



Analysis Factors Affecting Investment Decisions among Students in Special Region of Yogyakarta

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ABSTRACT: The level of investment among university students, as indicated by the increasing number of Single Investor Identification (SID), continues to grow, but students exhibit irrational behaviour in their investment decision. This study aims to analyse the factors that influence students' investment decisions. This research uses a descriptive method with a quantitative approach. The population in this study comprises students from 13 Capital Market Study Groups in Special Region of Yogyakarta. The sampling technique used is purposive. The total number of respondents collected was 137. The data collection method used was a questionnaire. The data analysis technique employed was descriptive statistical analysis and multiple linear regression analysis with the aid of SPSS software version 27. The results of this study indicate that risk tolerance, availability bias, and excessive optimism have a significantly positive effect on investment decisions, advocate recommendation has a significantly negative effect on investment decisions, while regret aversion does not have a significant effect on investment decisions. This study will help students to avoid the biases while making an investment decision and prevent them from making incorrect investment choices.

KEYWORDS: Availability bias, advocate recommendation, excessive optimism, investment decision, risk tolerance, regret aversion.

1. INTRODUCTION

The growth of investment in Indonesia has increased annually, evidenced by the continuous rise in Single Investor Identifications (SIDs) from the end of 2020 to July 2023. The capital market in Indonesia recorded 11.4 million SIDs (11,420,074) as of July 2023, up from 10.3 million SIDs the previous year. This represents a 10.75% increase within just half a year. Of the 11.4 million SIDs in July 2023, 26.69% were students. Additionally, the growth in investors in the capital market, as indicated by the number of SIDs, is not only seen nationally but also positively reflected in the Special Region of Yogyakarta. As of July 2023, there were 91,482 stock SIDs, 191,250 mutual fund SIDs, and 14,490 government bond SIDs in Yogyakarta. The majority of investors in Yogyakarta's capital market are students, constituting 40% of the total investors (Paramita et. al., 2018). This percentage is higher than the national student investor percentage of 26.69%.

Based on the above explanation, it is evident that students have a significant interest in investing. However, many young investors experience losses in the capital market, primarily due to biases that often influence their investment decisions². Conventional financial theory posits that investors are highly rational and act as wealth maximizers in financial decision-making³. Nevertheless, emotions, feelings, and intuition can influence investors, leading to irrational behaviour⁴. Thus, in reality, investment decisions are not always based on rational considerations, and investors sometimes make irrational decisions due to emotional and cognitive biases. This research focuses on factors influencing irrational investment decisions among students, as they often use irrational attitudes in their decision-making process without relying on financial theory⁵. Based on previous studies, factors influencing investment decisions include risk tolerance⁶, regret aversion (Dhungana et. al., 2022), availability bias (Rasheed et. al., 2018), advocate recommendation⁹, and excessive optimism¹⁰.

The first factor influencing students' investment decisions is risk tolerance, a combination of "risk attitude" and "risk capacity"¹¹. Currently, the younger generation is interested in investing, but young investors tend to be aggressive (Paramita et. al., 2018). This aggressiveness involves making high-risk decisions, where investors must be prepared to lose some of their invested funds in hopes of achieving high returns. This leads to irrational investment decisions as investors buy high-risk investments without proper consideration. This assertion is supported by Pradikasari & Isbanah (2018), who state that risk tolerance significantly affects investment decisions. Conversely, research by Hidayat & Hartono (2022) and Ady & Hidayat (2019) indicates that risk tolerance does not influence students' investment decisions due to their emotional instability.



Students are also susceptible to regret aversion¹⁴. Regret aversion is the remorse caused by past wrong decisions, leading investors to hesitate for fear of repeating mistakes. Regret aversion causes investors to miss out on profits by holding onto an instrument too long or selling a "good" stock too quickly due to fear of losing potential gains if prices drop¹⁵. Research by Hidayat & Hartono (2022) and Budiarto & Susanti (2017) found that regret aversion bias significantly affects students' investment decisions, while Ady & Hidayat (2019) and Gyanwali & Neupane (2021) found it to be insignificant.

Investment decisions are often influenced by availability bias, the tendency to make decisions based on readily available information without further investigation¹⁷. Young students, known for their preference for instant results, often make investment decisions based on easily accessible information. As availability bias increases, so does the irrationality of investment decisions (Dhungana et. al., 2022). This is consistent with¹⁸, who state that availability bias has a significant positive effect on investor decision, as investors heavily rely on readily available information. However, Willyanto et. al. (2022) found that availability bias does not significantly affect investment decisions.

Advocate recommendation is another crucial factor, as investors often involve others in their decision-making process. Advocate recommendation refers to advice from individuals considered more knowledgeable in investing. Before investing, some investors consider recommendations from stockbrokers, friends, family, or investment communities⁹. This is supported by Rakhmatulloh & Asandimitra (2019), who found that advocate recommendation significantly influences investment decisions. However, Kusumawati (2013) argues that advocate recommendation is not considered by investors in their decision-making process.

