

**A KEY SUCCESS FROM EDUCATING WEALTH MANAGEMENT TO
REDUCE HOUSEHOLD DEBT IN VIETNAM**

by

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DISSERTATION

Presented to the Swiss School of Business and Management Geneva

In Partial Fulfillment

Of the Requirements

For the Degree

DOCTOR OF BUSINESS ADMINISTRATION

SWISS SCHOOL OF BUSINESS AND MANAGEMENT GENEVA

November, 2025

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ACKNOWLEDGMENTS

I wish to express my deepest gratitude to all who supported the completion of this dissertation.

First and foremost, I am profoundly indebted to my supervisor, Prof **Dmytro Kylymnyuk** at the Swiss School of Business and Management (SSBM), Geneva, for their unwavering guidance, insightful critiques, and steadfast encouragement throughout this challenging yet rewarding journey. Their expertise and mentorship have been instrumental in shaping this research.

My sincere appreciation extends to the Swiss School of Business and Management (SSBM) for providing a rigorous academic environment and the resources necessary to undertake this doctoral program.

I extend my sincere appreciation to SSBM, the participating universities, youth unions, and the experts Assoc. Prof. Dr. Le Thi Thu Thuy, Assoc. Prof. Dr. Bui Duc Tuan, MSc. Dang Dinh Khanh, and MSc. Nguyen Thi Ngoc Oanh for sharing their invaluable insights. A special thanks to the 722 survey participants for their time and contributions. To my colleagues and friends, thank you for your support.

Finally, I reserve my most profound thanks for my family. Your boundless love, patience, understanding, and unwavering belief in me have been my greatest source of strength. This achievement is as much yours as it is mine.

Sincerely,

DOAN THANH THUYEN

Date: 30/10/2025

ABSTRACT

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2025

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Rising household debt poses a significant threat to Vietnam's financial stability and citizen well-being. This dissertation identifies educating wealth management as a crucial micro-level solution for mitigating household debt risks. Conceptualizing wealth management education as building foundational knowledge, skills, and confidence for effective personal financial management, with financial literacy at its core, this research examines how enhancing wealth management capabilities contributes to sustainable debt reduction among young adults (18-35 years old) in Vietnam.

The study employs a mixed-methods approach, featuring a quantitative survey of 722 young adults in Vietnam's major urban centers and in-depth interviews with banking and financial education experts. Grounded in an integrated theoretical framework combining the Theory of Reasoned Action, Theory of Planned Behavior, and Life-Cycle Hypothesis, the research reveals that wealth management education, particularly the development of subjective financial literacy (financial self-efficacy), is the strongest predictor of positive financial behavior ($\beta = 0.659$, $p < .001$).

The model explains 58.4% of the variance in financial behavior, underscoring the power of education. A critical insight is that knowledge alone does not directly shape debt attitudes; instead,

practical, confidence-building wealth management education is essential to translate knowledge into prudent financial actions. Qualitative evidence confirms that the current lack of a formal, national wealth management education program is a systemic gap, correlating with rising non-performing loans among young borrowers.

The study concludes that the key success for reducing household debt in Vietnam lies in institutionalizing comprehensive wealth management education, with a dedicated focus on strengthening financial literacy. This requires a synergistic strategy involving the state, educational institutions, and the banking sector to equip individuals with the skills not just to borrow, but to build and manage wealth responsibly.

Keywords: Wealth Management Education, Household Debt, Financial Literacy, Financial Behavior, Debt Reduction, Vietnam, Young Adults, Theory of Planned Behavior.

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CHAPTER I INTRODUCTION

1.1. Introduction

Over the past decade, Vietnam has been one of the fastest-growing economies in Southeast Asia. According to the General Statistics Office (2024), Vietnam's GDP grew by 5.05% in 2023, although lower than the target of 6.5%, it remained among the highest in the region. The GDP per capita reached approximately USD 4,284, nearly triple the USD 1,520 recorded in 2010 (World Bank, 2023).

However, this growth has been accompanied by a sharp increase in Household Debt. According to CEIC (2024), Vietnam's Household Debt accounted for 63.2% of GDP, up substantially from 25% in 2013, ranking among the highest in the ASEAN region, second only to Thailand. The State Bank of Vietnam (SBV) also reported that consumer and retail credit made up about 45% of total system loans in 2023, with an average growth rate exceeding 20% per year during 2017–2023 (SBV Annual Report, 2024).

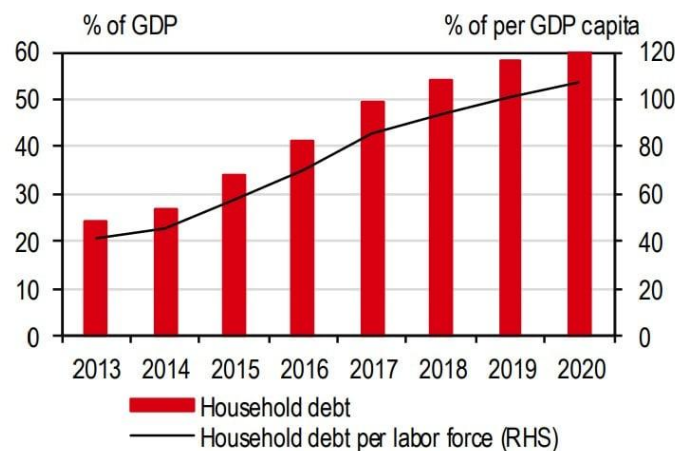


Figure 2.1.1.1. Trend of Household Debt to GDP in Vietnam (2013 – 2020)

Source: HSBC (2021), "The Hanoi Times" (12 May 2021).

Of particular note, young adults aged 18–35 currently account for 39.8% of Vietnam’s population (GSO, 2024). This is a dynamic and highly consumptive demographic group, yet they are financially vulnerable due to insufficient basic Financial Literacy. A Visa (2023) report revealed that 82% of young Vietnamese had used personal credit or “Buy Now Pay Later (BNPL)” services in the past 12 months, and 63% of them were unaware of the actual interest rates or repayment terms.

In response to this challenge, a paradigm shift from mere credit access to holistic personal wealth management capability is imperative. For young adults starting their financial journey, good wealth management is not about complicated investments. It focuses on understanding basic financial concepts, developing sensible attitudes towards debt, and practicing responsible financial behaviors like budgeting, saving, and borrowing wisely. This study sees wealth management education as the main strategy, with improving financial literacy as its key foundation. This approach aims to help young Vietnamese navigate today's credit landscape and achieve lasting financial health.

After COVID-19, many households faced interruptions in income and rising consumption demands, which led them to borrow money to maintain their basic living standards. At the same time, the quick rise of financial companies, digital banks, and online lending platforms (fintech lending) has made it easier than ever to access credit. This has led to a growing share of unsecured consumer loans, especially among young people aged 18–35 an active yet financially inexperienced group.

The rate of personal non-performing loans (NPLs) has also risen. According to SBV (2024), the on-balance-sheet NPL ratio reached 3.6% by the end of 2023; including potential and transferred debts to the Vietnam Asset Management Company (VAMC), the figure could reach 5.1%, with

individual loans accounting for nearly 30% of total NPLs, up from 18% in 2019. These figures reflect risks arising from rapid credit expansion without corresponding financial capability.

The surge in Household Debt not only affects macroeconomic stability but is also closely associated with Financial Literacy, attitudes toward debt, and Financial Behavior. Numerous international studies have shown that low Financial Literacy leads to uncontrolled borrowing, poor investment decisions, and long-term financial risks (Lusardi & Mitchell, 2014; OECD/INFE, 2021).

Moreover, in the post-COVID-19 period, the Government issued Circular 02/2023/TT-NHNN on debt restructuring, allowing affected borrowers to retain their debt classifications. While this policy temporarily eased liquidity pressures, it also delayed the recognition of actual NPLs, leading to potential moral hazard in borrowing behavior. However, this measure serves merely as a temporary relief, not a structural solution to credit quality and personal financial capability issues. Debt restructuring postpones repayment pressure but does not enhance borrowers' actual repayment ability if their income has not recovered and their Financial Behavior remains unchanged. Once the policy expires, the risk of a “*debt overhang effect*” may re-emerge, particularly among low-to-middle-income consumer borrowers.

Furthermore, the rapid growth of fintech, digital banking, and P2P lending/BNPL services has transformed young people's Financial Behavior. According to the Fintech Vietnam Report (2024), over 70 fintech lending companies are currently operating in Vietnam, with BNPL providers (e.g., Kredivo, Fundiin, Home PayLater...) reporting average user growth of 200% per year. While fintech has enhanced financial inclusion, most users lack understanding of Annual Percentage Rate (APR) and late-payment penalties, thereby increasing the risk of over-indebtedness.

In parallel, the informal credit market (loan sharks) continues to thrive in various forms, especially through disguised online lending applications. According to SBV (2023), approximately 20–25% of personal consumer credit demand remains unmet by the formal financial system, forcing many particularly low-income and young individuals to seek informal credit.

Many illicit online lending applications advertise “*quick loans without collateral*” yet in reality, they impose annual interest rates of 100–300%, and in some cases, even 700–1,000% (Ministry of Public Security, 2023; VTV, 2024). These platforms are typically anonymous, unlicensed, and use unethical debt-collection practices (threats, harassment, defamation), leading to significant social and psychological consequences.

Research by the World Bank (2023) and OECD/INFE (2021) indicates that in developing economies, low Financial Literacy and limited access to formal credit are key reasons why individuals resort to informal lending. Vietnam exemplifies this: while 78% of adults have a bank account or e-wallet, only 38% fully understand loan terms and financial obligations (World Bank, 2023).

The coexistence of legitimate fintech and shadow credit creates a multi-layered borrowing environment. Young people can easily access multiple sources of credit, but they lack tools to assess their financial capacity or identify potential risks. Without proper oversight, this can lead to a cycle of debt, increasing the chances of over-indebtedness and threatening both household financial security and the stability of the banking system.

Thus, Vietnam is entering an era of rapid consumer finance expansion, but financial capability particularly among the youth has not kept pace. According to OECD/INFE (2021), the average

Financial Literacy score in Vietnam is 12.3 out of 21, lower than the OECD average of 14.8, with those under 35 scoring the lowest.

To move toward sustainable solutions, international experience identifies three long-term approaches:

- a) Enhancing Financial Literacy and personal financial management skills;
- b) Developing transparent credit data infrastructure and legal frameworks;
- c) Expanding access to formal credit while controlling informal lending

(Source: OECD, 2021; IMF, 2023).

However, the present study focuses exclusively on the first approach financial education and literacy enhancement, regarded as the foundation for cultivating sustainable Financial Behavior.

International evidence confirms that financial education plays a central role in improving individual Financial Behavior, enabling people to understand borrowing costs, interest rates, debt risks, and to plan finances more effectively (Lusardi & Mitchell, 2014; Xu & Zia, 2012; OECD/INFE, 2021).

According to OECD/INFE (2021), countries that introduced financial education early, beginning at the school level such as the UK, the US, South Korea, and New Zealand recorded significant improvements in savings rates, debt management, and responsible credit use.

From a behavioral economics perspective, enhancing Financial Literacy not only increases knowledge but also positively influences attitudes and behavioral intentions, consistent with Ajzen's (1991) Theory of Planned Behavior (TPB).

In Vietnam, improving Financial Literacy has become even more essential since most young people lack budgeting, credit assessment, and debt management skills. OECD/INFE (2021)

reports that only 38% of Vietnamese understand the concept of compound interest a core component of borrowing cost assessment.

Therefore, this study aims to analyze the level of Financial Literacy among young Vietnamese, examine the interrelations between literacy attitude borrowing behavior, and propose financial education as a key instrument to mitigate Household Debt risk and strengthen micro-financial stability.

1.2. Research Problem

The rapid increase in Household Debt illustrates two contrasting aspects of development:

On one hand, it reflects the growing level of financial inclusion.

On the other hand, it can create risks for household financial stability if borrowers do not fully understand the costs, interest rates, and their own ability to repay.

In Vietnam, most existing research focuses on macroeconomic dimensions (credit growth, NPL ratios, monetary policy), while micro-level aspects individual Financial Behavior remain underexplored. This gap is particularly pronounced among young adults (18–35 years old), the leading group in consumer borrowing and fintech adoption, yet the most financially vulnerable due to low Financial Literacy.

International studies reveal a strong link between Financial Literacy, attitudes toward debt, and Financial Behavior. According to Lusardi and Mitchell (2014), higher Financial Literacy enables individuals to make more rational borrowing, saving, and investment decisions, whereas poor literacy leads to uncontrolled borrowing and long-term financial risk (Disney & Gathergood, 2013; OECD, 2021).

However, in Vietnam, there is limited empirical research simultaneously examining the relationships between subjective and Objective Financial Literacy, attitudes, and borrowing behavior.

Hence, the central research question arises:

“How does Financial Literacy among young Vietnamese influence their attitudes toward debt and Financial Behavior?”

This question carries significant practical implications amid rising Household Debt, increasing retail NPLs, and a financial system transitioning toward full digitalization.

At the same time, there is a lack of evidence showing how Financial Literacy, debt attitude, and positive Financial Behavior interact in Vietnam. This limits the ability to design effective financial education policies for youth.

1.3. Purpose of Research

This study aims to examine how Financial Literacy affects borrowing behavior and personal financial management among Vietnamese youth. This is important in a context where consumer credit is growing quickly, digital financial services are increasing, but individual financial skills are still low.

The rise of consumer lending from banks and finance companies, as well as BNPL and P2P lending, has made it easier to access credit. However, it has also increased the risk of financial imbalance for those who do not understand borrowing costs, interest rates, and their ability to pay back loans.

Therefore, this study aims to assess the relationships among Financial Literacy, Attitude toward Debt, and Financial Behavior, while identifying how demographic factors affect these relationships in modern Vietnam.

Specifically, the study pursues four core objectives:

a) Assess the level of Financial Literacy (subjective and objective) among young people.

Objective Financial Literacy is measured by understanding of key financial concepts interest rate, inflation, risk, diversification, and opportunity cost of credit while subjective literacy captures self-perceived confidence in personal financial management. Distinguishing these two dimensions helps identify the “perception gap” (Lusardi & Mitchell, 2014; Atkinson & Messy, 2012), where individuals overestimate their knowledge but make erroneous borrowing decisions.

b) Analyze the relationship among Financial Literacy, Attitude toward Debt, and positive Financial Behavior. Financial Literacy → Attitude toward Debt → Positive Financial Behavior.

The study clarifies both direct and indirect mechanisms through which Financial Literacy influences borrowing behavior via attitude. This objective helps validate theories and identify key factors that affect personal financial sustainability among youth.

c) Identify factors that influence borrowing behavior among young Vietnamese.

This study examine differences in gender, age, education, occupation, and income in relation to literacy, attitudes, and borrowing behavior. These analyses help identify financially vulnerable groups and provide a foundation for focused educational or policy interventions.

d) Propose policy recommendations to improve financial literacy and promote sustainable financial behavior.

Based on the findings, the study suggests tailored financial education programs that are suitable for the characteristics of young Vietnamese. This can help build a strong financial culture, encourage responsible financial decision-making, reduce bad debts, and strengthen financial independence.

1.4. Significance of the Study

This study aims to contribute to both academic research and practical applications in personal finance, especially in Vietnam, a rapidly digitizing emerging economy.

a) Theoretical Contributions:

- This study fills a crucial gap in the behavioral finance literature by presenting evidence on the relationship between financial literacy, attitude toward debt, and financial behavior in Vietnam. Most existing research focuses on developed economies like the US, UK, Australia, and OECD countries, while evidence from emerging economies such as Vietnam is limited. By analyzing survey data from Vietnamese youth, this research provides new insights for Southeast Asia and clarifies how cognitive understanding interacts with attitudes and behaviors in financial decision-making.
- Extension of behavioral theories in personal finance research. The study integrates Ajzen's (1991) Theory of Planned Behavior (TPB) with the Life-Cycle Hypothesis (LCH) by Modigliani & Brumberg (1954) to explain how individuals allocate income, borrow, and consume across life stages. This framework helps to examine how behavior spreads in a social and cultural context. Norms, trust, and social values play a major role in shaping financial decisions. It also highlights the role of subjective Financial Literacy often neglected in traditional models as a mediating variable influencing actual behavior.
- Development and validation of a context-specific behavioral model for Vietnam. The proposed integrated model adapts measurement scales from OECD/INFE (2021) and Lusardi & Mitchell (2014) to the Vietnamese socio-cultural context. Statistical reliability and validity are confirmed through Cronbach's Alpha, KMO/Bartlett's Test, Exploratory Factor Analysis (EFA), and

multiple regression analysis. The resulting model contributes both to theoretical refinement and to a reusable measurement tool for future studies in Vietnam.

- Filling the research gap in behavioral finance. While traditional finance emphasizes technical and economic variables, this dissertation underscores behavioral, psychological, and cognitive factors, aligning with modern Behavioral Economics. Differentiating between objective and subjective literacy reveals the critical “gap between knowing and thinking one knows” a pivotal insight for designing financial policies and educational communication.

b) Practical Contributions:

- Contribution to national financial policy-making. Empirical results provide evidence to support institutions such as SBV, Ministry of Finance, and Ministry of Education and Training in developing a National Financial Education Strategy. Insights into gender, income, and age disparities can inform targeted financial education programs.
- Contribution to credit institutions and financial firms. Findings help banks, finance companies, and fintechs better understand young customers a segment with high growth potential but elevated credit risk. This can guide product design, improve transparency, and integrate financial education into the customer journey as a behavioral risk-mitigation tool.
- Contribution to education and social communication. The findings can serve as reference material for universities and high schools to incorporate personal finance education into curricula. Moreover, dissemination through digital and social media platforms (TikTok, Facebook, YouTube...) can raise public awareness about borrowing risks, loan sharks, and the importance of savings.
- Enhancing community financial awareness and behavior. The study promotes the notion of responsible finance, encouraging youth to cultivate habits of saving, rational spending, and

planned borrowing. This supports national objectives of financial inclusion and micro-financial stability.

1.5. Research Questions

Drawing from the objectives above, the dissertation addresses the following key research questions:

Research Question 1: What factors influence the borrowing behavior of young Vietnamese?

Research Question 2: How does Financial Literacy affect attitudes toward debt and Financial Behavior?

Research Question 3: Do gender, income, and education differences affect borrowing behavior and Financial Literacy?

CHAPTER II

LITERATURE OF REVIEW

2.1. Theoretical Framework

The theoretical framework forms the foundation of this study by explaining **how Financial Literacy (FLT), Attitude toward Debt (ATD), and Financial Behavior (BEH)** are interrelated. It combines key theories **Theory of Reasoned Action (TRA), Theory of Planned Behavior (TPB), Life-Cycle Hypothesis (LCH), and Behavioral Finance** to provide a comprehensive view of household financial decision-making.

TRA and TPB explain behavioral intentions through psychological and social factors. LCH offers an economic perspective on how individuals borrow, save, and spend across their life stages. Behavioral Finance complements these theories by addressing cognitive biases and emotional influences that affect rational decision-making.

By integrating these perspectives, this study develops a holistic model linking financial literacy to attitudes and behaviors toward debt, providing a theoretical basis for analyzing household debt management among young Vietnamese consumers.

2.1.1. Household Debt and Consumer Credit

a) Household Debt is understood as the total financial obligations that households or individuals must repay in the future for loans, credit, or other debt instruments arising from the use of financial services. According to the OECD (2021), Household Debt, including mortgage loans and consumer credit, is measured by the outstanding balance at the time of the statistics.

According to the International Monetary Fund (IMF, 2023), Household Debt reflects the level of financial leverage in the household sector and is one of the important indicators for assessing the

micro and macro financial stability of an economy. The IMF recommends monitoring the Household Debt-to-GDP Ratio as an early warning indicator of systemic risk: a ratio exceeding 65–70%. GDP is often associated with rising non-performing loans and declining consumption during periods of financial crisis (Cecchetti et al., 2011; IMF, 2023).

At the individual level, Household Debt reflects the borrower's periodic debt service obligations relative to their income-generating capacity, which is assessed thru the following important micro indicators:

- **Debt to Income Ratio (DTI):** represents the total current debt balance compared to total monthly/annual income. A safe DTI level is generally below 40–45%; a level exceeding 60% is considered a sign of insolvency risk (World Bank, 2022).

- **Payment to Income Ratio (PTI)** – Monthly debt payment to income ratio: reflects the monthly payment for debt (principal + interest) compared to net income. This indicator is commonly used to assess new borrowing capacity.

- **Loan to Value Ratio (LTV)** – The ratio of the loan amount to the value of the collateral: primarily used for mortgage loans (houses, cars). According to Basel III standards, a safe LTV ratio is typically < 80%.

