When Fear Meets Finance: The Role of FOMO, Financial Knowledge, and Impulsiveness in Shaping Financial Investment Decisions among Vietnamese University Students

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Abstract: *This study investigates how emotions and knowledge influence the financial investment behavior of Vietnamese university students. In a rapidly changing market, young people face many opportunities but also risks, and their decisions are not always based on rational thinking. Data were collected from 176 students aged 18–23 through an online survey and analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The findings show that Fear of Missing Out (FOMO) has a strong positive effect, suggesting that students driven by the fear of losing opportunities are more likely to invest. By contrast, financial knowledge has a negative effect, indicating that students with greater literacy tend to be more cautious due to stronger awareness of risks. Impulsiveness and demographic factors such as gender, income, and study major were not significant. These results highlight that emotions may outweigh knowledge in shaping investment choices. The study adds to behavioral finance research and suggests that financial education should combine knowledge with guidance on managing emotional factors like FOMO.*

Research purpose: *The main purpose of this research is to examine the behavioral and cognitive factors that determine the personal financial investment behavior of Vietnamese university students. Specifically, the study focuses on three important psychological factors: Fear of Missing Out (FOMO), Financial Knowledge, and Impulsivity. While FOMO is the fear of missing out on opportunities, Financial Knowledge captures the cognitive ability to process financial information, and Impulsivity reflects the psychological tendency to act without careful consideration. In addition to these key factors, the study also examines the role of demographic characteristics such as age, gender, income, and field of study to determine whether they significantly influence students' investment decisions. By analyzing these factors in combinationThe research aims to offer a thorough understanding of the investment practices employed by young and novice investors in the current context.*

Research motivation: *The motivation behind this study stems from both practical and theoretical considerations. In recent years, Vietnam has experienced rapid economic growth and financial market expansion, leading to increased participation by individual investors, including university students. Young investors are often highly active on digital platforms and exposed to real-time financial information, making them susceptible to psychological factors such as FOMO. At the same time, students' financial literacy remains relatively low, and impulsive behavior may further undermine rational decision-making. While behavioral finance research has extensively explored these factors in developed economies, it has paid limited attention to emerging markets, especially in Southeast Asia. Therefore, this study was motivated by the need to fill this gap and contribute to the behavioral finance literature by focusing on a sample of Vietnamese university students.*

***Re*search design, approach, and method:** *A quantitative research design was selected for this study. Data were gathered via a structured web-based questionnaire distributed in 2025. The survey targeted university students of different majors and years of study, resulting in 176 valid responses, targeting university students using purposive sampling. The questionnaire was designed using validated scales from previous studies: the financial literacy scale developed by Chen and Volpe (1998), the FOMO scale proposed by Przybylski et al. (2013), and the Barratt Impulsivity Scale (Barratt, 1965; Patton et al., 1995). Personal financial investment behavior was measured using items adapted from Johan Mattsson. Data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM), a powerful multivariate technique suitable for small to medium sample sizes and exploratory research settings.*

Main findings: *The analysis revealed several key findings. First, FOMO was found to have a significant positive influence on students' financial investment behavior, indicating that emotional pressure and the fear of missing opportunities drive students to participate in financial markets more actively. Second, financial knowledge showed a significant negative effect on investment behavior, suggesting that students with higher financial literacy tend to be more cautious and less likely to engage in risky or impulsive investment activities. This unexpected outcome may reflect the context of Vietnam, where awareness of financial risks discourages participation rather than encouraging it. Third,*

impulsiveness did not have a significant effect on investment behavior, which implies that young Vietnamese students may not act as rashly as expected in financial decisions, possibly due to limited resources and a cautious cultural approach. Finally, demographic factors such as gender, age, and income were not found to significantly influence investment behavior, highlighting that investment decisions in this age group are more strongly shaped by psychological and cognitive factors than by demographic characteristics. Overall, the model explains 12.1% of the variance in personal financial investment behavior.

Practical/managerial implications: *The findings of this study provide important implications for educators, policymakers, and financial institutions. From an educational perspective, the results underline the need for financial education programs that not only improve financial knowledge but also address psychological drivers of investment behavior, such as FOMO. For policymakers, the findings suggest that initiatives to promote financial literacy should be complemented by awareness campaigns on behavioral biases, enabling young investors to balance rational analysis with emotional control. For financial institutions, understanding the dual role of financial knowledge and emotional factors is crucial for designing investment products and advisory services tailored to young investors. Specifically, banks, securities firms, and fintech platforms should provide tools and educational resources that help students manage emotional impulses while making informed investment decisions. In the long run, strengthening the financial capability of students will not only improve individual welfare but also contribute to the sustainable development of Vietnam's financial markets.*

Keywords: FOMO, Financial knowledge, Impulsiveness, Financial Investment Behavior

1. Introduction

Traditional finance has been built on four main assumptions: investors are rational, markets are efficient, portfolios follow mean–variance theory, and expected returns are explained by risk (Fama, 1991). These assumptions laid the foundation for modern finance but have been increasingly questioned. Behavioral finance challenges this framework by showing that investors are not always rational, markets are not perfectly efficient, and psychological and emotional factors play a significant role in shaping financial outcomes (Statman, 2014).

