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The impact of financial literacy on financial behaviors: The case of university students in Hanoi, Vietnam

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ABSTRACT

This study aims to examine the influence of financial literacy on the financial behaviors of university students in Hanoi, Vietnam. The research applies a quantitative method, using questionnaires to collect data from 401 Vietnamese students and analyzing data with SPSS, utilizing descriptive statistical methods and quantitative modeling techniques. The level of financial literacy is divided into three groups: low, average, and high. While students with a high level of financial literacy tend to participate more in investment and consumption activities, students with a lower level pursue more saving strategies. Additionally, the results reveal that students' financial literacy positively impacts three dimensions of financial behavior, namely investment decisions, saving behavior, and consumption behavior. Students with higher financial literacy are more engaged in investment, saving, and consumption activities. These findings underscore the essential role of financial literacy in building financial competencies for young people. The results have practical implications for universities and policymakers to create and implement financial education programs to enhance financial literacy and improve responsible and sustainable financial behavior among young people. Furthermore, youth should study more about personal finance, use financial management applications to identify specific goals, and establish a comprehensive personal financial plan, ensuring reasonable investment and saving decisions and avoiding wasteful consumption behavior.

Contribution/Originality: This study uniquely highlights the pivotal role of financial literacy by empirically demonstrating that higher literacy significantly increases Vietnamese university students' engagement in investment, saving, and consumption activities, providing novel, context-specific insights critical for enhancing youth-focused financial education in Vietnam.

1. INTRODUCTION

In the contemporary economy, financial literacy (FL) has become an essential life skill for many people (Beranová, Šíma, & Navrátilová, 2020). FL is a collection of skills and knowledge that enables a person to make accurate decisions regarding all their financial resources (Nugraha, Tulung, & Arie, 2021). The level of FL affects individuals' competence to make financial decisions (Cossa, Madaleno, & Mota, 2018). Today's younger generation faces greater financial decision-making challenges than previous generations (Tavares, Almeida, & Cunha, 2019). Thanks to digital developments and globalization, financial services and products have become more accessible but also have a complex impact (Beranová et al., 2020). Individuals must make more responsible financial decisions, such as investing in personal development, saving for children's education, planning for retirement, and so on (Tavares et al., 2019). To

benefit both consumers and the international economy and the globalized economy, improving FL is necessary, especially among younger people (Sylviana, Murtaqi, & Pradana, 2018). Improved financial literacy can contribute to greater financial stability and self-sufficiency, thereby reducing poverty and enhancing effective financial decisions (Sylviana et al., 2018).

FL significantly has a significant impact on financial behaviors (FB) (Danila, Shahwan, Ali, & Djalaluddin, 2019). Completing a college education has been shown to have a strong influence on financial behavior, such as paying credit card bills in full, having money to save, and making investments (Danila et al., 2019). Additionally, the FL level and the perceived financial competence of young people are said to be lower than those of older people (Danila et al., 2019). This article demonstrates that individuals with deeper FL and experience can lead to positive changes in their financial performance (Danila et al., 2019).

Recently, Vietnam's government has proactively introduced a range of policies related to the National Comprehensive Financial Strategy, along with efforts to eradicate hunger and alleviate poverty (Le, 2021). In the context of Vietnam implementing a comprehensive financial strategy, financial literacy is an urgent issue to ensure that people in Vietnam have sufficient ability to manage their money and select appropriate financial services to increase their income (Nguyen, Van Hoang, Pho, & Nhan, 2023). The coverage of the comprehensive financial system is extensive, but the proportion of individual customers accessing financial products and services is relatively low, including university students (Nguyen et al., 2023). A 2021 study of Vietnamese students showed that students have weak financial literacy, including those majoring in finance, banking, or economics (Nguyen et al., 2023). Therefore, many students face risks when making financial decisions (Le, 2021).

As a result, the proposed research topic is "The Impact of Financial Literacy on Financial Behaviors: Evidence from university students in Hanoi". The structure of this paper is outlined as follows: Section 1 is about the introduction, Section 2 presents the theoretical framework, literature review, and hypotheses. Following that, Section 3 describes the methodology and data used in this research. Subsequently, the results and discussions will be presented. Finally, the paper will propose conclusions and recommendations.

2. THEORETICAL FRAMEWORK AND LITERATURE REVIEW

2.1. Financial Literacy and Theory of Planned Behavior

FL is a set of abilities and information that enable an individual to make well-informed decisions. Additionally, FL is defined as the capacity to make wise financial judgments (Nugraha et al., 2021). Furthermore, FL is analyzed by Hc and Gusaptono (2020) as the information and abilities required to make wise financial decisions, which include managing debt, budgeting, saving, and investing. It is essential to understand financial ideas, products, and services in addition to the capacity to make wise financial decisions (Hc & Gusaptono, 2020). According to Tschache (2009), many educators believe that FL plays an important role for university students because they often encounter financial problems and challenges. Facing these issues can easily cause negative consequences on the academic performance, mental, and physical health of young people.

