OVERCONFIDENCE AND REGRET AVERSION ON GEN Z INVESTMENT: ROLE OF FINANCIAL LITERACY

Ratmelia Sari

Accounting Education, Faculty of Economics, Universitas Negeri Jakarta, Indonesia Email: ratmeliasari33@gmail.com

Mardi

Accounting Education, Faculty of Economics, Universitas Negeri Jakarta, Indonesia Email: mardi@unj.ac.id

Achmad Fauzi

Accounting Education, Faculty of Economics, Universitas Negeri Jakarta, Indonesia Email: fau_smart@unj.ac.id

ABSTRACT

Investment growth by individual investors in Indonesia has experienced a rapid increase, dominated by 12.12 million individual investors, of which 56.43% are under 30 years old, indicating significant participation from Generation Z in investment activities. A rise in the quantity of investors is linked to external factors involving emotions such as overconfidence and regret aversion. The reason for this study is to look at how overconfidence and regret aversion impact investing decisions among Generation Z in Jakarta, and how this link is moderated by financial literacy. The research procedure employed a survey approach with quantitative analysis. The study generates use of both moderated regression analysis and multiple linear regression involving 348 individual investors. By processing data manoeuvring SPSS 26, the outcomes reveal a noteworthy positive partial bond between both overconfidence and regret aversion with investment decisions. Regarding the moderation variable, the impact of overconfidence on investing decisions is negatively arbitrated by financial literacy, whereas the bond between regret aversion and investing decisions is not diminshed by financial literacy. Therefore, investors should consider irrational attitudes such as overconfidence and regret aversion when making investment decisions and improve their financial literacy to overcome these irrational attitudes.

Keyword: Overconfidence, Regret aversion, Investment decisions, Financial literacy

ABSTRAK

Investasi investor individu telah tumbuh secara pesat di Indonesia dengan didominasi 12,12 juta investor individu dengan 56,43% merupakan investor berusia kurang dari 30 tahun atau dapat diartikan bahwa terdapat banyak Generasi Z yang berpartisipasi dalam kegiatan investasi tersebut. Peningkatan jumlah investor dikaitkan dengan faktor-faktor eksternal yang melibatkan emosi seperti *overconfidence* dan *regret aversion*. Penelitian bertujuan untuk menyelidiki seberapa *overconfidence* dan *regret aversion* menimbulkan pengaruh pada keputusan investasi generasi Z di DKI Jakarta serta bagaimana literasi keuangan dapat berlaku sebagai moderator dalam hubungan tersebut. Metode penelitian yang diberlakukan yaitu metode survei dengan pendekatan kuantitatif. Penelitian ini menerapkan analisis regresi linear berganda dan regresi moderasi dengan melibatkan 348 investor individu. Dengan pengolahan data menggunakan SPSS 26, hasilnya menunjukkan secara parsial hubungan signifikan positif baik oleh *overconfidence* maupun *regret aversion* terhadap keputusan investasi. Dalam penggunaan variabel moderasi memperlihatkan literasi keuangan tidak memoderasi

hubungan antara *regret aversion* dan keputusan investasi. Maka dari itu, investor harus mempertimbangkan sikap irasional seperti *overconfidence* dan *regret aversion* saat membuat keputusan investasi serta meningkatkan literasi keuangan mereka untuk mengatasi sikap irasional tersebut.

Kata kunci: Overconfidence, Regret aversion, Keputusan investasi, Literasi keuangan

INTRODUCTION

In their efforts to support and sustain their lives, humans consider many future situations and conditions, one of which relates to financial stability. To accomplish this, humans need to devise intelligent financial strategies to optimize their income. One such strategy involves allocating income through investments. Investment is an activity where humans entrust their current assets in order to gain higher profits (Armansyah et al., 2023). One type of investment is the capital market. According to Kristhy et al. (2022), the capital market is a means of obtaining public funds through investments in reliable and well-managed companies. On information from Kustodian Sentral Efek Indonesia (KSEI), as of December 2023, 12.16 million people made up the capital market's investor base, mutual funds reached 11.41 million investors, stocks and other securities reached 5.25 million investors, and government bonds reached 1 million investors.

Interest and involvement in the world of investment continue to grow among various demographics, not limited by age or gender. Even younger generations show more enthusiasm towards investment. This is evidenced by the highest percentage, 56.43%, occupied by investors under the age of 30. It means that investors are predominantly Millennials and Generation Z. Despite being younger than Millennials, Generation Z's interest in becoming investors remains strong. The Central Statistics Agency (BPS) stated in 2020 that the birth ranges from 1997 to 2012 marks the birth of Generation Z in Indonesia.