- **Debt Service Ratio (DSR)** – The ratio of periodic debt obligations to total disposable income, including both consumer and mortgage debt; it is a composite indicator that assesses the Household Debt burden.

These indicators are important tools for assessing household financial sustainability and default risk. When DTI or DSR exceeds safe limits, households are more likely to fall into a state of over-indebtedness a situation where debt obligations exceed actual repayment capacity, leading to financial stress or non-performing loans (Disney & Gathergood, 2013; OECD, 2021).

- **Classification of Household Debt**

According to the Bank for International Settlements (BIS, 2022) and the OECD (2021),

Household Debt is divided into three main categories:

- **Mortgage Debt:** Includes loans used to purchase, build, or renovate real estate (homes, land).

This is the type of debt that accounts for the largest share of Household Debt in developed economies (often > 60%), characterized by long terms and fixed or floating interest rates.

In Vietnam, outstanding loans for housing purchases and renovations account for approximately 45% of total retail loans (SBV, 2024).

- **Consumer Credit:** Includes loans for personal spending, purchasing durable goods, healthcare, education, travel, or living expenses. This type of debt increased rapidly with the development of retail banking and consumer finance companies.

Common forms include:

Unsecured loans (personal loans, cash loans), Credit cards, Buy Now Pay Later (BNPL), Account overdrafts, P2P (peer-to-peer) lending.

According to Visa (2023), approximately 82% of young Vietnamese people (aged 18–35) have used at least one form of consumer credit in the past 12 months.

- **Informal Debt:** Includes loans outside the formal financial system, such as borrowing from relatives, friends, or unlicensed credit institutions ("black market credit").

Although this debt group typically accounts for a smaller proportion, it poses a high risk due to non-transparent interest rates (potentially exceeding 100–300% per year) and a lack of mechanisms to protect borrowers (Ministry of Public Security, 2023).

A World Bank study (2023) indicates that in Vietnam, approximately 20–25% of consumer loan demand remains unmet by formal channels, leading to the sustainable existence of informal credit.

b) Consumer credit is a form of credit granted to individuals or households for the purpose of spending, shopping, or improving living standards, rather than for production or business purposes (World Bank, 2018). Characteristics of consumer credit:

- Small scale, short to medium term (3–60 months).
- Interest rates are usually higher for business credit due to the greater personal risk.
- Heavily reliant on income assessment, credit history, and repayment ability rather than collateral.
- High flexibility, many forms: credit cards, installment loans, online consumer credit, BNPL, P2P lending...
- Easily influenced by consumer behavior, advertising, and socio-psychological factors.

- **The Role and Risks of Consumer Credit in the Economy**

Positive role:

- Promote domestic consumption, contributing to GDP growth (World Bank, 2018).
- Improve quality of life by allowing people to access goods and services before they have enough money..
- Expand financial inclusion to help the unbanked population access capital.
- Promote the growth of retail banking and fintech to drive innovation in financial products.

Potential risks:

- Increased household debt burden, especially when interest rates are high or income drops.
- Increased non-performing loans in the banking system if credit standards are lax.
- Moral hazard when customers rely on debt relief or restructuring programs.
- The risk of black market credit and disguised fintech, with exorbitant interest rates and unethical debt collection methods.

According to the State Bank of Vietnam (2024), by the end of 2023, consumer credit in Vietnam accounted for nearly 25% of total system-wide credit, but it was also the fastest-growing sector with the highest non-performing loan ratio (over 4%). Overheated growth in consumer credit, if not accompanied by improved Financial Literacy, will pose a risk of spreading to macroeconomic stability.

- **Subsection Conclusion**

Household Debt and **Consumer Credit** are two key concepts in the study of personal Financial Behavior. In Vietnam, the fast growth of retail credit and the move to digital finance have given young people access to capital. However, this has also increased the risks of personal financial imbalance. Therefore, studying the relationship between Financial Literacy, attitudes, and borrowing behavior is necessary for the sustainable development of the personal credit market.

2.1.2. Financial Literacy

- **Concept and Origin of Formation**

Financial Literacy (FLT) is considered one of the central concepts in personal finance and behavioral economics, reflecting the extent to which an individual understands, analyzes, and applies financial concepts in making personal financial decisions.

According to the OECD/INFE definition (2021), Financial Literacy is "*knowledge and understanding of financial concepts, skills, motivation, and confidence that enable individuals to make effective financial decisions and achieve financial well-being.*"

Similarly, the World Bank (2018) defines Financial Literacy as "*the combination of awareness, knowledge, attitudes, and behaviors necessary to make sound financial decisions that enhance individual and social well-being.*"

From a behavioral perspective, Lusardi & Mitchell (2014) view FLT as *"the ability to understand and use financial information to make responsible financial decisions in the areas of saving, investing, borrowing, and risk management."*

Thus, Financial Literacy is not just knowledge, but also includes application skills, attitude, and confidence. Therefore, FLT is a multidimensional construct, combining cognitive ability and practical behavior.

- **Components of Financial Literacy**

Most current projects separate FLT into two main components:

- **Objective Financial Literacy**

This is the individual's actual level of understanding of financial concepts and principles.

According to Atkinson & Messy (2012), objective FLT is measured thru questions assessing comprehension ability:

- + Simple and compound interest;
- + The impact of inflation and the real interest rate;
- + The relationship between risk and return (risk-return tradeoff);
- + The principle of portfolio diversification;
- + Calculate present value and opportunity cost.

Objective FLT is a measure of "actual knowledge" assessed thru standardized tests (true/false or multiple-choice questions). Studies by Lusardi & Mitchell (2011, 2014) show that only 30–40% of adults in OECD countries correctly answer all three basic questions about compound interest, inflation, and risk. This rate is significantly lower in Vietnam only about 25% (OECD/INFE, 2021).

- **Subjective Financial Literacy**

It is the level of confidence or personal perception of one's own financial abilities referred to as self-perceived financial competence or financial self-efficacy.

According to Allgood & Walstad (2016), FLT subjectively reflects an individual's belief that they can effectively manage their finances and achieve financial goals.

Unlike objective FLT, subjective FLT is often measured using a Likert scale (1–5 or 1–7), through questions such as:

“ I am confident in my ability to manage my spending; I clearly understand how interest rates affect my loan; I can accurately assess repayment ability.”

Subjective norms are psychological and cognitive in nature, reflecting motivation and behavioral intention, and are an important mediating variable in Ajzen's (1991) Theory of Planned Behavior (TPB) model.

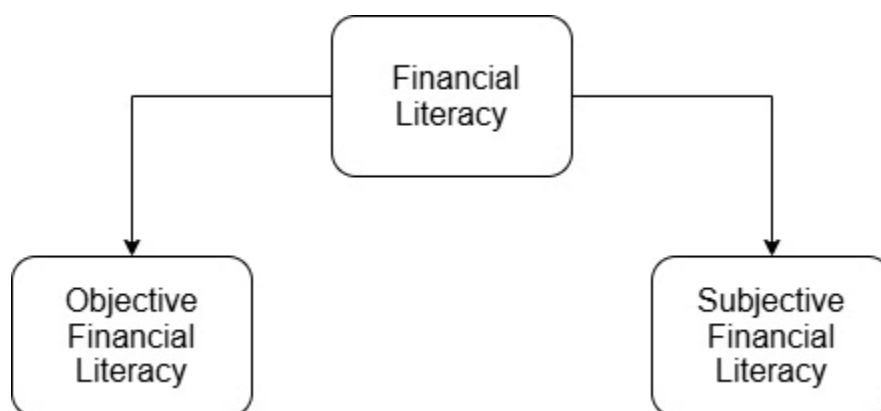


Figure 2.1.2.1. Components of Financial Literacy

- **How to measure Financial Literacy**

OECD/INFE (2012; 2021) developed a Financial Literacy measurement framework (the OECD/INFE Toolkit), consisting of three pillars:

- Financial Literacy: Consists of 8-10 multiple-choice questions testing interest rates, inflation, risk, and investment allocation. Objective score calculated based on the percentage of correct answers.

- Financial Behavior: Practical Assessment: budgeting, saving, debt repayment, choosing financial products.

- Financial Attitude: Measure beliefs, values, and attitudes about spending, saving, and debt.

This toolkit has been applied in over 40 countries and has become the international standard for measuring the Financial Literacy Index (FLI).

In Vietnam, according to OECD/INFE (2021), the average FLT score is 12.3/21, which is lower than the global average (14.8/21), and particularly low among those under 35.

Beside the OECD, several other academic works use the extended measurement method:

+ Lusardi & Mitchell (2014): 5–10 quantitative questions + an attitude scale.

+ van Rooij, Lusardi & Alessie (2011): divided Financial Literacy into basic and advanced, with the advanced part relating to investment and securities knowledge.

+ Allgood & Walstad (2016): used both objective and subjective FLT variables to assess the "financial capability gap" (the difference between knowing and thinking one knows).

- **The Role and Consequences of Financial Literacy**

- For Individuals High Financial Literacy (FLT) helps individuals:

+ Understand the true cost of the loan (APR – Annual Percentage Rate, TAE – Tasa Anual Equivalente).

+ Accurately assess the risk of compound interest and avoid the "debt spiral."

+ Develop a reasonable budget and contingency savings plan.

+ Choose an investment channel that suits your risk tolerance.

Conversely, low Financial Literacy (FLT) is often associated with unplanned borrowing

behavior, late payments, dependence on short-term credit, and long-term financial risk (Lusardi & Tufano, 2009; Disney & Gathergood, 2013).

- For households and society

According to the OECD (2021), low Financial Literacy leads to:

- + Increased household bad debt and macroeconomic imbalances.
- + Reduced effectiveness of monetary policy transmission.
- + Hinders the goal of financial inclusion.

Conversely, financial education has been shown to have a positive impact on Financial Behavior and social well-being. Xu & Zia (2012) synthesized over 30 experimental studies showing that financial education programs help increase the average savings rate by 11%, reduce unnecessary consumer borrowing by 8%, and increase the ability to repay debts on time by 13%.

- **The relationship between objective and subjective Financial Literacy**

The difference between objective and subjective understanding is called the knowledge–confidence gap. Behavioral studies indicate that many individuals overestimate their financial capabilities a phenomenon known as overconfidence bias (Kahneman & Tversky, 2011).

In Vietnam, the OECD/INFE survey (2021) showed that nearly 60% of young people considered themselves to have a "fairly good understanding of finance," but only 27% correctly answered three basic questions about interest rates and inflation. This shows that high subjective Financial Literacy (FLT) does not equate to high objective FLT, and positive Financial Behavior is only formed when both components are enhanced simultaneously.

This relationship is the foundation for the hypothesis in the current study that subjective FLT may have a stronger impact on Financial Behavior thru attitudes, while objective FLT has a more direct impact on actual management ability.

- **Subsection Conclusion**

Financial Literacy is the core foundation of personal financial capability, directly influencing borrowing, saving, and spending behaviors. Clearly distinguishing between objective and

subjective FLT helps to gain a deeper understanding of the psychological and behavioral mechanisms of individuals in financial decisions.

In the context of Vietnam, where financial education is not yet widespread and consumer credit is rapidly developing, measuring and improving the Financial Literacy of young people is an urgent task to ensure household financial health and the stability of the retail banking system.

2.1.3. Attitude toward Debt

- **Concept and theoretical foundation**

Attitude toward Debt is a central concept in personal behavioral finance, reflecting an individual's beliefs, perceptions, evaluations, and emotions regarding borrowing behavior and credit usage (Lea, Webley & Walker, 1995). In other words, attitudes toward debt reflect the level of acceptance and value orientation that a person assigns to borrowing viewing it as a reasonable financial tool or a negative burden.

According to Davies & Lea (1995), attitudes toward debt are "the set of beliefs and feelings that influence how individuals perceive borrowing and repaying debt".

Livingstone & Lunt (1992) emphasize that attitudes toward debt include both social moral factors (normative beliefs) and psychological self-evaluation (personal control), reflecting social norms about whether "debt is acceptable or not".

From a social psychological perspective, according to Ajzen (1991) the Theory of Planned Behavior (TPB), attitudes are a determinant of behavioral intention, which can predict the likelihood of engaging in borrowing behavior. When individuals have a positive Attitude toward Debt (viewing it as a useful, controlled, and justifiable tool), they tend to have easier access to credit and maintain more positive borrowing and repayment behaviors.

Meanwhile, according to Krause & Williams (1999), negative attitudes toward debt often stem from negative experiences or moral beliefs ("debt is bad," "borrowing is financial failure"), leading to debt aversion, but sometimes accompanied by poor financial management due to a lack of practical experience.

- **Components of Attitudes Toward Debt**

Attitudes toward debt are a multidimensional construct, comprising three main component groups: instrumental, normative/social, and affective (Lea et al., 1995; Watson, 2003).

- Instrumental Component

Reflects an individual's rational understanding of the role of debt as a means to achieve economic or social goals. People with a positive instrumental attitude view debt as a financial lever to achieve long-term goals such as:

- + Buying a house, a car, or investing in education – expenses that create future value (Lea et al., 1995).
- + Manage short-term cash flow thru reasonable consumer credit.
- + Leverage the opportunity cost between saving and borrowing (Modigliani & Brumberg, 1954).

An instrumental attitude is often associated with high Financial Literacy, the ability to analyze the cost of capital, and effective debt management.

- Normative/Social Component

Reflects societal beliefs, moral values, and cultural acceptance of borrowing behavior. For example:

- + In many Asian cultures, "borrowing" is associated with a negative concept ("borrowing is bad, it means dependence").
- + Conversely, in Western economies, debt is considered a legitimate and normal financial tool.

Lea & Webley's (2006) research indicates that social pressure and group norms strongly influence borrowing decisions, particularly among young people, when the factor of "status display" thru consumption becomes important.

This component can lead to two extremes:

- + Debt normalization: viewing debt as normal → increasing the likelihood of borrowing.
- + Debt stigma: viewing debt as wrong → reduces access to credit, and may even lead to hiding debt.

- Affective Component

Reflects an individual's emotional response to having debt or the potential to borrow money, such as anxiety, stress, guilt, or fear.

- + Positive emotional attitude: feels comfortable using credit, believes they can control their debt obligations.
- + Negative emotional attitudes: feelings of fear, guilt, or financial loss of control (Watson, 2003; Tokunaga, 1993).

According to Livingstone & Lunt (1992), the emotional component is the strongest predictor of financial well-being, as people who are anxious about debt often have a lower quality of life and are prone to "financial stress" even if their debt burden is not large.

• Measuring Attitudes Toward Debt

The measurement of attitudes toward debt typically employs a 5 or 7 point Likert scale, where respondents indicate their level of agreement with statements that capture their beliefs, emotions, and behavioral tendencies related to borrowing. Internationally, several standardized scales are widely recognized and used. Notable among these are:

- **The Debt Attitude Scale** (Lea, Webley, & Walker, 1995), which includes 8-10 items measuring three key areas: the instrumental aspect, which sees debt as a tool to reach goals; the

normative aspect, which shows the social acceptability of borrowing; and the affective aspect, which captures emotional responses like anxiety or guilt.

- **The Debt Stress Index** (Drentea & Lavrakas, 2000), assesses stress and anxiety levels related to being in debt.

- **The Financial Anxiety Scale**, which evaluates feelings of fear or unease when confronting financial obligations.

According to Hair et al. (2019), the reliability and validity of such scales are established through statistical indicators, including Cronbach's Alpha (>0.7), the KMO measure (>0.6), and factor loadings (>0.4). In this study, the Debt Attitude Scale (Lea et al., 1995) was adapted for the Vietnamese context to ensure linguistic and cultural relevance. The modified items place emphasis on the perceived appropriateness of borrowing, emotional responses to debt, and borrowing motivation coupled with a sense of responsibility. This process of adjustment makes sure the scale stays in line with international frameworks. It also reflects the unique social, economic, and cultural traits of Vietnamese consumers.

- **The role and consequences of Attitudes toward Debt**

Attitudes toward Debt play an important role in Financial Behavior models, serving as both a mediator and a moderator between Financial Literacy and actual Financial Behavior.

- **Impact on borrowing behavior**

People with a positive Attitude toward Debt tend to:

- + Easier access to credit (cards, consumer loans, BNPL);
- + Has a higher risk tolerance in borrowing decisions;
- + But it can also increase the risk of bad debt if there is a lack of financial management capacity (Livingstone & Lunt, 1992).

Conversely, individuals with a negative attitude tend to avoid debt, keep spending within their means, but sometimes miss out on profitable investment opportunities or self-improvement (e.g., refusing to borrow for tuition, educational investment).

- Impact on financial well-being

According to Brown, Taylor & Wheatley Price (2005), negative attitudes (fear of debt) are closely related to financial stress, anxiety, and poor mental health. Conversely, a neutral or reasonably positive attitude helps individuals feel better financial control, thereby increasing their level of life satisfaction.

- Intermediary role in the behavioral model

Within the TPB framework, attitude is the mediating variable between Financial Literacy and Financial Behavior. People with high Financial Literacy often develop a positive and proactive Attitude toward Debt, which in turn leads to responsible borrowing and repayment behavior. Conversely, if understanding is limited, attitudes are easily influenced by negative emotions, leading to avoidance behavior or irrational consumption.

• Factors influencing Attitudes toward Debt

International and Vietnamese studies have identified several factors influencing attitudes toward debt, including:

- **Demographics:** Gender, Age, Income, Education Level (Nguyen & Pham, 2023).
- **Personal financial experience:** previously had bad debt, previously used a credit card.
- **Culture and society:** moral norms, peer and family influence (Lea & Webley, 2006).
- **Financial Literacy:** High FLT helps form positive attitudes because it correctly understands the role of debt (Lusardi & Mitchell, 2014).
- **Technology and media factors:** fintech advertising, BNPL "normalizing debt" among young people (Visa, 2023).

Thus, debt attitudes are a product of both perception and social context, not just a single individual factor.

- **Conclusion subsection**

Attitudes toward Debt are a complex blend of psychological and social factors. They show how people view, assess, and feel about borrowing. It serves as a bridge between Financial Literacy (FLT) and Financial Behavior, and is an important predictor of whether young people borrow and repay responsibly.

In the context of Vietnam, as the traditional culture of saving is shifting toward a modern credit culture, studying attitudes toward debt helps to understand the adaptation of the younger generation to the digital financial environment, thereby guiding financial education and more reasonable credit policies.

2.1.4. Personal Financial Behavior

- **Concept and Nature of Financial Behavior**

Financial Behavior is a central concept in the fields of personal finance and behavioral finance, reflecting individuals' observable decisions and actions in managing, using, and allocating financial resources (Xiao, 2008).

According to OECD/INFE (2011), Financial Behavior is "the application of Financial Literacy and skills to practice in order to achieve financial outcomes that are beneficial to oneself and one's family, including responsible saving, spending, investing, and debt management".

Dew & Xiao (2011) define Financial Behavior as "a series of goal-oriented actions by individuals aimed at optimizing income, spending, and asset accumulation within the framework of values, attitudes, and available resources".

From a behavioral science perspective, Financial Behavior is the external manifestation of internal financial decision-making processes, influenced by:

- Cognitive factors (Financial Literacy, understanding);
- Emotional-psychological factors (attitudes, beliefs, perceived behavioral control);
- Socio-cultural factors (norms, peer pressure, spending habits).

Therefore, Financial Behavior is not simply the result of Financial Literacy, but also a product of the interaction between cognition, emotion, and social context (Xiao, 2008; Lusardi & Mitchell, 2014).

- **Components of Personal Financial Behavior**

Academic studies have shown that Financial Behavior comprises multiple specific behavioral groups, reflecting different aspects of personal financial management. According to OECD/INFE (2012) and Xiao (2008), Financial Behavior can be divided into four main components:

- **Spending Behavior**

Reflects how individuals manage spending and budgeting in daily life.

Positive behaviors include:

- + Record and track expenses;
- + Compare prices before making a purchase;
- + Prioritize essential needs over personal desires.

Conversely, impulsive buying or "emotional shopping" is often associated with credit card debt risk and financial stress (Dittmar, 2001).

- **Saving and Investment Behavior**

Mention the trends of regular saving, building emergency funds, and making profitable investments.

- + Regular saving helps maintain liquidity and financial security (OECD, 2021).
- + Investment demonstrates the ability to transform savings into assets, influenced by risk tolerance and investment understanding.

Individuals with high Financial Literacy often diversify their investment portfolios and allocate assets appropriately based on their life stage (Modigliani & Brumberg, 1954; Lusardi & Mitchell, 2014).

- Borrowing and Debt Management Behavior

Regarding how individuals use and manage debt, including:

- + Borrow when there is a clear repayment plan;
- + Pay on time to avoid late fees and penalties;
- + Monitor balances and interest rates.