Within this perspective, emotions are considered central to financial decision-making. They can push investors toward overconfidence or excessive caution, often leading to suboptimal outcomes (Pandey et al., 2024). Behavioral biases reflect systematic deviations from rationality caused by cognitive limits and emotional influences. Prior evidence demonstrates that investors frequently overreact to some financial signals while ignoring others, which results in illogical choices and unnecessary risk-taking (Bashir et al., 2013; Gitman & Joehnk, 2008).

Recent studies have begun to explore how these behavioral biases vary across generations. Altaf and Jan (2023) show that Generation Y often invests under the psychological pressure of missing opportunities, aligning with the growing attention to FOMO and impulsiveness as key drivers of younger investors' behavior. However, Generation Z, who are digital natives and heavily exposed to financial content online, remain underexplored in behavioral finance research.

This gap is especially important in Vietnam. Young investors are entering financial markets at a rapid pace, supported by widespread access to mobile trading platforms and social media. University students, representing a large part of Generation Z, face a dual challenge: they are highly exposed to financial opportunities but still developing financial knowledge. These conditions increase their susceptibility to behavioral biases. The events of 2022 illustrated this dynamic. A record number of new trading accounts were opened as the VN-Index surpassed 1,500 points, largely driven by FOMO, but many investors engaged in impulsive short-term speculation during the subsequent downturn, contributing to a 32.8% market decline (Nguyen, 2022).

Against this backdrop, the present study investigates the role of FOMO, impulsiveness, and financial knowledge in shaping financial investment behavior among Vietnamese university students. By focusing on Generation Z in an emerging market, the study makes three contributions. First, it integrates cognitive (financial knowledge), emotional (FOMO), and psychological (impulsiveness) dimensions, offering a more holistic framework for understanding investment decisions. Second, it provides empirical evidence from Vietnam, an under-researched emerging economy, where behavioral patterns may differ from those in developed markets. Finally, it highlights the importance of balancing financial literacy initiatives with strategies to manage emotional influences, thus contributing to both behavioral finance theory and practical financial education.Within this behavioral framework, emotions are regarded as a central determinant of decision making. They influence not only an individual's well-being but also their financial choices. Emotional responses can make investors overconfident in their abilities or excessively risk-averse, both of which may lead to suboptimal decisions (Pandey et al., 2024). Behavioral biases, therefore, represent systematic deviations from rationality caused by cognitive limitations and emotional influences. Empirical evidence supports this argument. (Bashir et al., 2013) demonstrated that investors often fail to act in line with the rational assumptions of classical economic theory. Gitman

and Joehnk (2008) further noted that investors may overreact to certain financial information while ignoring or underreacting to other signals, thereby engaging in illogical decision making and excessive risk-taking. Such biases and cognitive errors commonly result in predictable but non-optimal financial behaviors when individuals are faced with uncertainty and complex decision environments.

2. Literature review

Investment decision-making involves selecting the most appropriate option among available opportunities, taking into considering investment objectives, risk appetite, projected yields, and prevailing market climate (Bihari et al., 2022). However, behavioral finance highlights that investors often deviate from rationality, with emotions and psychological tendencies influencing financial choices (Kumar & Goyal, 2015).

Among the various behavioral factors, Fear of Missing Out (FOMO), financial knowledge, and impulsiveness play critical roles. FOMO reflects the anxiety of being excluded from profitable opportunities and is particularly prevalent among young investors who are enthusiastic but often overconfident in their abilities (Prasaja et al., 2023; Ma, 2023). By comparing their choices with those of peers, investors may feel pressured to act quickly, which can intensify herding behavior in financial markets (Kaddouhah, 2024; Altundal et al., 2024).

In contrast, financial knowledge forms the foundation for rational decision-making. It encompasses the ability to understand financial concepts, manage risks, and apply this knowledge to real-life contexts such as saving, budgeting, and investing (Ansari et al., 2023). Higher financial literacy is consistently linked to better financial behaviors, especially in complex decisions like investment and retirement planning (Meter & Balcıoğlu, 2025).

Impulsiveness, defined as acting without careful evaluation of alternatives, represents another challenge. Technological advancements and social media have amplified impulsive behaviors, as instant access to trading platforms may encourage investors to make hasty and risky decisions (Whiteside & Lynam, 2001; Moghddam et al., 2024).

In conclusion, these factors illustrate how both emotional and cognitive dimensions shape financial investment behavior. Understanding their interaction is particularly important for young investors, who are highly exposed to opportunities yet vulnerable to biases in an increasingly dynamic market environment.

2.1. Financial investment decisions

Behavioral finance theory provides a useful framework for explaining how psychological factors influence investment behavior. For example, herding variables can shape investors' choices by driving them to follow the majority rather than relying on their own analysis (Setiawan et al., 2018). Within this theory, two main types of cognitive biases are often discussed. The first relates to heuristics, where individuals rely on mental shortcuts that may distort rational judgment. The second involves framing effects, in which the way information is presented influences decisions, often leading to systematic errors (Waweru et al., 2008). Another important approach is prospect theory, which explains how individuals make decisions under risk. Unlike classical models of rational choice, prospect theory argues that decisions are shaped by subjective perceptions of gains and losses, as well as personal value systems. In this view, psychological and behavioral factors strongly influence the rationality of investment choices (Pradikasari & Isbanah, 2018).

