

Psychological Underpinnings of Digital Investing: The Interplay Between Behavioral Biases and Financial Self-Efficacy

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ABSTRACT

This study aims to investigate the psychological mechanisms that shape digital investment decisions among the Indonesian youth, focusing on the relationship between behavioral biases (cognitive and emotional) and financial self-efficacy. The research employs a quantitative explanatory approach, with data collected from 400 active Gen Z and Millennial investors utilizing digital investment platforms. Data analysis was conducted through Partial Least Squares Structural Equation Modeling (PLS-SEM) using SmartPLS software. The findings reveal that cognitive bias (manifested through anchoring and availability bias), emotional bias (such as FOMO, herding bias, and overconfidence bias), and financial self-efficacy have a positive and significant influence on investment decisions. These results explain that investor behavior in the digital capital market is not entirely based on rational considerations, but is heavily influenced by internal psychological factors such as cognitive information-processing distortions, emotional impulses, and the level of confidence in personal financial management abilities. This research is expected to provide insights, particularly for platform providers and regulators, in developing educational features and investor protection policies to minimize impulsive investment actions.

INTRODUCTION

Recent developments in the investment landscape have transformed what was once a domain restricted to institutional and high-net-worth investors into a practice accessible to the general public. This shift is primarily driven by the rapid expansion of financial technology (fintech), which has facilitated the rise of various digital investment platforms. This phenomenon effectively democratizes investment access for individuals across diverse demographics, notably fostering participation among tech-savvy younger generations and millennials.

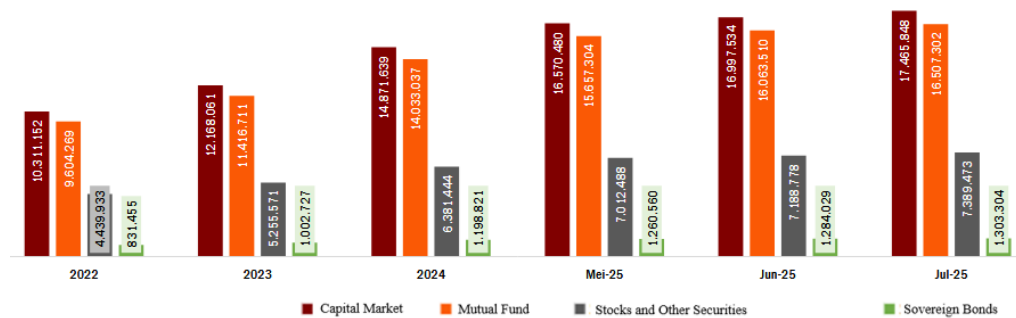


Figure 1. Investor Growth Chart in Indonesia
Source: (KSEI, 2025)

Figure 1 depicts the growing trend of investors in Indonesia. According to data from the Indonesia Central Securities Depository (KSEI, 2025), there has been a significant surge in the investor population. This expansion is notably driven by younger demographics, where Gen Z and millennials now dominate market participation. Such positive growth across diverse investment instruments confirms that investing has evolved into a widespread, mass phenomenon.

However, despite the improved accessibility and convenience, investment decision-making remains a complex process that frequently deviates from traditional models of economic rationality. An investment decision is defined as an individual's choice to allocate capital to various financial instruments—including stocks, digital assets, and other securities—in anticipation of future gains. This process entails a series of considerations, from instrument selection to determining the investment volume and holding period. Within this framework, young and novice investors are particularly vulnerable to psychological factors that influence their decision-making outcomes.

This research examines behavioral biases—comprising both cognitive and emotional biases—as critical determinants of investment decision-making. Within this study, cognitive bias is defined as a systematic error in the thinking process that prevents investors from acting rationally when analyzing market data. This phenomenon is frequently driven by anchoring bias, where investors over-rely on initial information or historical price points, as well as availability bias, which causes individuals to overestimate the likelihood of returns based on the most readily accessible information (Ahiadu et al., 2025; Jain et al., 2022). These cognitive biases significantly influence how individuals evaluate investment options within the digital capital market, leading to final decisions that are driven more by internal perceptual patterns than by objective fundamental analysis. This aligns with a body of previous empirical evidence confirming that cognitive biases are instrumental in shaping investment decision-making processes (Argan et al., 2023; Islam et al., 2024; Jain et al., 2022; Khan et al., 2020).

