

The Role of Familiarity Bias and Confirmation Bias in Investment Decisions: The Moderating Role of Financial Literacy – A Case Study of FEB Students at Universitas Klabat

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ABSTRACT

This study examines the influence of familiarity bias and confirmation bias on investment decisions, with financial literacy as a moderating factor, involving 293 students from the Faculty of Economics and Business (FEB) at Universitas Klabat. The findings indicate that familiarity bias significantly affects investment decisions, meaning that the tendency to choose familiar investments influences students' financial choices. Conversely, confirmation bias does not have a significant effect, suggesting that the inclination to focus solely on information that aligns with personal beliefs has a limited impact on their investment decisions. Additionally, the findings reveal that financial literacy reduces the influence of familiarity bias, enabling students to make rational decisions. However, financial literacy does not moderate the relationship between confirmation bias and investment decisions. This study underscores the importance of financial literacy in formal education. Integrating comprehensive financial literacy materials into the curriculum could help students mitigate investment biases and enhance the quality of their financial decisions, especially in a complex economic environment.

INTRODUCTION

Investment is one of the key activities that can enhance individual economic well-being and contribute positively to the national economy (Khairunizam & Isbanah, 2019). With technological advancements, access to investment has become increasingly convenient through digital devices and internet connectivity. The COVID-19 pandemic further spurred interest in investment, particularly among young individuals, as a means of generating income without leaving home (Karatri et al., 2021). Additionally, the trend of Fear of Missing Out (FOMO) influences investment interest, where individuals feel compelled to follow trends to avoid feeling left behind (Nisa, 2020). Studies indicate that many novice investors, especially during the pandemic, engage in investment due to social pressure and trends (Widiatama, 2022). This underscores the importance of financial education and literacy in ensuring more rational investment decisions.

According to data from PT Kustodian Sentral Efek Indonesia (KSEI), the number of capital market investors has steadily increased from 2018 to June 2021, with a growth of 44.45% in the first half of 2021, although previous years recorded annual increases exceeding 50%. The COVID-19 pandemic did not diminish public enthusiasm for investing, particularly among young individuals. Investors under the age of 30 dominated the market, accounting for 58.39% as of June 2021, demonstrating their interest in investment as a means of long-term financial planning (Karatri et al., 2021). However, low financial literacy remains a significant challenge. In Indonesia, financial literacy stands at only 49.68%, despite financial inclusion reaching 85.10% (Fitriyani, 2023). Low financial literacy increases susceptibility to

investment fraud and behavioural biases. Behavioural bias refers to irrational tendencies that influence investment decisions, often arising due to a lack of financial understanding (Pompian, 2006; Upadana & Herawati, 2020). Therefore, financial literacy is essential in fostering rational investment decision-making.

This study examines two types of behavioural biases, familiarity bias and confirmation bias, which are commonly experienced by novice investors, such as students of the Faculty of Economics and Business (FEB). Familiarity bias refers to the tendency to prefer familiar options, particularly when faced with information overload, such as excessive exposure to information from social media and digital platforms (Edmunds & Moris, 2000; Nofsinger, 2015). As part of Generation Z, students are particularly susceptible to this bias due to their heavy reliance on technology in daily activities. The FOMO trend further amplifies familiarity bias, where novice investors frequently opt for popular investment choices widely recognised by others (Pramesti & Dewi, 2021; Rahadi, 2017). Once individuals select familiar options, they may exhibit confirmation bias, characterised by the tendency to seek information that supports their pre-existing beliefs while disregarding contradictory information. Social media algorithms reinforce this bias by creating echo chambers, wherein users are predominantly exposed to similar viewpoints, further solidifying their beliefs (Messing & Westwood, 2012; Sunstein, 2017). These biases are highly relevant to students entering the investment world for the first time, given their limited experience and extensive exposure to digital information.

