Cronbach's Alpha to identify how well the items in the questionnaire correlate with each other.

Table 2. Reliability Testing

Variables	Cronbach's Alpha	Minimum Reliability	Information
Overconfidence (X1)	0.878	0.60	Reliabel
Herding Behavior (X2)	0.674		
Self Control (X3)	0.845		
Investment Decisions (Y)	0.855		
Financial Literacy (Z)	0.916		

Source: Processed data, 2026.

The table above shows that each variable has a Cronbach's Alpha value greater than 0.60, thus concluding that all variables X1, X2, X3, Y, and Z are reliable.

Classical Assumption Test

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Normality Test

In this study, a normality test was conducted to determine whether the residual data was normally distributed. The results of this normality test serve as the basis for determining the next steps in the analysis. The results of the normality test using the Kolmogorov-Smirnov (K-S) method are as follows:

Table 3. Normality Test for Equation I

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		150
Normal Parameters[a,b]	Mean	0.0000000
	Std. Deviation	0.68975324
Most Extreme Differences	Absolute	0.065
	Positive	0.061
	Negative	-0.065
Test Statistic		0.065
Asymp. Sig. (2-tailed)		.200[c,d]
a. Test distribution is Normal.		

Source: Processed data, 2026.

The table above shows that the Kolomogorov-Smirnov sig. value is 0.200. A significance value above 0.050 indicates that the data is normally distributed. The following table shows the normality test for equation 2:

Table 4. Normality Test for Equation II

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		150
Normal Parameters[a,b]	Mean	0.0000000
	Std. Deviation	0.74454181
Most Extreme Differences	Absolute	0.043
	Positive	0.037
	Negative	-0.043
Test Statistic		0.043
Asymp. Sig. (2-tailed)		.200[c,d]
a. Test distribution is Normal. Source: Processed data, 2026.		

Based on the table above, the Kolomogorov-Smirnov sig. value is 0.200. A significance value

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above 0.050 indicates that the data is normally distributed.

Multicollinearity Test

The multicollinearity test in this study was conducted to ensure that there was no high correlation between the independent variables that could affect the stability of the regression model. This test used the Tolerance and Variance Inflation Factor (VIF) indicators. The model is considered free from multicollinearity if the Tolerance is greater than 0.10 and the VIF is less than 10. The results of the multicollinearity test in this study are as follows:

Table 5. Multicollinearity Test for Equation I

Coefficients[a]			
Model		Collinearity Statistics	
		Tolerance	VIF
1	Overconfidence	0.418	2.390
	Herding Behavior	0.791	1.265
	Self Control	0.421	2.378
a. Dependent Variable: Investment Decisions			

Source: Processed data, 2026.

Table 5 shows that there is no multicollinearity among the independent variables in the regression model. This is evident from the tolerance values for the variables Overconfidence, Herding Behavior, and Self-Control, which have tolerance values > 0.10 and VIF values < 10.

Table 6. Multicollinearity Test for Equation II

Coefficients[a]			
Model		Collinearity Statistics	
		Tolerance	VIF
1	Overconfidence	0.493	2.028
	Herding Behavior	0.741	1.349
	Self Control	0.388	2.577
	Financial Literacy	0.510	1.962
	Overconfidence* Financial Literacy	0.124	8.034
	Herding Behavior*Financial Literacy	0.244	4.091
	Self Control*Financial Literacy	0.121	8.292
a. Dependent Variable: Investment Decisions			

Source: Processed data, 2026.

Table 6 shows that there is no multicollinearity among the independent variables in the regression model. This is evident from the tolerance values for the variables Overconfidence, Herding Behavior, Self-Control, Financial Literacy, and the variables combined with moderation: Overconfidence*Financial Literacy, Herding Behavior*Financial Literacy, and Self-Control*Financial Literacy, which have tolerance values > 0.10 and VIF values < 10.

Linearity Test

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This linearity test is necessary to determine whether the required model is a linear model. The linearity test in this study was conducted using the Test for Linearity. The applicable criterion is that if the significance value of the Deviation From Linearity is > 0.05, it can be interpreted as indicating a linear relationship between the independent and dependent variables. The results of the Test for Linearity are shown in the following table:

Table 7. Linearity Test

Variable	Deviation From Linearity	Description
Y*X1	0.883	Linier
Y*X2	0.287	
Y*X3	0.855	
Y*Z	0.310	

Source: Processed data, 2026.