The Theory of Planned Behavior (TPB) was utilized to support this research. TPB explores the link between individuals' attitudes and their behavior (Saunders, Lewis, & Thornhill, 2019). Based on this theory, attitudes toward a given behavior, subjective norms, and perceived behavioral control shape an individual's intentions and actual actions (Saunders et al., 2019). This theory is suitable for research because the Theory of Planned Behavior (TPB) helps explain why participants tend to want to spend, save, or invest differently depending on personal beliefs or social pressures. Additionally, TPB is suitable for testing through surveys and data modeling, which is appropriate for quantitative studies.

2.2. Financial Behaviors and Financial Behaviors Measurements

2.2.1. Financial Behaviors

Financial behaviors (FB) are the decisions and activities made to manage individuals' finances, such as credit management, savings, investing, or retirement planning (Tang & Baker, 2016). It is measured by specific indicators and the financial management activities of individuals (Tang & Baker, 2016). According to Asaad (2015), FB is crucial to an individual's everyday financial decision-making, and financial literacy goes beyond just numeracy knowledge. Self-assurance in managing financial decisions plays a very important and necessary role. This is something that educators and policymakers alike need to realize. Moreover, FB is important as it affects economic outcomes and individual well-being (Dolan, Elliott, Metcalfe, & Vlaev, 2012). In financial behavior, there are three measurement factors: investment decisions, saving behavior, and consumption behavior.

2.2.2. Investment Decision

According to Nugraha et al. (2021), investment decision (ID) is the process of selecting an investment strategy among several options in an uncertain environment. It entails forecasting future results and requires a deft interpretation of the information.

Nowadays, investing is becoming increasingly popular, especially among young people, to create wealth and ensure their financial stability (Lubis, Kumar, Ikbar, & Muneer, 2015). According to Hamza & Arif (2019), the relevance of ID is rooted in the fact that it is vital to the financial prosperity of personal investors. While making poor investment choices can result in financial loss and hardship, making smart ones can lead to financial security and prosperity (Hamza & Arif, 2019).

2.2.3. Saving Behavior

Saving behavior (SB) refers to the propensity of individuals to save money over time. This behavior has a significant genetic component, indicating that individuals are born with a predisposition to save, but parenting and environmental factors also play a role in shaping saving behavior (Cronqvist & Siegel, 2015). SB is crucial for household welfare in emerging nations (Afsar, Chaudhary, Iqbal, & Aamir, 2018).

Savings are seen to be the primary element influencing the economic growth of emerging nations. Additionally, the majority of students are young adults who constantly strive to equip themselves with the tools necessary to overcome obstacles outside of the classroom. Therefore, financial responsibility is a requirement for students who live away from their parents (Khalisharani et al., 2022). Therefore, it is critical that students learn sound money management techniques, especially in saving money.

2.2.4. Consumption Behavior

Consumption behavior (CB) refers to the movements and decisions made by individuals regarding the acquisition, consumption, and disposal of goods and services (Nelson & Consoli, 2010). It includes various aspects such as the identification of needs and wants, the evaluation and selection of alternatives, the purchase and use of products, the post-purchase evaluation, and the disposal of products (Nelson & Consoli, 2010). In today's interconnected and consumer-driven world, CB holds significant importance in shaping individual and collective financial landscapes. CB directly impacts economic growth and stability (Lee & Chang, 2007).

In many countries around the world, household consumption represents a major component of GDP and plays a pivotal role in driving economic growth (Martin, Hartman, Washington, Catlin, & Team, 2017). Additionally, CB plays a pivotal role in personal financial management. Individuals' spending behavior directly impacts their financial well-being, influencing factors such as savings, levels of debt, and investment portfolios (Goyal, Kumar, & Xiao, 2021).

2.3. The Impact of Financial Literacy on Financial Behaviors

2.3.1. The Impact of Financial Literacy on Investment Decision

FL is defined as the ability to manage money sensibly and successfully (Braunstein & Welch, 2002). Specifically, financial development and economic progress are supported by FL (Basha, Bennasr, & Goaied, 2023). Therefore, it is important to understand whether the younger generation especially college students possesses the requisite competence in financial principles. These young people are seen as the economy's future drivers, investors, and transformers.

FL plays an essential role in shaping the identity of students worldwide. Empirical studies have consistently highlighted the positive relationship between FL and ID-making among young adults. Additionally, financially literate people tend to exhibit greater risk-taking behaviors and are more likely to diversify their investment portfolios effectively (Awais, Laber, Rasheed, & Khursheed, 2016). Similarly, the study by Baihaqqy, Disman, Sari, and Ikhsan (2020) conducted on more than 400 research samples covering generations proved that FL has a significant impact on ID, and this is similar to developing countries.

In Raut (2020), research was conducted on FL and the decision-making process of individual investors in four different states in India. The results showed that FL has a significant impact on ID, and FL can help investors reduce the effects of external factors such as social pressure (Raut, 2020). Research by Abdeldayem (2016) has shown a close relationship between FL and ID, indicating that individuals with a deep understanding of FL tend to prefer investing in safe financial products with low profits, while those who understand the primary use of resources opt for complex financial products that may carry risks but offer higher potential returns.