Beyond cognitive factors, emotional biases represent another critical determinant affecting investment decision-making. In the digital investment landscape, these biases manifest as FOMO (Fear of Missing Out), herding behavior, and overconfidence bias. FOMO, in particular, can create a perception that others are generating substantial returns,

which compels individuals to enter the market hastily to avoid the perceived risk of missing out on potential gains. (Raj, 2024). Herding behavior manifests when individuals align their decisions with the majority to mitigate potential regret amidst uncertainty, financial losses, or market volatility (Rahman & Gan, 2020). Herding bias fosters a sense of security among investors as they mirror the decisions of the masses in online forums, which subsequently prompts them to participate in investing. Conversely, overconfidence bias arises when an individual's subjective belief in their own capabilities disproportionately exceeds their actual performance (Maheshwari & Samantaray, 2025). Previous research results indicate that emotional bias influences investment decisions (Mamidala et al., 2024; Motamri & Trimech, 2025; Raj, 2024). However, empirical inconsistencies persist, with several studies reporting insignificant effects of emotional bias on investment decisions (Almansour et al., 2023; Mamidala et al., 2024; Motamri & Trimech, 2025; Souza et al., 2024).

Beyond behavioral biases, Financial Self-Efficacy emerges as another critical factor influencing investment decisions. Financial Self-Efficacy refers to an individual's confidence in their capability to successfully attain their financial objectives (Barone et al., 2025). Individuals characterized by high Financial Self-Efficacy exhibit robust confidence in their capacity to manage financial resources effectively to attain their goals. Consequently, Financial Self-Efficacy directly shapes the investment decision-making process. This heightened confidence serves to mitigate anxiety, ensuring that individuals feel more equipped to execute investment decisions. Extant research further supports that financial self-efficacy exerts a positive influence on investment decisions (Barone et al., 2025; Radianto & Pramudita, 2024). However, these findings are inconsistent with other studies which demonstrate that financial self-efficacy has an insignificant effect on investment decisions (Anggraini et al., 2024; Radianto & Pramudita, 2024).

In light of the aforementioned phenomena and research gaps, this study aims to examine the determinants of investment decision-making within the digital landscape. The findings are expected to offer significant theoretical contributions to behavioral finance literature while serving as a practical guide for digital platform providers and regulators. By developing effective financial education strategies, this research seeks to foster more rational and measured decision-making processes among investors, particularly given the current surge in digital investment developments.

METHOD

This research employs a quantitative approach with an explanatory design, aimed at examining and analyzing the causal relationships between the variables. The study investigates behavioral factors—specifically cognitive bias (comprising availability and anchoring biases), emotional bias (encompassing Fear of Missing Out (FOMO), herding bias, and overconfidence bias)—and financial self-efficacy as independent variables influencing investment decisions as the dependent variable. The conceptual framework analyzed in this study is illustrated in Figure 2.