The table above shows that each variable has a Deviation From Linearity value of more than 0.05, so it can be concluded that all variables X1, X2, X3, Y, and Z are linear.

Statistical Testing

Regression Analysis with Moderated Regression Analysis (MRA)

The statistical test used in this research was Moderated Regression Analysis (MRA). MRA is a specific application of multiple linear regression, where the regression equation contains an interaction element (the multiplication of two or more independent variables). MRA aims to examine the relationship between independent and dependent variables, where there are strengthening and weakening factors (moderating variables). The MRA test has two equations.

Table 8. MRA Test Equation I

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.293	0.340		3.804	0.000
	Overconfidence	0.293	0.124	0.233	2.371	0.019
	Herding Behavior	0.155	0.121	0.101	1.281	0.202
	Self Control	0.328	0.112	0.289	2.926	0.004
a. Dependent Variable: Keputusan Investasi						

Table 8 shows the following regression equation:

Investment Decision = 1.293 + 0.293X1 + 0.155X2 + 0.328X3 + e

The regression equation can be explained as follows: (1) The constant value is 1.293 (positive), indicating that the values of Overconfidence, Herding Behavior, and Self-Control are equal to zero (0), thus the value of the Investment Decision is 1.293; (2) The value of the Overconfidence variable (X1) is 0.293 and is positive, so if the Overconfidence variable increases by one, the

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Investment Decision value will increase by 0.293; (3) The value of the Herding Behavior variable (X2) is 0.155 and is positive, so if the Herding Behavior variable increases by one, the Investment Decision value will increase by 0.155; (4) The Self-Control variable (X3) has a positive value of 0.328. Therefore, if the Self-Control variable increases by one unit, the Investment Decision value will increase by 0.328.

The following are the results of the regression test using Moderated Regression Analysis, equation 2:

Table 9. MRA Test, Equation II

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.817	0.399		2.048	0.042
	Overconfidence	0.282	0.118	0.224	2.388	0.018
	Herding Behavior	0.047	0.118	0.031	0.402	0.688
	Self Control	0.078	0.120	0.068	0.647	0.519
	Overconfidence* Financial Literacy	0.082	0.040	0.387	2.072	0.040
	Herding Behavior* Financial Literacy	0.012	0.033	0.047	0.355	0.723
	Self Control* Financial Literacy	-0.075	0.038	-0.373	-1.964	0.051
a. Dependent Variable: Investment Decisions						

Source: Processed data, 2026.

Table 9 shows the following regression Investment Decision = 0.817 + 0.282X1 + 0.047X2 + 0.078X3 + 0.448Z + 0.082X1*Z + 0.012X2*Z – 0.075X3*Z. The regression equation can be explained as follows: (1) The constant value is 0.817 (positive), indicating that the values of Overconfidence, Herding Behavior, and Self-Control, with Financial Literacy as a moderating factor, are equal to zero (0), thus the Investment Decision value is 0.817; (2) The Overconfidence variable (X1) is 0.282 and is positive, so if the Overconfidence variable increases by one unit, the Investment Decision value will increase by 0.282; (3) The value of the Herding Behavior variable (X2) is 0.047 and has a positive value, so if the Herding Behavior variable increases by one unit, the Investment Decision value will increase by 0.047; (4) The value of the Self Control variable (X3) is 0.078 and has a positive value, so if the Self Control variable increases by one unit, the Investment Decision value will increase by 0.078; (5) The value of the Financial Literacy variable (Z) is 0.448 and has a positive value, so if the Financial Literacy variable increases by one unit, the Investment Decision value will increase by 0.448; (6) The value of the Overconfidence variable with Financial Literacy as a moderating variable is 0.082 and has a positive value, so if there is an increase in the Overconfidence variable with Financial Literacy as a moderating variable by one unit, the Investment Decision variable value will increase by 0.082; (7) The value of the Herding

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Behavior variable with Financial Literacy as a moderating variable is 0.012 and has a positive value, so if there is an increase in the Herding Behavior variable with Financial Literacy as a moderating variable by one unit, the value of the Investment Decision variable will increase by 0.012; (8) The value of the Self Control variable with Financial Literacy as a moderating variable is 0.075 and has a negative value, so if there is an increase in the Self Control variable with Financial Literacy as a moderating variable by one unit, the Investment Decision will decrease by 0.075.