2.3.2. The Impact of Financial Literacy on Saving Behavior

Widyastuti, Suhud, and Sumiati (2016) conducted a study examining the impact of attitudes, subjective norms, and financial literacy on the savings intentions and behaviors of student teachers (those preparing to teach can improve financial literacy) at a public university in Jakarta, Indonesia. The authors used an online survey to collect data and obtained 212 usable responses. In this research, the measurement model includes two independent variables (financial literacy, subjective norms), one dependent variable (saving behavior), and two intermediate variables (attitude towards saving, intention to save). The study confirms the interaction between the two variables, financial literacy and saving behavior, demonstrating that financial literacy has a strong influence on saving behavior. Additionally, saving behavior is influenced by savings intention and subjective norms. Furthermore, the results show that financial literacy, attitude, and subjective norms impact savings intention.

The research paper by Ariffin, Sulong, and Abdullah (2017) collected data from 192 business administration students at Universiti Putra Malaysia through questionnaires to determine the influencing factors of students' FL. In particular, the average FL score of the participants in this study was assessed at a moderate level. The author used three independent variables: SB, parental socialization, and self-control to evaluate behavior, with one dependent variable: FL. The author employed a two-sample t-test, correlation test, and regression analysis, with samples taken from first-year students to evaluate the relationships between variables. The findings indicated that SB, parental socialization, and peer influence were positively correlated with FL.

2.3.3. The Impact of Financial Literacy on Consumption Behavior

Fariana, Surindra, and Arifin (2021) indicated that students studying Economic Education at UNP Kediri were selected to observe the impact of FL on CB. The study employed quantitative methods with 46 students using purposive sampling. The three independent variables examined were FL, Lifestyle, and Self-Control, to assess their impact on the dependent variable CB. Using descriptive research techniques and multiple linear regression analysis, the results demonstrated a significant impact of the three dimensions of CB. Additionally, Barbić, Lučić, and Chen

(2019) also reported similar findings regarding the strong relationship between FL and CB in a study conducted in Croatia with participants aged 20-79.

Jappelli and Padula (2013) studied financial complexity and the impact of financial literacy on consumption growth. This study is conducted by the Bank of Italy every two years using a representative sample from the Survey of Household Income and Wealth (SHIW), covering 8,000 households and 24,000 individuals. The research model shows that consumption growth is positively associated with financial sophistication and financial literacy.

Another study by Hafid et al. (2021) was conducted with the purpose of evaluating the impact of economic education in families on CB through FL in fishermen. The research results aim to demonstrate that economic education in families has a positive impact on CB through FL in the fishing community.

2.4. Research Model

Based on the above literature review, the proposed hypotheses include.

Hypothesis 1: FL has a positive impact on the identity of university students in Hanoi city.

Hypothesis 2: FL has a positive impact on the SB of university students in Hanoi city.

Hypothesis 3: FL has a positive impact on the CB of university students in Hanoi city.

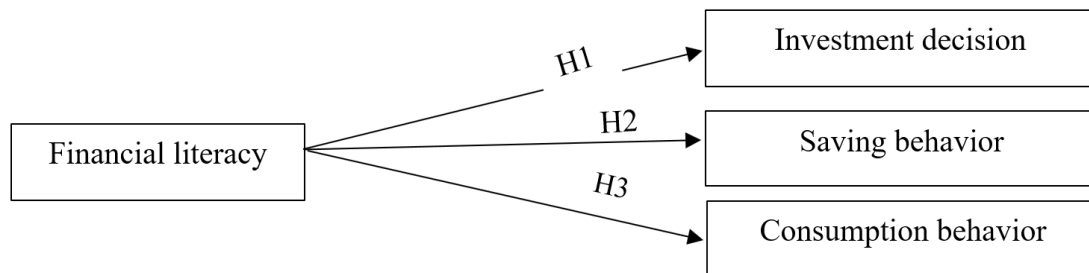Therefore, the research model with hypotheses is shown as follows:

Figure 1. Research model with hypotheses.

Figure 1 illustrates the proposed research model, which depicts the hypothesized relationships between financial literacy and three dimensions of financial behavior: investment decisions, saving behavior, and consumption behavior.

3. METHODOLOGY AND DATA

3.1. Methodology and Sample

The study employs quantitative methods to comprehensively evaluate the impact of financial literacy on financial behavior, including financial access, savings behavior, and consumption behavior among university students in Hanoi city. Through conducting surveys and statistical analysis, this study aims to quantify the level of financial access, measure the level of financial literacy, and analyze students' financial behaviors.

In this research, quantitative variables were used to clarify the impact of FL on the FB of university students in Hanoi city. In this study, two types of variables are used, including one independent variable (FL) and three dependent variables (ID, SB, and CB), which are shown in Table 1 below:

Table 1. Variables used in the research.