Investment itself can be defined as the act of allocating income that remains after covering basic needs and other expenses. According to Mattsson (2019), individuals invest their savings to achieve different goals, either by increasing their wealth or protecting it against inflation. Investments may include financial instruments such as stocks, bonds, and funds, or non-financial assets such as real estate, vehicles, or education, which are held for a period of time according to personal objectives. The process of making investment decisions is complex and requires investors to gather and evaluate large amounts of information before committing to a choice (Frank et al., 2013). Prior research has identified several factors that affect this process, including financial knowledge (Rasyid et al., 2018), regret aversion bias and risk tolerance. Studies also suggest that individual investors often prefer familiar investment vehicles or those connected to their own interests and fields of knowledge (Pool et al., 2012). However, behavioral biases frequently disrupt rational decision-making. These biases can push investors toward irrational or inefficient choices, which may harm their financial well-being (Wang, 2023). Therefore, it is important for investors to recognize these biases, understand their consequences, and develop strategies to reduce or avoid their negative impact

2.2. Fear of missing out (FOMO)

Fear of Missing Out (FOMO) has become an important concept in both psychology and finance, and it is now often mentioned in financial media (Hershfield, 2020). FOMO is usually linked with feelings of worry, regret, and the fear of being excluded from a social group (Przybylski et al., 2013). What makes FOMO different from normal regret is its timing. Regret happens after a decision, when a person realizes that another choice could have given a better result (Milyavskaya et al., 2018). In contrast, FOMO happens before a decision is made. It is the fear of missing a chance,

especially when other people around us are taking that chance. To avoid the regret of being left out, individuals may follow the choices of their peers, even if those choices are not the most rational (Kaddouhah, 2024). This shows that FOMO has a strong social component, because people compare themselves with others and feel pressure to do the same things.

The effect of FOMO can be observed in many daily situations. For example, people may feel anxious or uncomfortable when they are not updated with the latest news on social networks (Prasaja et al., 2023). In financial markets, this behavior is even stronger. Access to real-time information about other investors' actions can lead people to buy assets too quickly and without enough analysis (Shiva et al., 2020). Investors may also feel that if they are not constantly connected, they will miss important opportunities (Proell et al., 2020). These feelings push investors to pay more attention to what others are doing, to envy their profits, and to make similar trades just to avoid being left behind (Hershfield, 2020). However, FOMO does not only affect financial behavior. It can also create negative psychological consequences. According to Wortham (2011), FOMO may lower mood and even lead to depression, because it makes people question whether they are making the best decisions in life. In finance, this risk is especially high for individual or less experienced investors, who are more easily influenced by others. The growth of mobile technology and digital platforms has made this worse, as investors can now copy the actions of peers or experts with just a few clicks. While this may seem convenient, many do so without fully understanding the risks (Chaitanya & Nordin, 2021). This can lead to herding behavior, where many investors make the same decision at the same time, which may push market prices to rise or fall more than they should (Gupta & Shrivastava, 2021; Hershfield, 2020).

Overall, FOMO is more than just a social or emotional feeling. It is a powerful driver of financial behavior, especially for young investors. University students, who often have high interest in new opportunities but limited experience, may be strongly affected by FOMO in their investment choices. For this reason, studying the role of FOMO is very important in understanding how young Vietnamese students make financial investment decisions in a fast-changing and highly connected environment.

2.3. Financial Knowledge

Financial knowledge, often referred to as financial literacy, has been recognized as a fundamental determinant of financial well-being and decision-making. The OECD defines financial literacy as "knowledge and understanding of financial concepts and risks, and the skills, motivation, and confidence to apply such knowledge and understanding to make effective decisions across a range of financial contexts." This definition highlights not only cognitive understanding but also the behavioral and motivational aspects that enable individuals to act on their knowledge in practical situations.

The level of financial knowledge within individuals varies across demographic factors. Ansari et al. (2023) found that financial literacy depends on abilities such as saving, investing, financial planning, budgeting, and money management. Their findings show significant gender differences, with men reporting higher levels of both basic and advanced financial knowledge. Age and education also play critical roles; undergraduates demonstrated stronger advanced financial knowledge. These findings indicate that financial literacy is shaped by both personal characteristics and life experiences.

The expression of financial knowledge is commonly observed through an individual's ability to perform basic financial tasks such as calculating interest, understanding inflation, and recognizing the time value of money. Lusardi and Mitchell (2007) introduced the widely adopted "Big Three" questions to measure knowledge of compound interest, inflation, and risk diversification. These questions, later expanded in Lusardi and Mitchell's subsequent works, have been applied globally to assess core financial literacy. Beyond these, financial literacy has evolved into a broader, multi-dimensional framework that captures not only numeracy and factual knowledge but also decision-making skills and metacognitive awareness (Lusardi & Mitchell, 2014).