Correlation Coefficient Analysis

The correlation coefficient test in this study was conducted to determine the level of relationship between the independent and dependent variables, as well as to examine the influence of moderating variables on this relationship. The results of the correlation coefficient test for the first and second model equations can be seen in the following table:

Table 10. Correlation Coefficient Test for Equation I

Model Summary[b]				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.533[a]	0.284	0.270	0.81039
a. Predictors: (Constant), Self Control , Herding Behavior, Overconfidence				
b. Dependent Variable: Investment Decisions				

Source: Processed data, 2026.

Based on Table 10, the first model equation yields a correlation coefficient (R) of 0.533. This value indicates a sufficient relationship between the independent variables, consisting of Overconfidence, Herding Behavior, and Self-Control, and the dependent variable, Investment Decision. Therefore, the R value of 0.533 falls into the sufficient category, meaning that the three independent variables (X) have a sufficient contribution to the relationship between Investment Decision (Y). The following are the results of the correlation coefficient analysis for equation II:

Table 11. Correlation Coefficient Test for Equation II

Model Summary[b]				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.619[a]	0.384	0.353	0.76267
a. Predictors: (Constant), Self Control*Financial Literacy, Self Control, Herding Behavior, Financial Literacy, Overconfidence, Herding Behavior*Financial Literacy, Overconfidence*Financial Literacy				
b. Dependent Variable: Investment Decisions				

Source: Processed data, 2026.

Based on Table 11, the second model equation yields a correlation coefficient (R2) of 0.619. This value indicates a strong relationship between the variables Overconfidence, Herding Behavior, and Self-Control, and Financial Literacy as a moderating variable in Investment Decisions.

Coefficient of Determination

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The coefficient of determination (R2) test was conducted to determine the extent to which the independent variables explain the variation in the dependent variable. This analysis aims to measure the accuracy of the regression model developed in the study and to evaluate the proportion of changes in the dependent variable that can be explained by the independent variables used. The coefficient of determination (R2) calculation for each model can be seen in Tables 10 and 11.Based on Table 10, the R2 value for the first model equation is 0.284, representing 28.4% of the variables Overconfidence, Herding Behavior, and Self-Control, with the remaining 71.6% influenced by other variables not observed in this study. Based on Table 4.11, the R2 value for the second model equation is 0.384, representing 38.4% of the variables Overconfidence, Herding Behavior, and Self-Control, with Financial Literacy as a moderator. The remaining 61.6% is influenced by other variables not observed in this study.

F Test

The F test is used to test the significance of the simultaneous regression model, namely to determine whether the independent variables entered into the model collectively have a significant influence on the dependent variable. In other words, this test aims to determine whether the resulting regression model is suitable for explaining the relationships between the variables in this study. The results of the first and second model equations can be seen in the following table:

Table 12. F Test for Equation I

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	38.124	3	12.708	19.351	.000[b]
	Residual	95.882	146	0.657		
	Total	134.007	149			
a. Dependent Variable: Investment Decisions						
b. Predictors: (Constant), Self Control , Herding Behavior, Overconfidence						

Source: Processed data, 2026.

Table 12 shows that the significance value for the influence of Overconfidence, Herding Behavior, and Self-Control on Investment Decisions is 0.000 < 0.05. Therefore, it can be concluded that Overconfidence (X1), Herding Behavior (X2), and Self-Control (X3) have a significant influence on Investment Decisions. The second equation is as follows:

Table 13. F-Test for Equation II

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	51.410	7	7.344	12.626	.000[b]
	Residual	82.597	142	0.582		
	Total	134.007	149			
a. Dependent Variable: Investment Decisions						

b. Predictors: (Constant), Self Control*Financial Literacy, Self Control, Herding Behavior, Financial Literacy, Overconfidence, Herding Behavior*Financial Literacy, Overconfidence*Financial Literacy

Source: Processed data, 2026.

Table 13 shows that the significant value for the influence of Overconfidence (X1), Herding Behavior (X2), and Self-Control (X3) with Financial Literacy (Z) as a moderator on Investment Decisions (Y) is 0.000 < 0.05. Therefore, it can be concluded that Financial Literacy (Z) moderates the relationship between Overconfidence (X1), Herding Behavior (X2), and Self-Control (X3) on Investment Decisions (Y).