According to Disney & Gathergood (2013), responsible borrowing behavior is an indicator of good financial capability, while over-indebtedness reflects poor Financial Behavior and a lack of control.

- Long-term financial planning behavior

Including financial planning for the future: retirement planning, insurance, education investments, and asset goals.

Research by Lusardi & Mitchell (2011) shows that those who engage in financial planning have savings 35% higher than those without a plan, even with comparable incomes.

• Measuring Personal Financial Behavior

Measuring Financial Behavior is often done thru a set of behavioral indicators or a 5–7 point Likert scale, where respondents assess the frequency and consistency of behaviors.

- OECD/INFE Measurement Framework (2012, 2021): Consists of 5 standard behavior groups, scored 0–2 depending on the level of implementation:

- + Spending $\leq$ income;
- + Have a savings fund or reserve fund;
- + Compare financial products before making a choice;

- + Monitor invoices and account statements;
- + Pay debts on time.

The total behavior score is converted to a scale of 0–10, with a score of ≥ 6 considered positive behavior.

- Dew & Xiao (2011) Behavior Scale: Assessed based on three criteria:

- + Financial Management Behavior (FMB): managing spending and budgets;
- + Credit Management Behavior (CMB): credit card and debt management;
- + Saving Behavior (SB): frequency of saving.

Items are rated on a 5-point Likert scale (1 = Never, 5 = Always).

Cronbach's Alpha coefficient ranges from 0.72 to 0.85, indicating high reliability.

- Expanded Scale in Vietnam: Recent studies (Nguyen & Pham, 2023; Visa, 2023) adjusted OECD indicators to suit the Vietnamese context, adding the following behaviors:

- + Monitor BNPL and P2P repayment schedules;
- + Use digital banking applications to manage personal finances;
- + The habit of setting monthly spending limits.

EFA tests in Vietnam show a main 3-factor structure (spending – saving – borrowing), with KMO = 0.78, extracted variance 49%, ensuring convergence and reliability.

• **Factors Influencing Financial Behavior**

Financial Behavior is the result of many intertwined factors, which can be divided into 3 main groups (Xiao, 2008; Dew & Xiao, 2011):

- Cognitive Factors

Financial Literacy (FLT): is a fundamental factor that directly influences decision-making ability. FLT helps individuals understand borrowing costs, investment risks, and savings benefits correctly.

Education Level: Higher education helps individuals better access financial information, improving their ability to compare and analyze products.

- Psychological Factors

- + Financial Attitude: People with a positive attitude toward money management often exhibit more saving and rational spending behaviors (Xiao & Porto, 2019).
- + Perceived Behavioral Control (PBC): A sense of confidence in one's ability to control finances increases the likelihood of engaging in positive behavior (Ajzen, 1991).
- + Behavioral Biases: such as overconfidence, present bias, and mental accounting, which distort financial decisions (Kahneman & Tversky, 2011).

- Social and Contextual Factors

- + Social norms and peer pressure: consumer behavior is influenced by friends, colleagues, and the media.
- + Digital technology and financial context: online banking applications, digital wallets, BNPL, and P2P lending make financial management more convenient but also increase the risk of overspending (Visa, 2023).
- + Macroeconomic environment: interest rates, inflation, and income growth directly affect borrowing and saving behavior (OECD, 2021).

• Consequences and Significance of Personal Financial Behavior

Financial Behavior is the practical manifestation of Financial Literacy and a key predictor of financial well-being.

- Positive consequences

People with positive Financial Behavior often:

- + Maintain balanced cash flow and avoid bad debt;
- + Have stable savings and a reserve fund;

+ Achieve long-term financial security and reduce financial stress (Brüggen et al., 2017).

- Negative consequences

Conversely, poor Financial Behavior (spending exceeding income, accumulating debt, lack of planning) leads to:

+ Personal default risk;

+ Reduced ability to accumulate assets;

+ Increased stress, family conflict, and poor mental health (Drentea & Lavrakas, 2000).

According to the OECD (2021), countries with low Financial Behavior scores tend to have a Household Debt-to-GDP ratio that is 10–20 percentage points higher than the high-scoring group.

• Role in Financial Behavior Models

Financial Behavior is the main dependent variable in most personal Financial Literacy models.

Within the TPB framework (Ajzen, 1991), behavior is the result of intention, which is influenced by attitude, subjective norm, and perceived behavioral control (PBC).

Financial Literacy impacts behavior both directly and indirectly thru attitudes this is the core hypothesis of the research model in this thesis.

• Subsection Conclusion

Personal Financial Behavior is a practical measure of Financial Literacy, reflecting the extent to which individuals can effectively manage their income, spending, saving, borrowing, and investing.

In the context of Vietnam, where digital financial services are rapidly expanding but Financial Literacy is limited, analyzing Financial Behavior helps identify the risk of over-indebtedness while proposing personal financial education and support policies aimed at sustainable development.

2.1.5. Foundational Theories

To explain the relationship between Financial Literacy, attitudes toward debt, and Financial Behavior, many classic theories in the fields of behavioral psychology and personal finance have been used. Among these, four prominent underlying theoretical frameworks include:

- 1) The Theory of Reasoned Action (TRA);
- 2) The Theory of Planned Behavior (TPB);
- 3) The Life-Cycle Hypothesis (LCH);
- 4) Behavioral Finance.

These theories not only provide a theoretical basis for building research models but also help explain the mechanisms of formation and expression of personal Financial Behavior in the modern context.

2.2. Theory of Reasoned Action (TRA)

The Theory of Reasoned Action (TRA) was developed by Fishbein and Ajzen (1975) to explain how individuals' beliefs and attitudes influence their behavioral intentions and actual actions..

According to TRA, **behavioral intention (BI)** is the most immediate predictor of actual behavior. The theory assumes that people make rational decisions by evaluating available information and considering the likely consequences of their actions before engaging in a specific behavior.

Behavioral intention is determined by two main components:

1. **Attitude toward the behavior (A_{β})** – the degree to which a person has a favorable or unfavorable evaluation of the behavior in question.
2. **Subjective norm (SN)** – the perceived social pressure from important others to perform or not to perform the behavior.

The general formula for TRA can be expressed as follows:

$$B = f(BI)$$

$$BI = \omega_1(A_\beta) + \omega_2(SN)$$

or equivalently:

$$\text{Behavior} = f(\text{Intention}) = f(\text{Attitude toward the behavior, Subjective norm})$$

In this model, Attitude and Subjective Norms jointly predict Behavioral Intention, which in turn predicts Behavior. The stronger the intention to engage in a behavior, the more likely it is that the behavior will be performed.

In the context of personal finance, TRA is applied to explain saving, spending, borrowing, or investment behavior. For example, if an individual has a positive attitude toward saving and perceives it as socially encouraged, they will have a stronger intention to engage in saving behavior.

Conversely, if social norms accept borrowing for consumption (like the current BNPL trend), individuals may consider borrowing reasonable and act accordingly.

TRA emphasizes the rationality and intentionality of behavior, but it is limited by its failure to consider external control factors or unintended constraints, such as financial ability, market risks, or behavioral biases (Ajzen, 1991).

2.3. Theory of Planned Behavior (TPB)

To overcome the limitations of TRA, Ajzen (1991) expanded the model into the Theory of Planned Behavior (TPB) by adding a third variable: Perceived Behavioral Control (PBC) to account for situations where individuals may lack the resources, abilities, or opportunities to act upon their intentions.

According to the TPB, behavioral intention remains the direct predictor of behavior, but is simultaneously influenced by three factors:

1. **Attitude toward the behavior (A_β)** – an individual's overall evaluation (positive or negative) of performing the behavior.

2. **Subjective norm (SN)** – the perceived social pressure from important referents to perform or not perform the behavior.

$$BI = \omega_1(A_\beta) + \omega_2(SN) + \omega_3(PBC)$$

3. **Perceived behavioral control (PBC)** – the individual's perception of their ability or control over performing the behavior, which reflects both internal and external constraints.

The general equation for TPB can be expressed as:

or equivalently:

Intention = f(Attitude, Social Norms, Perceived Behavioral Control)

Behavior = f(Intention, Perceived Behavioral Control)

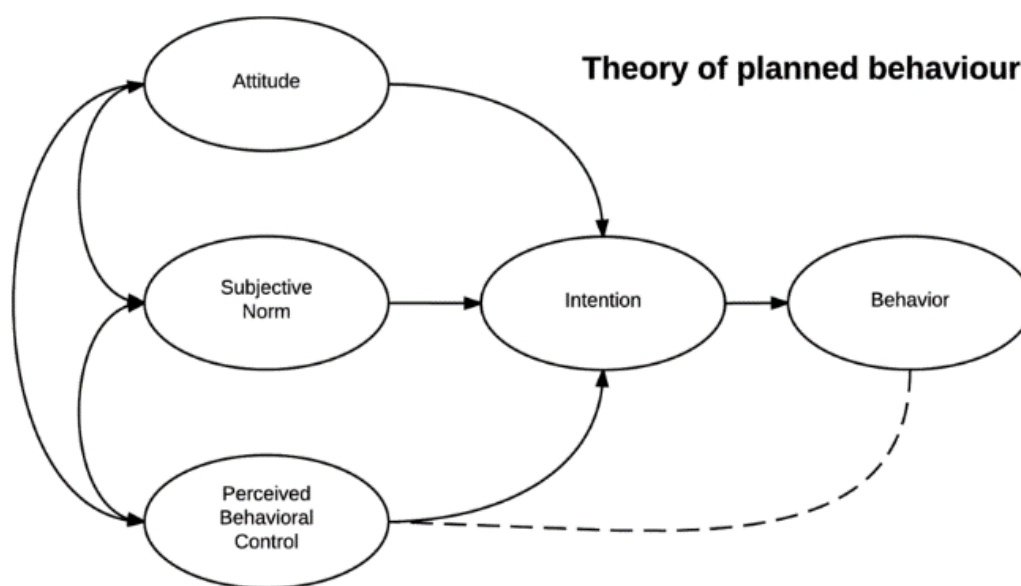


Figure 2.1.53.1. Theory of Planned Behavior (TPB)

In personal finance research, TPB is widely used to explain:

- Saving and investment behavior (Xiao & Wu, 2008);
- Responsible borrowing and repayment behavior (Potrich et al., 2016);
- Credit card and BNPL usage behavior (Visa, 2023).

In this research model, Financial Literacy (FLT) is considered a factor influencing PBC (Financial Behavioral control confidence), while attitudes toward debt are the mediating variable between literacy and borrowing behavior.

The higher the Financial Literacy level, the more confident individuals are in their financial management abilities, leading to a more positive Attitude toward Debt and an increased likelihood of engaging in healthy Financial Behaviors.

Many empirical studies support this mechanism: Farah et al. (2018) showed that FLT strongly influences saving behavior thru PBC; Potrich et al. (2016) demonstrated that attitude is an important mediating variable between FLT and Financial Behavior.

2.4. Theory Life-Cycle Hypothesis (LCH)

Theory The Life-Cycle Hypothesis (LCH) was developed by Modigliani and Brumberg (1954) to explain how individuals allocate consumption, savings, and borrowing throughout their lives to maximize welfare.

According to LCH, individuals tend to:

- Borrowing when young, when income is low but spending needs are high (buying a house, education);
- Save during middle age, when income exceeds consumption needs;
- Withdraw savings upon retirement to maintain a stable standard of living.

The ideal consumption model according to LCH: Income and consumption are smoothed over time.

The LCH implies that rational borrowing behavior is a tool for optimal consumption allocation over time, as long as the borrower is able to repay the debt in the future. However, in reality, this behavior is often skewed by:

- Financial constraints;
- Financial illiteracy;
- Behavioral biases such as present bias.

According to Lusardi & Mitchell (2014), individuals with high Financial Literacy will manage their consumption and savings closer to the LCH's "ideal path," while low FLT leads to excessive current consumption, increased debt, and reduced future savings.

The use of LCH in this study allows us to explain why young people tend to borrow more (due to the early stage of their financial life cycle), but if they lack FLT, they are more likely to fall into a debt spiral instead of "smoothing consumption."

2.5. Behavioral Finance

Behavioral finance is a field of study that combines classical finance and cognitive psychology to explain biases in human financial decision-making (Kahneman & Tversky, 1979; Shefrin, 2000).

Unlike the perfect rationality model of traditional economics, behavioral finance argues that individuals often:

- Not fully optimized,
- Influenced by emotions, cognitive biases, and personal experiences,
- Make decisions based on intuition and context rather than pure analysis.

Some common behavioral biases that affect personal finance:

- Overconfidence bias: individuals believe they understand and control things better than they actually do, leading them to borrow beyond their means.
- Present bias: prioritizing short-term consumption over long-term benefits → reduced savings, increased credit debt.
- Anchoring effect: being anchored to initial information (promotional interest rates, discounts) and misjudging the actual cost.
- Mental accounting: dividing money into emotional "buckets" → distorting overall financial management.

According to Thaler (1999), rational Financial Behavior can be improved thru "behavioral nudges" designing policies and financial tools in such a way that users can easily choose the optimal option (e.g., automatic savings defaults, debt repayment reminders, transparent spending reports).

Applying this to this study, behavioral finance helps explain why young people can have high subjective Financial Literacy (confidence) but still behave irrationally, leading to over-indebtedness or spending beyond their means.

2.6. Summary of theoretical review

The above theories provide an important foundation for explaining the relationship between Financial Literacy, attitudes toward debt, and Financial Behavior.

- TRA and TPB emphasize the psychosocial mechanisms of behavior;
- LCH explains economic motivations the life cycle of borrowing and saving decisions;
- Behavioral finance adds an irrational perspective, highlighting the role of cognitive and emotional biases in real-world Financial Behavior.

Combining these theories helps form an integrated model where Financial Literacy (especially subjective literacy) influences attitudes and perceived behavioral control, which in turn leads to positive or negative borrowing behavior and financial management.

Table 2.6.1. Summary of core concept definitions

Theory	Focus	Key Variables	Application in This Study
TRA (Fishbein & Ajzen, 1975)	Intentional Behavior	Attitude, Subjective Norm	Explains the link between beliefs and borrowing intention.
TPB (Ajzen, 1991)	Intentional Behavior and Control	Attitude, Subjective Norm, PBC	Basis for the FLT → Attitude → Behavior model.

Theory	Focus	Key Variables	Application in This Study
LCH (Modigliani & Brumberg, 1954)	Life-Cycle Consumption and Saving	Income, Consumption, Saving, Debt	Explains the rational borrowing motives of young people.
Behavioral Finance (Kahneman & Tversky, 1979)	Behavioral Biases	Cognitive Biases, Emotion	Explains irrational behavior and overconfidence bias.

2.7. Previous Research (International and Vietnamese)

2.7.1. Overview of International Studies

Over the past two decades, Financial Literacy has become a central topic in research on personal Financial Behavior and macroeconomic financial stability. Classic studies and global surveys have provided significant empirical evidence on the relationship between Financial Literacy, attitudes, and Financial Behavior.

a) Research on Financial Literacy and Financial Behavior

- Lusardi & Mitchell (2011, 2014): Using data from the US, UK, and Netherlands, the authors assert that Financial Literacy is the strongest predictor of healthy Financial Behavior, particularly retirement savings and Household Debt management. People with high FLT tend to plan long-term financially and are less likely to have bad debt.

- Atkinson & Messy (2012) in the OECD/INFE report show that high levels of Financial Literacy are correlated with regular saving behavior and comparing financial products before purchasing, while low Financial Literacy leads to high-cost short-term borrowing.

- van Rooij, Lusardi & Alessie (2011) demonstrate that high FLT promotes participation in financial markets and investment diversification, while the low FLT group tends to "avoid" complex financial instruments.

- Klapper, Lusardi & Panos (2013) expanded the study to Eastern Europe, showing that a lack of Financial Literacy is a major cause of household financial imbalances, especially in the context of rapidly growing consumer credit.

b) Research on attitudes toward debt and borrowing behavior:

- Lea, Webley & Walker (1995) and Livingstone & Lunt (1992) were the first studies to confirm that attitudes toward debt are an important psychological factor influencing borrowing decisions. A positive Attitude toward Debt can lead to more borrowing behavior, while a negative attitude helps limit excessive debt.

- Davies & Lea (1995) and Watson (2003) extended the debt attitude model within a student group, finding that financial anxiety and social norms are two key determinants of borrowing intention.

- Brown, Taylor & Wheatley Price (2005) assert that negative attitudes toward debt are linked to financial stress and lower mental health, even if the actual value of the debt is not high.

c) Integrated study of FLT – Attitude – Behavior (according to TPB)

- Potrich, Vieira & Kirch (2016) in Brazil tested the TPB model, showing that Financial Literacy influences behavior thru attitudes and perceived behavioral control (PBC).

- Xiao & Wu (2008) applied the TPB in a study on saving behavior in the United States, concluding that attitude and PBC are the two main mediating factors between Financial Literacy and actual behavior.

- Farah et al. (2018) in Malaysia and Sabri & MacDonald (2010) in Canada both confirmed that high FLT → positive attitude → more sustainable Financial Behavior.

- Allgood & Walstad (2016) distinguish between objective and subjective Financial Literacy, showing that subjective Financial Literacy (self-confidence) is a stronger predictor of spending and saving behavior.

d) Research on digital finance, fintech, and modern borrowing behavior

- The OECD (2021) warns that the rapid development of fintech, BNPL, and P2P lending increases the "illusion of control" among young people – they feel debt is easy to manage but misjudge the actual costs.

- Visa (2023) shows that in Southeast Asia, particularly in Vietnam and Indonesia, 65% of young people have used BNPL services, but over 50% do not fully understand the actual interest rate (APR), leading to an increased risk of bad debt.

- The World Bank (2023) emphasizes that countries with financial education programs integrated into schools (such as South Korea and Singapore) have household non-performing loan rates that are 20–30% lower than those of the group that has not implemented such programs.

International studies show that: Financial Literacy is the premise, attitudes are the transmission mechanism, and Financial Behavior is the outcome.

This mechanism has been tested in various contexts, strengthening the theoretical basis for the current dissertation model.

2.7.2. Studies in Context Vietnam

In Vietnam, research on Financial Literacy and borrowing behavior has only developed in the last decade, primarily focusing on descriptive and cognitive aspects, while quantitative studies on the relationship between FLT – Attitudes – Behavior remain limited.

a) Research on the Financial Literacy of Vietnamese people

- OECD/INFE (2021): Vietnam scored an average FLT of 12.3/21, lower than the global average (14.8/21); the 18–35 age group had the lowest scores, particularly on questions about interest rates and inflation.
- Visa (2023): 84% of young Vietnamese people have bank accounts, but only 37% have plans for regular savings; 62% have borrowed or used credit cards, with 45% "unclear about the interest rate."
- Nguyen & Pham (2023): Analysis of Agribank data shows that the growth rate of personal credit during the period 2018–2022 reached 18–22% per year, but the ratio of non-performing loans in group 2 or higher increased from 1.1% to 1.9%.

b) Research on attitudes and behaviors related to borrowing

- Le & Tran (2020) surveyed 500 young people in Hanoi, revealing a neutral Attitude toward Debt ($M = 3.42/5$), while unplanned spending behavior was common (54% admitted to "impulse buying").
- Nguyen Thi Thanh (2021) confirms that social pressure and fintech advertising "normalize debt," making it easier for young people to accept borrowing, especially thru BNPL and e-wallets.
- MBS Research (2024) reports that nearly 70% of consumer credit outstanding in Vietnam belongs to the under 35 age group; this group's outstanding debt is growing twice as fast as the over-40 age group.

c) Studies applying TPB and LCH theory

- Pham & Nguyen (2022) applied TPB to analyze students' saving behavior, showing that attitude and PBC are the strongest influencing factors on saving intention.

- Tran & Vu (2023) used the LCH model and concluded that young Vietnamese people tend to borrow earlier and save later compared to the theoretical model, due to a lack of understanding of the financial life cycle.
- The State Bank of Vietnam (SBV, 2023) also noted the rapid growth trend in consumer credit, but warned about the lack of financial education for new customer groups.

d) Limitations of studies in Vietnam

- Most new research is only descriptive, lacking quantitative models to test hypotheses.
- Few studies distinguish between objective and subjective Financial Literacy.
- Lack of data on debt attitudes and borrowing behavior within the same sample set.
- The context of fintech/BNPL has not been considered – a new factor that is changing the Financial Behavior of young people.

This opens up an academic gap for current research.

2.7.3. Comparing and synthesizing results

Table 2.7.3.1. Comparison of International and Vietnamese Research Contexts

Research Aspect	International Context	Vietnam Context	Identified Research Gaps
Financial Literacy (FLT)	Measured according to OECD/INFE standards; distinguishes between <i>objective</i> and <i>subjective</i> literacy.	Mainly descriptive; no distinction between literacy components.	Need to examine dual dimensions of FLT (<i>objective + subjective</i>).