Irrational investors make investment decisions without clear analysis, often influenced by psychological biases such as familiarity bias and confirmation bias (Bakar & Yi, 2016; Natapura, 2009). With phenomena such as FOMO and the surge of young investors during the pandemic, many investment decisions are driven not solely by financial literacy but also by psychological factors. This study aims to explore the influence of familiarity bias and confirmation bias on investment decisions among FEB students, with financial literacy as a moderating factor. Students were selected as research subjects due to the significant role of financial literacy in shaping their ability to make rational investment decisions (Faidah, 2019). Additionally, students are regarded as future investors who can contribute to the national economy. Thus, this study is titled "The Role of Familiarity Bias and Confirmation Bias in Investment Decisions: The Moderating Effect of Financial Literacy – A Case Study of FEB Students at Universitas Klabat".

LITERATURE REVIEW

Mere Exposure Theory

The mere exposure effect is a psychological phenomenon in which individuals develop a preference for something simply due to repeated exposure. The theory states that repeated exposure to stimuli, such as people, objects, or ideas, can enhance liking without requiring deep analysis (Zajonc, 1968). In the context of investment, this effect makes investors more inclined to choose stocks or financial instruments frequently featured in the media or widely recognised, even when alternative investments may offer higher returns (Huberman, 2001). Intense advertising or marketing campaigns can also foster a sense of comfort and confidence in investment decisions, even without thorough fundamental or technical analysis (Frieder & Subrahmanyam, 2005). This phenomenon helps explain how repeated exposure to investment-related information can trigger familiarity bias, potentially affecting the rationality of investment decisions.

Human Capital Theory

The concept of human capital, introduced by Theodore W. Schultz and Gary Becker in the 1960s, posits that human resources serve as a form of capital that influences economic outcomes, akin to financial capital. This capital consists of knowledge and skills, acquired through education and supported by other factors such as health and work environment (Kumar, 2006). In the context of investment, financial

literacy is regarded as an essential capital alongside financial resources. It plays a crucial role in facilitating rational investment decision-making. In this study, financial literacy is expected to moderate the impact of behavioural biases, such as familiarity bias and confirmation bias, on investment decisions.

Motivated Reasoning

Motivated reasoning refers to the cognitive process in which individuals interpret information in a way that satisfies their emotional and cognitive desires, often leading to biased decision-making (Kunda, 1990). In investment, this process may cause investors to uphold incorrect beliefs or reinforce their prior investment decisions. Motivated reasoning is closely related to confirmation bias, as investors tend to selectively seek, interpret, and recall information that aligns with their pre-existing beliefs while disregarding contradictory evidence (Kunda, 1990). For instance, an investor who strongly believes in a particular stock's prospects may overlook negative indicators or warning signs while readily accepting information that supports their investment decision (Nickerson, 1998).

Bounded Rationality

Bounded rationality, introduced by Herbert A. Simon in 1957 explains the cognitive limitations of individuals when processing complex and diverse information. As a result, individuals tend to make decisions based on habits or pre-existing beliefs rather than conducting a comprehensive analysis to achieve optimal outcomes (Simon, 1972). In the context of this study, bounded rationality suggests that these cognitive limitations contribute to familiarity bias, where individuals prefer known options, and confirmation bias, where they seek information that reinforces their beliefs. These conditions may influence the rationality of investment decision-making.

Heuristic

Herbert A. Simon also introduced the concept of heuristics, which describes the simplification of decision-making processes due to excessive information, cognitive constraints, and time limitations (Shah & Oppenheimer, 2008). While heuristics can help individuals make quicker decisions, they may also lead to systematic errors or biases in judgment (Tversky & Kahneman, 1974). In this study, heuristics explain how individuals simplify investment decisions by selecting familiar options (familiarity bias) or confirming their pre-existing beliefs (confirmation bias), particularly in complex situations.

Behavioral Finance

Behavioural finance examines financial behaviour and decision-making processes, encompassing how individuals allocate and utilise their financial resources effectively (Nababan & Sadalia, 2013; Suryanto, 2017). In the investment context, behavioural finance includes an investor's ability to determine financial goals and asset allocation rationally. According to Shefrin (2002), behavioural finance extends beyond financial behaviour, incorporating psychological factors that influence investment decisions. These psychological influences can lead to irrational decision-making due to behavioural biases, which are tendencies shaped by emotions, preferences, or inherent human traits that disrupt logical reasoning (Pradhana, 2018). This study focuses on two specific biases within behavioural finance—confirmation bias and familiarity bias—both of which are frequently observed in investment decision-making.