The impact of financial literacy on individual and societal outcomes is profound. High levels of financial literacy are associated with effective financial decision-making, sustainable personal financial health, and broader economic development (Potrich et al., 2018). Conversely, financial illiteracy can lead to severe consequences. For instance, individuals with low financial literacy are less likely to accumulate adequate retirement savings (Van Rooij et al., 2011) and may lack emergency funds, making them more vulnerable to financial shocks (Allgood & Walstad, 2016). At the societal level, financial illiteracy is linked to suboptimal financial outcomes and lower overall welfare (Pitthan & Witte, 2025). Moreover, overestimating one's own financial knowledge can be equally harmful, as it reduces the likelihood of seeking advice and leads to poor risk evaluation—one reason why standard financial education programs often fail to achieve long-term impact (Merter & Balcıoglu, 2025).

For young investors, particularly university students, while financial knowledge can empower them to avoid impulsive or emotion-driven choices, it may also discourage participation due to heightened risk perception. This makes financial knowledge a crucial factor to examine in relation to FOMO and impulsiveness when analyzing the investment behavior of Vietnamese students.

2.4. Impulsiveness

Impulsiveness is broadly defined as a tendency to act quickly without fully considering the potential consequences. Moeller et al. (2001) describe it as a predisposition toward rapid and unplanned reactions to internal or external stimuli, often made without regard for negative outcomes. In other words, impulsiveness reflects a lack of deliberation and self-control, where individuals prioritize immediate desires over long-term goals.

The most common expression of impulsiveness can be seen in consumer behavior, particularly in impulse buying. Stern (1962) and Goel et al. (2022) describe this behavior as sudden, compelling, and emotionally driven purchases that are not carefully planned or evaluated. Such purchases are typically associated with pleasure, excitement, or the pursuit of instant rewards (Huang, 2015). With the growth of digital platforms, impulsive tendencies have become even more visible. Features such as "Shop" buttons on Facebook or Instagram allow consumers to make immediate purchases with minimal effort, while real-time social interactions and promotional content further stimulate impulsive actions (Moghddam et al., 2024; Kozinets, 2002; Tafesse, 2016). According to Abdelsalam et al, 2020, Impulsive buying is marked by several features. It is unplanned and unintended, with purchases made without prior consideration. Decisions are rapid, often on the spot, and strongly hedonic, driven by an immediate urge to buy. Such behavior is usually thoughtless and unreflective, as consumers neglect real needs, alternatives, or potential negative consequences like overspending. Finally, impulsive buying is often triggered by external stimuli in the shopping environment that push individuals to act on impulse.

The effects of impulsiveness are multifaceted. In consumer markets, it often leads to irrational and emotion-based decisions that may result in regret or financial strain. However, it can also encourage spontaneity and quick adaptation to opportunities. In the financial context, impulsiveness takes on greater significance because investment decisions usually involve high levels of risk and require rational analysis (Altundal et al, 2024). Investors are expected to act systematically and cautiously, but impulsive tendencies may cause deviations from rational behavior . While it can lead to irresponsible financial behavior and unnecessary losses (Jelihovschi et al., 2018; Barbic et al., 2019), a complete absence of impulsiveness may also result in hesitation or missed opportunities (Hemrajani et al., 2021).

In the context of financial investment decisions, impulsiveness becomes an important factor influencing how individuals evaluate risks and act under uncertainty. For young or inexperienced investors, such as university students, impulsiveness may strongly shape investment behavior by driving quicker, less rational decisions. This highlights the need to study impulsiveness as a psychological determinant of financial investment, alongside other factors such as financial literacy and emotional influences like FOMO.

2.5. Hypotheses development

However, several research gaps remain. First, while much of the existing literature has focused on developed economies, fewer studies have examined how these behavioral and demographic factors interact in emerging markets such as Vietnam, where financial markets are still developing and young people increasingly engage in investment activities. Second, most research has treated FOMO, financial knowledge, and impulsiveness separately; limited attention has been paid to their combined influence on investment behavior in the context of students who are both digitally active and financially inexperienced. Third, while demographic factors are often used as control variables, their direct influence on student investment behavior is still underexplored in Vietnam, where socio-economic conditions and financial literacy levels differ from global patterns. Addressing these gaps will contribute to a deeper understanding of how psychological and cognitive factors shape financial investment behavior among Vietnamese university students.

Based on the theoretical foundations and identified research gaps, this study proposes the following hypotheses:

- **H1**: Demographic variables (e.g., gender, age, income, and field of study) have a significant effect on personal financial investment behavior.
- **H2**: Fear of Missing Out (FOMO) has a significant positive effect on personal financial investment behavior.
- **H3**: Impulsiveness has a significant effect on personal financial investment behavior.
- **H4**: Financial knowledge has a significant effect on personal financial investment behavior.

Therefore, this study adopts standardized measurement scales, including the Financial Knowledge scale (Chen & Volpe, 1998), the FOMO scale (Przybylski et al., 2013), and the Impulsiveness scale (Barratt, 1965; Patton et al., 1995), to investigate how these factors interact and shape personal financial investment behavior among Vietnamese university students. By employing validated instruments, the study ensures both reliability and comparability with prior research. More importantly, integrating these cognitive (financial knowledge), emotional (FOMO), and psychological (impulsiveness) dimensions provides a comprehensive framework to explain investment behavior. This approach directly supports the development of the study's hypotheses (H1–H4), which examine the effects of demographic characteristics, FOMO, impulsiveness, and financial knowledge on personal financial investment behavior.