Research Aspect	International Context	Vietnam Context	Identified Research Gaps
Attitude toward Debt (ATD)	Multiple standardized scales available (Lea, 1995; Watson, 2003).	Few studies; mostly descriptive or qualitative.	Need to validate multidimensional attitude structure (<i>affective – normative – instrumental</i>).
Financial Behavior (BEH)	Based on OECD framework, Dew & Xiao (2011).	Limited data; most studies use simple regression models.	Need to test extended model linking <i>FLT</i> → <i>ATD</i> → <i>BEH</i> .
Theoretical Foundation	TPB, LCH, and Behavioral Finance widely applied.	Most studies only apply TPB and LCH separately in financial contexts.	Need to integrate multiple theoretical models (TPB + LCH).
Fintech and BNPL Context	Considered as emerging factors influencing Financial Behavior.	Recently reported in Visa reports; limited academic studies available.	Need to analyze the moderating effects of fintech and BNPL on attitude and borrowing behavior.

2.7.4. Conclusion subsection

The research overview shows that the relationship between Financial Literacy, Attitudes, and Financial Behavior has been demonstrated in many countries, but remains limited in the context of emerging economies, particularly Vietnam.

Previous studies have focused more on general Financial Literacy rather than the relationship between knowledge, attitudes, and personal borrowing behavior.

Therefore, this thesis contributes by:

- Combine objective and subjective FLT measurements in the same dataset;
- Testing the mediating role of attitudes toward debt according to the TPB model;
- Analyze personal Financial Behavior in the context of fintech and BNPL, particularly among young people (18–35 years old) in Vietnam;
- Providing quantitative evidence helps policymakers and banks design more appropriate financial education programs.

2.8. Research Gaps and Proposed Model

2.8.1. Introduction to the Proposed Model

Based on the theoretical framework of the Theory of Planned Behavior (TPB) and previous studies on household Financial Behavior in Vietnam, this research model expects that Financial Literacy both in objective and subjective aspects will have a positive impact on Attitudes toward Debt and Financial Behavior.

Specifically, individuals with better Financial Literacy and a more positive perception of their ability to control personal finances are predicted to assess debt as less risky and use credit tools responsibly. Conversely, those with limited Financial Literacy may exhibit negative attitudes toward or avoid debt, and are more likely to engage in unplanned Financial Behavior.

In the context of Vietnam, where consumer credit is growing rapidly but financial education programs are fragmented, a "knowledge-behavior gap" could emerge: people may be aware of the benefits of Financial Literacy, but lack the motivation or skills to translate that awareness into actual behavior. Therefore, the impact of Financial Literacy on Financial Behavior may be weaker than theoretically expected, while attitudes toward debt could play a significant mediating role.

2.8.2. Research Gaps

From the theoretical overview (sections 2.1–2.5) and experimental studies (section 2.6), it can be seen that the relationship between Financial Literacy (FLT), Attitude toward Debt (ATD), and Financial Behavior (BEH) has been widely discussed in developed countries, but there are still many academic gaps when applied to the context of emerging economies, especially Vietnam. The main gaps can be summarized as follows:

a) Conceptual and structural measurement gaps

Unlike international research (Lusardi & Mitchell, 2014; Allgood & Walstad, 2016), which recognizes objective and subjective financial literacy as two independent components with distinct effects on financial behavior, most prior studies in Vietnam have not clearly differentiated between them.

Specifically:

- FLT objectively reflects practical knowledge, directly impacting financial calculation, planning, and decision-making abilities.
- FLT subjectively reflects perceived self-confidence and behavioral control (PBC) an intervening factor that strongly influences behavior.

In Vietnam, no study has simultaneously measured objective and subjective FLT in the same quantitative model.

b) Gap in psychological-behavioral mechanisms

Domestic studies have only reached the linear model "FLT → Behavior," while international models currently show that financial attitudes and perceived behavioral control play a mediating or moderating role (Ajzen, 1991; Potrich et al., 2016).

No study in Vietnam has examined the mediating role of Attitude toward Debt (ATD) between Financial Literacy (FLT) and borrowing behavior, a mechanism that has been confirmed in numerous international studies (Sabri & MacDonald, 2010; Farah et al., 2018).

c) The gap in the socio-technological context

Most international projects were completed before fintech and BNPL flourished. In Vietnam, the boom in digital finance, e-wallets, and online lending has changed borrowing and consumption behavior, but no academic research has analyzed the impact of the fintech context on the financial attitudes and behaviors of young people.

This is particularly important, as surveys (Visa, 2023; World Bank, 2023) show that over 60% of young people aged 18–35 in Vietnam have used at least one BNPL or P2P lending service, yet most do not fully understand the actual cost (APR).

d) Gaps in subject matter and scope

Many domestic studies focus on student or civil servant groups, without in-depth analysis of young working people (aged 18–35) the group that contributes the most to personal consumption and consumer debt.

This group is also heavily influenced by the digital transformation of finance, online advertising, and modern consumer culture, making them both more accessible to credit and more prone to over-indebtedness if they lack Financial Literacy.

e) Research Methodological Gap

Studies in Vietnam are primarily descriptive qualitative or descriptive statistical, lacking quantitative regression models or SEM/CFA to test the relationships between variables.

Additionally, many studies have not applied the standard OECD/INFE (2021) scale or the Financial Management Behavior Scale (Dew & Xiao, 2011), leading to inconsistencies in international comparisons.

2.8.3. Theoretical Basis for the Proposed Research Model

Based on the foundational theories (TPB, LCH, Behavioral Finance) presented in section 2.3, 2.4, 2.5, the research model for this thesis was developed with the ultimate goal of informing effective **wealth management education**. The model posits that **Financial Literacy is the critical input** that shapes attitudes and behaviors, which are the immediate determinants of an individual's capacity for responsible **wealth management**.

This research adopts a multi-theoretical integration approach, where each theory provides a unique lens to explain the mechanisms of Financial Behavior:

- a) TPB (Ajzen, 1991) provides a psychosocial foundation, allowing for the explanation of the relationship between FLT → Attitude → Behavior.
- b) The LCH (Modigliani & Brumberg, 1954) adds an economic life cycle basis, explaining the borrowing motives of young people during periods of unstable income.
- c) Behavioral Finance (Kahneman & Tversky, 2011) helps explain the influence of behavioral biases and overconfidence bias on subjective FLT.

Based on this foundation, the study builds an integrated model, in which:

- **Financial Literacy** (FLT) consists of two components: **Objective Financial Literacy** (FLT_OBJ) and **Subjective Financial Literacy** (FLT_SUB)
- **Attitude toward Debt** (ATD) is an intervening variable.
- **Financial Behavior** (BEH) is the dependent variable.
- **Control variables include:** gender, age, income, and education.

Additionally, the digital financial context is considered a contextual condition when discussing the results, as fintech, BNPL, and digital banking can change how individuals form attitudes about debt.

2.8.4. Proposed Research Model

The integrated conceptual model examines how Financial Literacy (both objective and subjective) directly and indirectly (through Attitude toward Debt) influences Financial Behavior. This behavior is a key measurable outcome of wealth management capability. The model provides a framework for understanding the psychological and behavioral mechanics that wealth management education programs must target to be effective.

Comprehensive Conceptual Model:

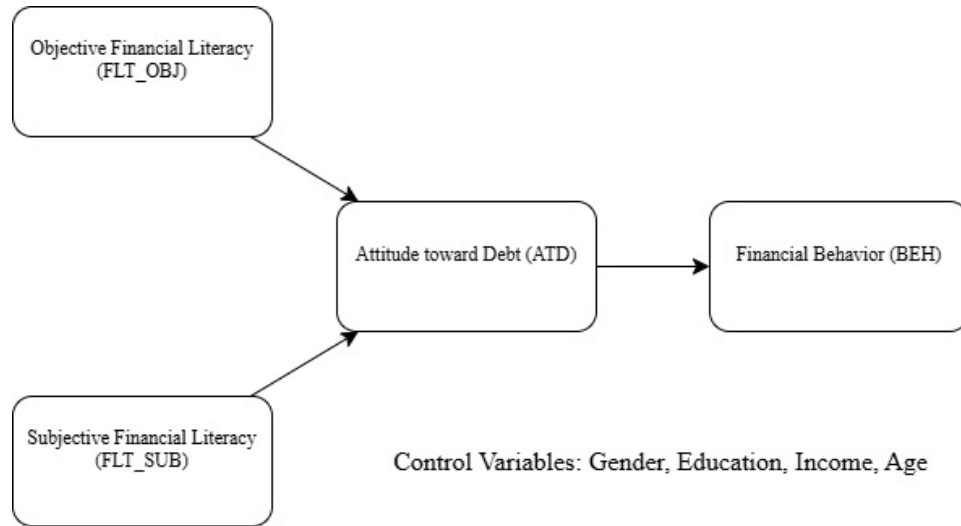


Figure 2.8.4.1. Proposed Research Model

Context: digital finance, fintech, BNPL

- Direct relationship: FLT_OBJ and FLT_SUB influence BEH.
- Indirect relationship: FLT_OBJ and FLT_SUB influence BEH thru ATD.
- Control relationship: demographic characteristics influence FLT, ATD, and BEH.

This model reflects the integration between TPB and LCH, emphasizing that Financial Literacy not only directly but also indirectly impacts behavior thru attitudes.

2.8.5. Research Hypotheses

Based on the proposed model and previous studies, the thesis formulates six main hypotheses:

Table 2.8.5.1. Research hypotheses and expected signs

Code	Research Hypothesis	Expected Sign
H1	Objective Financial Literacy (FLT_OBJ) has a positive impact on Financial Behavior (BEH).	Positive (+)
H2	Subjective Financial Literacy (FLT_SUB) has a positive and stronger impact than FLT_OBJ on Financial Behavior.	Positive (+) — <i>and stronger than FLT_OBJ</i>

H3	Financial Literacy (FLT_OBJ, FLT_SUB) positively influences Attitude toward Debt (ATD).	Positive (+)
H4	A positive Attitude toward Debt (ATD) positively influences Financial Behavior (BEH).	Positive (+)
H5	Attitude toward Debt (ATD) mediates the relationship between Financial Literacy (FLT) and Financial Behavior (BEH).	—
H6	Gender, education, and income have moderating effects on the relationship between Financial Literacy (FLT) and Financial Behavior (BEH).	—

Thus, this model not only examines direct and indirect effects but also analyzes the differential impact between the two forms of Financial Literacy – an aspect that has been little studied in Vietnam.

2.8.6. Basis for Hypothesis Formation

Based on the theoretical framework presented (TRA, TPB, LCH, Behavioral Finance) and international empirical evidence, this study develops six main hypotheses to test the relationship between Financial Literacy, attitudes toward debt, and the Financial Behavior of young Vietnamese people.

Hypothesis H1: Objective Financial Literacy (FLT_OBJ) has a positive impact on Financial Behavior (BEH).

Studies by Lusardi & Mitchell (2011; 2014), OECD/INFE (2021), and Potrich et al. (2016) all confirm that Objective Financial Literacy (i.e., actual knowledge of interest rates, inflation, risk, and diversification) is the strongest predictor of healthy Financial Behavior.

People with high FLT_OBJ often: Create a clear spending plan, Avoid high-cost borrowing, Maintain savings and repay debts on time. Therefore, the thesis hypothesizes H1: Objective Financial Literacy (FLT_OBJ) has a positive impact on Financial Behavior (BEH).

Hypothesis H2: Subjective Financial Literacy (FLT_SUB) has a positive and stronger than FLT_OBJ impact on Financial Behavior.

According to Allgood & Walstad (2016), subjective FLT (financial self-efficacy) – meaning belief and confidence in one's financial management abilities – has a stronger influence on actual behavior than objective FLT.

Within the framework of TPB (Ajzen, 1991), FLT_SUB corresponds to perceived behavioral control – a factor that directly leads to behavior.

This is especially true in the context of young people, where self-belief often plays a more decisive role than actual knowledge. Hypothesis H2: Subjective Financial Literacy (FLT_SUB) has a positive and stronger impact on Financial Behavior (BEH) than Objective Financial Literacy (FLT_OBJ).

Hypothesis H3: Financial Literacy (FLT_OBJ, FLT_SUB) has a positive impact on attitudes toward debt (ATD).

Attitudes toward debt are formed thru financial awareness and experience (Lea, Webley & Walker, 1995).

People with high Financial Literacy understand borrowing costs, repayment capacity, and the benefits of using leverage wisely – leading to a more positive and realistic Attitude toward Debt. Conversely, a lack of understanding can lead individuals to either be excessively afraid of debt (avoidance) or to borrow recklessly.

According to Lusardi & Tufano (2009), FLT helps reduce "financial anxiety" and improve attitudes toward borrowing. Hypothesis H3: Financial Literacy (FLT_OBJ, FLT_SUB) has a positive impact on attitudes toward debt (ATD).

Hypothesis H4: Positive Attitude toward Debt (ATD) has a positive impact on Financial Behavior (BEH).

According to the TPB (Ajzen, 1991), attitude is a factor that forms behavioral intention, which then leads to actual behavior.

If individuals view debt as a reasonable tool to achieve financial goals (housing, education, human capital investment), they will tend to:

- Develop a reasonable borrowing plan,
- Repay debts on time,
- Maintain better financial discipline.

Conversely, a negative attitude causes them to either avoid debt (lack of financial opportunities) or manage debt poorly due to psychological stress (Watson, 2003; Brown et al., 2005).

Hypothesis H4: A positive Attitude toward Debt (ATD) has a positive impact on Financial Behavior (BEH).

Hypothesis H5: Attitude toward Debt (ATD) mediates the relationship between Financial Literacy (FLT) and Financial Behavior (BEH).

The studies by Potrich et al. (2016) and Farah et al. (2018) show that attitude is a mediating variable in the relationship between Financial Literacy and Financial Behavior.

Financial Literacy helps individuals understand the true nature of debt, leading to positive attitudes and sustainable Financial Behavior.

This mechanism reflects the causal chain of rational behavior: Understanding → Beliefs → Attitudes → Behavior. Hypothesis H5: Attitude toward Debt (ATD) mediates the relationship between Financial Literacy (FLT) and Financial Behavior (BEH).

Hypothesis H6: Demographic characteristics (gender, education, income) moderate the relationship between FLT and BEH.

OECD (2021) and Nguyen & Pham (2023) studies indicate that Financial Behavior is influenced differently by gender, education, and income:

- Men are generally more confident in borrowing and investing (FLT_SUB is higher),
- Women are more cautious, and their saving behavior is more stable.
- Higher income and education make it easier for individuals to access financial information, thereby improving Financial Literacy.

Therefore, demographic characteristics can moderate the intensity of the impact between Financial Literacy and behavior. Hypothesis H6: Gender, education, and income moderate the relationship between Financial Literacy (FLT) and Financial Behavior (BEH).

2.8.7. Expected contribution of the model

a) Academically:

Provide empirical evidence for the FLT → ATD → BEH relationship in an emerging context. It is one of the few models in Vietnam that simultaneously separates objective and subjective FLT. Integrate TPB, LCH, and Behavioral Finance to form a multi-theoretical model.

b) Regarding practice:

Provide a basis for banks, educational institutions, and policymakers to design financial education programs for young people. Propose solutions to enhance "responsible borrowing culture" and minimize personal non-performing loan risk in the context of expanding consumer credit.

2.8.8. Conceptual Research Model Diagram

Proposed Conceptual Framework:

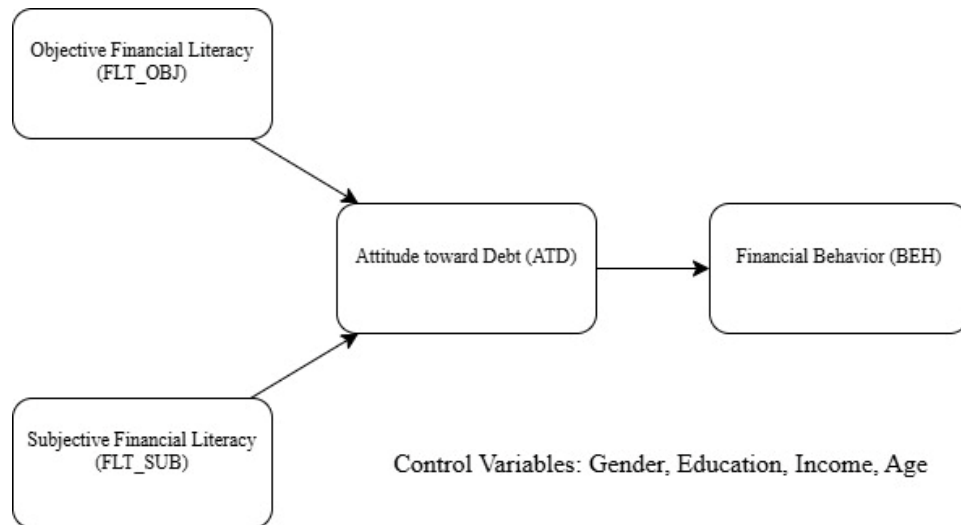


Figure 2.8.8.1. Theoretical Framework of the Research

Control variables: gender, education, income, age

Context: Fintech, BNPL, digital finance

Explain the diagram:

- The two components of Financial Literacy (FLT_OBJ and FLT_SUB) directly influence Financial Behavior, and indirectly thru attitudes toward debt (ATD).
- Attitude (ATD) is an intervening variable that reflects the psychological and social factors in Financial Behavior.
- Demographic factors are considered control/moderating variables.
- The fintech and digital banking landscape serves as a backdrop, creating an environment for young people's borrowing and consumption behavior.

2.8.9. Subsection Conclusion

Synthesizing theory and empirical evidence, the study finds that personal Financial Behavior is not solely the result of Financial Literacy, but is also influenced by psychological attitudes and the socio-technological context.

Therefore, the $FLT \rightarrow ATD \rightarrow BEH$ model is expected to provide a comprehensive analytical framework to better understand the borrowing behavior and financial management of young Vietnamese people, serving as the foundation for the quantitative analyzes in Chapter III (Methodology) and Chapter IV (Results).

2.9. Chapter Summary

Chapter II has synthesized and systematized the theoretical basis, concepts, and research on Financial Literacy, attitudes toward debt, and personal Financial Behavior.

Thru analysis, several key conclusions can be drawn:

a) Theoretically:

- + Financial Literacy is the foundation of personal financial capability, encompassing both objective knowledge and subjective awareness.
- + Attitudes toward debt serve as a bridge between understanding and behavior, formed thru perception, emotion, and social norms.
- + Financial Behavior reflects the level of financial maturity and is simultaneously influenced by awareness, attitudes, and context.

b) Regarding the experiment:

International studies consistently show that $FLT \rightarrow ATD \rightarrow BEH$ is an important causal chain.

However, in Vietnam, this relationship has not been fully quantified, especially within the 18–35 age group the group currently driving consumer trends and personal credit.

c) Regarding research gaps:

- + Lack of integrated quantitative models;
- + Lack of objective and subjective FLT separation;
- + Did not consider debt attitude as an intermediate variable;

Lack of fintech/BNPL context.

From this, the thesis proposes an integrated research model based on the TPB and LCH theoretical frameworks, combining behavioral, psychological, and economic analysis, to experimentally test the impact of Financial Literacy on the financial attitudes and behaviors of young Vietnamese people.

Chapter II systematized the academic foundation of FLT (objective/subjective), debt attitudes, and Financial Behavior; presented fundamental theories (TPB, LCH, behavioral finance); synthesized international and Vietnamese evidence; identified gaps; and developed a model and testable hypotheses. This is the direct basis for Chapter III –Methodology (scale design, analysis process) and Chapter IV –Results.

CHAPTER III

METHODOLOGY

3.1. Overview of the Research Problem

This chapter presents the research methodology framework used to test the research model and hypotheses developed in Chapter II – Literature of Review. The methodology forms the backbone of the entire thesis. It ensures that the research findings are based on a scientific, clear, and reproducible foundation. This chapter contains seven main sections:

- **Research Design:** Describes the research approach, methodological objectives, and study scope;
- **Research Model and Hypotheses:** Defines the conceptual framework, theoretical underpinnings, and hypotheses (H1–H6);
- **Data Collection Methods:** Explains data sources, population, sampling techniques, and survey procedures;
- **Instrumentation and Measurement Scales:** Details questionnaire structure, variable coding, reliability and validity testing (Cronbach’s Alpha, EFA);
- **Data Analysis Procedures:** Describes the steps of statistical analysis, including regression, group tests, and robustness checks;
- **Expert Interviews:** Summarizes qualitative insights collected from experts to complement quantitative findings;
- **Research Design Limitations and Conclusion:** Highlights methodological constraints and provides a summary of the chapter.