Familiarity Bias

Familiarity bias refers to investors' tendency to prefer familiar investments over unfamiliar ones (Nofsinger, 2015). This bias affects investment decision-making by leading individuals to perceive known investments as superior, even when such assessments are not necessarily rational (de Vries et al., 2017). Investors often feel more comfortable assessing risk and return based on their prior knowledge, even if

such information is incomplete or inaccurate. Consequently, lesser-known investment opportunities are frequently overlooked, despite their potential for higher returns (Anggini et al., 2020).

Confirmation Bias

Confirmation bias in investment refers to investors' tendency to seek information that supports their pre-existing beliefs while disregarding contradictory information (Pompian, 2006). Investors exhibiting this bias often resist changing their initial opinions, even when presented with opposing evidence (Cheng, 2018). As a result, investment decisions may be less accurate, as they rely solely on information that aligns with their preconceptions. This bias is evident when investors actively seek information that reinforces their opinions, avoid conflicting data, and strengthen their personal viewpoints (RHB Trade Smart, 2022). Consequently, overconfidence in one's own analysis may lead to suboptimal investment decisions.

Financial Literacy

Financial literacy refers to an individual's ability to acquire, comprehend, and apply financial knowledge to make informed decisions (Chen & Volpe, 1998; Yushita, 2017). In an increasingly digital world, financial literacy is crucial, particularly for younger generations, as it enables them to manage their finances and assets effectively, avoid financial pitfalls, and achieve financial well-being. Financial literacy extends beyond money management to encompass sound investment decision-making and financial planning (Putri & Rahyuda, 2017). Several factors, including education, age, gender, and income, influence an individual's level of financial literacy (Sucuachi, 2013; Worthington, 2006). Financial literacy offers numerous benefits, such as aiding in the selection of appropriate financial products, enabling effective financial planning, and mitigating the risks associated with unclear investment opportunities (Otoritas Jasa Keuangan, 2017). This study aims to assess how financial literacy influences investment decisions among young investors.

Investing Decisions

Investment decision-making involves the process of allocating personal funds to generate future returns (Novianggie & Asandimitra, 2019). Before making investment decisions, investors must understand various types of investments and consider key factors such as return rates, risks, security, valuation, and liquidity (D. K. Siregar & Anggraeni, 2022). Investment decisions are influenced by multiple factors, including financial literacy and behavioural finance. Financial literacy enhances investors' ability to interpret financial information, whereas behavioural finance examines psychological influences that affect investment decisions. This study explores the extent to which these two factors shape investment decision-making.

Generation Z

Generation Z (Gen Z) consists of individuals born between 1997 and 2012, who have grown up in the digital era, unlike Generation Y, which experienced the transition to digital technology. Gen Z has a strong ability to leverage technology from an early age, enabling them to rapidly understand global developments (Putranto, 2018). Most FEB students belong to Gen Z and have been extensively exposed to technology and the internet, making them more adaptable to digital information and investment trends.

The Influence of Familiarity Bias on Investment Decisions

Familiarity bias occurs when individuals feel more comfortable and confident investing in assets or companies they are familiar with through repeated exposure, increasing their confidence without in-depth analysis (Huberman, 2001). The mere exposure effect explains that repeated exposure creates preferences by associating familiarity with a sense of security (Zajonc, 1968). Research has shown that

familiarity bias influences investors to select stocks from well-known or frequently advertised companies (Frieder & Subrahmanyam, 2005; Huberman, 2001). This phenomenon is also influenced by bounded rationality and heuristics, where individuals simplify decision-making by choosing familiar options, particularly when faced with an overload of information and cognitive limitations. Studies such as those by Anggini et al. (2020), Pandji et al. (2024), Ihsan and Nurfauziah (2024), Wandira and Purnamasari (2023), Supriadi et al. (2022), Reynaldi and Mulyati (2024), Istiqamah (2024), and Pamungkas (2024) confirm that familiarity bias has a significant influence on investment decisions.