3. Research Design and Development

This research utilized a digital online survey, which was administered via Google Forms, to assess the influence of Fear of Missing Out (FOMO), Financial Knowledge (LK), and Impulsiveness (IM) on students' investment behavior. The analysis took into account participants' demographic and academic characteristics, including age, gender, experience, major, year of study, and income. The data were subsequently processed using a range of statistical methods and techniques, encompassing descriptive analysis, discriminant analysis, and Partial Least Squares Structural Equation Modeling (PLS-SEM).

The target population comprised 176 respondents, predominantly between 18 and 23 years of age. Data collection was conducted during April 2025. A purposive sampling strategy was adopted, in which participants were selected according to predefined criteria that aligned with the research objectives, ultimately obtaining responses from 176 students. This paper collected primary data using a questionnaire. The questionnaire contained four sections, one for demographic variables and the other for behavioral factors, and included questions on three bias (FOMO, LK, IM).

The survey was developed and adapted from previously validated measurement scales to ensure content validity and reliability. Fear of Missing Out (FOMO) was assessed using ten items derived from the scale developed by Przybylski et al. (2013), capturing the degree to which individuals experience anxiety over missing financial opportunities or critical investment-related information. Financial Knowledge was measured with fourteen items adapted from Chen and Volpe's (1998) scale, evaluating respondents' fundamental knowledge of personal finance concepts, including interest rates, risk management, investment principles, and credit. Impulsiveness was measured using ten items from the Barratt Impulsiveness Scale (Barratt, 1965; Patton et al., 1995), evaluating tendencies toward rapid action without adequate deliberation. Lastly, Personal Financial Investment Behavior was evaluated with three items adapted from Johan Mattsson's research, assessing students' levels of engagement, interest, and actual participation in personal financial investments. For the set of questions related to financial Knowledge, a multiple-choice format with four possible answers was used to assess each respondent's level of financial knowledge; for the question groups concerning FOMO, impulsiveness and investment behavior, a five-point Likert scale was used, where a score of 1 indicated "strongly disagree" and a score of 5 indicated "strongly agree."

The adoption of PLS-SEM was justified by its capability to evaluate the adequacy of both measurement and structural components, thus offering a comprehensive perspective on the causal relationships among the study variables. The criteria for evaluating the PLS-SEM analysis are summarized in Table 2.

4. Analysis and results

4.1. Characteristics of Respondents

The sample presents a near gender balance (52.3% male, 47.7% female) and is dominated by senior students, with fourth-year (39.2%) and first-year (24.4%) making up the largest groups. Most participants reported modest monthly incomes—two-thirds earn VND 5 million or less—reflecting typical student financial circumstances. In terms of work experience, over half (52.8%) had less than two years in the workforce, and nearly a third (30.7%) had no prior work experience at all. Academic majors were concentrated in Science & Technology (34.1%) and Business (33.0%), creating a mix of technical and commercial perspectives. This combination of youth, limited work exposure, and diverse academic backgrounds offers a compelling context for examining how FOMO, financial Knowledge, and impulsiveness shape personal investment behavior.

Table 1. Frequency Distribution for Respondent's Demographics

Demographic CharacteristicsN = 176		Response	Valid Percentage
Year	1st- year	43	24.4
	2nd - year	21	11.9
	3rd - year	25	14.2

	4th - year	69	39.2
	5th - year or undergraduate	18	10.2
Gender	Male	92	52.3
	Female	84	47.7
Income	Below VND 2 million	48	27.3
	VND 2 -5 million	67	38.1
	VND 5-10 million	37	21.0
	Above 10 million	24	13.6
Experience	None	54	30.7
	Below 2 year	93	52.8
	2 -4 year	16	9.1
	Above 4 year	13	7.4
Major	Business	58	33.0
	Education	10	5.7
	Art	10	5.7
	Science and technology	60	34.1
	Another	38	21.6

Source: The authors.

4.2. Evaluation of the Measurement Model

In this study, SmartPLS software was utilized to conduct data processing and statistical analysis. The validation of the measurement model included an examination of its internal consistency reliability, convergent validity, and discriminant validity. For this purpose, Cronbach's alpha, composite reliability (CR), and average variance extracted (AVE) were calculated for all latent constructs, with the results detailed in Table 4. Cronbach's alpha was utilized to gauge the internal consistency of indicators within each construct, while CR and AVE served as complementary indicators of construct reliability and convergent validity. Consistent with the threshold values suggested by Hamid et al. (2017) - namely CR ≥ 0.70 and AVE ≥ 0.50. All constructs in the present study exhibited Cronbach's alpha and CR values above 0.70, and AVE values exceeding 0.50, thereby satisfying the minimum acceptable standards.

Table 2 . Reliability and Validity Measurement

Variables	Cronbach's Alpha	Composite Reliability (CR)	Average Variance Extracted (AVE)
FIB_	0.758	0.861	0.675
FK	1.000	1.000	1.000
FM	0.912	0.925	0.554
IM	0.909	0.923	0.521

Source: The authors.