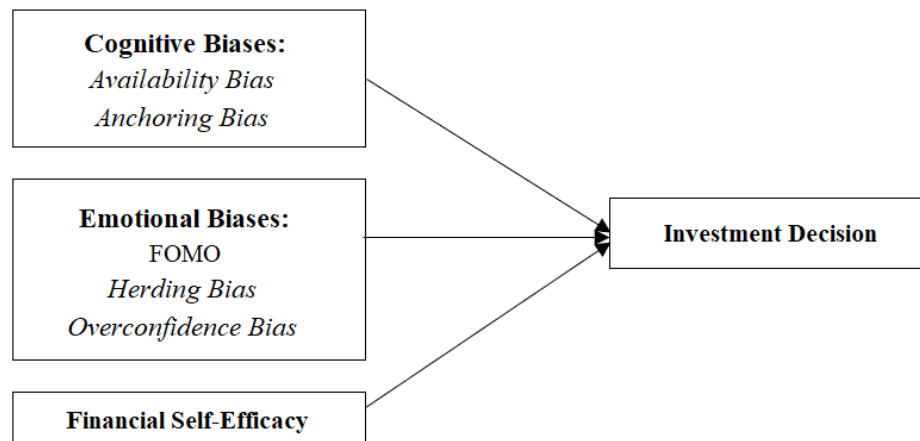


Figure 2. Theoretical Framework

This study targets the younger generation of investors in Indonesia who utilize digital investment platforms. Primary data were gathered through an online questionnaire survey. Research variables were operationalized using a 5-point Likert scale. To test the hypotheses, this study employs Partial Least Squares Structural Equation Modeling (PLS-SEM) facilitated by SmartPLS software. This analytical approach is intended to provide a comprehensive understanding of the causal relationships between the independent variables and investment decision-making.

RESULT AND DISCUSSION

The presentation of the results begins with a descriptive analysis of the respondents' profiles to illustrate the characteristics of the subjects involved in this study. Table 1 summarizes the demographic data, encompassing gender, age, educational background, and occupation, collected from a total of 400 respondents as follows:

Table 1. Respondents Characteristics

Characteristic		Number (n = 400)	Frequency (%)
Gender	Male	185	46,3
	Female	215	53,7
Age	17-28	213	53,3
	29-44	187	46,8
Education	Post Graduate	109	27,3
	Undergraduate	146	36,5
	Diploma	24	6,0
	Senior High School	121	30,3
Occupation	Employee	181	45,3
	Student	59	14,8
	Entrepreneur	149	37,3
	Others	11	2,8

Source: Primary Data Processed, 2026

Based on the results presented in Table 1, this study involved a total of 400 respondents with diverse demographic characteristics. In terms of gender, the sample is predominantly female (53.7%), totaling 215 respondents, compared to 185 males (46.3%). This proportion indicates a high level of female participation in digital investment activities within the studied population. Regarding age, the data shows that the majority of the sample consists of young individuals. A total of 213 respondents (53.3%) fall within the 17-28 age group, demographically representing Generation Z. Meanwhile, 187 respondents (46.8%) are in the 29-44 age bracket, representing Millennials. This distribution confirms that the study specifically focuses on young investors active in the digital environment. In terms of education, most respondents hold university degrees. The largest group consists of Bachelor's degree (S1) holders, with 146 respondents (36.5%), followed by high school graduates (121 respondents, 30.3%) and Master's students (S2) (109 respondents, 27.3%). Diploma graduates constitute the smallest group with only 24 respondents (6.0%). These findings suggest that the research sample possesses adequate literacy levels and information access, which is highly relevant to the investment study context. Finally, based on occupation, the sample is dominated by employees (181 respondents, 45.3%) and entrepreneurs (149 respondents, 37.3%). The proportion of students is significantly smaller, with 59 respondents (14.8%), while the remainder (2.8%) consists of other occupations. This occupational distribution reflects a high participation rate from working professionals with steady incomes, which is a key driver in the investment market..

Table 2. Outer Model Results

Variable	Dimention	Item	Outer Loading	Cronbach's Alpha	Composite Reliability	AVE
Cognitive Biases (X1)	Availability Bias	CB1	0,906	0,954	0,963	0,811
		CB2	0,901			
		CB3	0,892			
	Anchoring Bias	CB4	0,909			
		CB5	0,896			
		CB6	0,900			
Emotional Biases (X2)	FOMO	EB1	0,896	0,971	0,975	0,814
		EB2	0,910			
		EB3	0,910			
	Herding Bias	EB4	0,893			
		EB5	0,915			
		EB6	0,880			
	Overconfidence Bias	EB7	0,895			
		EB8	0,905			
		EB9	0,916			
Financial Self-Efficacy (X3)		FS1	0,925	0,940	0,957	0,847
		FS2	0,923			
		FS3	0,914			
		FS4	0,919			
Investment Decision (Y)		ID1	0,894	0,922	0,945	0,811

	ID2	0,908			
	ID3	0,901			
	ID4	0,898			

Source: Primary Data Processed, 2026

Table 2 presents the results of the outer model evaluation, confirming that all constructs in the research instrument meet the required criteria for validity and reliability. The outer loading values for each indicator exceed 0.70, indicating that convergent validity has been established and that each item serves as a robust measurement for its respective construct. Furthermore, the Cronbach's Alpha and Composite Reliability values for all variables are above 0.70, demonstrating that the research instrument possesses excellent internal consistency. The test results also reveal that all Average Variance Extracted (AVE) values are greater than 0.50, signifying that the variance explained by the construct is more dominant than the variance attributable to measurement error. With all validity and reliability parameters successfully fulfilled, the instrument is deemed suitable to proceed to the structural model testing phase.