H1: Familiarity Bias has a significant effect on Investment Decisions

Financial Literacy as a Moderator in the Relationship Between Familiarity Bias and Investment Decisions

Familiarity bias occurs when investors prefer familiar investments due to the perception that they carry lower risks compared to unfamiliar investments (Ekatama, 2021). While this bias can negatively impact investment decisions, its effects can be mitigated through financial literacy. According to the human capital concept, financial literacy serves as an individual's asset for enhancing knowledge and skills (Kumar, 2006). Financial literacy helps investors make more informed decisions and reduce the influence of psychological biases (Khalid et al., 2018). Studies by Pamungkas (2024) and Hariono et al. (2023) indicate that financial literacy can moderate the relationship between behavioural biases, such as familiarity bias, and investment decisions, thereby fostering more rational decision-making.

H2: Financial Literacy moderates the effect of Familiarity Bias on Investment Decisions

The Influence of Confirmation Bias on Investment Decisions

Confirmation bias occurs when investors seek information that supports their initial beliefs about an investment while ignoring contradictory information, potentially leading to suboptimal investment decisions and increased risk (Nickerson, 1998). This bias can be explained through motivated reasoning, which refers to the tendency to process information in a way that aligns with one's emotional and cognitive inclinations, often causing investors to maintain incorrect beliefs or initial decisions (Kunda, 1990). For example, an investor who believes in the rise of a particular stock may focus only on positive news while disregarding negative financial reports (Hirshleifer, 2001). Furthermore, the concepts of bounded rationality and heuristics suggest that cognitive limitations lead individuals to simplify decision-making by focusing solely on information that confirms their opinions, especially in complex situations. Studies by Husadha et al. (2022), Waseem-Ul-Hameed et al. (2018), and Runtuwene & Sibilang (2024) support the notion that confirmation bias significantly influences investment decisions.

H3: Confirmation Bias has a significant effect on Investment Decisions

Financial Literacy as a Moderator in the Relationship Between Confirmation Bias and Investment Decisions

Confirmation bias leads investors to seek information that reinforces their initial beliefs, resulting in potentially irrational investment decisions (Barberis & Thaler, 2003). This bias causes investors to focus on specific types of investments or information without considering alternative options. Financial literacy is expected to mitigate the effects of confirmation bias and promote more rational investment decision-making. Based on the human capital concept, education, including financial literacy, enhances an individual's knowledge and understanding of investments. With adequate financial literacy, investors gain a broader perspective, reducing their tendency to focus solely on a single piece of information or investment option. Lusardi & Mitchell (2014) found that financial literacy helps individuals make better financial decisions and reduces cognitive biases. Studies by Pamungkas (2024), Siregar et al. (2022), and Hariono et al. (2023) also support the idea that financial literacy can moderate the relationship between behavioural biases, such as confirmation bias, and investment decisions.

H4: Financial Literacy moderates the effect of Confirmation Bias on Investment Decisions

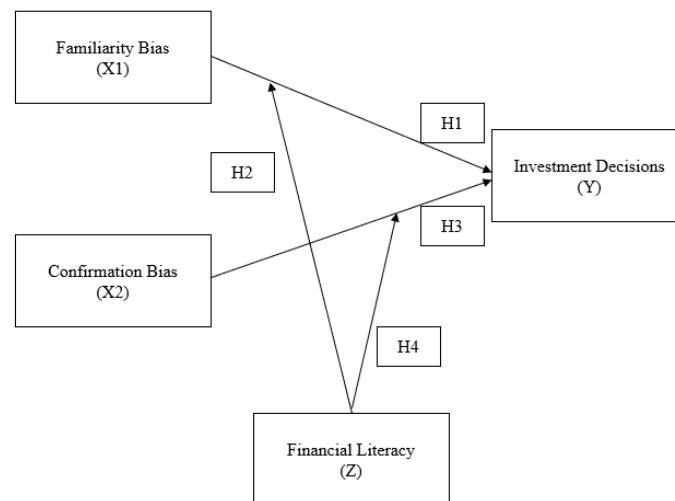


Figure 1. Theoretical Framework

RESEARCH METHOD

This study employed a quantitative method with an explanatory research design, aiming to explain the relationships and influences among the variables under investigation (Sugiyono, 2017). Data were collected through a survey using a cross-sectional approach, in which data collection was conducted at a single point in time. This technique involved the distribution of questionnaires to gather information regarding participants' perspectives, behaviours, or the relationships between variables within a sample population (Sugiyono, 2018). A likert scale of 1 (strongly disagree) until 5 (strongly agree) was used to answer the questionnaire. The approach was designed to test hypotheses through quantitative analysis in order to gain a deeper understanding of the positions and interrelationships among the variables.