Classify	Variables	Description	Code
Dependent variable	Financial behaviors	Investment decisions of university students living in Hanoi city	ID
		Saving behaviors of university students living in Hanoi City	SB
		Consumption behavior of university students living in Hanoi city	CB
Independent variables	Financial literacy	Financial Literacy Index	FL

To analyze data, this research used the SPSS (Statistical Package for the Social Sciences) tool, especially composite reliability (Cronbach's alpha), and Excel.

3.2. Survey

A questionnaire was created based on a previous research document, including general information and data about measured variables. Specifically, regarding measurement variables, questions about FL were designed as multiple-choice questions with eight items, following the questionnaires of Ibrahim and Alqaydi (2013) and Stella, Filotto, and Cervellati (2020). These questions assess the FL level of university students and categorize them into three main groups: low FL (correct answers in less than 3 out of 8 questions), average FL (correct answers in 3 to 5 out of 8 questions), and high FL (correct answers in more than 5 questions). Regarding FB, questions have been arranged according to the Likert Scale for participants to evaluate questions about FB variables were followed from previous studies including Almansour, Elkrghli, and Almansour (2023); Widyastuti et al. (2016), and Niedzielski (2013).

3.3. Data Collection

This research project collected data from young people studying at 30 universities, specifically those living in Hanoi City, Vietnam (Appendix 1). Data from Vietnam General Statistics Office indicated that in 2020, the number of university students in Hanoi was 628,981 people. In 2023, this number is still given at around 600,000 students (My Ha, 2023); however, researchers could not receive all the data in the limited time. According to Saunders et al. (2019), the sample size is 401, given an acceptable error of 7% and a confidence level of 97%.

Besides, the convenience sampling method was chosen, which is a non-probability method that is easy to apply and saves time and effort for researchers (Gaille, 2025). This sampling method ensures the willingness of participants and meets the availability requirements for the research. Moreover, the research employed the convenience sampling method to reach groups that may be difficult to access through various means, such as visiting locations, posting on social media platforms, and online forums, to find participants (Sedgwick, 2013). Table 2 presents a number of survey participants, as follows:

Table 2. Distribution of the questionnaire.

| Items	No.
Questionnaires distributed	500
Total response	401
Usable response	401
Total response rate	80.2%
Usable response rate	100%

Table 3 presents general information about the survey participants. Specifically, the percentage of male and female students who participated was nearly balanced, indicating no gender bias in the results. Additionally, general information was collected from all target groups. This helped researchers accurately analyze FL issues affecting FB to make the most appropriate recommendations.

Figure 2 presents the survey results of participants who responded to the study. Based on the number of correct answers provided by the participants, three groups of participants' FL levels were identified. This result demonstrates that the study captured diverse perspectives from participants at different FL levels, which helped the authors derive various findings and offer appropriate recommendations for each FL group.

Table 3. Demographic of sample size.

Respondent's profiles	Categories	Frequency	Percent %
Gender	Male	190	47.4%
	Female	211	52.6%
Academic year	First-year student	74	18.5%
	Second-year student	90	22.4%
	Third-year student	147	36.7%
	Fourth-year student	90	22.4%
Economics or finance majors	Yes	201	50.1%
	No	200	49.9%
Monthly income	Under 2 million VND	72	18%
	2-3 million VND	77	19.2%
	3-5 million VND	160	39.9%
	Over 5 million VND	92	22.9%
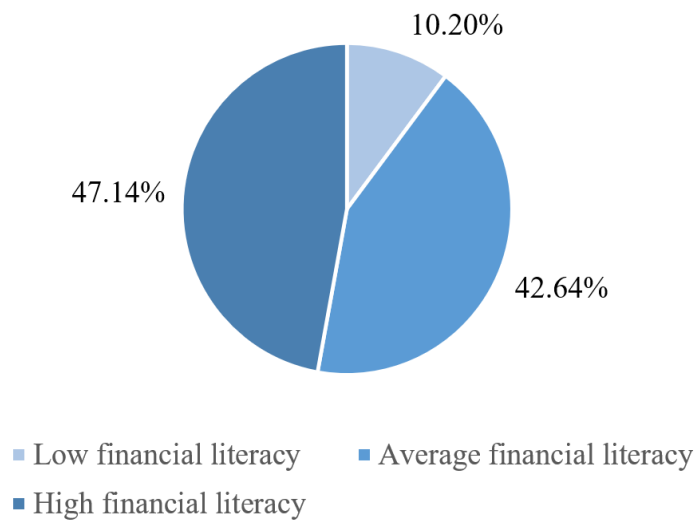
Figure 2. Levels of respondents' financial literacy.

4. EMPIRICAL RESULTS AND DISCUSSIONS

4.1. Empirical Results

4.1.1. Composite Reliability (Cronbach's Alpha)

Table 4 indicates Cronbach's alpha values for the 3 dependent variables, including ID, SB, and CB in 3 different levels of financial literacy of participants.

Table 4. Reliability of Cronbach's alpha of each financial literacy group.