With Generation Z increasingly dominating investment activities, they have taken a positive step forward. However, many Generation Z investors still have limited experience. This tendency can lead people to generate decisions not based on logic. When someone acts strongly on feelings without reasoned justification, they are considered to have an irrational attitude (Simangunsong, 2021). Psychological factors like overconfidence and regret aversion contribute to making irrational investment decisions.

Overconfidence in investors is an excessive belief in their investment abilities. Investor confidence in investment is reflected in the successful realization of investments in the third quarter of 2023, which increased by 21.6% compared to the same period in 2022. This can be interpreted that Investors will generate more decisions over their investments the more confident they are. This aligns with research organized by Usriyono & Wahyudi, (2023), Ranaweera & Kawshala (2022), and Ady & Hidayat (2019) which state that investment decisions are positively and significantly affected by overconfidence. However, contrary to Sari & Damingun (2021) who revealed that investment decisions are insignificant and negatively affected by overconfidence.

Regret aversion occurs when someone generates an investment decision that they later regret, leading them to take actions to prevent such mistakes. The outcomes of Saleem et al. (2023), Hariono et al. (2023), and Putri & Hikmah (2020)'s are shown to conclude that investment decisions are positively and significantly affected by the link regret aversion. In contrast, studies by Wangzhou et al. (2021) and Yuniningsih & Taufiq (2019) found a negative and significant bond between the regret aversion and investment decisions.

In 2022, the National Survey of Financial Literacy and Inclusion organized a survey in 34 provinces with 14,634 respondents, showing a financial literacy index of 49.68%. This figure is considered quite low because it is less than half. Financial literacy is often considered to have a close association with an individual's psychological factors in order to generate more

rational investment decisions. Rasheed et al. (2021) and concluded in their research showed the correlation between overconfidence and investing decisions is positively moderated by financial literacy. Conversely, conflicting outcomes stipulate that financial literacy can negatively moderate the correlation between overconfidence and decisions about investments, as revealed in research organized by Prasetyo et al. (2023), Pratama (2022), and Rasheed et al. (2021).

Several similar studies have also been organized on the psychological factor of regret aversion, yielding varied findings. In Saleem et al. (2023)'s study, it was found that regret aversion and investing decisions are positively correlated has been found to be weakened by financial literacy. Conversely, Wangzhou et al. (2021) revealed that regret aversion and investing decisions are positively correlated and strengthened by financial literacy. Other findings stipulate that the correlation between regret aversion and investing decisions is not weakened by financial literacy, as found in the research by Hariono et al. (2023).

From the several studies mentioned above, it is known that the research findings are inconsistent because they show different outcomes between each other that have been organized in the past. Testing on regret aversion towards investment decisions especially with financial literacy moderation is still rarely found. In addition, the target sample of Generation Z which is one of the dominant number of investors today is expected to describe the current condition of the problem being studied. Therefore, finding out how overconfidence and regret aversion affect things is the goal of this research, as well as financial literacy's arbitrateing function on investment decisions among Generation Z in DKI Jakarta.

LITERATURE REVIEW

Investment Decisions

According to Hidayat et al. (2023), investment decisions result from evaluating investment products to determine if they are beneficial with the expectation of generating future income. Investment products can be tailored to financial needs and investment goals, such as stocks, mutual funds, bonds, gold, and property. The action taken when choosing to invest with the goal of making a profit is referred to as an investment decision (Fathihani et al., 2021). However, the outcomes of chosen investment decisions are not solely related to profits. Investment decisions aim to enhance or accomplish prosperity in the future, considering the impact of gains or losses incurred from the investment (T. D. Prasetyo & Manongga, 2019). Investment decisions can be measured through three indicators: return, risk, and the bond between return and risk as discussed by Tandelilin (2010), Mardhiyah (2017), dan Nurmala (2017).

Overconfidence

The condition when an investor possesses excessive confidence and overly positive views about the future is known as overconfidence (Ningrum et al., 2023). According to Wang (2015), individuals demonstrating overconfidence tend to exaggerate their abilities, overestimate their control over events, and deny potential risks. When making investment decisions, excessive confidence can have negative impacts on investors (Aristiwati & Hidayatullah, 2021). This is because overconfidence leads investors to struggle in acknowledging or understanding uncertainty, thereby posing potential financial losses due to decisions made without logical thought and careful consideration. In measuring overconfidence, Khan et al. (2017) state three indicators of overconfidence: belief in one's own potentialities, belief in one's grasp, and belief in one's experience.

Regret Aversion

There are two components that cause regret aversion, namely experienced regret and anticipated regret Nursalimah & Utami (2022). Wulandari & Iramani (2014) explain that experienced regret is when someone feels regret due to past experiences they have endured. Experienced regret occurs after a decision has been made and outcomes in a bad outcome, leading to feelings of regret. On the other hand, when someone tries to protect themselves before making a decision by anticipating unpleasant consequences that they might experience in the future, it is called anticipated regret (Huang et al., 2022). Anticipated regret is felt before a decision is made due to fear of potentially negative outcomes, resulting in hesitation. The indicators used in measuring regret aversion are presented in statements by three experts: Pompian (2016), Budiarto & Susanti (2017), and Sukamulja & Senoputri (2019). All three consistently describe three indicators of regret aversion, including investment loss experiences, emotions of regret when investing, and the affect of loss experiences on subsequent investments.