The population of this study consisted of students from the Faculty of Economics and Business at Universitas Klabat. The sample was selected using purposive sampling, a non-probability sampling technique that considers specific characteristics aligned with the research objectives. Respondents were recruited through an online questionnaire distributed via Google Forms, with a total of 293 completed responses. The initial sample size was determined using Slovin's formula, which yielded a required sample of 292 respondents; thus, the collected sample exceeded the minimum requirement.

The analytical model employed in this study was multiple linear regression analysis, which was used to measure the influence of independent (predictor) variables on a dependent variable. The multiple linear regression analysis included tests of model fit (Adjusted R^2 and F-test significance) and hypothesis testing (t-test significance).

RESULTS AND DISCUSSION

Based on the data presented in Table 1, the majority of students from the Faculty of Economics and Business (FEB) tend to prefer investment options with which they are already familiar, as opposed to those that are less well-known. This is reflected in the mean score for the familiarity bias variable, which was 4.0137, accompanied by a relatively low standard deviation (0.67539), indicating a consistent pattern of responses around the mean. In contrast, for the variables confirmation bias, investment decisions, and financial literacy, most respondents provided responses that tended to be neutral.

Table 1. Descriptive Statistics

Variable	Minimum	Maximum	Mean	Std. Deviation
Familiarity Bias	1.00	5.00	4.0137	0,6754
Confirmation Bias	1.00	5.00	3.2225	0,7165
Financial Literacy	1.00	5.00	3.4870	0,6697
Investment Decisions	1.00	5.00	3.4567	0,7090
N: 293				

Source: Processed data (2025)

Table 2 has shown the F-test result with a significance value of $p < 0.001$ that indicates that the regression model is statistically significant. In other words, the model as a whole is capable of explaining the variation in investment decisions influenced by the predictor variables included in the analysis.

Furthermore, based on the data analysis results, the Adjusted R^2 value of 0.348 indicates that the independent variables in this study are moderately capable of explaining the variation in the dependent variable. However, the remaining proportion of 0.652 suggests that other factors not included in the model account for the unexplained variance. This value falls within the second category, namely $0.33 < R^2 < 0.66$. Therefore, an Adjusted R^2 value of 0.34 demonstrates that the model has a reasonably good ability to explain the influence of the independent variables—familiarity bias, confirmation bias, and financial literacy—on investment decisions. Nevertheless, there are still external factors influencing investment decisions that are not captured within this model.

Table 2. Hypothesis Test

Variable	Coefficient	t-test	Sig.
Familiarity Bias	0.680	2.590	0.010
Confirmation Bias	-0.276	-1.091	0.276
Financial Literacy	0.749	2.153	0.032
Familiarity Bias * Financial Literacy	-0.137	-1.792	0.074
Confirmation Bias * Financial Literacy	0.099	1.425	0.155
Dependent Variable : Investment Decisions			
Constant	: -0.184		
F-test	: 32.212 (0.000)		
Adjusted R^2	: 0.348		

Source: Processed data (2025)

The Influence of Familiarity Bias on Investment Decisions

The analysis results in Table 2 indicate that familiarity bias has a positive and significant effect on investment decisions, with a p -value (Sig. t) of 0.010 (below 0.10), thereby supporting Hypothesis H1. This finding suggests that the higher the level of familiarity bias, the greater the likelihood that an individual will engage in investment activity. Familiarity bias refers to the tendency to favour investment options that are already known, aligning with the *mere exposure effect*, wherein repeated exposure to certain information increases individual preference for it. Within the frameworks of *bounded rationality* and *heuristic processing*, individuals simplify complex decision-making situations due to cognitive limitations. This study supports the view that exposure to well-known and reputable investments enhances investment decisions, as observed among FEB students at Universitas Klabat. The findings are consistent

with prior research, including studies by Anggini et al. (2020) and Pandji et al. (2024), which also found that familiarity bias significantly influences investment decisions.