T-Test

The t-test is used to test the significance of each independent variable partially on the dependent variable. This test aims to determine whether each independent variable individually has a significant influence in the constructed regression model. The results of the t-test equations for the first and second models can be seen in the following table:

Table 14. T-Test Equation I

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.293	0.340		3.804	0.000
	Overconfidence	0.293	0.124	0.233	2.371	0.019
	Herding Behavior	0.155	0.121	0.101	1.281	0.202
	Self Control	0.328	0.112	0.289	2.926	0.004
a. Dependent Variable: Investment Decisions						

Source: Processed data, 2026.

Based on table 14, the t-table used is 1.655 and the results can be explained as follows: (1) The Overconfidence variable (X1) shows a Sig. value of 0.000 < 0.05 and a calculated t-value of 2.371, which means it is greater than the t-table (2.371 > 1.655), so the hypothesis is that the Overconfidence variable (X1) has a partial effect on Investment Decisions; (2) The Herding Behavior variable (X2) shows a Sig. value of 0.202 and a calculated t-value of 1.281, which means it is smaller than the t-table (1.281 < 1.655), so the hypothesis is that the Herding Behavior variable (X2) does not have a partial effect on Investment Decisions; (3) The Self-Control variable (X3) shows a Sig. value. 0.004 < 0.05, and the calculated t-value of 2.926, which is greater than the t-table (2.926 > 1.655), therefore, the hypothesis is that the Self-Control variable (X3) has a partial effect on Investment Decisions.

The following table shows the results of the partial test (t-test) for equation II.

Table 15. T-Test for Equation II

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.817	0.399		2.048	0.042
	Overconfidence	0.282	0.118	0.224	2.388	0.018
	Herding Behavior	0.047	0.118	0.031	0.402	0.688
	Self Control	0.078	0.120	0.068	0.647	0.519
	Financial Literacy	0.448	0.101	0.410	4.442	0.000
	Overconfidence*Financial Literacy	0.082	0.040	0.387	2.072	0.040
	Herding Behavior*Financial Literacy	0.012	0.033	0.047	0.355	0.723
	Self-Control*Financial Literacy	-0.075	0.038	-0.373	-1.964	0.051
a. Dependent Variable: Investment Decisions						

Source: Processed data, 2026.

Based on table 15, the t-table used is 1.655 and the results can be explained as follows: (1) The Overconfidence variable (X1) shows a Sig. value of 0.018 < 0.05 and a calculated t-value of 2.388, which means it is greater than the t-table (2.388 > 1.655), so the hypothesis is that the Overconfidence variable (X1) has a partial effect on Investment Decisions; (2) The Herding Behavior variable (X2) shows a Sig. value of 0.688 > 0.05 and a calculated t-value of 0.402, which means it is smaller than the t-table (0.402 < 1.655), so the hypothesis is that the Herding Behavior variable (X2) does not have a partial effect on Investment Decisions; (3) The Self-Control variable (X3) shows a Sig. value. 0.647 > 0.05 and the calculated t value is 0.647 which means it is smaller than the t table (0.647 < 1.655), then the hypothesis is that the Self Control variable (X3) does not have a partial effect on Investment Decisions; (4) The Financial Literacy variable (Z) shows a Sig. value of 0.000 < 0.05 and the calculated t value is 4.442 which means it is greater than the t table (4.442 > 1.665), then the hypothesis is that the Financial Literacy variable (Z) has a partial effect on Investment Decisions; (5) The Overconfidence*Financial Literacy variable (X1*Z) shows a Sig. value of 0.040 < 0.05 and the calculated t value is 2.072 which means it is greater than the t table (2.072 > 1.665), then the hypothesis is that Overconfidence has a partial effect on Investment Decisions with Financial Literacy as a moderator; (6) The Herding Behavior*Financial Literacy (X2*Z) variable shows a Sig. value of 0.723 > 0.05 and a calculated t value of 0.355, which means it is smaller than the t table (0.355 < 1.655), so the hypothesis is that Herding Behavior does not have a partial influence on Investment Decisions with Financial Literacy as a moderation; (7) The Self Control*Financial Literacy (X3*Z) variable shows a Sig. value of 0.051 > 0.05 and a calculated t value of -1.964, which means it is smaller than the t table (-1.964 < 1.655), so the hypothesis is that Self Control does not have a partial influence on Investment Decisions with Financial Literacy as a moderation.