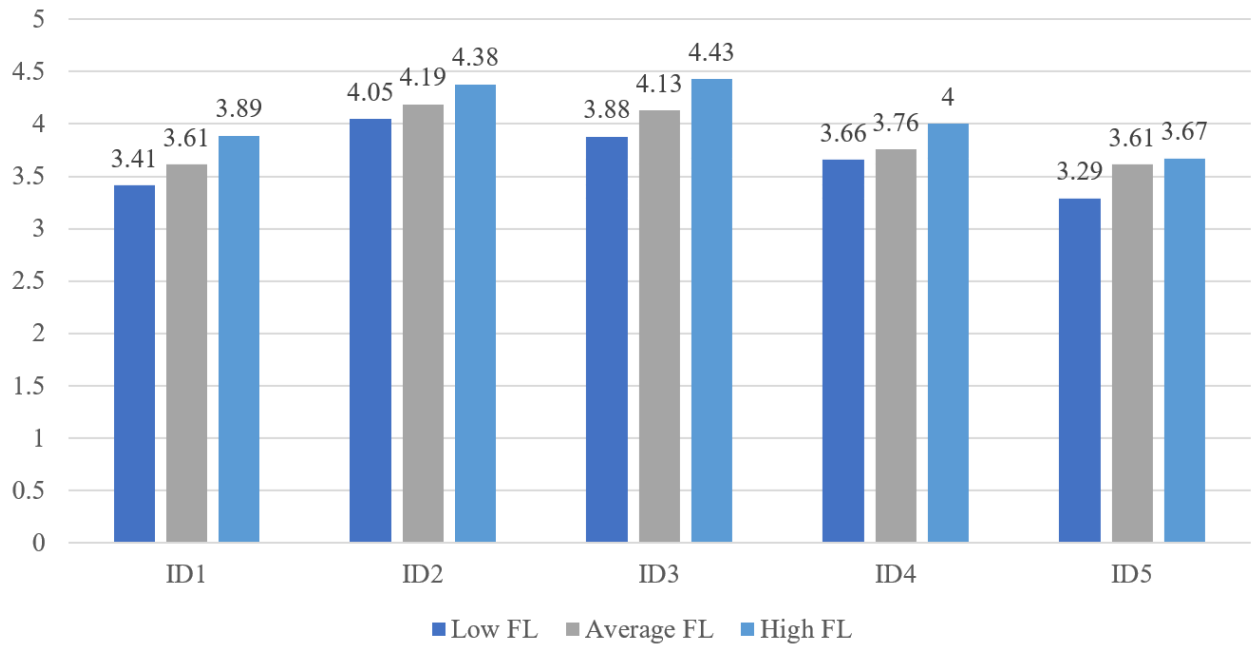| Variable	Cronbach's alpha
Low FL	
ID	0.88
SB	0.88
CB	0.76
Average FL	
ID	0.79
SB	0.89
CB	0.71
High FL	
ID	0.67
SB	0.84
CB	0.72

Figure 3. ID's indicators.

4.1.2. Impact of Financial Literacy on Investment Decisions

Figure 3 illustrates the ID's indicators of the participants according to the mean of the responses. The results indicated that the participants in the survey had a positive assessment of ID at all FL levels. Students with high FL demonstrated the highest investment desire, followed by students with medium FL and students with low FL. This can be explained by the fact that students with high FL can calculate indicators and assess financial situations more accurately, leading to more precise ID. However, students at all three levels strongly expressed a desire to invest in order to generate additional income and manage money more effectively. Additionally, many groups of students remain concerned about facing risks when investing.
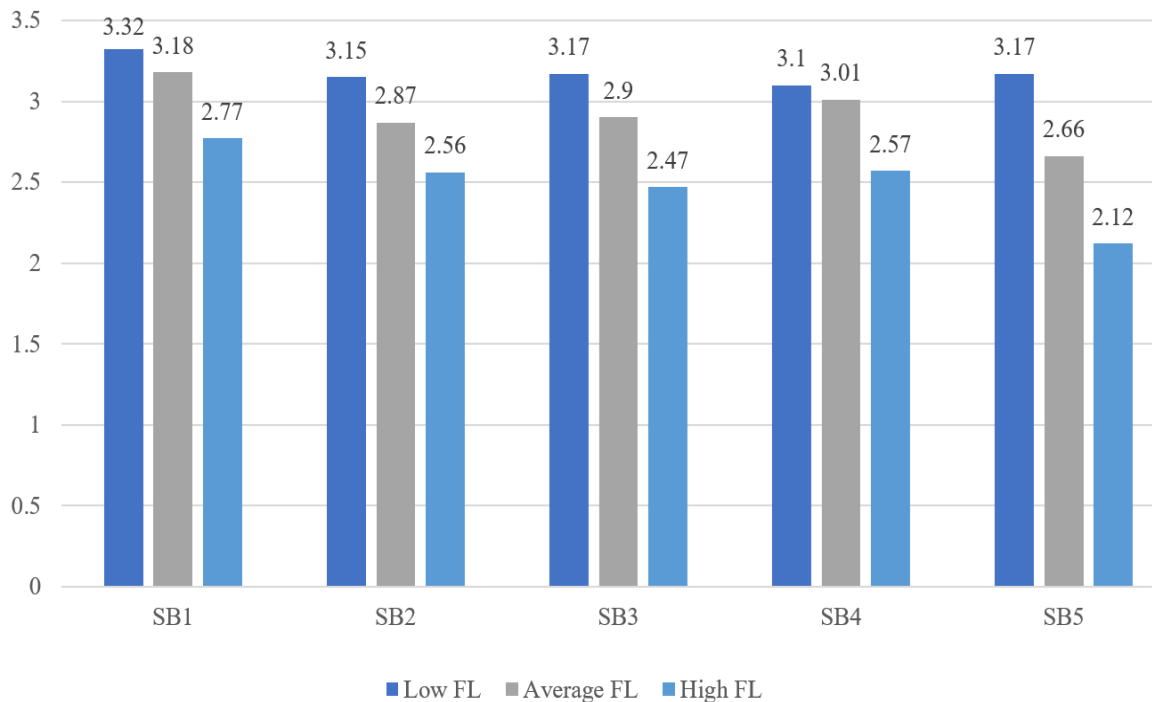