Discriminant validity was examined using two widely recognized approaches: the Fornell–Larcker criterion (Fornell & Larcker, 1981) and the Heterotrait–Monotrait ratio of correlations (HTMT). Under the Fornell–Larcker criterion, the square root of the AVE for each construct should exceed its highest correlation with any other construct. The results demonstrated that, for all constructs, the square root of the AVE was greater than the corresponding inter-construct correlations, thereby confirming discriminant validity according to this criterion.

In the present model, the square root of each construct's AVE exceeded its correlations with other constructs, indicating that the constructs are empirically distinct and do not exhibit multicollinearity. Table 5 presents the discriminant validity results in accordance with the Fornell–Larcker criterion. Furthermore, discriminant validity was evaluated using the Heterotrait–Monotrait ratio of correlations (HTMT). HTMT values approaching 1 indicate a lack of discriminant validity; as noted by Kline (2011), a threshold value of 0.85 is recommended. In the current study, all HTMT values fell well below both thresholds, thereby confirming that discriminant validity is satisfactorily established. (Appendix 2&3)

4.3. Evaluation of the Structural Model

Appendix 1, the inner and outer Variance Inflation Factor (VIF) values, which are used to assess the presence of multicollinearity among exogenous variables. According to Kennedy (1992), Marquardt (1970), and Neter et al. (1989), VIF values exceeding 10 indicate multicollinearity issues, while Hocking and Pendelton (1983) propose a more conservative threshold of 5. In this study, all VIF values are below 5, indicating that multicollinearity is not a concern in either the inner or outer models.

The study has used PLS-SEM for investigating the relation among FOMO, Financial Knowledge (FK) and Impulsiveness (IM) on students investment behavior. Table 8 presents the path coefficients, standard errors, t-statistics, and p-values for the structural model predicting Financial Investment Behavior (FIB). Among the predictors, Financial Knowledge (FK) shows a significant negative relationship with FIB ($\beta = -0.212$, $p = 0.013$). Fear of Missing Out (FM), in contrast, exhibits a significant positive effect ($\beta = 0.248$, $p = 0.024$), indicating that higher FOMO levels are linked to greater investment activity. All other predictors—work experience, gender, impulsiveness (IM), income, major, and year of study—show non-significant effects ($p > 0.05$), implying that they do not have a statistically detectable influence on investment behavior in this model.

Table 3. Path Coefficients of Model

	Original Sample (O)	**Sample Mean (M)**	**Standard Deviation (STDEV)**	**T Statistics (|O/STDEV|)**	**P Values**
Experience -> FIB_	-0.035	-0.037	0.078	0.450	0.652
FK -> FIB_	-0.212	-0.205	0.085	2.487	**0.013**
FM->FIB_	0.248	0.241	0.110	2.264	**0.024**
Gender -> FIB_	-0.054	-0.051	0.081	0.668	0.504
IM -> FIB_	-0.027	0.017	0.109	0.251	0.802
Income -> FIB_	0.049	0.051	0.084	0.578	0.563
Major -> FIB_	0.045	0.047	0.077	0.578	0.563
Year -> FIB_	-0.075	-0.074	0.092	0.814	0.416
		R Square	**R Square Adjusted**		
FIB_		0.121	0.079		

Source: The authors.

The model's explanatory power is relatively low, with an R^2 value of 0.121 (adjusted $R^2 = 0.079$), meaning that the included predictors jointly explain about 12.1% of the variance in FIB. This suggests that while FOMO and financial knowledge play statistically significant roles, other unmeasured factors may also substantially influence students' investment behavior.

Table 4. f Square

	FIB_
Experience	0.001
FIB_	
FK	**0.039**
FM	**0.028**
Gender	0.003
IM	0.000
Income	0.002
Major	0.002
Year	0.005

Source: The authors.

Among the predictors, Financial Knowledge (FK) exhibits a significant negative effect on FIB ($f^2 > 0.35$)while Fear of Missing Out (FOMO) shows a positive effect. All other variables, work experience, gender, impulsiveness, income, academic major, and year of study have non-significant paths ($p > 0.05$) and negligible effect sizes ($f^2 < 0.02$), suggesting minimal contribution to the variance in FIB. These results emphasize the central role of FOMO and financial knowledge in shaping students' investment behavior, though their influence remains modest.

Table 5. Acceptance and Rejection of Hypotheses

Hypothesis	Status	p-value	Beta
Demographic variables have a significant effect on personal financial investment behavior	Rejected	> 0.05	
Fear of Missing Out (FOMO) has a significant positive effect on personal financial investment behavior	Accepted	0.024	0.248
Impulsiveness has a significant effect on personal financial investment behavior	Rejected	0.802	
Financial knowledge has a significant effect on personal financial investment behavior	Accepted	0.013	–0.212

Source: The authors.