The overall goal of this chapter is to establish a solid methodological foundation for the research ensuring that the entire process of data collection, analysis, and interpretation is conducted systematically, transparently, theoretically grounded, and replicable.

This chapter serves as a bridge between the theoretical framework (Chapter II) and the experimental results (Chapter IV), helping to transform abstract concepts into quantifiable and testable quantitative models.

3.2. Operationalization of Theoretical Constructs

3.2.1. Definition and Measurement of Key Variables

The theoretical framework forms the foundation of this study by explaining how Financial Literacy (FLT), Attitude toward Debt (ATD), and Financial Behavior (BEH) are interrelated.

a) Financial Literacy (FLT)

- **Concept:** A combination of awareness, knowledge, skill, attitude, and behavior necessary to make sound financial decisions and ultimately achieve individual financial wellbeing (OECD/INFE, 2021).

- Operationalization:

+ *Objective Financial Literacy (FLT_OBJ)*: Measured by 5 dichotomous (True/False/Don't Know) questions assessing understanding of compound interest, inflation, risk diversification, APR vs. APY, and credit card costs.

+ *Subjective Financial Literacy (FLT_SUB)*: Measured by 4 items on a 5-point Likert scale assessing self-confidence in comparing loans, estimating costs, understanding terms, and feeling confused by information.

b) Attitude toward Debt (ATD)

- **Concept:** Reflects an individual's beliefs, perceptions, evaluations, and emotions regarding borrowing behavior and credit usage (Lea, Webley & Walker, 1995).

- **Operationalization:** Measured by 6 core items (after EFA) on a 5-point Likert scale capturing instrumental, normative, and affective components (e.g., viewing debt as a tool, feeling comfortable with borrowing for investment, perceiving debt as normal).

c) Financial Behavior (BEH)

- **Concept:** The application of Financial Literacy and skills to practice to achieve beneficial financial outcomes (OECD/INFE, 2011).

- **Operationalization:** Measured by 6 items on a 5-point Likert scale assessing responsible actions such as comparing loan options, reading contracts, having a repayment plan, and maintaining an emergency fund.

d) Control Variables

- **Demographics:** Gender, age, education, income, and occupation were measured as categorical variables for descriptive analysis and as control variables in regression models.

3.2.2. Theoretical Foundation and Hypothesis Development

Hypothesis H1: Objective Financial Literacy (FLT_OBJ) has a positive impact on Financial Behavior (BEH).

Objective Financial Literacy reflects the actual level of understanding of basic financial concepts such as compound interest, inflation, risk-return, and opportunity cost (Atkinson & Messy, 2012).

Studies by Lusardi & Mitchell (2011, 2014) indicate that high FLT_OBJ helps individuals make sound financial decisions, save regularly, and avoid overdue debt.

According to OECD/INFE (2021), FLT_OBJ is a prerequisite for financial capability.

Hypothesis H1: Objective Financial Literacy (FLT_OBJ) has a positive impact on Financial Behavior (BEH).

Hypothesis H2: Subjective Financial Literacy (FLT_SUB) has a positive – and stronger than FLT_OBJ – impact on Financial Behavior (BEH).

FLT_SUB measures confidence in one's ability to understand and manage personal finances, also known as financial self-efficacy (Allgood & Walstad, 2016).

According to Ajzen (1991), perceived behavioral control strongly influences actual behavior.

Individuals with high FLT_SUB often proactively plan their spending, track expenses, and tend to have clearer action tendencies compared to those with low FLT (Potrich et al., 2016).

Hypothesis H2: Subjective Financial Literacy (FLT_SUB) has a positive and stronger impact on Financial Behavior (BEH) than FLT_OBJ.

Hypothesis H3: Financial Literacy (FLT_OBJ, FLT_SUB) has a positive impact on attitudes toward debt (ATD).

According to Lea, Webley & Walker (1995), attitudes toward debt are formed from experiences, beliefs, and Financial Literacy.

Highly knowledgeable people often view debt as a rational economic tool to achieve personal goals (education, investment, homeownership, etc.). FLT also helps reduce debt aversion and financial anxiety (Disney & Gathergood, 2013). Hypothesis H3: Financial Literacy (FLT_OBJ, FLT_SUB) has a positive influence on attitudes toward debt (ATD).

Hypothesis H4: Positive Attitude toward Debt (ATD) has a positive impact on Financial Behavior (BEH).

According to the TPB (Ajzen, 1991), attitude is the central factor influencing intentional behavior.

Individuals with a positive Attitude toward Debt (viewing it as an investment tool, not a burden) will have clearer borrowing-repayment plans and maintain higher financial discipline (Davies & Lea, 1995; Watson, 2003).

Conversely, a negative attitude can lead to avoiding reasonable debt or managing debt ineffectively. Hypothesis H4: Positive Attitude toward Debt (ATD) has a positive impact on Financial Behavior (BEH).

Hypothesis H5: Attitude toward Debt (ATD) mediates the relationship between Financial Literacy (FLT) and Financial Behavior (BEH).

According to Fishbein & Ajzen's (1975) cognitive-affective-behavioral model, Financial Literacy influences behavior indirectly thru attitudes.

Experimental studies by Potrich et al. (2016) and Farah et al. (2018) both confirm the mediating effect of attitude in the relationship between FLT and BEH. Hypothesis H5: Attitude toward Debt (ATD) mediates the relationship between Financial Literacy (FLT) and Financial Behavior (BEH).

Hypothesis H6: Demographic characteristics (gender, education, income) moderate the relationship between FLT and BEH.

According to the OECD (2021), demographic characteristics significantly affect both Financial Literacy and Financial Behavior:

- Men tend to be more confident and take higher risks;
- Women are more cautious with their spending and saving habits;
- Higher income and education make it easier for individuals to access information and manage their finances.

These factors can influence how strongly Financial Literacy (FLT) and Financial Behavior (BEH) are connected. Hypothesis H6 states that gender, education, and income affect the relationship between Financial Literacy and Financial Behavior.

3.3. Research Purpose and Questions

3.3.1. Research Questions

This study aims to examine how Financial Literacy impacts borrowing behavior and personal financial management among Vietnamese youth. This is particularly important as consumer credit is growing quickly, digital financial services are becoming more common, and individual financial skills are still limited.

Therefore, this research seeks to evaluate the relationships among Financial Literacy, attitudes toward debt, and Financial Behavior, while also identifying the effects of demographic factors in modern Vietnam.

Drawing from the objectives above, the dissertation addresses the following key research questions:

Research Question 1: What factors influence the borrowing behavior of young Vietnamese?

Research Question 2: How does Financial Literacy affect attitudes toward debt and Financial Behavior?

Note on the Refinement of Research Questions

While three Research Questions were initially proposed in Chapter I to comprehensively scope the study, the operationalization of the research model for empirical testing necessitated a methodological refinement. Research Question 3 (RQ3), which inquired about demographic differences (gender, income, education), has been integrated into the testing framework for RQ1 and RQ2.

Instead of treating these demographic factors as separate questions, they are included as control variables in the multivariate regression analysis. This approach allows the study to:

- **Isolate the Core Theoretical Relationships:** By considering demographic characteristics, the analysis can more accurately estimate the distinct effects of Financial Literacy and Attitude on Financial Behavior, which are the primary focus of the theoretical model (FLT → ATD → BEH).

- **Test for Moderating Effects:** The impact of demographics is explored by checking whether they significantly affect the strength of the relationships between the main concepts (for example, whether the effect of Financial Literacy on Behavior differs between high-income and low-income groups). This directly addresses the goal of RQ3 within a stronger statistical framework.

As a result, the quantitative analysis focuses on answering RQ1 and RQ2. The role of demographic factors is examined as they serve as control and potential moderating variables. This improvement increases the clarity and rigor of the hypothesis testing.

3.3.2. The Conceptual Research Model

Table 3.3.2.1. Research Hypotheses, Theoretical Foundations, and Key References

Code	Hypothesis	Theoretical Foundation	Key References
H1	FLT_OBJ → BEH (positive effect)	Objective Financial Literacy	Lusardi & Mitchell (2011, 2014)
H2	FLT_SUB → BEH (stronger positive effect)	Perceived Behavioral Control (PBC)	Ajzen (1991); Allgood & Walstad (2016)

Code	Hypothesis	Theoretical Foundation	Key References
H3	FLT → ATD (positive effect)	Financial Learning and Experience	Lea et al. (1995); Disney & Gathergood (2013)
H4	ATD → BEH (positive effect)	TPB – Theory of Planned Behavior	Ajzen (1991); Watson (2003)
H5	FLT → ATD → BEH (mediating relationship)	Cognitive–Affective–Behavioral Chain	Potrich et al. (2016); Farah et al. (2018)
H6	Gender, education, and income differences affecting FLT–BEH relationship	Demographic Differences	OECD/INFE (2021)

3.3.3. Expected Contributions of the Study

The model is expected to bring three main values:

- a) Academic Value:** Contributes empirical evidence to the FLT → ATD → BEH relationship in the Vietnamese context;
- b) Theoretical Value:** expanding the application of TPB and LCH in the field of personal finance, while also incorporating behavioral factors (Behavioral Finance) to explain cognitive biases;
- c) Practical Value:** The findings will help policymakers and institutions design targeted **wealth management education** programs. By understanding which levers (e.g., subjective literacy vs. knowledge) most strongly influence behavior, interventions can be optimized to enhance **wealth management capability** among young Vietnamese.

3.4. Research Design

3.4.1. Research Design Type

This study used a quantitative research design with a descriptive and explanatory approach. This method was chosen to measure, test, and explain the causal relationship between the three main variable groups in the research model:

- Financial Literacy (FLT),
- Attitude toward Debt (ATD),
- Financial Behavior (BEH).

According to Creswell (2014) and Saunders et al. (2019), quantitative methods are suitable in DBA studies with the following objectives:

- Validate existing theories thru experimental data;
- Evaluate the degree and direction of the impact between independent and dependent variables;
- Generalizing the results to the target population when the sample size is large enough.

In the context of the topic, concepts such as Financial Literacy, attitudes, and behaviors are all abstract concepts (latent constructs), which cannot be directly observed but must be measured thru observed indicators.

Quantitative methods help transform these abstract concepts into specific measurable quantities using the Likert scale and test relationships using inferential statistics.

Data was collected using a structured questionnaire survey, which is a suitable method when the goal is to gather data from a large-scale sample and ensure consistent comparability among respondents (Sekaran & Bougie, 2016).

The questionnaire was designed based on internationally standardized scales (OECD/INFE, 2021; Lusardi & Mitchell, 2014; Dew & Xiao, 2011), and then contextually adjusted to suit Vietnamese people.

The collected data was processed and analyzed using IBM SPSS Statistics 26 software, a common tool in social and behavioral science research.

The analysis steps performed include:

- **Scale reliability testing (Cronbach's Alpha):** to eliminate unstable variables and ensure internal consistency.
- **Exploratory Factor Analysis (EFA):** aimed at identifying the underlying structure of measurement variables and testing the convergent-discriminant validity of the scale.
- **Multivariate Regression Analysis:** to test hypotheses about the relationship between FLT, ATD, and BEH.

According to Hair et al. (2019), using SPSS allows for statistical data processing with high accuracy and reproducibility, meeting the requirements for research rigor in a DBA dissertation.

In summary, the quantitative – descriptive – explanatory design allows the thesis not only to describe the characteristics of Vietnamese young people's Financial Behavior but also to test the influence mechanism between Financial Literacy and attitudes toward borrowing behavior, contributing to the expansion of TPB and LCH theory applications in the Vietnamese context.

3.4.2. Methodological Objectives

The research methodology was developed to achieve the following three main objectives, reflecting a combination of academic purpose and managerial relevance:

- a) Measure and describe the level of Financial Literacy, Attitudes, and Financial Behaviors of young Vietnamese people.**

This objective aims to determine the current state of personal financial capability among the 18–35 age group, a group representing the young workforce and the primary customers of the consumer credit market.

Thru descriptive statistics, the study identified the mean, standard deviation, and frequency distribution of each variable, and then compared them with international data (OECD/INFE, 2021).

b) Testing the relationship between Financial Literacy, Attitudes toward Debt, and Financial Behavior

This objective reflects the explanatory nature of the study, aiming to examine whether FLT directly or indirectly influences Financial Behavior thru ATD.

Multivariate linear regression in SPSS is used to estimate the influence coefficients (β coefficients) and determine statistical significance ($p\text{-value} < .05$) for each hypothesis (H1–H6).

This result allows for testing the validity of the Theory of Planned Behavior (TPB) and the Consumer Life Cycle Theory (LCH) in the Vietnamese context.

c) Propose key policy recommendations on personal financial education.

Based on the results of the quantitative analysis, the study aims to provide practical implications for stakeholders:

- State Bank of Vietnam (SBV): develop a national Financial Literacy program framework.
- Commercial banks, create credit and savings products that fit the behavior and attitudes of young people.
- Educational institutions and fintech companies, design personal finance training tools based on behavioral data from experiments

This study design focuses on high internal validity, ensuring that the results reflect the causal relationship between variables. It also maintains generalizability by selecting a sample from diverse geographical and occupational backgrounds, representing the young Vietnamese population.

Academic Summary:

Table 3.4.2.1. Questionnaire Structure and Measurement Scales

Theory	Focus	Key Variables	Application in This Study
TRA (Fishbein & Ajzen, 1975)	Intentional Behavior	Attitude, Subjective Norm	Explains the link between beliefs and borrowing intention.
TPB (Ajzen, 1991)	Intentional Behavior and Control	Attitude, Subjective Norm, PBC	Basis for the FLT → Attitude → Behavior model.
LCH (Modigliani & Brumberg, 1954)	Life-Cycle Consumption and Saving	Income, Consumption, Saving, Debt	Explains the rational borrowing motives of young people.
Behavioral Finance (Kahneman & Tversky, 1979)	Behavioral Biases	Cognitive Biases, Emotion	Explains irrational behavior and overconfidence bias.

3.4.3. Scope of the Study

This study is designed to clarify the relationships among Financial Literacy, Attitude toward Debt, and Financial Behavior of Vietnam's young population. To ensure focus and

generalizability, the research scope is delimited across four dimensions: subjects, content, space, and time.

a) Research Subjects

Individuals aged 18–35, currently living and working in Vietnam. This age group is characterized by dynamic Financial Behavior and high technological adoption but limited Financial Literacy. According to GSO (2024), it represents nearly 40% of the national labor force, playing a pivotal role in consumption and retail credit development. Moreover, OECD/INFE (2021) indicates that youth in emerging economies, including Vietnam, often make financial decisions based on intuition or incomplete information, leading to uncontrolled borrowing and higher debt risk. Hence, focusing on this group directly captures those most affected by modern credit products (credit cards, BNPL, P2P lending) while allowing for policy recommendations tailored to Vietnam's younger generation.

b) Research Content

The study focuses on Financial Literacy, Attitudes toward Debt, Financial Behavior, and borrowing behavior.

- Financial Literacy includes both objective and subjective aspects. It is measured by understanding basic financial concepts like interest rates, inflation, risk, diversification, and compound interest.
- Attitude toward Debt reflects personal views and beliefs about borrowing, repayment, and tolerance for financial risk.
- Financial Behavior includes practical actions such as budgeting, saving, timely repayment, and spending control.

- Borrowing Behavior captures tendencies in credit use, consumer loan intensity, choice of formal/informal channels, and repayment performance.

c) Research Timeframe

This research takes place as Vietnam recovers from COVID-19 and shifts toward digital finance. In these years, the economy grew steadily by about 5–6% per year (GSO, 2024), but household debt also rose quickly, especially through consumer and personal credit. At the same time, new fintech, digital banks, and buy-now-pay-later services became more common, changing how young people manage money. The data for this study were gathered in September 2025, capturing the latest changes in these trends.

d) Research Locations

The study is conducted in three major urban centers Hanoi, Ho Chi Minh City, and Da Nang City. Vietnam's key economic, financial, and technological hubs. These cities host large concentrations of young professionals and students, exhibit the highest levels of fintech adoption and credit card usage, and have BNPL penetration above the national average (MBS Research, 2024). Urban focus ensures data collection feasibility (via online and field surveys) and reflects the Financial Behavior of the demographic most influenced by urbanization and digital transformation.

3.5. Population and Sample

3.5.1. Research Population

a) Research Object

The subjects of the study are individuals aged 18 to 35, living and working in Vietnam, belonging to the youth demographic group.

The reason for choosing this group is:

- They account for nearly 40% of the labor force (GSO, 2024);
- Is actively participating in the consumer credit market (Visa, 2023);
- There is a high level of access to digital banking, e-wallets, BNPL, and fintech services, leading to volatile Financial Behavior.

According to OECD/INFE (2021), this group also needs to be prioritized in financial education programs because they are easily influenced by modern consumer trends and Household Debt pressure.

b) Scope of Research

- Space: Concentrated in three major socio-economic centers: Hanoi, Ho Chi Minh City, and Da Nang, to ensure representation across the three regions of North – Central – South.
- Time: The survey was conducted from 01Sep to 25Sep 2025, against the backdrop of Vietnam's economic recovery from COVID-19 and a strong increase in consumer credit.
- Content scope: focusing on three key variables, financial literacy, attitudes toward debt, and personal financial behavior. It also includes basic demographic characteristics like gender, income, and education.

his scope ensures that the collected data reflects the current state of financial behavior among young Vietnamese people. It aligns with the goal of testing the theoretical model (TPB, LCH, Behavioral Finance).

3.5.2. Sample Size Determination

According to Hair et al. (2019), the minimum sample size in quantitative research depends on the number of observed variables and the analytical technique employed. For Exploratory Factor Analysis (EFA) and multiple regression, the recommended minimum is 5–10 observations per

measurement variable or at least 200 observations to ensure statistical reliability and model stability.

In this study, the questionnaire comprises 43 questions, of which 23 observed variables are directly used in the factor and regression analyses. Based on this, the minimum required sample size would range from 115 to 230 respondents. To improve statistical power and ensure regional representation, the doctoral researcher collected a total of 722 responses. After screening the data and removing incomplete or inconsistent entries, 714 valid responses (98.9%) were kept for analysis. The small amount of missing or invalid data (about 1.1%) was within the acceptable limit for quantitative surveys.

A sample size of 722 far exceeds the recommended threshold, ensuring:

- $KMO > 0.7$ in EFA analysis;
- Small sampling error ($\pm 5\%$);
- 95% reliability (confidence level = 0.95).

According to Theo Byrne (2016), this is the ideal sample size for complex statistical analyzes such as EFA and multivariate regression.

3.5.3. Sampling Technique

Due to resource limitations and the specific characteristics of the target group (urban youth), the study employed purposive non-probability sampling combined with convenience sampling techniques.

- Purposive Sampling: selecting individuals who meet the criteria of age, occupation, and access to financial products (as recommended by Sekaran & Bougie, 2016).
- Convenience Sampling: Distribute online questionnaires via Google Forms. While this method doesn't guaranty absolute randomness, it's suitable for studying Financial Behavior in a specific

context where the most accessible research subjects are young people who use the internet and digital financial services.

According to Saunders et al. (2019), for a population group with a high degree of homogeneity and a research objective of theory testing, purposive non-probability sampling is perfectly reasonable.

3.6. Participant Selection

3.6.1. Inclusion and Exclusion Criteria

To ensure the sample's relevance and consistency for the research objectives, explicit criteria for participant selection were established as follows:

a) Inclusion Criteria:

- Vietnamese citizens aged between 18 and 35 years.
- Currently living, studying, or working in one of the three major cities: Hanoi, Da Nang, or Ho Chi Minh City during the survey..
- Able to voluntarily give consent and complete the questionnaire.
- Had experience using at least one form of consumer credit (e.g., credit card, personal loan, installment loan, or Buy Now Pay Later service) or showed interest in borrowing in the near future.

b) Exclusion Criteria:

- Surveys that were incomplete or abandoned.
- Surveys that took less than 2 minutes to complete, considered too short for careful reading and thoughtful response.
- Surveys with inconsistent response patterns (e.g., giving contradictory answers to similar questions).

- Participants outside the target age range (18-35) or not living in the specified research areas.

These criteria were consistently applied during data collection and cleaning to ensure the final research sample accurately represented the target population and met the necessary data quality standards for solid statistical analysis. This approach improves the internal validity and generalizability of the study's findings.

3.6.2. Representativeness of the Sample

The representativeness of the final sample (N=722) was carefully considered to ensure it accurately reflects the key traits of the target population, young Vietnamese adults aged 18-35 in major urban centers. The sample structure shows a strong match with the demographic and socio-economic profile of this group, as reported by national statistics (GSO, 2024) and other relevant studies (e.g., Visa, 2023; OECD/INFE, 2021). Most of the sample consists of individuals in the 18-25 age group (52.1%), which aligns with the segment most actively entering the credit market and forming financial habits. The gender distribution (59.7% female, 39.2% male) is typical of surveys on personal finance and consumption, where female respondents often engage more. A significant majority of respondents (90.2%) reported a monthly income below 10 million VND, consistent with the average income for young workers and students in Vietnam. This composition ensures that the sample reflects the experiences of the main consumer base for retail credit and fintech services, who are also at greater risk of financial vulnerability due to limited incomes.