Table 3. Determination Coefficient

	R Square	R Square Adjusted
Investment Decision	0,460	0,456

Source: Primary Data Processed, 2026

Table 3 presents the results of the coefficient of determination test, which measures the model's ability to explain the variance of the dependent variable. Based on the data in Table 3, the Adjusted R-Square value is 0.456, indicating that the exogenous variables account for 45.6% of the variance in the Investment Decision variable. Meanwhile, the remaining 54.4% of the variance is explained by other factors beyond the scope of this research model. These results demonstrate that the model possesses moderate predictive power in explaining the phenomenon of investment decision-making in the digital era.

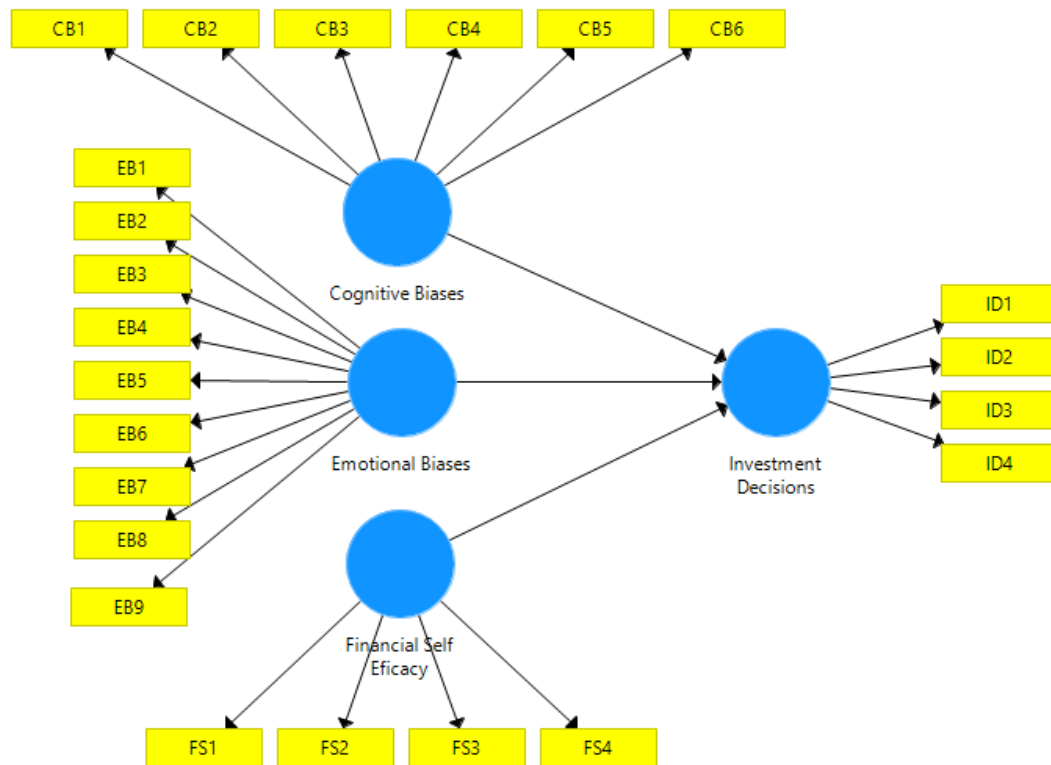


Figure 3 Structural Equation Model

Source: Primary Data Processed, 2026

Figure 3 illustrates the results of the structural model analysis used to evaluate the causal relationships between the exogenous and endogenous variables. This stage was conducted to test the research hypotheses through the bootstrapping procedure in SmartPLS. The detailed results of the hypothesis testing are presented in Table 4 as follows:

Table 4. Hypothesis Testing Results

Hipotesis yang diuji	Original Sample	T Values	P Values
Cognitive Biases → Investment Decision	0,372	11,251	0,000
Emotional Biases → Investment Decision	0,379	10,247	0,000
Financial Self-Efficacy → Investment Decision	0,425	12,430	0,000

Source: Primary Data Processed, 2026

Based on the hypothesis testing results presented in Table 4, it is evident that the p-values are 0.000 and the t-statistics exceed 1.96 for all three tested hypotheses. These results confirm that cognitive bias, emotional bias, and financial self-efficacy each have a significant positive influence on investment decisions.

The hypothesis testing results in this study indicate that cognitive bias has a significant positive influence on the investment decisions of young investors. These findings confirm that imperfect information processing directly impacts individual investment actions on digital platforms. Within the digital investment ecosystem, characterized by rapid information flow, anchoring bias causes investors to become fixated on easily accessible baseline data, such as

an asset's historical peak price. Consequently, they often overlook current market dynamics or objective fundamental analysis (Jain et al., 2022). Likewise, the presence of availability bias prompts investors to exaggerate potential returns by relying heavily on success stories that gain viral traction on social media. Such information is more cognitively accessible and easier to retrieve from memory compared to data concerning market losses, leading to biased decision-making (Ahiadu et al., 2025). This finding aligns with prior studies which suggest that cognitive bias plays a pivotal role in shaping investment decisions (Argan et al., 2023; Islam et al., 2024; Jain et al., 2022; Khan et al., 2020). Conversely, this result contradicts prior research which posits that cognitive bias has no significant impact on investment decision-making (Shaleha et al., 2022).

In addition to cognitive factors, emotional bias is also proven to have a significant positive influence on investment decisions. Within the context of digital investment, emotional responses often override rational considerations, particularly among young investors. The Fear of Missing Out (FOMO) phenomenon creates an emotional urgency that compels individuals to take immediate investment actions to avoid the feeling of being left behind by popular market trends (Raj, 2024). This phenomenon is further intensified by herding bias. Digital platforms that highlight surging trading volumes or provide active online investment communities prompt individuals to replicate the majority's behavior in pursuit of psychological reassurance (Rahman & Gan, 2020). Moreover, overconfidence bias is frequently exacerbated by user-friendly application interfaces. Following early investment successes, individuals often overestimate their own analytical competence, consequently overlooking inherent market risks and uncertainties (Maheshwari & Samantaray, 2025). This finding corroborates prior studies which identify emotional bias as a pivotal determinant of investment behavior (Kumari et al., 2025; Maheshwari, Samantaray, Panigrahi, et al., 2025; Maheshwari, Samantaray, Sandhu, et al., 2025; Mamidala et al., 2024; Shunmugasundaram & Sinha, 2025).

Furthermore, the results provide empirical evidence that financial self-efficacy significantly and positively affects investment decision-making. High levels of financial self-efficacy instill a belief in individuals regarding their capability to manage financial affairs and navigate investment activities successfully (Radianto & Pramudita, 2024). Such self-assurance encourages more active and proactive engagement in capital market investment decisions. These results align with prior literature highlighting that financial self-efficacy serves as a critical determinant in the process of making investment choices (Anggraini et al., 2024; Radianto & Pramudita, 2024).

CONCLUSION

Based on the research findings, it can be concluded that investment decisions within the digital ecosystem are significantly driven by behavioral biases and financial self-efficacy rather than purely rational considerations. Theoretically, these results enrich behavioral finance literature by providing empirical evidence on the psychological mechanisms of

individual investors. Practically, these findings serve as a strategic guide for platform providers and regulators to design interfaces and educational frameworks that mitigate impulsive decision-making and protect young investors from misleading social media information.

Future research is encouraged to integrate perceived behavioral risk and financial literacy as a variable for better understanding on how to enhance investor rationality in decision-making. Utilizing qualitative methods, such as in-depth interviews, could also explore a deeper and more comprehensive investors' internal experiences and motivations, allowing for thoroughly understanding of psychological dynamics underlying investment behavior in the digital ecosystem.

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