Figure 4. SB's indicators.

4.1.3. Impact of Financial Literacy on Saving Behavior

Figure 4 shows the SB's indicators of students at three levels of FL. It can be seen that students at all levels generally have neutral assessments of their saving tendencies. Specifically, students with low FL are more interested in saving and tend to maintain this habit for a long time. Additionally, the responses indicate that most students usually do not save without specific reasons. Furthermore, the SB of university students is not significantly influenced by social trends or lifestyles.
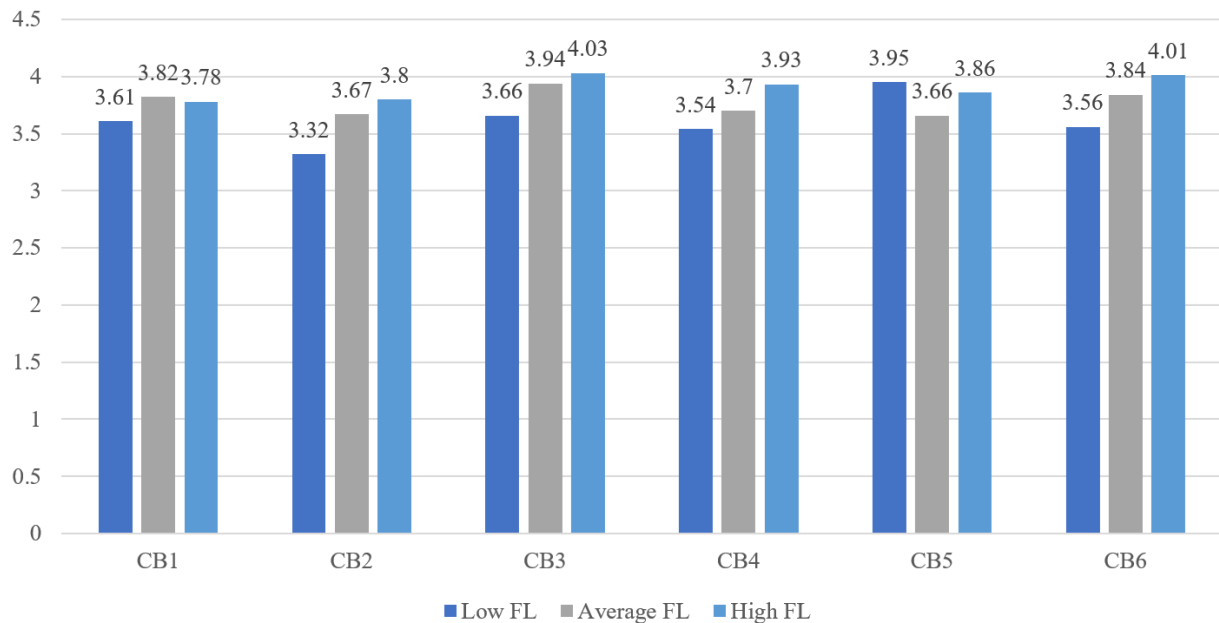

Figure 5. CB's indicators.

4.1.4. Impact of Financial Literacy on Consumption Behavior

Figure 5 shows the results of CB's indicators of the students participating in the survey. Specifically, students with a high level of FL tend to consume more carefully and often consider buying products based on personal needs more than the other two groups, low FL and average FL. Additionally, the low FL group is more likely to accept purchasing alternative products if they cannot find satisfactory options, while the group of students with an average FL tends to buy products spontaneously without much consideration.

4.2. Discussions

Based on the results, the hypotheses are concluded as follows:

Table 5. Hypothetical conclusion.