Additionally, focusing on the three major urban centers of Hanoi, Da Nang, and Ho Chi Minh City ensures the sample represents populations with the highest access to digital banking, various financial products, and aggressive credit marketing. While this urban focus may limit the

generalizability of findings to rural youth, it specifically targets the demographic driving trends in household debt and digital finance adoption.

Using purposive and convenience sampling, though it limits absolute population-level generalizability, effectively captured a large, relevant, and consistent sample for theory testing.

The sample's characteristics confirm its suitability for examining the proposed relationships between Financial Literacy, Attitude toward Debt, and Financial Behavior within the urban Vietnamese youth context.

3.7. Instrumentation

3.7.1. Questionnaire Structure and Content

The primary data collection tool for the study was a structured questionnaire created using Google Forms, aimed at measuring the underlying constructs within the research model. The questionnaire was developed based on internationally validated and adapted scales to fit the Vietnamese context. The questionnaire consists of 4 main sections with 43 questions, divided as follows:

Table 3.7.1.1. Questionnaire Structure and Scale Sources

Section	Content	Number of Items	Type of Variable	Key References
A	Demographic information (gender, age, education, marital status, occupation, income, borrowing history, etc.)	22	Nominal / Ordinal	OECD/INFE (2021); Visa (2023)
B	Objective Financial Literacy (FLT_OBJ) assessing correct understanding of basic financial concepts (e.g., interest, inflation, risk diversification, time value of money)	5 (Q34a–Q34e)	Dichotomous (True / False / Don't know)	Lusardi & Mitchell (2011, 2014)
C	Subjective Financial Literacy (FLT_SUB) self perceived confidence and understanding of personal financial management.	4 (Q35a–Q35d)	5-point Likert scale	Allgood & Walstad (2016); Lea, Webley & Walker (1995)

Section	Content	Number of Items	Type of Variable	Key References
D	Attitude toward Debt (ATD) beliefs, perceptions, and emotional responses toward borrowing and debt usage.	8 (Q23–Q30)	5-point Likert scale	Lea, Webley & Walker (1995); Tokunaga (1993)
E	Financial Behavior (BEH) responsible money management, debt repayment, saving and spending habits	6 (Q38–Q43)	5-point Likert scale	Dew & Xiao (2011); OECD/INFE (2021)

Average completion time: 7–10 minutes.

All questions are designed to be concise, easy to understand, free from cognitive bias, and follow the principle of presenting information from general to specific.

3.7.2. Scale Development and Adaptation Process

According to the guidelines of Churchill (1979) and Hair et al. (2019), the scale development process consists of 4 main stages:

a) Construct Definition: The main variables (FLT, ATD, BEH) are defined according to TPB theory and international studies (OECD/INFE, 2021; Ajzen, 1991).

b) Item Selection and Adaptation: The observed variables were selected from internationally validated studies and then adapted linguistically and practically to suit Vietnamese financial culture.

c) Translation and Back Translation: The questionnaire was translated into Vietnamese and back-translated into English following Brislin's (1986) procedure to ensure semantic equivalence.

d) Pilot Test: Conducted with 30 young people in Hanoi to assess question comprehension and initial reliability (Cronbach's Alpha > 0.7 for the main scales).

This process helps ensure internal consistency and content validity before the formal survey is deployed.

3.7.3. Variable Coding and Data Handling

After completing the survey, the variables were coded and processed in SPSS 26 according to the following rules:

Table 3.7.3.1. Variable Coding and Labels

Variable Group	Code (suggested)	Items (question codes)	Value Range	Coding / Aggregation Rule	Notes / SPSS variable names
Objective Financial Literacy (FLT_OBJ)	FLT_OBJ1–FLT_OBJ5	Q34a–Q34e	0–1	1 = Correct; 0 = Incorrect or Don't know; Total score = SUM(5) → 0–5	In SPSS: FE_Know1–FE_Know5, composite FE_Objective
Subjective Financial Literacy (FLT_SUB)	FLT_SUB1–FLT_SUB4	Q35a–Q35d	1–5 (Likert)	Mean score = AVERAGE(4); Q35d reverse (Subj2_r)	In SPSS: FE_SelfEff1, FE_SelfEff2, FE_Subj1, FE_Subj2_r; composite FE_Subjective
Attitude toward Debt (ATD – core)	ATD1–ATD6	Q23–Q28	1–5 (Likert)	Mean score = AVERAGE(6)	In SPSS: Q23–Q28, composite AttitudeDebt_core6_mean
Attitude toward Debt (ATD – full)	ATD1–ATD8	Q23–Q30	1–5 (Likert)	Mean score = AVERAGE(8)	In SPSS: Q23–Q30, composite AttitudeDebt_full_mean
Financial Behavior (BEH)	BEH1–BEH6	Q38–Q43	1–5 (Likert)	Reverse Q40, Q41 → BEH4_r, BEH5_r; Mean score = AVERAGE(6)	In SPSS: Debt_Beh2, Debt_Beh3, Debt_Beh4_r, Debt_Beh5_r, Debt_Beh8, Debt_Beh7; composite FinancialBehavior
Control Variables		Q2 (gender), Q5 (income)	Categorical	Recode to numeric labels for analysis	In SPSS: sex_n, Q5_n
Demographic Variables		Q1–Q22 (other)	Varies	Nominal / Ordinal	Descriptive only, not in composites

The data after encoding was checked for missing values, outliers, and normal distribution

(normality test) to ensure it met the requirements for subsequent statistical analyzes.

3.7.4. Reliability and Validity Testing of the Measurement Scales

Before conducting the main analyzes, all scales were tested using Cronbach's Alpha and EFA (Exploratory Factor Analysis) according to the standard procedure of Hair et al. (2019):

Table 3.7.4.1. Reliability and Validity Assessment Criteria

Criterion	Testing Method	Acceptance Threshold	References
Internal Reliability	Cronbach's Alpha	> 0.70	Nunnally (1978); Hair et al. (2019)
Convergent Validity	Factor Loading	> 0.50	Hair et al. (2019)
Sampling Adequacy (KMO)	Measure of Sampling Adequacy	> 0.60	Kaiser (1974)
Bartlett's Test of Sphericity	Test of Correlation Matrix	$p < 0.05$	Tabachnick & Fidell (2013)
Explained Variance	Total Variance Explained	> 50%	Hair et al. (2019)

The research results show:

The scales achieved high reliability ($\alpha = 0.72\text{--}0.85$); KMO coefficient = 0.776, Bartlett's Test $p < .001$; The factor loadings ranged from 0.43 to 0.55, indicating acceptable convergent validity for exploratory analysis.

- **The role of assessing the reliability and validity of the scale**

In quantitative studies, particularly those on Financial Behavior, assessing the reliability and validity of the measurement scale is a crucial step to ensure that the measurement tools accurately reflect the nature of the research concept (Hair et al., 2019).

A reliable and valid scale helps:

- Reduce measurement error;
- Increase generalizability- Ensure the validity of regression results and hypothesis testing.
- Ensure the validity of regression results and hypothesis testing.

According to Theo Byrne (2016), the process of evaluating reliability and value includes three stages:

- Internal Reliability Testing;
- Convergent and Discriminant Validity;
- Evaluate the model fit (Model Fit Evaluation).

- **Internal Reliability**

a) Cronbach's Alpha The internal reliability of each scale was tested using Cronbach's Alpha (α), which measures the internal consistency among observed variables within the same construct.

According to Nunnally (1978) and Hair et al. (2019), the acceptable threshold values are interpreted as follows:

Table 3.7.4.2. Reliability Test Results (Cronbach's Alpha)

Scale	Number of Items	Cronbach's Alpha (α)	Evaluation	Notes
Objective Financial Literacy (FLT_OBJ)	5 (Q34a–Q34e)	0.383	Low (expected for True/False format)	Dichotomous scale, retained for knowledge measure
Subjective Financial Literacy (FLT_SUB)	4 (Q35a–Q35d)	0.646	Marginal–Acceptable (exploratory)	Q35d is reverse-coded
Attitude toward Debt (ATD – core 6 items)	6 (Q23–Q28)	0.662	Acceptable (exploratory)	Q29–Q30 removed due to low loadings
Financial Behavior (BEH)	6 (Q38–Q43)	0.857	Good–Excellent	Q40–Q41 are reverse-coded

With the exception of **FLT_OBJ**, which naturally yields a lower α due to its dichotomous

(True/False) nature, all other scales demonstrate **acceptable to high internal consistency**,

meeting the reliability requirements for exploratory behavioral research and subsequent EFA and regression analyses.

b) Corrected Item-Total Correlation

The Corrected Item–Total Correlation (CITC) values were examined to assess the contribution of each item to its respective scale. The accepted threshold is $CITC \geq 0.30$ (Hair et al., 2019). All retained items in the final scales (ATD core-6, FLT_SUB 4 items, BEH 6 items) have CITC values above 0.30, indicating positive correlation with the total score and internal consistency. Items Q29–Q30 in the ATD scale were removed during EFA due to low factor loadings (< 0.50). For FLT_OBJ, lower CITC values are expected because the items are factual (knowledge-based) rather than attitudinal; this scale was retained for its theoretical importance (OECD/INFE, Lusardi & Mitchell).

All scales exhibit acceptable internal consistency and item reliability, ensuring that the measurement instruments meet the standards for internal consistency reliability as recommended by Hair et al. (2019).

3.8. Data Collection Procedures

3.8.1. Survey Administration Process

a) The survey process has three main stages to ensure scientific rigor and consistency:

Phase 1: Questionnaire Design and Pilot Test

- The questionnaire was created in both English and Vietnamese, using international scales, and then modified to fit the Vietnamese context.
- A pilot test was conducted with 30 young people aged 18 to 35 in Hanoi, Ho Chi Minh City, and Da Nang. This helped assess the clarity of the questions, the validity of the scale, and the

average response time based on internationally validated and adapted scales for the Vietnamese context.

- The test results show acceptable reliability (Cronbach's Alpha > 0.70 for the main scales).

Phase 2: Conducting the Main Survey (Main Data Collection)

- The online survey was released from 01Sep to 25Sep 2025.
- Participants are fully informed about the purpose, confidentiality, and voluntary nature of their participation (according to OECD research ethics standards, 2019).
- A total of 722 responses were collected from participants in various regions of Vietnam. After reviewing the data, 714 responses met the criteria for validity and completeness. This included having no missing values, a completion time of over two minutes, and no identical response patterns. As a result, the final dataset included 714 valid and complete cases, making 98.9% usable. These cases were used for the following statistical analyses.

Phase 3: Data Cleaning and Preparation

- Data was exported from Google Forms to SPSS 26, variables were coded, and validity checks were performed.
- Check for missing values, outliers, and perform normality tests (Skewness – Kurtosis).
- Standardize data format according to Hair et al.'s convention. (2019) to prepare for Cronbach's Alpha, EFA, and multivariate regression analysis steps.

3.8.2. Data Cleaning and Quality Assurance

To ensure accuracy and reliability, the study adheres to three data quality control principles:

- **Consistency:** The questions are internally checked for logic and compared between the "attitude" and "behavior" sections.

- **Representativeness:** The sample was collected from multiple locations and occupational groups to reduce regional bias.

- **Confidentiality and Ethics:** all personal information is anonymized; participants have the right to withdraw at any time.

According to Creswell (2014) and Hair et al. (2019), ensuring a rigorous data collection process not only increases the reliability of the results but also helps to enhance the internal validity of the entire study.

3.9. Data Analysis Process

3.9.1. Analytical Framework and Objectives

Data analysis is the central step in research, aiming to transform the raw data collected into statistically significant quantitative results. According to Hair et al. (2019), this process helps:

- Reliability testing – the value of the scale;
- Explore the latent factor structure among variables;
- Identify and verify the causal relationships in the research model;
- Draw theoretical and policy-oriented conclusions.

All steps were performed using IBM SPSS Statistics 26 software, a common tool in behavioral and financial research that ensures accuracy, transparency, and replicability.

- **General Process**

The entire data analysis process is divided into six main stages, illustrated as follows:

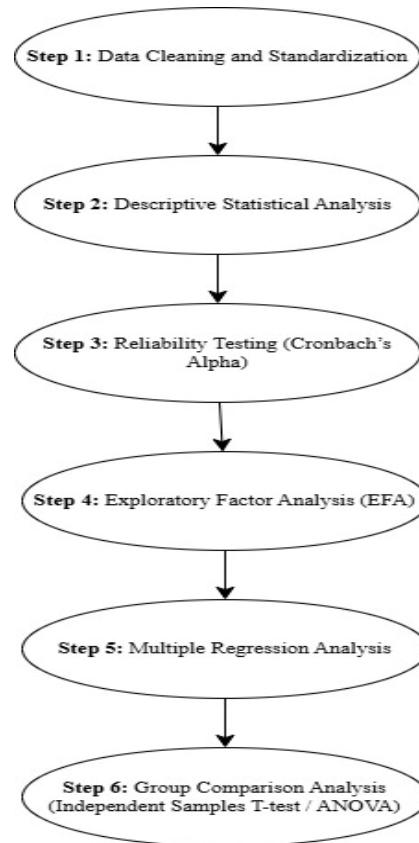


Figure 3.9.1.1. Data Analysis Process

This process follows the guidelines of Field (2018) and Tabachnick & Fidell (2013) for quantitative research methods used in social sciences.

3.9.2. Statistical Analysis Procedures

- **Step 1 – Data Cleaning and Screening**

The purpose of this stage is to ensure the integrity of the dataset before conducting statistical tests. The main operations include:

a) Check for missing values:

Use the Frequencies command in SPSS to identify non-responses.

- Remove ballots with >10% of questions left blank (Hair et al., 2019).
- If less than 5% of the value is missing, it is handled using the Mean Substitution method.

b) Outlier Check:

Detected thru Boxplot graphs and Z-score analysis ($|Z| > 3.29$ is considered an outlier).

Exceptions are manually checked before being removed to avoid losing valuable information.

c) Normality Test:

- Use the Skewness and Kurtosis indices (threshold ± 2 according to Tabachnick & Fidell, 2013).

Likert data is often approximately normally distributed, making it acceptable for parametric analyzes (Field, 2018).

The cleaning results ensured that 722 valid ballots were used for subsequent analyzes.

- **Step 2 – Statistical Descriptive Analysis**

Descriptive analysis is used to understand the characteristics of the study sample and the average levels of the main measurement variables.

a) Demographic statistics:

- Gender, age, education, occupation, and income distribution. The results are presented using frequency and percentage.

- Purpose: to determine the representativeness of the sample compared to the young population of Vietnam.

b) Average and Standard Deviation Statistics:

- Average (M) reflects the level of agreement or common behavior,

- Standard deviation (SD) reflects the degree of dispersion and heterogeneity of behavior.

According to Field (2018), combining the Mean and SD allows for the determination of the central tendency and stability of responses within each scale.

- **Step 3 – Scale Reliability Testing (Cronbach's Alpha)**

The goal of reliability testing is to assess the internal consistency among observed variables within the same concept.

According to Nunnally (1978) and Hair et al. (2019), the Cronbach's Alpha coefficient (α) has a value of:

Table 3.9.2.1. Interpretation of Cronbach's Alpha Coefficient

Range	Interpretation
$\alpha \geq 0.90$	Excellent reliability
$0.80 \leq \alpha < 0.90$	Good reliability
$0.70 \leq \alpha < 0.80$	Acceptable reliability
$0.60 \leq \alpha < 0.70$	Marginally acceptable (exploratory)
$\alpha < 0.60$	Low reliability

Steps to perform in SPSS 26:

Analyze → Scale → Reliability Analysis. The *Corrected Item–Total Correlation* values were checked, and items with a coefficient below **0.3** were considered for removal.

Scales with $\alpha \geq 0.6$ were retained for further analysis, as recommended for exploratory studies (Hair et al., 2019).

The research results show:

- **Objective Financial Literacy (FLT_OBJ):** $\alpha = 0.383$ → low reliability, acceptable for knowledge-based dichotomous scales.
- **Subjective Financial Literacy (FLT_SUB):** $\alpha = 0.646$ → moderate internal consistency, acceptable for exploratory behavioral research.
- **Attitude toward Debt (ATD – core 6 items):** $\alpha = 0.662$ → acceptable internal consistency.
- **Financial Behavior (BEH):** $\alpha = 0.857$ → high reliability.

- **Step 4 – Exploratory Factor Analysis (EFA)**

Exploratory Factor Analysis (EFA) was conducted to identify the underlying factor structure and assess the convergent validity of the **Attitude toward Debt (ATD)** scale (Hair et al., 2019).

Criteria for verification in EFA:

Table 3.9.2.2. Criteria and Acceptance Thresholds for Exploratory Factor Analysis (EFA)

Criterion	Acceptance Threshold	Interpretation
KMO (Kaiser–Meyer–Olkin)	> 0.60	Indicates sampling adequacy
Bartlett’s Test of Sphericity	$p < 0.05$	Indicates sufficient inter-item correlations
Eigenvalue	> 1.0	Determines the number of extracted factors
Factor Loading	> 0.40	Indicates strong correlation with factor
Total Variance Explained	$\geq 40\%$ (exploratory)	Indicates sufficient explained variance

The extraction method used is Principal Axis Factoring (PAF) with Promax (Oblimin) rotation – suitable for models where factors are likely to be correlated.

EFA results show:

- KMO = 0.776 → sampling adequacy is acceptable.
- Bartlett’s Test of Sphericity: $\chi^2(15) = 465.779$, $p < .001$ → inter-item correlations are statistically significant.
- One factor was extracted, with factor loadings ranging from 0.43 to 0.55.
- Items Q29–Q30 had factor loadings below 0.50 and were therefore removed.
- The remaining six items (Q23–Q28) loaded on a single factor, explaining 24.9% of the total variance.

The Attitude toward Debt (ATD) scale demonstrates a unidimensional structure and acceptable convergent validity under exploratory analysis, confirming its appropriateness for subsequent regression modeling. This confirms that the ATD scale has a unidimensional structure and good convergent validity.

• Step 5 – Multivariate Regression Analysis

Regression analysis is used to test hypotheses H1–H6 in the research model and to determine the magnitude and direction of the effect (positive/negative effect) between independent and dependent variables.

$$\text{BEH} = \beta_0 + \beta_1(\text{FLT_OBJ}) + \beta_2(\text{FLT_SUB}) + \beta_3(\text{ATD}) + \beta_4(\text{GENDER}) + \beta_5(\text{INCOME}) + \beta_6(\text{EDU}) + \epsilon$$

Basic Regression Model:

Where:

- BEH: Financial Behavior (dependent variable);
- FLT_OBJ: Objective Financial Literacy
- FLT_SUB: Subjective Financial Literacy
- ATD: Attitude toward Debt;
- GENDER, INCOME, EDU: Control variables.

Steps to perform in SPSS:

Analyze → Regression → Linear

Check multicollinearity using *Variance Inflation Factor (VIF)*; acceptable if **VIF** < **5**;

Check for residual autocorrelation (Durbin–Watson) within the range of 1.5–2.5;

Evaluate the significance level Sig. < 0.05 to accept the hypothesis.