Financial Literacy

According to Gupta & Gupta (2018), the term financial literacy is the potentiality to understand and perceive financial concepts, especially those related to personal finance issues. This could imply that handling personal financial concerns is simpler for those with high financial literacy. Financial literacy not only helps in addressing financial problems but also assists individuals in making financial decisions. Bhabha et al. (2014) explain that to generate wise financial decisions and accomplish personal financial well-being, one must possess a blend of awareness, attitudes, and behaviours known as financial literacy. Financial literacy as stated by Chen & Volpe (1998), Ariani et al. (2016), and Yanti (2019) where all three agree that investment decisions can be measured through basic financial concepts, savings and loans, insurance, and investments.

METHOD

In this study, the researcher used four variables consisting of two independent variables, one dependent variable, and one moderating variable. The bonds between each variable form the hypothesis framework as follows.

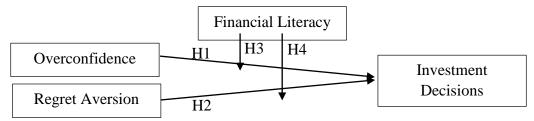


Figure 1 Theoretical Framework

Based on Figure 1, the researcher formulated the hypotheses as follows:

H1: Overconfidence influences Generation Z's investment decisions.

H2: Regret aversion influences Generation Z's investment decisions.

H3: Financial literacy arbitrates the influence of overconfidence on Generation Z's investment decisions.

H4: Financial literacy moderates the influence of regret aversion on Generation Z's investment decisions.

The accessible population used in this study is Generation Z capital market investors in DKI Jakarta. According to information received from PT Kustodian Sentral Efek Indonesia, the accessible population amounts to 417,074 investors. Manoeuvring the Isaac and Michael table, the researcher calculated the sample size (Sugiyono, 2013). According to the table, considering the population size, the sample size obtained is 348 investors.

This study maneuvers SPSS Statistics 26 to conduct classical assumption tests, regression analysis tests, and hypothesis tests. The classical assumption tests applied in this study are normality tests, multicollinearity tests, and heteroscedasticity tests. There are two regression analysis tests maenuvered in this study, namely multiple linear regression analysis and moderated regression.

For this study, classical assumption testing, regression analysis, and hypothesis testing are performed maneuvering SPSS Statistics 26. In this investigation, the classical assumption tests of normality, multicollinearity, and heteroscedasticity were used. This study used two different regression analysis tests: moderated regression and multiple linear regression analysis. Manoeuvring multiple linear regression, the bond of each variable is expressed by the following equation.

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2$$

Meanwhile, moderated regression analysis is also used with the following equation for moderated regression analysis.

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 Z + \beta_4 X_1 Z + \beta_5 X_2 Z$$

Information:

Y = Investment Decisions X₁ = Overconfidence X₂ = Regret Aversion Z = Financial Literacy α = Constant β = Regression Coefficient

The research was continued by conducting hypothesis scrutinized through t-test, f-test, and coefficient of determination test. T-test was organized to see whether the hypothesis was accepted or rejected. F-test was used as model feasibility to see whether the regression model was feasible to use. Then, the coefficient of determination test was organized to show whether the independent variables could provide all the information needed.

RESULTS AND DISCUSSION

Respondent Profile

In this study, there were 348 Generation Z investors in DKI Jakarta. Based on the Table 1, in the age demographic, it is observed that respondents aged 19 years occupy the top position with 75 respondents, while the smallest number is represented by respondents aged 17 years, with only one respondent.

Respondent Identify	Category	The number of investor	Percentage (%)
	17-20 years old	161	46%
Age	21-24 years old	141	41%
	25-27 years old	46	13%

Table 1. Respondent Profile Based on Age

Respondent Identify	Category	The number of investor	Percentage (%)
Candan	Woman	233	67%
Gender	Man	115	33%

Jurnal Pendidikan Ekonomi, Perkantoran, dan Akuntansi E-ISSN: 2722-9750 Volume 5 No. 2 (2024)

Based on the Table 2, in the gender demographic, it reveals that female respondents dominate with 67% of the total respondents, while the remaining 33% are male respondents. Based on the Table 3, in the domicile demographic, the majority of respondents are identified as residing in East Jakarta with 120 respondents, while the least number resides in Thousand Islands with 16 respondents. Limitations in distance, time, and cost contribute to uneven scattering of domicile, resulting in varying quantities of respondents based on their residence. Based on the Table 4, it reveals the types of capital market investments organized by the respondents, including: 233 stockholders have made investments, 216 investors in mutual funds, 66 in bonds, and 4 in ETFs. The variation in the number of respondents based on investment types compared to the sample size is because many respondents have invested in more than one type of capital market investment.