Hypothesis	Statement	Result
H1:	FL has a positive impact on the ID of university students in Hanoi city.	Accepted
H2:	FL has a positive impact on the SB of university students in Hanoi city.	Accepted
H3:	FL has a positive impact on the CB of university students in Hanoi city.	Accepted

Table 5 presents the summary of hypothesis testing results. All three proposed hypotheses are accepted, indicating that financial literacy has a statistically significant and positive influence on investment decisions, saving behavior, and consumption behavior among university students in Hanoi, Vietnam. These findings confirm the pivotal role of financial literacy in shaping students' financial actions across multiple dimensions.

4.2.1. Impact of Financial Literacy on Investment Decisions

The research results present that higher FL and higher ID for research subjects are university students in Hanoi city, and it is similar to many previous studies. In particular, according to Awais et al. (2016), FL emphasizes the positive correlation between FL and investment decision-making in young people. Study of Williams and Oumlil (2015) proved that strong FL has a positive impact on wise ID for young people. Moreover, Kumari's (2020) research on FL affecting ID of university students shows the necessary importance of improving FL and highlights the lack of FL, which causes students to pay more attention to ID. Therefore, the importance of FL for students' ID can be observed. Specifically, statements related to students investing due to the influence of surrounding individuals can easily affect them to invest, or students may still be afraid of risks, so they need to focus on constructing safe investment channels to feel secure in investing and earning the profits they desire.

Regarding investment influenced by people around, research by Phung, Tran, Nguyen-Hoang, Nguyen, and Nguyen (2023) conducted on 206 individual investors in Hanoi showed that when deciding to invest, individuals are influenced by many factors, especially market psychology. Besides, students are small investors due to low investment capital, so they tend to follow the crowd of predecessors because they believe that those investors possess a lot of information (Nguyen, Nguyen, & Vu, 2024). Moreover, risk aversion was proven to influence individual decision-making, such as fear of loss and regret (Ton & Dao, 2014).

Regarding the ability to accept risks when investing, university students in Hanoi are concerned about investing. A study by Mubaraq, Anshori, and Trihatmoko (2021) indicated that the level of risk tolerance partially influences an individual's investment decision-making. Furthermore, Falahati and Paim (2012) showed that the ability to accept investment risks tends to increase with gender and age. It can be understood that Generation Z university students are young, so their ability to accept risks is relatively low because they lack the knowledge and experience of older age groups.

4.2.2. Impact of Financial Literacy on Saving Behavior

The findings of the study provide additional confirmation of the conclusions drawn in prior research. Students at all levels of FL tend to prioritize saving when they have a clear purpose or goal in mind, rather than simply following prevailing trends or lifestyles. Mandell and Klein's (2009) investigation into the influence of FL on financial conduct similarly revealed comparable outcomes, indicating that students exhibited savings habits but were not outstanding. Accordingly, both participants and non-participants in the finance course demonstrated a moderate level of SB. Similarly, the findings from Jappelli and Padula's (2013) study suggest that FL has a limited effect on saving habits. Additionally, students with less FL are more likely to keep their saving habits. This can be explained by the reason that groups with low FL often lack the confidence to invest, so they tend to enjoy more profits from savings. Research by Dupas and Robinson (2013) shows that saving helps ensure liquidity when needed and limits the trade-off - losing money compared to investing. Furthermore, Lusardi and Mitchell (2014) studies indicate that low educational attainment can hinder good financial behaviors, including investing and saving.

Savings among university students are not high, possibly due to a number of reasons including limited income and hedonistic consumption psychology. Obviously, limited income can be a problem for a small portion of students because most of the money earned is just enough to spend. In fact, among the responses from the survey, mainly participants with income in the range of 2-3 million a month and lower want and try to save but not significantly. This may be because most of the income has been used to pay for daily living expenses such as food, rent, electricity, and water bills, along with some other expenses. Thus, there is no financial balance left for savings. In addition, Turner (2015) research shows that the stress level caused by income disparity among residents is increasing, leading to challenges in financial management. It is clear that considering spending so as not to fall short is difficult; it is even more difficult to spend extra to save.

According to research results by Binh (2011), the average monthly spending of Vietnamese people is on the rise. Life's needs gradually upgrade from "enough food and clothing" to the desire to enjoy services, playing, and entertainment. Additionally, Tunsakul (2020) researched that the development of online shopping greatly affects shopping and spending decisions. In particular, the hypothesis that the desire for enjoyment has a strong influence on purchasing decisions is significant. The group of university students who have access to technology and the internet every day are easily attracted to shopping deals. This leads to quick decisions about immediate spending to satisfy the desire for enjoyment.

4.2.3. Impact of Financial Literacy on Consumption Behavior

The results of several descriptive assessments, which evaluate the influence of FL on CB among university students, show that FL has a significant positive impact on CB. This indicates that the higher the FL level of students, the lower their consumption tendency. If students have good FL, they can manage their finances effectively through CB. Specifically, when students understand cash flow, they can create a reasonable budget and allocate spending scientifically for necessary items such as tuition, food, housing, and travel, thereby avoiding wasteful consumption to benefit their future (Barr & McClellan, 2018). In addition, students with FL also understand the critical role of saving and investing for the future, instead of wasting money on unnecessary things, so they will often spend more cautiously. Furthermore, students with FL will be cautious of attractive offers and "virtual" advertising and adjust their impulsive CB. From there, students know how to evaluate risks before making purchasing decisions to bring maximum benefits to themselves (Lusardi & Mitchell, 2014).