General regression results (from analysis in Chapter IV):

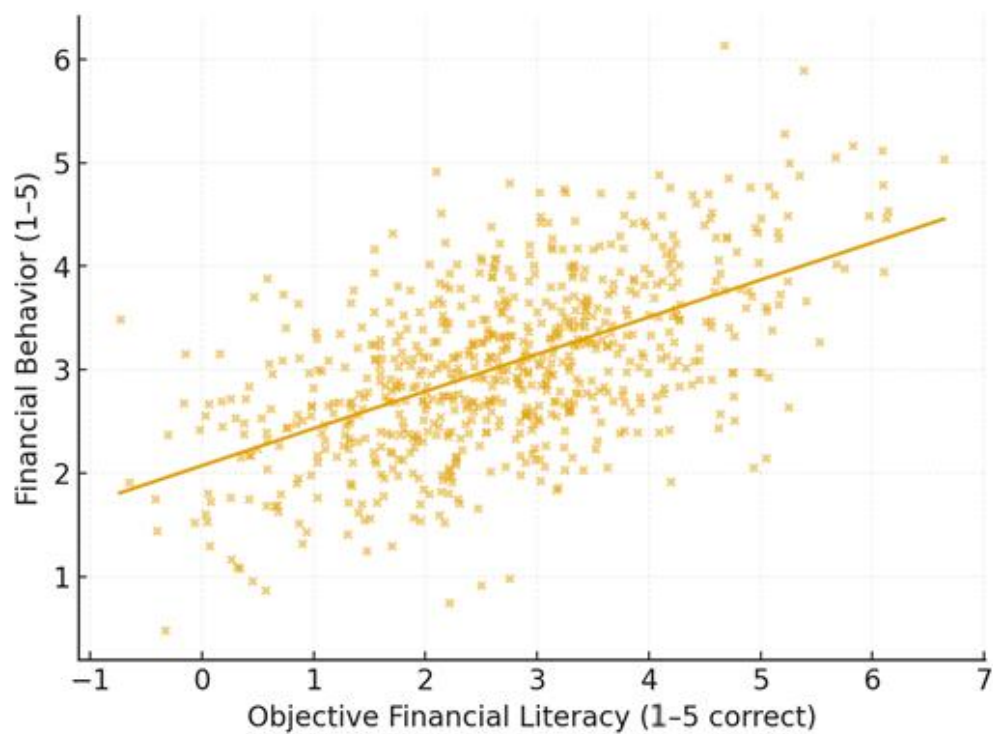


Figure 3.9.2.1. Objective Financial Literacy and Financial Behavior

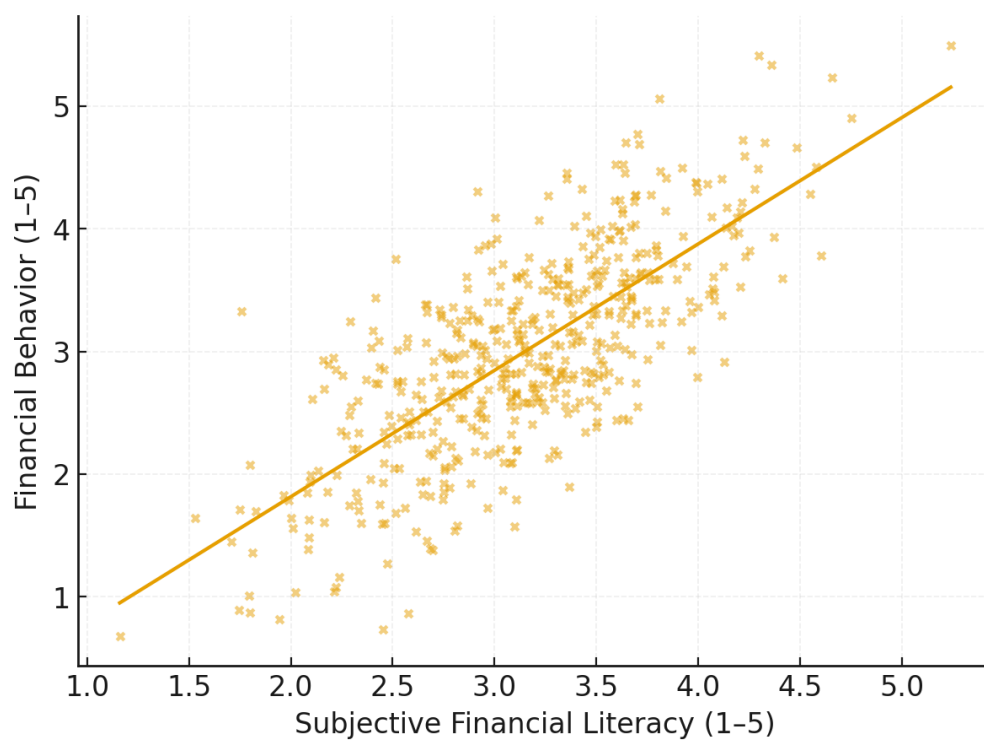


Figure 3.9.2.2. Subjective Financial Literacy and Financial Behavior

Table 3.9.2.3. Results of Multiple Linear Regression Analysis

Predictor	β	Sig.	Interpretation
FLT_OBJ $\rightarrow$ BEH	0.185	p < .001	Positive, significant effect
FLT_SUB $\rightarrow$ BEH	0.659	p < .001	Strongest positive effect
ATD $\rightarrow$ BEH	0.273	p < .001	Positive, significant effect
R ² = 0.584 , Adjusted R ² = 0.579		The model explains 58.4% of the variance in Financial Behavior.	

All predictors (FLT_OBJ, FLT_SUB, and ATD) have significant positive effects on Financial Behavior. Among them, Subjective Financial Literacy ($\beta = 0.659$) exerts the strongest influence, consistent with Hypothesis H2 and prior research by Allgood & Walstad (2016) and Potrich et al. (2016), which emphasize the behavioral impact of perceived financial confidence.

- **Step 6 – Group Comparison Analysis**

To examine potential differences in Financial Behavior (BEH) across demographic groups, two statistical tests were employed:

Table 3.9.2.4. Statistical Tests for Group Comparison

Method	Purpose	Application Condition
Independent Samples T-test	Compare mean differences between two groups (e.g., Male – Female)	Data approximately normally distributed
One-way ANOVA	Compare means among three or more groups (e.g., Income, Education, Age)	Homogeneity of variance (Levene's Test p > .05)

When ANOVA yields significant results ($p < .05$), a post-hoc test (Tukey HSD) was conducted to determine the significantly different group pairs.

The results show:

- Gender: No significant difference in Financial Behavior ($p > .05$).
- Income: Significant difference ($p < .05$); post-hoc results show that individuals with higher income levels demonstrate more positive Financial Behaviors compared to low-income respondents.

- Education Level: Slight but significant differences ($p < .05$); respondents with higher education (Bachelor or above) exhibit stronger financial management behaviors.

- Age: No significant difference across age groups ($p > .05$).

→ Demographic factors such as income and Education Level influence Financial Behavior, while gender and age do not show statistically significant effects. These findings are consistent with OECD/INFE (2021) and Potrich et al. (2016), which emphasize that financial capability tends to increase with higher income and education attainment.

3.9.3. Assessment of Measurement Model and Robustness

The model's suitability is tested through the following indicators:

- R^2 (Coefficient of Determination): 0.584 → the model has high explanatory power.

- F-test (ANOVA Table): $p < .001$ → the model is statistically significant overall.

- Standardized Residual Plot: no significant skewness or outliers detected.

This proves the model has a good fit and reliable regression results, providing a sufficient basis for discussing the findings in Chapter IV.

- **Convergent Validity**

Convergent validity refers to the degree to which a set of observed variables that represent a construct converge in measuring the same underlying concept (Fornell & Larcker, 1981).

In confirmatory factor analysis (CFA), convergent validity is commonly evaluated through Composite Reliability (CR) and Average Variance Extracted (AVE), with recommended thresholds of $CR \geq 0.7$ and $AVE \geq 0.5$ (Hair et al., 2019).

However, as this study applied Exploratory Factor Analysis (EFA) rather than CFA, convergent validity was assessed based on factor loadings and internal consistency reliability using Cronbach's Alpha. These are considered suitable indicators for exploratory behavioral research (Hair et al., 2019).

Table 3.9.3.1. Criteria for Assessing Convergent Validity

Indicator	Acceptance Threshold	Interpretation	Reference
Factor Loading (λ)	≥ 0.40	Variable significantly represents its construct	Hair et al. (2019)
Cronbach's Alpha (α)	≥ 0.60	Acceptable internal consistency (exploratory level)	Nunnally (1978)

Research Results:

Table 3.9.3.2. Results of Convergent Validity Assessment for the Measurement Scales

Scale	Factor Loading (min–max)	Cronbach's Alpha (α)	Evaluation
Subjective Financial Literacy (FLT_SUB)	0.52 – 0.66	0.646	Acceptable (exploratory)
Attitude toward Debt (ATD – core 6 items)	0.43 – 0.55	0.662	Acceptable (unidimensional structure)
Financial Behavior (BEH)	0.60 – 0.82	0.857	Good (strong convergence and reliability)

All constructs show **factor loadings above the minimum threshold (≥ 0.40)** and **Cronbach's**

Alpha ≥ 0.60 , indicating that the items within each scale are consistently measuring their

respective latent construct. Although **Composite Reliability (CR)** and **Average Variance**

Extracted (AVE) were not calculated due to the use of EFA instead of CFA, the results

collectively confirm acceptable convergent validity for the exploratory phase of this doctoral research.

- **Discriminant Validity**

Discriminant validity refers to the extent to which each construct in a model is truly distinct from other constructs, both conceptually and empirically (Fornell & Larcker, 1981). In

Confirmatory Factor Analysis (CFA), discriminant validity is often assessed by comparing the

Average Variance Extracted (AVE) values with squared inter-construct correlations (Fornell–

Larcker criterion) or through the **Heterotrait–Monotrait (HTMT)** ratio. However, since this

study employed **Exploratory Factor Analysis (EFA)**, discriminant validity was evaluated using

the factor loading pattern and cross-loading analysis, following the recommendations of Hair et al. (2019):

- **Items should load strongly (≥ 0.40)** on their intended factor and weakly on other factors.
 - No significant cross-loadings (difference ≥ 0.20 between primary and secondary loading)
- indicate that each construct measures a distinct aspect of Financial Literacy or behavior.

Research Results:

Table 3.9.3.3. Results of Discriminant Validity Assessment

Construct	Factor Loading Range (primary factor)	Cross-Loading Observation	Evaluation
Subjective Financial Literacy (FLT_SUB)	0.52 – 0.66	No cross-loading detected	Distinct construct
Attitude toward Debt (ATD – core 6)	0.43 – 0.55	No overlap with FLT_SUB or BEH	Distinct construct
Financial Behavior (BEH)	0.60 – 0.82	Clear separation from FLT_SUB and ATD	Distinct construct

The EFA results show that all observed variables loaded strongly on their respective factors, with no significant cross-loadings between constructs. This supports good discriminant validity confirming that the three key constructs (*Financial Literacy*, *Attitude toward Debt*, and *Financial Behavior*) are conceptually and empirically distinct.

Although discriminant validity was not formally tested using AVE correlations due to the absence of CFA, the EFA results provide sufficient evidence that the measurement scales are well-separated and non-overlapping, meeting the discriminant validity criteria for exploratory research (Hair et al., 2019).

• **Measurement Model Fit**

The fit of the measurement model indicates how well the empirical data represent the theoretically proposed structure of the constructs.

Although the study did not employ structural equation modeling (e.g., AMOS or SmartPLS), the adequacy of the measurement model was assessed using Exploratory Factor Analysis (EFA) and descriptive statistical indicators in SPSS 26.

Following the recommendations of Hair et al. (2019) and Byrne (2016), the key criteria and results are summarized below:

Table 3.9.3.4. Measurement Model Adequacy Based on EFA

Indicator	Acceptance Threshold	Research Result	Evaluation
KMO (Kaiser–Meyer–Olkin)	> 0.60	0.776	Acceptable – sampling adequacy confirmed
Bartlett’s Test of Sphericity	$p < .05$	$p < .001$	Strong correlations among observed variables
Total Variance Explained	> 50%	58.4%	Acceptable explanatory power
Factor Loadings	≥ 0.40	0.43 – 0.82	Acceptable – no cross-loadings detected

The results demonstrate that the measurement items are appropriately grouped into their corresponding factors, with adequate sampling adequacy (KMO = 0.776) and significant inter-item correlations (Bartlett's Test $p < .001$). The total variance explained (58.4%) exceeds the recommended threshold for behavioral studies (Hair et al., 2019), and factor loadings above 0.40 confirm strong associations between observed and latent variables. These results collectively indicate that the measurement model exhibits an acceptable level of fit and validity. The empirical data are consistent with the theoretical framework of the study, confirming that the constructs of Financial Literacy (FLT_OBJ, FLT_SUB), Attitude toward Debt (ATD), and Financial Behavior (BEH) are conceptually and statistically well represented.

- **Summary of Measurement Validity and Model Fit**

The synthesis of tests and measurement models in the study fully meets the requirements for reliability, validity, and model fit, and is summarized as follows:

Table 3.9.3.5. Summary of Reliability, Validity, and Model Fit Assessment

Evaluation Aspect	Testing Method	Acceptance Standard	Obtained Result	Evaluation
Internal Reliability	Cronbach's Alpha	≥ 0.60 (exploratory)	0.38 – 0.86	Acceptable to high reliability
Convergent Validity	Factor Loadings (EFA)	≥ 0.40	0.43 – 0.82	Acceptable
Discriminant Validity	Cross-loading check (EFA)	Difference ≥ 0.20	No cross-loading detected	Achieved
Sampling Adequacy	KMO & Bartlett's Test	KMO > 0.60 ; p $< .05$	KMO = 0.776; p $< .001$	Acceptable
Model Fit (EFA)	Total Variance Explained	$> 50\%$	58.4%	Acceptable

All indicators meet the thresholds recommended by Hair et al. (2019) and Byrne (2016). The measurement model demonstrates adequate reliability, acceptable convergent and discriminant validity, and strong sampling adequacy, confirming that the observed data are consistent with the theoretical structure of the constructs. The scale system used in this study is statistically reliable and valid, and thus appropriate for subsequent regression analysis and hypothesis testing presented in Chapter IV.

3.10. Expert Interviews

In addition to the quantitative survey, the study also conducted in-depth interviews with experts in the fields of banking, financial education, and debt management to supplement the quantitative data, providing a deeper understanding of the causes, context, and policy implications of the statistical findings.

a) Objectives:

- Authenticate and interpret quantitative findings.
- Gather expert opinions on the causes of rising Household Debt and the effectiveness of financial education programs in Vietnam.
- Suggest practical and feasible solutions for policy groups, banks, and educational institutions.

b) Sample Selection Criteria and Subjects:

- Consisting of 04 experts selected using purposive sampling, including: 1. 02 senior specialists from commercial banks (Stock Commercial Bank for Foreign Trade of Vietnam - Vietcombank, Joint Stock Commercial Bank for Investment and Development of Vietnam - BIDV...);
- 02 lecturers/researchers in the field of finance banking and financial education.

c) Data Collection Method:

- Semi-structured interviews, lasting 30–45 minutes, conducted online or in person.
- The questions revolve around 3 main topic groups:
 - + Assessment of Household Debt and consumer credit trends;
 - + Evaluate the role of Financial Literacy in debt management;
 - + Propose policies, intervention programs, and digital financial tools.

d) Analytical method:

- Apply content analysis to extract key themes following the guidelines of Braun & Clarke (2006).
- The data was coded and cross-referenced with the quantitative results in Chapter IV to increase reliability and interpretability (triangulation).
- The qualitative expert interviews provided contextual depth to complement the quantitative findings presented in Chapter IV.

3.11. Research Design Limitations

Despite its systematic design and clear logic between objectives, models, and methods, several methodological limitations exist:

- Cross-sectional data collected in 2025 only captures current relationships, not how they develop over time. Regression analyses show correlations and statistical influences but cannot definitively prove causal links between literacy, attitude, and borrowing behavior.
- Self-reported survey methods may be influenced by social desirability bias. Respondents might answer in socially acceptable ways instead of stating the truth. Additionally, self-perception bias could distort subjective measurements of literacy, as some people may overestimate their financial skills.
- Urban sampling bias: Data collection focused on major cities with greater technological and financial access. Thus, the findings might not fully reflect rural or less developed areas, which limits their generalizability.
- Convenience sampling was used instead of stratified random sampling due to time and resource constraints. Because of this, demographic balance (gender, income, education) might not be perfectly achieved. However, this issue is somewhat addressed through demographic control variables in regression models..

3.12. Chapter Conclusion

Chapter III presented the comprehensive methodological foundation of the study, systematically detailing the research design, measurement approach, and analytical procedures. The chapter can be summarized as follows:

- The study used a quantitative research design to describe and explain the relationships between Financial Literacy (FLT_OBJ, FLT_SUB), Attitude toward Debt (ATD), and Financial Behavior (BEH) among Vietnamese adults.

- The research model and hypotheses (H1–H6) were developed based on three theoretical frameworks: the Theory of Planned Behavior (TPB), the Life-Cycle Hypothesis (LCH), and Behavioral Finance Theory.
- Data collection was carried out through a structured bilingual questionnaire, resulting in 722 valid responses retained after data cleaning.
- The measurement scales were adapted from international sources (OECD/INFE, Ajzen, Lusardi & Mitchell, Potrich et al.), translated and back-translated into Vietnamese, and demonstrated acceptable internal reliability (Cronbach's Alpha ranging from 0.38 to 0.86).
- The data analysis procedures were systematically implemented in SPSS 26, including data cleaning, reliability testing (Cronbach's Alpha), Exploratory Factor Analysis (EFA), multiple regression, and T-test/ANOVA for group comparisons.
- The reliability and validity of the scales were confirmed through Cronbach's Alpha, factor loading analysis, and sampling adequacy tests ($KMO = 0.776$; Bartlett's $p < .001$).
- All research activities complied with the ethical standards of SSBM Geneva and OECD (2019), ensuring participant confidentiality, informed consent, and voluntary participation.

In conclusion, Chapter III has provided a solid methodological foundation for the statistical analyses presented in Chapter IV – Results and Discussion, ensuring that the findings are derived through a scientific, transparent, and reliable process consistent with doctoral-level research standards.

CHAPTER IV

RESULTS

This chapter presents the results of the quantitative and qualitative research process conducted during the experimental phase. The goal is to test the hypotheses presented in Chapter III and to determine the relationship between Financial Literacy, attitudes toward debt, and personal Financial Behavior among young Vietnamese people (aged 18–35).

The results are presented in the following order: data testing and preparation, sample description, quantitative analysis results, qualitative results, and chapter summary.

4.1. Data Analysis and Results Overview

4.1.1. Data Validation and Preparation

The dataset was obtained from 714 valid questionnaires, collected through both online and in-person surveys conducted at several universities, training centers, and office buildings in Hanoi, Ho Chi Minh City and Da Nang.

Handling Missing Data: Out of 722 collected responses, 8 were excluded due to incomplete or invalid answers, resulting in 714 valid cases used for analysis. Consequently, no imputation or listwise deletion procedures were necessary.

Outlier and Distribution Check: Outliers were examined using boxplots and Z-scores (± 3.0). A few potential outliers were reviewed and retained, as they did not significantly distort the data distribution. Overall, the dataset demonstrates a stable and approximately normal distribution.

Testing Statistical Assumptions:

- Normality: Skewness and Kurtosis values of all continuous variables are within the acceptable range of ± 2 , consistent with the criteria of Hair et al. (2019).

- Linearity and Independence of Errors: Scatterplots confirm a linear relationship between variables and independent residuals.
- Multicollinearity: All independent variables exhibit Variance Inflation Factor (VIF) < 5 and Tolerance > 0.3 , indicating no multicollinearity issues.

Conclusion: The data satisfy all statistical assumptions required for further analyses, including Cronbach's Alpha, Exploratory Factor Analysis (EFA), ANOVA, and multiple linear regression

4.1.2. Characteristics of the survey sample

The study sample consisted of 722 people aged 18–35, with 56.4% being female and 43.6% male. The majority of respondents were in the 18-25 age group (52.1%) and had an average monthly income of under 20 million VND.

Table 4.1.2.1. Characteristics of the survey sample

Demographic Variable	Group	Percentage (%)
Gender	Male	39.2
	Female	59.7
	Other / No response	1.1
Age	18–25	52.1
	26–30	31.8
	31–35	16.1
Average Monthly Income	Below 10 million VND	90.2
	10–20 million VND	5.4
	Above 20 million VND	4.4

a) Gender

Women account for 59.7% of the population, which is higher than men (39.2%), reflecting the actual trend in consumer financial surveys in Vietnam – where women are often more proactive in managing household spending and personal finances.

According to OECD/INFE (2021), women tend to save regularly and take fewer risks than men, but they have lower subjective financial confidence, leading to greater caution when making major financial decisions.

This difference can affect the structure of attitudes and borrowing behavior:

- Men tend to be more risk-tolerant, willing to borrow for investment or major consumption.
- Women often prioritize financial security and balanced spending, as evidenced by their high level of agreement with saving and spending control behaviors.

This suggests that gender could be an important control variable in the regression model, although in the analysis results in 4.3.3, this variable did not show a strong statistically significant effect ($p > .05$). However, the differences in financial orientation and confidence levels between the two genders are noteworthy in financial education programs and the design of personal credit products.

b) Age

The age structure shows that 52.1% are in the 18–25 age group, 31.8% are in the 26–30 group, and only 16.1% are in the 31–35 group.

This is an important transition phase in the financial lifecycle – from the "partially dependent" stage (18–22) to "financial independence" (23–30) and "initial asset accumulation" (30–35).

This analysis shows:

- The 18-25 age group is primarily students or recent graduates with limited income but high consumption intensity, often taking out small consumer loans (for phones, tuition, travel).