Asri (2013) explains that everyone is prone to excessive optimism. Investors with this bias believe that market conditions will favour them despite taking high risks, aligning with the risk-taking nature of students (Paramita et. al., 2018). Suhono & Nugraha (2021) found that young investors are prone to optimism bias due to their high emotional levels, leading to excessive optimism and neglecting the risks involved. There is limited research on the impact of excessive optimism on investment decisions, but Abul (2019) and Suhono & Nugraha (2021) found that optimism significantly influences investment decisions among students. Based on the above explanation, the researcher is interested in analyzing the impact of risk tolerance, regret aversion, availability bias, advocate recommendation, and optimism on the investment decisions of students involved in Student Study Groups in the Special Region of Yogyakarta

2. RESEARCH METHODS

This study employs a descriptive method with a quantitative approach. The population in this research consists of students who are members of 13 Capital Market Study Groups in the Special Region of Yogyakarta. The sampling technique used is purposive sampling, with the criteria that the respondents have conducted transactions in stock instruments more than three times. A total of 137 respondents were gathered. Data collection was carried out using a questionnaire. The measurement scale in this study employs a Likert scale ranging from 1 to 5. Instrument testing was conducted using validity and reliability tests. The data analysis techniques used are descriptive statistical analysis and multiple linear regression analysis, facilitated by SPSS software version 27. Number of measurement items can be found in Table 1.

Table 1. Number of Measurement

Variable	Number of Item	Source
Risk tolerance	3	¹⁴
Regret aversion	3	(Jain et. al., 2022)
Availability bias	2	(Kudryavtsev et.al., 2013)
Advocate recommendation	3	⁹
Excessive optimism	3	(Khan et.al., 2016)
Investment decision	3	²⁶

3. RESULT AND DISCUSSION

3. 1. Result

The characteristics of respondents described in this study include gender, type of investment instrument, trading frequency, and the Capital Market Study Group (KSPM) to which the respondents belong. A total of 137 respondents met the criteria of investing



in stocks and having traded more than three times. Based on gender, 71 respondents (51.8%) were male, and 66 respondents (48.2%) were female. Regarding the origin of the Capital Market Study Group, there were 28 individuals (20.4%) from KSPM FEB UPN Veteran Yogyakarta, 16 individuals (11.7%) from KSPM Universitas Islam Indonesia - FE, 14 individuals (10.2%) from KSPM UPN Veteran Yogyakarta - FISIP, 12 individuals (8.8%) from KSPM Universitas Gadjah Mada Yogyakarta, 11 individuals (8.0%) from KSPM UGM - DEB vocational schools, 11 individuals (8.0%) from KSPM Universitas Negeri Yogyakarta - FE, 10 individuals (7.3%) from KSPM UIN Sunan Kalijaga Yogyakarta, 9 individuals (6.6%) from KSPM Universitas Mercu Buana Yogyakarta, 8 individuals (5.8%) from KSPM Universitas Atma Jaya Yogyakarta, 7 individuals (5.1%) from KSPM Universitas Ahmad Dahlan, 5 individuals (3.6%) from KSPM Universitas Teknologi Yogyakarta, 4 individuals (2.9%) from KSPM Universitas Muhammadiyah Yogyakarta, and 2 individuals (1.5%) from STIE YKPN.

Tabel 2. Number of Measurements

Independent Variable	Regression Coefficient	t	Sig
Constanta	3.766	3.269	0.001
Risk tolerance	0.267	2.640	0.009
Regret aversion	0.069	0.945	0.346
Availability bias	0.281	3.408	0.001
Advocate recommendation	-0.155	-2.309	0.023
Excessive optimism	0.318	3.010	0.003
R	0.576		
R-Square	0.332		
Adjusted R-Square	0.306		
F-value	13.008		
Sig	0.000		

Source: Data Primary processed, 2024

In this model, the adjusted R Square coefficient is found to be 0.332. This indicates that 33.2 percent of the variance in the response variable, which is students' investment decision, can be construed by the independent variables: risk tolerance, regret aversion, availability bias, advocate recommendation, and excessive optimism. Conversely, the remaining 66.8 percent of the variance in students' investment decisions is attributed to factors not examined in this study. The adjusted R Square of 0.306 is slightly lower than the R Square (0.306) due to adjustments for the level of freedom. The F value is significant at the 5% level, suggesting that the null hypothesis, which posits that all regression coefficients are zero, can be rejected at this significance level. Therefore, the estimated regression model is deemed efficient for prediction.

The regression equation:

$$ID = 3.766 + 0.267RT + 0.069RA + 0.281AB - 0.155AR + 0.318EO + e$$

Based on the established regression equation, if all factors, including risk tolerance, regret aversion, availability bias, advocate recommendation, and excessive optimism, are held constant at zero, the predicted value for students' investment decision would be 3.766. Furthermore, the impact of each individual factor on investment decision-making can be observed. Risk tolerance exhibits a positive effect, indicated by the positive estimated coefficient of 0.267. This suggests that, with all other variables held constant, a one-unit increase in risk tolerance corresponds to a 0.267 increase in irrational investment decision, and conversely. However, a one-unit increase in regret aversion corresponds to a 0.069 increase in irrational investment decision. Additionally, a one-unit increase in availability bias leads to a 0.281 increase in irrational investment decision. Advocate recommendation, however, shows a negative effect, with a one-unit increase resulting in a 0.155 decrease in irrational investment decision-making. Lastly, a one-unit increase in excessive optimism correlates with a 0.381 increase in irrational investment decision-making.