Respondent Identify	Category	The number of investor	Percentage (%)
	South Jakarta	101	29%
	East Jakarta	120	34%
D ''I	West Jakarta	47	14%
Domicile	Central Jakarta	43	12%
	North Jakarta	21	6%
	The Thousand Islands	16	5%

Table 3. Respondent Profile Based on Domicile

Respondent Identify	Category	The number of investor	Percentage (%)
	Stock	233	67%
Type of Capital Market	Mutual Funds	216	62%
Investment	Bonds	66	19%
	ETF	4	1%

Normality Test

Maneuvering the Kolmogorov-Smirnov approach for the normality test, the criterion proving that he scattering of the data is normal when the significance value is higher than 0.05. On the other hand, if the data processing outcomes show a significance value smaller than 0.05, then the data is said to be not normally scattered. Based on Table 5, the test findings show a significance value of 0.200. These outcomes suggest that a normal scattering occurs in the data based on the test criteria.

One-Sample Kolmogorov-Smirnov Test			
		Unstandardized Residual	
Ν		348	
Normal Parameters ^{a,b}	Mean	.0000000	
	Std. Deviation	4.22038062	
Most Extreme Differences	Absolute	.025	
	Positive	.025	
	Negative	021	
Test Statistic	0	.025	
Asymp. Sig. (2-tailed)		.200 ^{c,d}	

Multicollinearity Test

In multicollinearity testing, if the data does not exhibit multicollinearity, the tolerance value must be higher than 0.10 or the VIF value should be less than 10. Based on Table 6, in the test outcomes, the tolerance values for overconfidence are 0.741, for regret aversion are 0.816, and for financial literacy are 0.809, indicating they are higher than 0.1. Meanwhile, the VIF values for overconfidence are 1.349, for regret aversion are 1.226, and for financial literacy

are 1.113, showing they are less than 10. Therefore, the data is considered not to exhibit multicollinearity.

Variable	Collinearity Statistics		Conclusion	
variable	Tolerance	VIF	Conclusion	
Overconfidence	.741	1.349	There is no multicollinearity	
Regret Aversion	.816	1.226	There is no multicollinearity	
Financial Literacy	.898	1.113	There is no multicollinearity	

Table 6.	Multicollinearity Test Result
----------	-------------------------------

Heteroscedasticity Test

In the heteroskedasticity test manoeuvring the Glejser procedure, the criterion to avoid heteroskedasticity is a significance value higher than 0.05. Based on Table 7, in the test outcomes, the significance values for overconfidence are 0.426, for regret aversion are 0.494, and for financial literacy are 0.256, indicating that the data does not exhibit heteroskedasticity.

Table 7. Heteroscedasticity Test Result

Variable	Sig.	Conclusion
Overconfidence	.426	There is no heteroscedasticity
Regret Aversion	.494	There is no heteroscedasticity
Financial Literacy	.256	There is no heteroscedasticity

Multiple Linear Regression Analysis

Based on the Table 8, the multiple regression equation is as follows.

 $Y = 21.577 + 0.402X_1 + 0.159X_2$

The constant value $\alpha = 21.577$ stipulates that if all independent variables are zero, the investment decision variable will occupy a value of 21.577. The coefficient of 0.402 for overconfidence reveals a positive direction towards the investment decision variable. This stipulates that if the overconfidence variable increases, the investment decision also increases. The coefficient of 0.159 for regret aversion reveals a positive direction towards the investment decision also increases decision variable. This means that if regret aversion increases, the investment decision also increases.

Table 8. Multiple Linear Regression Analysis Outcomes

		Coefficients ^a ndardized fficients	Standardized Coefficients		
Model	В	Std. Error	Beta	t	Sig.
1 (Constant)	21.577	3.436		6.280	.000
Overconfidence	.402	.070	.325	5.717	.000
Regret Aversion	.159	.067	.136	2.394	.017

Moderated Regression Analysis (MRA)

Based on Table 9, the following is the equation for moderation regression analysis.

 $Y = -30.566 + 1.166X_1 + 0.221X_2 + 1.210Z - 0.020X_1Z - 0.002X_2Z$

Overconfidence has a negative coefficient value when paired with the moderating variable financial literacy (X1Z) at -0.020, which means that if the interactivity between overconfidence and financial literacy (X1Z) increases, the investment decision will decrease. The coefficient value of regret aversion with the moderation variable financial literacy (X2Z)

is negative at -0.002, which means that if the interactivity between regret aversion and financial literacy (X2Z) increases, the investment decision will decrease.