Using PLS-SEM, the model explains 12.1% of the variance in Personal Financial Investment Behavior (FIB), with hypothesis testing conducted through bootstrapping. The results indicate that control variables, including gender, income, work experience, year of study, and academic major, have no statistically significant effect ($p > 0.05$), suggesting that demographic characteristics do not substantially influence investment behavior among Vietnamese university students aged 18–23, likely due to similar levels of financial exposure and investment experience. In contrast, Fear of Missing Out (FOMO) has a significant positive effect on FIB ($\beta = 0.243$, $p < 0.05$), consistent with prior research (Przybylski et al., 2013), showing that individuals who fear missing financial opportunities tend to invest more, a phenomenon that may be amplified in Vietnam by the rapid spread of financial information on social media. Impulsiveness shows a negative but non-significant effect ($\beta = –0.027$, $p > 0.05$), implying that impulsive tendencies may not drive investment decisions in this context, possibly due to financial constraints, limited market experience, or cultural factors not fully captured by the measurement scale (Barratt, 1965*)*. Surprisingly, financial knowledge has a significant negative effect on FIB ($\beta = –0.510$, $p < 0.01$), contrary to studies Chen and Volpe (1998) where higher literacy promotes investment, suggesting that in the Vietnamese context, greater financial understanding may heighten risk awareness and foster caution, especially in a volatile market; this effect may also be influenced by the relative difficulty of the knowledge assessment items. Overall, the findings highlight FOMO as a key driver of student investment behavior, while financial knowledge appears to act as a moderating factor that may reduce participation, underscoring the complex interplay between emotional and cognitive factors in emerging markets.

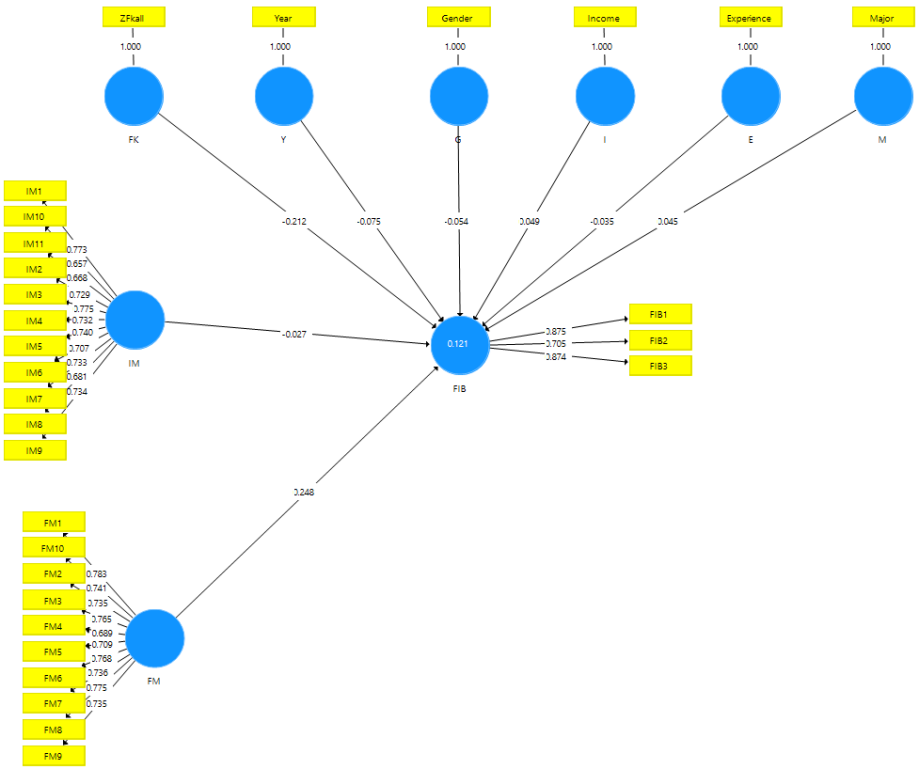


Figure 3. Structural models

Source: The authors.

5. Conclusion and Discussion

This study sheds light on the financial investment behaviors of Vietnamese university students aged 18 to 23, emphasizing how cognitive and emotional factors jointly shape decision-making. The results point to two key determinants: financial knowledge and Fear of Missing Out (FOMO). However, their effects move in opposite directions. Financial knowledge is negatively associated with investment activity, showing that students with stronger literacy tend to act more cautiously. This outcome stands in contrast with much of the existing literature. For example, Lusardi and Mitchell (2014) and Potrich et al. (2018) have demonstrated that financial literacy typically promotes greater participation in financial markets and leads to better financial outcomes. The difference observed in this study may be explained by Vietnam's market context, where high volatility, weak investor protection, and exposure to recent financial shocks have increased risk sensitivity. As a result, more knowledgeable students may consciously avoid participating in uncertain or speculative opportunities, highlighting that financial literacy in emerging economies does not always translate into higher participation but may instead foster greater caution.

On the other hand, FOMO emerged as a strong and positive driver of investment, aligning with research such as Gupta and Shrivastava (2021), who documented how FOMO encourages herding behavior and excessive trading. For Vietnamese students, the emotional and social pressures of keeping pace with peers and reacting to fast-spreading information on digital platforms appear to outweigh rational evaluations of risk. This suggests that FOMO acts not merely as a behavioral bias but as a dominant motivational force for young investors in dynamic markets. Compared with prior studies in developed economies, where FOMO is often associated with speculative bubbles (Hershfield, 2020), the present findings extend the discussion by showing how it directly motivates inexperienced investors in Vietnam to enter financial markets, even when their financial knowledge signals caution.