Conclusion

Based on the analysis results, this study shows that Overconfidence, Herding Behavior, and Self-

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Control have a moderate to strong relationship with investment decisions, where the strength of the relationship increases when financial literacy is used as a moderating variable. These variables simultaneously have a significant effect on investment decisions, with the model's explanatory power increasing from 28.4% to 38.4% after including financial literacy as a moderating variable. Partially, Overconfidence and Self-Control have a significant effect on investment decisions, while Herding Behavior does not. In addition, financial literacy is proven to moderate the effect of Overconfidence on investment decisions, but is unable to moderate the effect of Herding Behavior and Self-Control on investment decisions.

Suggestion

For investors, they are expected to improve their financial literacy to balance their confidence with their understanding of investment risks. Furthermore, investors need to improve their self-control to avoid impulsive decisions and avoid decisions based solely on trends or environmental pressures. For further researchers, it is recommended that further research include other variables such as risk tolerance, loss aversion, or financial attitude to broaden the scope of behavioral finance studies. Furthermore, research can be conducted in different regions or investor groups to make the results more comprehensive and comparable.

References

Azzahra, K., & Radiman, R. (2025). Pengaruh Herding Behaviour Dan Overconfidence Bias Terhadap Investment Decision Dengan Financial Literacy Sebagai Variabel Moderasi Di Kota Medan. *Balance: Jurnal Akuntansi Dan Manajemen*, *4*(2), 1078-1095. https://doi.org/10.59086/jam.v4i2.687

Barber, B. M., & Odean, T. (2001). Boys will be boys: Gender, overconfidence, and common stock investment. *The quarterly journal of economics*, *116*(1), 261-292. https://doi.org/10.1162/003355301556400

Bikhchandani, S., & Sharma, S. (2000). Herd behavior in financial markets. *IMF Staff papers*, *47*(3), 279-310. https://doi.org/10.2307/3867650

Ghozali, I. (2018). *Aplikasi analisis multivariate dengan program IBM SPSS 25*. Semarang: Badan Penerbit Universitas Diponegoro.

Hariyanto, D., Brahmana, R. K., & Wendy, W. (2024). Sectoral Herding During Global Rare Events: Evidence from the Indonesian Capital Market. *Jurnal Manajemen Bisnis*, *15*(1), 99-116. https://doi.org/10.18196/mb.v15i1.21601

Hidayat, A. (2019). *Metode penelitian keperawatan dan teknik analisis data*. Jakarta: Salemba Medika.

Kamaliah, K. (2023). Pengaruh Literasi Keuangan, Self Control dan Risk Tolerance Terhadap Perilaku Investasi Mahasiswa pada Galeri Investasi Syariah Univeristas Islam Negeri Antasari Banjarmasin.

Lusardi, A., & Mitchell, O. S. (2024). *The economic importance of financial literacy: Theory and evidence. Journal of Economic Literature*, 52(1), 5– 44. https://doi.org/10.1787/145f5607-en

Singh, D., Malik, G., & Jha, A. (2024). Overconfidence bias among retail investors: A systematic review and future research directions. *Investment Management & Financial Innovations*, *21*(1), 302.

Siregar, S. (2017). *Statistik parametrik untuk penelitian kuantitatif*. Jakarta: Bumi Aksara.

Siregar, S. (2020). *Metode penelitian kuantitatif*. Jakarta: Kencana.

Sugianto, D. F., Wijaya, L. I., & Sutejo, B. S. (2024). Herding dan Overconfidence dalam Investasi Gen Z: Dampak dan Moderasi Literasi Keuangan. *Journal of Accounting and Finance Management (JAFM)*, *5*(5), 1088-1099. https://doi.org/10.21511/imfi.21(1).2024.23

Sugiyono. (2017). *Metode penelitian pendidikan: Pendekatan kuantitatif, kualitatif, dan R&D*. Bandung: Alfabeta.

Sugiyono. (2018). *Metode penelitian kuantitatif, kualitatif, dan kombinasi (mixed methods).* Bandung: Alfabeta.

Sugiyono. (2019). *Metode penelitian kuantitatif, kualitatif, dan R&D*. Bandung: Alfabeta.

Sugiyono. (2020). *Metode penelitian kuantitatif, kualitatif, dan kombinasi (mixed methods) (Edisi ke-2).* Bandung: Alfabeta.

Sukendra, I. K., & Atmaja, I. M. D. (2020). *Metodologi penelitian bisnis*. Denpasar: Udayana University Press.

Tangney, J. P., Baumeister, R. F., & Boone, A. L. (2004). Self-control scale. *Current Psychology: A Journal for Diverse Perspectives on Diverse Psychological Issues*. https://psycnet.apa.org/doi/10.1037/t19593-000

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