Coefficients ^a						
	Unstandardized Coefficients		Standardized Coefficients			
Model	В	Std. Error	Beta	t	Sig.	
1 (Constant)	-30.566	24.743		-1.235	.218	
Overconfidence	1.166	.477	.944	2.443	.015	
Regret Aversion	.221	.570	.189	.388	.698	
Financial Literacy	1.210	.486	1.352	2.490	.013	
Overconfidence*	020	.009	-1.239	-2.126	.034	
Financial Literacy						
Regret Aversion*	002	.011	107	189	.850	
Financial Literacy						

Table 9. Moderated Regression	Analysis (MRA) Outcomes
-------------------------------	-------------------------

Hypothesis Test

F-Test

In the f test, if the data is suitable for manoeuvring the regression model, the significance value must be less than 0.05. Based on Table 10, the test findings show a significance value of 0.000, stipulates that testing with a regression model is feasible to use.

Table	10.	F-Test	Outcomes
-------	-----	--------	----------

ANOVA ^a							
Model		Sum of Squares	df	Mean Squares	F	Sig.	
1	Regression	889.924	2	444.962	16.345	.000 ^b	
	Residual	9392.134	345	27.224			
	Total	10282.057	347				

T-Test

In testing hypotheses 1 and 2, the outcomes of the T test can be seen in Table 8. For the variable overconfidence, the significance value is 0.000 < 0.05. Furthermore, 5.717 is the computed t-value, and it is higher than the 1.967 tabulated t-value. Additionally, the coefficient value for the overconfidence variable is 0.402. These outcomes lead to the conclusion that hypothesis 1 is accepted.

For the variable regret aversion, the significance value is 0.017 < 0.05. Furthermore, the calculated t-value is 2.394, which is higher than the tabulated t-value of 1.967. Additionally, the coefficient value for the regret aversion variable is 0.159. These outcomes conclude that hypothesis 2 is accepted.

In testing hypotheses 3 and 4, the outcomes of the T test salient in Table 9. For the variable overconfidence moderated by financial literacy, the significance value is 0.034 < 0.05. The calculated t-value of -2.126 is less than the tabulated t-value of -1.967. Additionally, the coefficient value for the overconfidence variable moderated by financial literacy is -0.020. These outcomes lead to the conclusion that hypothesis 3 is accepted.

For the variable regret aversion moderated by financial literacy, the significance value is 0.850, which is higher than 0.05. The calculated t-value of -0.189 is also higher than the tabulated t-value of -1.967. Additionally, the coefficient value for the regret aversion variable moderated by financial literacy is -0.002. These outcomes lead to the conclusion that hypothesis 4 is rejected.

Coefficient of Determination Test

In the coefficient of determination test in multiple regression, reveals the value of the coefficient of determination (R square) of 0.087. This stipulates that overconfidence and regret aversion variables contribute for 8.7% in investing decisions, with other variables contribute for the remaining variation.

Table 11. Coefficient of Determination Test in Multiple Regression					
Model Summary					
			Adjusted R	Std. Error of the	
Model	R	R Square	Square	Estimate	
1	.294ª	.087	.081	5.218	

The Table 12 reveals the coefficient of determination with the contribution of the moderating variable which reveals the value of the coefficient of determination (R square) of 0.407. This means that the contribution of the financial literacy variable with the overconfidence and regret aversion variables to investment decisions is 40.7%, while the others stipulate the influence of other variables or other factors.

Table 12. Coefficient of Determination Test in Moderated Regression Analysis

Model Summary					
Adjusted R				Std. Error of the	
Model	R	R Square	Square	Estimate	
1	.638ª	.407	.399	4.222	

Discussion

The Influence of Overconfidence on Investment Decisions

The outcomes of the data analysis concluded that overconfidence has a positive and significant effect on generation Z investment decisions. Previous studies by Usriyono & Wahyudi (2023), Ranaweera & Kawshala (2022), and Ady & Hidayat (2019) provide support for the analysis's findings that the investment decisions of investor is positively and significantly affected by overconfidence. The level of overconfidence that pitchs in positively to investment decisions has also been seen in a survey organized in 2020 by Morningstar through 1,200 respondents in the United States showing that the younger generation (Gen Y and Z) feel more overconfident than other older generations with an impact on financial health and decision making. This is in line with the subjects of this study who are Generation Z investors so that the outcomes show a positive direction of overconfidence towards investment decisions.