Finally, FL helps students determine specific financial goals for themselves, including buying a house and traveling. This study also reinforces previous theoretical views that there is an influence between FL and students' CB. However, research by Udayanthi, Herawati, and Julianto (2018) concluded that FL negatively affects consumer behavior, and that the quality of learning and self-control influence CB. Additionally, the study by Endah, Daryanti, and Hati (2017) found that a person's ability to determine whether financial actions are appropriate or not is related to CB, and students with higher levels of FL tend to have lower CB levels.

The results of this research are also consistent with studies by Nguyen (2017) and Morgan and Trinh (2017) that assessed the financial literacy levels of urban youths and other studies conducted in two low-income countries. Nguyen (2017) found that individuals demonstrating higher financial literacy levels were less likely to overspend, more likely to save money, and to spend and invest more carefully. However, this study focused on students in Hanoi, and so far, no other studies with similar research subjects have been conducted for objective comparison. Therefore, subjectivity in the research results remains due to the scope and research subjects, which may serve as a basis for future research on this topic.

5. CONCLUSIONS AND RECOMMENDATIONS

The findings show that FL has a positive impact on FB. Having good FL helps university students in Hanoi to manage their finances better and adopt more reasonable financial behaviors. This research proposes several recommendations to improve students' FL and facilitate effective financial behaviors:

First, to improve financial literacy, students should learn more about personal finance through reading books, newspapers, and mass media to understand basic financial concepts such as debt management, investing, saving, and budgeting, which ensure students have strong financial knowledge to develop appropriate financial behaviors according to their income and level of knowledge. Additionally, students should explore free courses or workshops on personal finance offered by reputable institutions, such as their university or recognized organizations, to enhance their financial knowledge. Furthermore, students need to participate in online forums to gain more experience and learn from predecessors who share their knowledge, thereby gradually expanding their understanding of investing, saving, and consumption.

Second, students need to use financial management applications to help them track daily budgets, manage spending, and save money, which supports students in avoiding indiscriminate use of money and encourages wise use for the right purposes. Furthermore, students need to continuously update and evaluate their knowledge in the field of finance because finance changes frequently. Continuous updating will help students ensure that their financial decisions regarding investing and saving are reasonable and optimal for their budgets.

Third, to make reasonable investment decisions, students should join investment groups or clubs on campus or in the community to have the opportunity to learn from experienced individuals and share information about potential investment opportunities. Moreover, the clubs regularly organize investment seminars, which help students better understand investment strategies and risk management. Furthermore, students should read books, articles, and follow reputable investment information channels to stay updated and analyze market conditions for more effective investing.

Fourth, students need to identify specific goals and establish a plan to achieve those goals. Additionally, students can seek advice from financial experts to receive professional guidance and can customize their investment plans according to each specific case.

Fifth, students should pay attention to low-risk investments such as ETFs (exchange-traded funds), savings funds, or government bonds. These types of investments often have lower risks than direct investments in stocks or real estate, which ensures minimal risk for students, especially those just starting to learn how to invest.

Sixth, to avoid wasteful consumption, students should create a monthly spending plan and adhere to it. This helps students prevent overspending on unnecessary items. Additionally, students should look for promotions and product incentives rather than seeking alternative products. Furthermore, students need to carefully consider product details, quality, and value when shopping to avoid purchasing poor-quality items that do not meet their needs.

Finally, universities should design and integrate tailored financial education programs into their training curricula, taking into account the diverse levels of students' financial literacy. The findings of this study reveal that students with a high level of financial literacy exhibit a greater inclination toward investment activities and complex consumption behaviors, while students with lower financial literacy primarily emphasize saving practices. Additionally, the differentiated educational approach in universities ensures all students receive relevant, impactful financial education, thereby enhancing their overall financial decision-making abilities.

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APPENDIX

Appendix 1. List of Universities in the research sample.

No.	University name
1	Vietnam National University, Hanoi
2	Hanoi University of Science and Technology
3	National Economics University
4	Foreign Trade University
5	Hanoi Medical University
6	Hanoi National University of Education
7	University of Languages and International Studies
8	University of Social Sciences and Humanities
9	University of Science
10	University of Engineering and Technology
11	Hanoi University
12	National University of Civil Engineering
13	Electric Power University
14	Thuyloi University
15	Hanoi University of Mining and Geology
16	Hanoi University of Pharmacy
17	Hanoi University of Public Health
18	Hanoi University of Industry
19	Hanoi Architectural University
20	Hanoi University of Culture
21	Hanoi University of Business and Technology
22	University of Transport and Communications

No.	University name
23	University of Natural Resources and Environment
24	Vietnam National University of Agriculture
25	Hanoi Law University
26	University of Labour and Social Affairs
27	University of Economics and Technology for Industries
28	Hanoi Open University
29	University of Finance and Marketing
30	University of Fine Arts