By contrast, impulsiveness did not show any significant impact on investment behavior. This result differs from studies such as Moghddam et al. (2024), which highlighted the rise of impulsive decision-making in online trading environments. One explanation is that Vietnamese students face limited financial capacity, which constrains their ability to act impulsively even if they have the desire to do so. Cultural norms and the relative inexperience of this group may also encourage more deliberate, rather than rash, decisions. Similarly, demographic factors such as gender, income, academic major, and year of study were found to have no meaningful influence. This result resonates with Prasad et al. (2021), who also concluded that demographic differences often have little effect in populations where financial exposure and life experiences are broadly similar. Together, these findings underscore that emotional drivers like FOMO may be more decisive than either demographic or impulsive tendencies in shaping the investment behavior of young Vietnamese investors.

Overall, the study highlights the multidimensional nature of student investment behavior, where cognitive safeguards and emotional impulses interact in complex ways. Financial knowledge provides a rational filter, often leading to hesitation or conservative decisions, while FOMO injects emotional urgency that drives participation. These results extend behavioral finance theory by showing that traditional rational choice models are insufficient to explain behavior in emerging economies. Instead, understanding how knowledge interacts with psychological triggers is crucial for capturing the decision-making patterns of Generation Z investors. From a practical standpoint, the findings call for financial education programs that move beyond technical literacy and incorporate behavioral awareness. Universities, advisors, and policymakers should consider designing interventions that teach not only risk assessment but also strategies for managing emotional pressures such as FOMO, which can otherwise push students toward excessive risk-taking.

Despite its contributions, this study has limitations that must be acknowledged. The relatively small sample size of 176 participants, drawn exclusively from Vietnamese university students, restricts the generalizability of the findings to broader populations. The purposive sampling approach may also have introduced selection bias by capturing individuals with similar financial experiences and academic backgrounds. Furthermore, the use of self-reported questionnaires may lead to issues of accuracy and social desirability bias. Finally, the Chen and Volpe (1998) scale used to measure financial literacy may not fully reflect the Vietnamese financial context, and its complexity might have contributed to the negative association between knowledge and investment behavior observed in this study.

Looking ahead, future research should expand on these insights by examining loss aversion, a cornerstone concept in behavioral finance. Loss aversion describes how individuals are more sensitive to potential losses than to equivalent gains, often leading them to avoid risk even when opportunities are favorable. Integrating this concept could help explain the cautious behavior of financially knowledgeable students and provide a fuller understanding of how different psychological biases interact. Exploring loss aversion alongside FOMO and financial literacy in the Vietnamese context would not only broaden the theoretical contributions of this study but also generate practical insights for designing financial education and policy interventions that balance risk awareness with active participation.

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APPENDIX

APPENDIX 1 . VIF Values

Inner VIF Values	
	VIF
Experience	1.000
FIB1	1.842
FIB2	1.296
FIB3	1.891
FM1	2.535
FM10	2.171
FM2	2.659
FM3	2.264
FM4	1.887
FM5	1.907
FM6	2.031
FM7	2.140
FM8	2.084
FM9	1.932
Gender	1.000
IM1	2.193
IM10	1.816
IM11	1.945
IM2	1.951
IM3	2.207
IM4	2.196
IM5	2.066
IM6	1.903
IM7	2.027
IM8	1.774
IM9	1.734
Income	1.000
Major	1.000
Year	1.000
ZFkall	1.000
Outer VIF Values	
	FIB_
Experience	1.209
FIB_	
FK	1.316
FM	2.514
Gender	1.111
IM	2.540
Income	1.260

Major	1.088
Year	1.263

Source: The authors.

APPENDIX 2. Discriminant Validity Fornell–Larcker Criterion

	Experience	**FIB_**	**FK**	**FM**	**Gender**	**IM**	**Income**	**Major**	**Year**
Experience	1.000								
FIB_	-0.046	0.822							
FK	0.036	-0.247	1.000						
FM	-0.020	0.236	-0.056	0.744					
Gender	0.092	0.007	-0.239	-0.037	1.000				
IM	0.023	0.195	-0.148	0.769	-0.033	0.722			
Income	0.397	-0.010	0.001	-0.084	0.096	-0.042	1.000		
Major	-0.112	0.048	-0.157	-0.121	0.172	-0.082	-0.097	1.000	
Year	0.094	-0.163	0.406	-0.051	-0.124	-0.063	0.201	-0.100	1.000

Source: The authors.

APPENDIX 3. Discriminant Heterotrait–Monotrait Ratio (HTMT)

	Experience	**FIB_**	**FK**	**FM**	**Gender**	**IM**	**Income**	**Major**	**Year**
Experience									
FIB_	0.051								
FK	0.036	0.282							
FM	0.048	0.257	0.074						
Gender	0.092	0.056	0.239	0.072					
IM	0.072	0.210	0.143	0.844	0.073				
Income	0.397	0.062	0.001	0.091	0.096	0.079			
Major	0.112	0.059	0.157	0.127	0.172	0.113	0.097		
Year	0.094	0.186	0.406	0.093	0.124	0.085	0.201	0.100	

Source: The authors.