The Influence of Regret Aversion on Investment Decisions

The outcomes of the data analysis concluded that investment decisions are positively and significantly affected by the variable regret aversion. The outcomes of the tests that were carried out agree with the conclusions of by Saleem et al. (2023), Hariono et al. (2023), and Putri & Hikmah (2020) where investment decisions are positively and significantly affected by regret aversion. Different research outcomes by Wangzhou et al. (2021) found a negative and significant effect of regret aversion on investment decisions because the data was dominated by respondents aged over 36 to over 40 years. So, investors are classified as having more experience, so they experience more regret than investors who are new to investing so that the study produces a negative direction of regret aversion.

The Influence of Overconfidence on Investment Decisions with Financial Literacy as a Moderating Variable

Jurnal Pendidikan Ekonomi, Perkantoran, dan Akuntansi E-ISSN: 2722-9750 Volume 5 No. 2 (2024)

The outcomes of the data analysis concluded that the variable of financial literacy moderate overconfidence negatively and significantly affects investment decisions. This implies that overconfidence has less of an impact on investment decisions when people are financially literate. This aligns with research organized by Prasetyo et al. (2023), Pratama (2022), and Rasheed et al. (2021), which found that there is a negative and significant moderation effect of financial literacy, thereby weakening the influence of overconfidence on investment decisions. According to Hikmah et al. (2020), when making investment decisions, investors who behave sensibly will always base their decisions on financial literacy. A high level of financial literacy can result in more optimal information handling in considering investment decision making (Baihaqqi, 2021). Thus, financial literacy can weaken overconfidence in investment decisions.

The Influence of Regret Aversion on Investment Decisions with Financial Literacy as a Moderating Variable

It is possible to draw the conclusion that the financial literacy variable does not moderate regret aversion on investment decisions. This suggests that regret aversion's influence on investing decisions is neither strengthened nor weakened by financial literacy. The outcomes align with Hariono et al. (2023), which found that financial literacy does not weaken the influence of regret aversion on investment decisions. Different outcomes were stated by Saleem et al. (2023) if financial literacy weakens the positive bond of regret aversion to investment decisions because in the study, respondents were dominated by Pakistani investors with the highest income category in the questionnaire so it can be concluded that respondents have worked. While in this study, respondents were dominated by students, so they do not have a large income to invest. Therefore, regret aversion is ignored even though it has interacted with financial literacy due to differences in subjective factors from income level.

CONCLUSION AND RECOMMENDATION

Conclusion

From the research findings, it can be concluded that investment decisions are positively and significantly affected by the variable overconfidence, the investment decisions are positively and significantly affected by the variable regret aversion, the variable of financial literacy moderate overconfidence negatively and significantly affects investment decisions, and the financial literacy variable does not moderate regret aversion on investment decisions. The outcomes provide implications for investors to reconsider investment decisions Based on overconfidence because they are irrational so that decision making does not always provide good outcomes. Then, another implication is to provide information that regret aversion is not to stop investment activities. In addition, the implication on financial literacy is so that investors can improve financial literacy so as not to fall into irrational decision making.

Recommendation

Based on the limitations in the form of a research scope that only focuses on capital market investment, the researcher suggests expanding the scope of the types of investment studied, not only capital market investment. In addition, with the research area only being organized in Jakarta, the researcher also suggests that further research can be organized in other fields or with a wider scope to obtain more accurate outcomes. Another suggestion that researchers provide is to add other variables or factors that can contribute to investment decisions.

REFERENCES

Ady, S. U., & Hidayat, A. (2019). Do Young Surabaya's Investors Make Rational Investment

Decisions? International Journal of Scientific & Technology Research, 8(7), 319–322.