The Moderating Role of Financial Literacy in the Relationship Between Familiarity Bias and Investment Decisions

The analysis further reveals that financial literacy negatively and significantly moderates the relationship between familiarity bias and investment decisions, with a p -value (Sig. t) of 0.074 (below 0.10), thus supporting Hypothesis H2. This indicates that financial literacy can mitigate the influence of familiarity bias on investment decisions. In relation to H1, which shows a positive effect of familiarity bias, this finding suggests that financial literacy serves to regulate the bias, leading to more rational investment decisions. This is in line with *human capital theory*, which posits that knowledge enhances an individual's ability to make informed decisions, thereby reducing reliance on familiarity alone. These findings are consistent with previous studies, such as those by Pamungkas (2024) and Hariono et al. (2023), which demonstrated that financial literacy can weaken the impact of behavioural biases.

The Influence of Confirmation Bias on Investment Decisions

Further findings from Table 2 show that confirmation bias has a negative but statistically insignificant effect on investment decisions, with a p -value (Sig. t) of 0.276 (above 0.10), leading to the rejection of Hypothesis H3. This result suggests that confirmation bias does not significantly influence investment decisions, indicating that respondents do not selectively seek out information that supports their existing beliefs. This finding contradicts the *motivated reasoning theory* and the concept of *bounded rationality*, both of which argue that individuals tend to simplify decisions based on personal beliefs or cognitive constraints. Students from the Faculty of Economics and Business, having been introduced to the fundamentals of investment through academic coursework, appear to be more open to diverse investment information and are more objective in evaluating risks and returns. This result aligns with the findings of Khusna (2021), Adiputra & Nathaerwin (2024), and Qotrunada & Hascaryani (2024), who also found that confirmation bias does not have a significant impact on investment decisions.

The Moderating Role of Financial Literacy in the Relationship Between Confirmation Bias and Investment Decisions

The study also finds that financial literacy positively moderates the relationship between confirmation bias and investment decisions; however, this effect is not statistically significant, with a p -value (Sig. t) of 0.155 (above 0.10), leading to the rejection of Hypothesis H4. This implies that financial literacy does not play a moderating role in the influence of confirmation bias on investment decisions. These results do not support the *human capital concept*, which suggests that financial literacy should enhance decision-making quality. It is likely that other unexamined factors also influence investment decisions, beyond financial literacy. These findings are consistent with studies by Ranaweera & Kawshala (2021) and Adhiatma (2024), which reported that financial literacy does not always significantly moderate the relationship between behavioural biases and investment decisions.

CONCLUSION

This study aimed to examine the influence of *familiarity bias* and *confirmation bias* on investment decisions, with *financial literacy* as a moderating variable. Based on data collected from 293 students at Universitas Klabat, the main findings are as follows:

1. Familiarity bias has a significant effect on investment decisions, supporting the first hypothesis that students tend to prefer investment options they are familiar with.
2. Financial literacy functions as a moderating variable that weakens the influence of familiarity bias on investment decisions, in line with the second hypothesis.

3. Confirmation bias does not have a significant effect on investment decisions, leading to the rejection of the third hypothesis, indicating that students do not rely solely on preexisting beliefs when making investment choices.
4. Financial literacy does not moderate the relationship between confirmation bias and investment decisions, resulting in the rejection of the fourth hypothesis. This suggests that other, unexamined factors may moderate this relationship.

The findings highlight the importance of financial literacy in mitigating the impact of familiarity bias on investment behaviour, although it appears to be ineffective in moderating the influence of confirmation bias.

SUGGESTION

This study focused on Generation Z, particularly Accounting and Management students of the Faculty of Economics and Business at Universitas Klabat in the 2024/2025 academic year, and examined two behavioural biases related to investment decisions. Future research is encouraged to explore additional factors such as digital information, peer pressure, and herding bias, which may be relevant to similar behavioural issues. Moreover, a broader population with a wider age range could be used to determine whether familiarity bias is unique to Generation Z or also affects other generations.

Educational institutions are encouraged not only to teach investment theory in the classroom but also to facilitate practical investment learning experiences. Young individuals—especially those outside the field of economics and business—should be encouraged to enhance their financial literacy before entering the investment world. Additionally, financial institutions are advised to develop strategies to reduce the impact of behavioural biases among young investors.

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