The risk tolerance factor exhibits a t-value of 2.640, with a significance value of 0.009, indicating high significance at the 0.05 level. Consequently, based on the findings, the null hypothesis is rejected, leading to the conclusion that risk tolerance



significantly and positively influences students' investment decisions at the 0.05 significance level. Regarding the regret aversion factor, the analysis reveals a t-value of 0.945 and a significance value of 0.346, exceeding the threshold of 0.05 for significance. Consequently, there is insufficient evidence to reject the null hypothesis, leading to its acceptance. Hence, it can be inferred that the regret aversion factor does not exert a significant influence on students' investment decisions. The availability bias factor exhibits a t-value of 3.408 and a significance value of 0.001, it represents high significance at the 0.05 level. Consequently, based on the findings, the null hypothesis is rejected, leading to the conclusion that availability bias significantly and positively influences students' investment decisions at the 0.05 significance level. The advocate recommendation factor displays a t-value of -2.309 and a significance value of 0.023, indicates that it is significant at 0.05 level. Consequently, based on the findings, the null hypothesis is rejected, leading to the conclusion that advocate recommendation has a negative significant influence on students' investment decisions at the 0.05 significance level. Lastly, the excessive optimism factor demonstrates a t-value of 3.010, with a significance value of 0.003, indicating high significance at the 0.05 level. Based on the findings, the null hypothesis is rejected, leading to the conclusion that excessive optimism significantly and positively influences students' investment decisions at the 0.05 significance level.

3.2. Discussion

3.2.1. The Influence of Risk Tolerance on Investment Decisions

Risk tolerance has a positive and significant influence on students' investment decision-making. This is because the respondents in this study tend to be willing to purchase high-risk investments in the hope of gaining substantial returns without proper consideration, leading to irrational investment decisions. The findings of this study are consistent with research conducted by Budiarto & Susanti (2017), (Mubaraq et al., 2021) and (Nguyen et al., 2016), which assert that risk tolerance positively affects irrational investment decision-making.

3.2.2. The Influence of Regret Aversion on Investment Decisions

Regret aversion does not have a significant influence on students' investment decision-making. The lack of influence of the regret aversion variable is likely due to the high levels of excessive optimism among respondents, causing them to focus on positive information about their investments while downplaying negative information. Additionally, respondents in this study have high risk tolerance, making them willing to take high risks without hesitation. These findings are consistent with the research conducted by Dhungana et al. (2022), Gyanwali & Neupane (2021), and Ady & Hidayat (2019), which states that regret aversion does not influence irrational investment decision-making among investors.

3.2.3. The Influence of Availability Bias on Investment Decisions

Availability bias has a positive and significant influence on students' investment decisions. Availability bias increases the likelihood of making mistakes due to the neglect of other variables. The findings of this study align with the research conducted by Dhungana et al. (2022) and Rasheed et al. (2018), which state that availability bias has a positive and significant influence on irrational investment decision-making.

3.2.4. The Influence of Advocate Recommendation on Investment Decisions

Advocate recommendation has a negative and significant influence on students' investment decision-making. This may occur because respondents in this study tend to trust information and recommendations from others as the basis for making investment decisions. This aligns with the research by Yanti & Triono (2024), which states that students are more likely to accept offers from trusted individuals, believing that future gains will be more assured. The negative influence may occur because students only receive information from the internet and do not truly understand stock fundamentals. This aligns with the idea that investors who tend to disregard financial analysts' reviews and overlook relevant statistics and information are more likely to make baseless and often irrational investment decisions.

3.2.5. The Influence of Excessive Optimism on Investment Decisions

Excessive optimism has a positive and significant influence on students' investment decision-making. Students are prone to excessive optimism due to their high and unstable emotional levels¹⁰. The findings of this study are consistent with the research conducted by Suhono & Nugraha (2021), which states that excessive optimism positively influences irrational investment decision-making.



4. CONCLUSION

The finding shows that risk tolerance, availability bias, and excessive optimism have a significant positive impact on investment decisions, whereas advocate recommendation has a significant negative impact on investment decisions. In contrast, regret aversion does not have a significant influence on investment decisions. Based on the results of this study, students can identify the influence of risk tolerance, regret aversion, availability bias, advocate recommendation, and excessive optimism on their investment decisions. By understanding the impact of these factors, students can avoid biases to reduce irrational behaviour and avoid making poor investment decisions.

The research conducted found that risk tolerance, regret aversion, availability bias, advocate recommendation, and excessive optimism collectively influence investment decisions by 30.5%, while the remaining 69.5% is influenced by other variables not examined in this study. Therefore, future researchers are encouraged to include other variables that are still rarely studied, such as social relevance, mental accounting, psychological accounting, the certainty effect, and other factors that may influence students' investment decisions

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