- Ariani, S., Rahmah, P. A. A. A., Putri, Y. R., Rohmah, M., Budiningrum, A., & Lutfi, L. (2016).
 Pengaruh literasi keuangan, locus of control, dan etnis terhadap pengambilan keputusan investasi. *Journal of Business & Banking*, 5(2), 257–270. https://doi.org/10.14414/jbb.v5i2.550
- Aristiwati, I. N., & Hidayatullah, S. K. (2021). Pengaruh Herding Dan Overconfidence Terhadap Keputusan Investasi (Studi Pada Nasabah Emas Kantor Pegadaian Ungaran). Jurnal Among Makarti, 14(1), 15–30.
- Armansyah, R. F., Ardianto, H., & Rithmaya, C. L. (2023). Understanding Gen Z Investment Decisions: Capital Market Literacy and Emotional Biases. *Jurnal Manajemen Dan Kewirausahaan*, 25(2), 105–119. https://doi.org/10.9744/jmk.25.2.105-119
- Baihaqqi, M. R. I. (2021). *Manejemen Keuangan (Keputusan Investasi Setiap Generasi)*. CV. Amerta Media. https://www.researchgate.net/publication/367252450
- Bhabha, J. I., Khan, S., Quresh, Q. A., Naeem, A., & Khan, I. (2014). Impact of Financial Behavior of Working Women in the Developing Countries. *Research Journal of Finance and Accounting*, 13(5), 118. www.iiste.org
- Budiarto, A., & Susanti. (2017). Pengaruh Financial Literacy, Overconfidence, Regret Aversion Bias, Dan Risk Tolerance Terhadap Keputusan Investasi. *Jurnal Ilmu Manajemen*, 05(02), 1–9.
- Chen, H., & Volpe, R. P. (1998). An Analysis of Personal Financial Literacy Among College Students. *Financial Services Review*, 7(2), 107–128.
- Fathihani, Rosdiana, R., & Hudaya, A. (2021). Analysis Of The Impact Of Financial Literacy And Financial Behavior On Millennials' Investment Decisions. *Journal of Management and Business Innovations*, 3(02), 20. https://doi.org/10.30829/jombi.v3i02.9915
- Gupta, K., & Gupta, S. K. (2018). Financial Literacy and its Impact on Investment Decisions-A study of Rural Areas of Himachal Pradesh. *International Journal of Research in Management*, 08(2), 1–10. http://indusedu.org
- Hariono, M. W., Cahyadi, R. T., & Wijayanti, D. (2023). Pengaruh Bias Perilaku terhadap Pengambilan Keputusan Irasional dengan Financial Literacy sebagai Pemoderasi. Jurnal Samudra Ekonomi Dan Bisnis, 14(1), 1–14. https://doi.org/10.33059/jseb.v14i1.5304
- Hidayat, T., Oktaviano, B., & Baharuddin, R. (2023). Keputusan Investasi Berdasarkan Literasi Keuangan, Pengetahuan Investasi dan Persepsi Risiko. *Journal of Science and Social Research*, 2(June), 441–452.
- Hikmah, H., Siagian, M., & Siregar, P. (2020). Analisis Tingkat Literasi Keuangan, Experienced Regret, dan Risk Tolerance pada Keputusan Investasi di Batam. *Jesya* (*Jurnal Ekonomi & Ekonomi Syariah*), 3(1), 138–146. https://doi.org/10.36778/jesya.v3i1.142
- Huang, M. J., Li, Z. Bin, & Su, X. F. (2022). Anticipated Regret, Entrepreneurial Cognition, and Entrepreneurial Persistence. *Frontiers in Psychology*, 13(March), 1–11. https://doi.org/10.3389/fpsyg.2022.788694
- Khan, A. R., Azeem, M., & Sarwar, S. (2017). Impact of Overconfidence and Loss Aversion Biases on Investment Decision: Moderating Role of Risk Perception. *International Journal of Transformation in Accounting, Auditing & Taxation*, 1(1), 24–35. www.impactjournals.us
- Kristhy, M. E., Prayoga, D., Ekaharap, J. R., & Batistuta, G. (2022). Investasi Yang Beresiko Dalam Pasar Modal. *Jurnal Komunikasi Hukum (JKH)*, 8(2), 88–96. https://doi.org/10.23887/jkh.v8i2.47125
- Mardhiyah, A. (2017). Peranan Analisis dan Risiko dalam Investasi. Jurnal Ekonomi Dan

Bisnis Islam, 2(1), 1–17.

- Ningrum, P. A. P., Herawati, N. T., & Sinarwati, N. K. (2023). Pengaruh Literasi Keuangan, Risk Tolerance dan Overconfidence Terhadap Pengambilan Keputusan Investasi Cryptocurrency Pada Mahasiswa Fakultas Ekonomi Universitas Pendidikan Ganesha. Jurnal Akuntansi Profesi, 14(02), 262–275. https://doi.org/10.23887/jap.v14i02.61793
- Nurmala. (2017). Analisis Pengembalian Keputusan Investasi Saham Dengan Pendekatan Capital Asset Pricing Model (CAPM) pada Perusahaan Perbankan Terdaftar di Bursa Efek Indonesia. *BALANCE Jurnal Akuntansi Dan Bisnis*, 2(2), 215–226. https://doi.org/10.32502/jab.v2i2.1173
- Nursalimah, E., & Utami, I. (2022). Pengaruh Regret Aversion Bias dan Overconfidence Terhadap Pengambilan Keputusan Investasi Cryptocurrency Pada Investor Generasi Milenial. *Robust: Research of Business and Economics Studies*, 2(1), 63. https://doi.org/10.31332/robust.v2i1.3953
- Pompian, M. M. (2016). Behavioral finance and wealth management: How to Build Optimal Portfolios That Account for Investor Biases. John Wiley & Sons, Inc.
- Prasetyo, P., Sumiati, & Ratnawati, K. (2023). The impact of disposition effect, herding and overconfidence on investment decision making moderated by financial literacy. *International Journal of Research in Business and Social Science (2147-4478)*, 12(9), 241–251. https://doi.org/10.20525/ijrbs.v12i9.3026
- Prasetyo, T. D., & Manongga, A. (2019). Analisis Pengaruh Faktor Demografi dan Norma Subjektif terhadap Keputusan Investasi Saham. *Jurnal Magisma*, *VII*(2), 71–77.
- Pratama, A. N. (2022). The Influence Of Herding Bias And Overconfidence For Institut Teknologi Bandung Student With Financial Literacy As Moderating Variable. *International Journal of Business and Economy*, 4(3), 215–229.
- Putri, I. R., & Hikmah. (2020). Pengaruh Financial Literacy, Overconfidence, Regret Aversion Bias dan Risk Tolerance Terhadap Investment Decision di Kota Batam. Junral Illmiah Maksitek, 5(2), 95–109.
- Ranaweera, S. S., & Kawshala, B. A. H. (2022). Influence of Behavioral Biases on Investment Decision Making with Moderating Role of Financial Literacy and Risk Attitude: A Study Based on Colombo Stock Exchange. *South Asian Journal of Finance*, 2(1), 56– 67. https://doi.org/10.4038/sajf.v2i1.32
- Rasheed, M. H., Rafique, A., Kalim, U., & Gul, F. (2021). Elucidating the Impact of behavioral biases in Pakistan Stock Market: Moderating Impact of Financial Literacy. *Journal of Quantitative Methods*, 5(2), 128–146. https://doi.org/10.29145/jqm.52.06
- Saleem, A., Usman, M., & Bashir, Z. (2023). Behavioral biases, financial literacy, and investment decision: A case of individual investors in Pakistan. *Business Review*, 18(2), 1–19. https://doi.org/10.54784/1990-6587.1535
- Sari, R. N., & Damingun. (2021). Pengaruh Bias Overconfidence Terhadap Keputusan Investasi di Pasar Modal. *Borneo Student Research*, 2(3), 2721–5725.
- Simangunsong, A. R. (2021). Analisis Pengaruh Sikap Rasional dan Irasional dalam Pengambilan Keputusan Investasi Investor Individu di Bursa Efek ndonesia Kota Palangka Raya. *Jurnal Manajemen Sains Dan Organisasi*, 2(2), 136–147.
- Sugiyono. (2013). Metode Penelitian Kuantitatif, Kualitatif dan R&D. Penerbit Alfabeta.
- Sukamulja, S., & Senoputri, A. Y. N. M. D. (2019). Regret Aversion Bias, Mental Accounting, Overconfidence, and Risk Perception in Investment Decision Making on Generation Y Workers in Yogyakarta. *International Journal of Economics and Management Studies*, 6(7), 102–110. https://doi.org/10.14445/23939125/ijems-v6i7p116

Tandelilin, E. (2010). Portofolio dan Investasi: Teori dan Aplikasi. Kanisius.

Usriyono, E., & Wahyudi, S. (2023). The Investment Decision of Millennial Generation: an Analysis Using Financial Literacy and Financial Behavior. *Corporate Governance and*

Jurnal Pendidikan Ekonomi, Perkantoran, dan Akuntansi E-ISSN: 2722-9750 Volume 5 No. 2 (2024)

Organizational Behavior Review, 7(2), 8–14. https://doi.org/10.22495/cgobrv7i2p1

- Wang, M. (2015). Literature Review of Decision Behavior Biases of Enterprise Managers Case study of overconfidence. Proceedings of the 2015 International Conference on Education Technology and Economic Management, 22(Icetem), 359–363. https://doi.org/10.2991/icetem-15.2015.54
- Wangzhou, K., Khan, M., Hussain, S., Ishfaq, M., & Farooqi, R. (2021). Effect of Regret Aversion and Information Cascade on Investment Decisions in the Real Estate Sector: The Mediating Role of Risk Perception and the Moderating Effect of Financial Literacy. *Frontiers in Psychology*, 12(October), 1–15. https://doi.org/10.3389/fpsyg.2021.736753
- Wulandari, D. A., & Iramani, R. (2014). Studi Experienced Regret, Risk Tolerance, Overconfidance Dan Risk Perception Pada Pengambilan Keputusan Investasi. *Journal* of Business and Banking, 4(1), 55. https://doi.org/10.14414/jbb.v4i1.293
- Yanti, W. I. P. (2019). Pengaruh Inklusi Keuangan Dan Literasi Keuangan Terhadap Kinerja Umkm Di Kecamatan Moyo UtarA. *Jurnal Manajemen Dan Bisnis*, 2(1). http://sahabatpegadaian.com/keuangan/inklusi-keuangan
- Yuniningsih, Y., & Taufiq, M. (2019). Investor Behavior in Determining Investment on Real Asset. Mix: Jurnal Ilmiah Manajemen, 9(2), 327–340. https://doi.org/10.22441/mix.2019.v9i2.006

This is an open access article under the CC BY-SA license.