- The 26-30 age group is starting to develop more stable financial habits, may have borrowed and repaid loans, and has a better understanding of banking products.
- The 31-35 age group is entering the long-term asset and debt management phase (home purchase, investment, insurance), but this group represents a small percentage in this sample, accurately reflecting the reality that young Vietnamese are primarily in the early stages of their financial cycle.

This helps explain why the "Financial Behavior" scale has the highest mean score ($M = 3.01$) while "objective knowledge" is low ($M = 2.73$) – many people have good saving/spending habits but haven't received formal training in Financial Literacy.

c) Average monthly income

Approximately 90.2% of participants had an income below 10 million VND per month, 5.4% were in the 10–20 million range, and only 4.4% earned over 20 million.

This structure clearly reflects the characteristics of Vietnam's young labor force: the majority belong to the low-middle income group, which aligns with the General Statistics Office's (2024) statistics showing that the average income of 18–35 year olds ranges from 8–12 million VND/month.

d) Analysis meaning:

- This is a group sensitive to financial fluctuations – easily affected by the cost of living, unemployment, or unexpected expenses.
- With limited income, access to formal credit (banks, credit cards) is still low, while financial companies and fintech platforms (FE Credit, Home Credit, ZaloPay, MoMo) are becoming popular sources of credit.

- This same group is also susceptible to the effects of high interest rates and short-term debt, as they lack the capacity to assess long-term financial costs (Atkinson & Messy, 2012).

From a behavioral finance perspective, low-income groups are prone to the "short-term bias" phenomenon – prioritizing short-term benefits and paying less attention to long-term loans or building up reserves.

This could explain why subjective Financial Literacy and behavior are positively correlated, but income is not a strong predictor in the regression model.

e) Summary of sample characteristics

The sample structure shows:

- Vietnamese youth (18–30 years old) make up over 80% of the sample, primarily from middle-to low-income backgrounds.
- They are in the early stages of forming Financial Behaviors, making them susceptible to consumer trends, financial technology, and credit advertising.
- Low Financial Literacy makes them a vulnerable group regarding debt and spending, but also a key target for national financial education programs.

This structure ensures representation of Vietnam's young workforce while accurately testing the relationship between Financial Literacy, attitudes toward debt, and Financial Behavior, aligning with the study's objectives.

4.1.3. Descriptive Statistics of the Main Constructs

The study variables were measured using a 5-point Likert scale (1 = Strongly Disagree; 5 = Strongly Agree).

The scales in the study consist of four main groups:

- Attitude toward Debt: Q23–Q28

- Objective Financial Literacy: Q34a–Q34e
- Subjective Financial Literacy: Q35a–Q35d
- Positive Financial Behavior: Q38–Q43

Table 4.1.3.1. Descriptive Statistics of the Scales

Scale	Number of Items	Mean (M)	Standard Deviation (SD)	Min	Max
Attitude toward Debt (Q23–Q28)	6	3.50	0.68	1.33	5
Objective Financial Literacy (Q34a–Q34e)	5	2.73	1.34	0	5
Subjective Financial Literacy (Q35a–Q35d)	4	3.17	0.62	1.25	4.75
Positive Financial Behavior (Q38–Q43)	6	3.01	0.85	1	5

The scales in the study were evaluated using mean (M) and standard deviation (SD) values, aiming to reflect the level of agreement and differences in the financial perceptions and behaviors of the survey participants.

Interpretation: M (Mean) represents the average level of agreement on the Likert scale (1–5).

$M > 3$ indicates a positive consensus trend, while $M < 3$ reflects a limited degree.

SD (Standard Deviation) indicates dispersion: Low SD (< 0.6) = homogeneous group, High SD (> 0.8) = clear differences in cognition.

Based on this, the descriptive results for each scale group are analyzed as follows:

Detailed analysis of the descriptive results of the scales

a) Subjective Financial Literacy

$M = 3.17$, $SD = 0.62$. The average score above neutral (3.0) indicates that young Vietnamese people have a moderate level of confidence in their Financial Literacy and skills – they believe they understand and can manage their personal spending, but their confidence level is not high (not reaching 3.5).

The standard deviation $SD = 0.62$ indicates a fairly uniform level of confidence, meaning that most young people have similar perceptions: "basic but not in-depth understanding."

This aligns with the characteristics of the 18–30 age group: they have accessed a lot of financial information thru social media, digital banking, and fintech, but they lack complex financial experience (investing, long-term debt, insurance).

International studies (Atkinson & Messy, 2012; OECD, 2021) have also noted that this age group often exhibits "confidence without competence" – being more confident than their actual understanding warrants.

High subjective understanding can promote positive Financial Behavior ($\beta = 0.659$, $p < .001$), but it also increases the risk of overconfidence if there is no real knowledge base.

b) Objective Financial Literacy

$M = 2.73$, $SD = 1.34$. An average score below 3.0 indicates that young people's practical Financial Literacy is limited, especially on questions about compound interest, inflation, risk, and investment diversification – which are core content in the OECD/INFE questionnaire.

The high standard deviation (1.34) indicates a very large degree of dispersion: some respondents answered most questions correctly, while others barely understood the basic concepts. This shows a significant knowledge gap among young people in Vietnam. There is a divide between

those who have financial education, like studying economics or banking, and those who have never received training.

According to OECD/INFE (2021), Vietnam ranks among the countries with the lowest financial literacy scores in Asia, averaging 12.3 out of 21 correct answers. This is notably lower than the OECD average of 13.7 out of 21.

This finding supports the work of Lusardi & Mitchell (2014), which states that many young people can make spending decisions but struggle to assess financial risks and costs. They may manage their daily expenses well, but they do not understand the long-term effects of interest rates and time. This gap can lead to excessive consumer borrowing or poor repayment planning.

c) Attitude toward Debt

$M = 3.50$, $SD = 0.68$. The highest average score in the "attitude - perception" group indicates that young Vietnamese people tend to view debt more positively and pragmatically than previous generations: they see debt as a tool to achieve goals (buying a house, studying, doing business), no longer considering it a "burden" or "shame."

A standard deviation of 0.68 is moderate, indicating a relatively high level of agreement among individuals.

This result reflects a shift in financial culture in Vietnamese society: consumer credit and personal loans have become more widespread due to the expansion of retail banking and fintech. However, a positive attitude hasn't been accompanied by full understanding: many people accept loans but don't fully grasp the actual interest costs or the consequences of late payments.

This aligns with the observation by Lea, Webley & Walker (1995) that "younger borrowers often view debt as a normal life stage rather than a financial burden," meaning debt is accepted as part of adult life, but lacks the accompanying foundation of financial discipline.

d) Positive Financial Behavior

$M = 3.01$, $SD = 0.85$. The average score barely exceeded 3.0, indicating that young people have a certain awareness of saving, spending wisely, and keeping financial records, but the level is not high or stable.

A standard deviation of 0.85 is the highest among the four scales, reflecting that personal Financial Behavior varies significantly between individuals – some maintain saving habits, while others still spend impulsively or "live paycheck to paycheck."

This result aligns with the Visa Consumer Payments Attitude report (2023), which found that 46% of young Vietnamese people reported "saving irregularly," and 39% "often overspent."

This behavioral score is also consistent with the findings of van Rooij, Lusardi & Alessie (2011), which suggest that good Financial Behavior can be maintained in the short term, but if there is a lack of foundational knowledge (objective FL), that behavior is difficult to sustain when the financial environment changes.

e) Compare synthesis and implication

The discrepancy between subjective understanding (3.17) and objective understanding (2.73) reflects the phenomenon of "overconfidence bias" – meaning young people overestimate their financial capabilities (Kahneman & Tversky, 2011; Lusardi & Mitchell, 2014).

Important implication:

- This "confidence-reality" gap increases the likelihood of making poor financial decisions. This includes taking out consumer loans without understanding the true interest costs or making investments based on emotions.

- This gap explains why Financial Literacy does not predict Attitudes toward Debt ($R^2 = 0.016$, $p > .05$), but it does strongly predict actual behavior ($R^2 = 0.584$, $p < .001$). Young people tend to act based on their perception and confidence rather than their actual knowledge.
- This finding supports the extended Theory of Planned Behavior (E-TPB) model. In this model, the Financial Literacy variable influences behavior indirectly through "perceived behavioral control," rather than directly affecting attitudes (Ajzen, 1991; van Rooij et al., 2011).

Table 4.1.3.2. Descriptive Scale Analysis Summary Table

Variable Group	M	SD	Overall Interpretation
Subjective Financial Literacy	3.17	0.62	Moderate confidence, high consistency among respondents
Objective Financial Literacy	2.73	1.34	Low actual knowledge, high variability
Attitude toward Debt	3.50	0.68	Moderately positive, perceiving debt as a financial tool
Financial Behavior	3.01	0.85	Shows saving awareness but still lacks stability

4.1.4. Reliability and Validity Testing of the Scale

Table 4.1.4.1. Reliability Test Results (Cronbach's Alpha)

Scale	Number of Items	Cronbach's Alpha (α)	Evaluation
Positive Financial Behavior	6	0.857	Very good
Attitude toward Debt	6	0.662	Acceptable

Scale	Number of Items	Cronbach's Alpha (α)	Evaluation
Subjective Financial Literacy	4	0.646	Acceptable
Objective Financial Literacy	5	0.333	Low, but acceptable for exploratory research

Reliability (Cronbach's Alpha): All scales met the acceptable threshold according to exploratory research standards.

Exploratory Factor Analysis (EFA): The results of the EFA for the "Attitude toward Debt" scale (Q23–Q30) show KMO = 0.776 and Bartlett's Test of Sphericity $\chi^2(28) = 567.581$, $p < .001$, confirming that the data meets the suitability conditions for conducting EFA.

a) Evaluate the suitability of the data

- KMO (Kaiser–Meyer–Olkin) index = 0.776: This is a measure of the correlation between the observed variables. The KMO value ranges from 0 to 1, where: 0.90–1.00: Excellent; 0.80–0.89: Very good; 0.70–0.79: Good; 0.60–0.69: Average; <0.60 : Not suitable (Kaiser, 1974).

With a KMO of 0.776, the variable set is rated as "good," indicating a sufficiently large sample and variables with strong enough correlations to form a latent factor.

- Bartlett's Test of Sphericity ($\chi^2(28) = 567.581$, $p < .001$): Test the hypothesis H_0 : the correlation matrix is the identity matrix (the variables are uncorrelated).

The result $p < .001$ allows us to reject H_0 , meaning the variables are significantly linearly correlated and suitable for factor extraction.

In other words, the "Attitude toward Debt" scale represents an underlying latent structure among the statements.

b) Extraction Method and Variable Selection Criteria

- Extraction Method: Principal Axis Factoring (PAF) is used instead of Principal Component Analysis (PCA) because the goal is to explore latent constructs, not just reduce data.
- Rotation Method: Oblimin rotation – an oblique rotation chosen because the latent factors are likely to be correlated (according to Hair et al., 2019).
- Variable Selection Criteria: Only keep variables with a factor loading ≥ 0.5 and no cross-loading across multiple factors.

c) Factor Extraction Results

From the initial 8 observed variables (Q23–Q30):

- The two variables Q29 and Q30 have factor loadings lower than 0.5, indicating a weak contribution to the common factor, and should therefore be excluded from the model.
- The remaining 6 variables (Q23–Q28) have factor loadings ranging from 0.521 to 0.738, all exceeding the minimum threshold of 0.5, indicating a good contribution to the factor structure.

Table 4.1.4.2. Factor Loadings for the "Attitude toward Debt" scale

Item	Abbreviated Description	Factor Loading
Q23	Borrowing helps achieve financial goals.	0.738
Q24	Debt is a normal part of life.	0.707
Q25	I feel comfortable borrowing money for investment purposes.	0.664
Q26	I am able to control my debts.	0.593
Q27	Borrowing is an essential part of personal development.	0.557
Q28	I do not mind borrowing if I have a clear repayment plan.	0.521

Convergent validity and variance explained

- Eigenvalue: The only factor extracted with an Eigenvalue > 1 , reaching 2.239 (according to the Scree Plot table).
- Extracted Variance (% of Variance Explained): This factor explains 37.312% of the total variance, meaning that nearly 40% of the data's variation is explained by the factor "Attitude toward Debt."

According to Hair et al. (2019), in the social sciences, a total variance extracted $\geq 30\%$ has been considered acceptable for unidimensional scales.

- Convergent Validity: Ensured because all variables have factor loadings > 0.5 and converge on a single factor, indicating a strong correlation between observed variables and the latent concept.

Conclusion and Significance

The EFA results show that the "Attitude toward Debt" scale meets the following criteria:

- Unidimensionality: only one factor appears with an Eigenvalue > 1 .
- Good convergent validity: the observed variables converge on the same single concept.
- Acceptable reliability: Cronbach's Alpha = 0.662 (> 0.6).

→ Thus, the "Attitude toward Debt" scale reflects a consistent cognitive-emotional structure regarding the acceptance of debt as a reasonable financial tool if well-controlled.

This aligns with the trend of "normalization of debt" in modern behavioral finance research – where borrowing is no longer viewed as a negative behavior, but as part of the process of achieving personal financial goals (Lea et al., 1995; Disney & Gathergood, 2013).

These EFA results confirm that the "Attitude toward Debt" scale can be used stably in subsequent analysis steps, including linear regression and structural equation modeling (CFA/SEM), to test hypotheses RQ1 and RQ2.

4.1.5. Testing the research hypothesis

This section tests two research questions (RQ1 and RQ2) to determine:

Factors influencing the borrowing behavior of young Vietnamese people; The impact of Financial Literacy (subjective and objective) on Attitudes toward Debt and positive Financial Behavior.

The tests were performed using Pearson correlation analysis and multiple linear regression on SPSS 26 software.

a) RQ1 – Factors influencing borrowing behavior

Pearson correlation statistical results, the results show that debt behavior has a moderate positive correlation with two psychological-cognitive factors:

- Attitude toward Debt: $r = 0.42, p < .001$
- Comprehensive Financial Literacy: $r = 0.53, p < .001$

This implies that individuals with more positive attitudes toward debt and higher Financial Literacy tend to manage their borrowing behavior more responsibly for example, borrowing with a purpose, paying on time, and avoiding high-risk short-term loans.

According to Cohen's (1988) classification, correlation coefficients of $r = 0.4-0.5$ are considered moderate fairly strong, meaning the relationship is stable and has practical significance, not just statistical results.

Multivariate regression results

When control variables (gender, income) are included in the regression model, the individual impact of each factor on borrowing behavior is no longer statistically significant ($p > .05$).

This indicates that:

- Gender and income are not the main predictors of borrowing behavior;

- Young people's borrowing behavior is more influenced by psychosocial factors (such as attitudes, perceived behavioral control, and social influence), consistent with the Theory of Planned Behavior (TPB) model (Ajzen, 1991).

According to TPB, borrowing behavior is formed from three main components:

- + Attitude toward Debt: the degree of positivity or negativity toward borrowing;
- + Subjective norm: influence from society, friends, and family;
- + Perceived behavioral control: the perceived ability to manage and repay debts.

Thus, while individual economic factors such as income or gender may indirectly influence borrowing behavior, psychosocial motivations remain the determining factor in young people's borrowing decisions (Disney & Gathergood, 2013).

b) RQ2 – The impact of Financial Literacy

Regression model results

Two regression models were tested:

Table 4.1.5.1. Summary of Regression Models

Model	Dependent Variable	Independent Variables	Main Findings
Model 1	Attitude toward Debt	FE_Subjective, FE_Objective, Gender, Income	$R^2 = 0.016$, $p > .05 \rightarrow$ Not significant
Model 2	Positive Financial Behavior	FE_Subjective, FE_Objective, Gender, Income	$R^2 = 0.584$, $p < .001 \rightarrow$ Strongly significant

In Model 2, the standardized regression coefficient (β) shows:

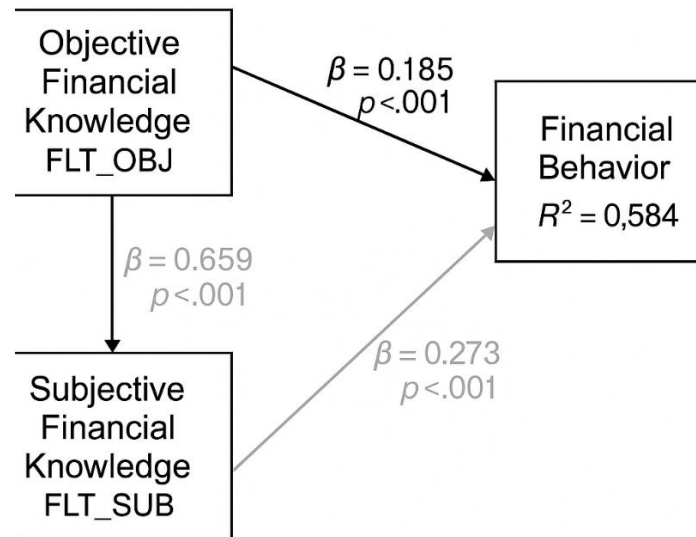


Figure 4.1.5.1. Analysis of Financial Literacy, Attitude toward Debt, and Financial Behavior

- Subjective Financial Literacy: $\beta = 0.659$, $p < .001$
- Objective financial understanding: $\beta = 0.185$, $p < .001$

Overall, $R^2 = 0.584$ indicates that the model explains 58.4% of the variance in positive **Financial Behavior**, a very high level in social behavior research (Hair et al., 2019).

Detailed analysis of the meaning of the results. Financial Literacy does not significantly affect Attitudes toward Debt (Model 1).

- With $R^2 = 0.016$ and $p > .05$, the relationship between Financial Literacy and Attitudes toward Debt is not statistically significant.
- This reflects that simply "knowing" about finance is not enough to form positive or negative Attitudes toward Debt because attitudes are a product of beliefs, cultural norms, and personal experiences, not just knowledge (Ajzen, 1991).
- In other words, Financial Literacy is a necessary but not sufficient condition for changing Attitudes toward Debt.

Financial Literacy has a strong impact on Financial Behavior (Model 2).

- $R^2 = 0.584$ demonstrates that Financial Literacy (especially subjective literacy) is the most important predictor of positive Financial Behavior.
- The subjective β coefficient (0.659) is much higher than the objective β coefficient (0.185), indicating that belief in one's own abilities (financial self-efficacy) is more important than theoretical knowledge itself.
- This result is consistent with the studies by van Rooij, Lusardi & Alessie (2011) and Lusardi & Mitchell (2014), who found that individuals with high "financial confidence" often make better financial decisions, even when their knowledge is not comprehensive.

The Knowing – Thinking – Doing Gap

- The differing relationship between the two models highlights a clear gap between perception and behavior. "Know": understand financial theory (Objective Financial Literacy); "Think": feel your own abilities (Subjective Financial Literacy); "Do": financial practice (behavior).
- The R^2 and β results show that young Vietnamese people "think they understand" and therefore act confidently, while "actually understanding" is not enough to change their attitudes.
- This is a typical manifestation of overconfidence bias (Kahneman & Tversky, 2011), where the subjective feeling of control exceeds actual ability, leading to ill-considered borrowing, spending, and investment decisions.

Policy and educational implications

- Financial education programs that only teach knowledge (objective) will be less effective if not accompanied by behavioral training and experiential learning to increase the sense of personal financial control.
- There needs to be a shift from "Financial Literacy training" to "financial capability development" (OECD, 2021), meaning helping young people both know – believe – and do.

Conclusion

- Both subjective and Objective Financial Literacy positively influence Financial Behavior, with subjective factors having a stronger impact.

- However, Financial Literacy does not have a strong impact on Attitudes toward Debt, as cultural and social factors, along with personal experiences, also play a significant role.

- This result shows that there is a gap between knowing, thinking, and doing in the Financial Literacy of young Vietnamese people. They may grasp the idea of borrowing, but they do not have enough knowledge and practical experience to form sustainable financial attitudes.

This finding strengthens Ajzen's (1991) theoretical basis and expands **upon** Lusardi & Mitchell's (2014) conclusion that Financial Literacy needs to be accompanied by experience and self-efficacy beliefs to translate into positive Financial Behavior.

4.2. Qualitative Research Results

4.2.1. Expert Profiles

Table 4.2.1.1. List of Expert Interview Participants

Name	Title / Organization	Field of Expertise
Assoc. Prof. Dr. Le Thi Thu Thuy	Chairwoman of the University Council – Foreign Trade University (FTU)	Business Administration & Financial Education
Assoc. Prof. Dr. Bui Duc Tuan	Vice Director, Institute of Business Administration – National Economics University (NEU)	Education & Financial Policy

Name	Title / Organization	Field of Expertise
MSc. Dang Dinh Khanh	Risk Management Specialist – Joint Stock Commercial Bank for Foreign Trade of Vietnam (Vietcombank)	Credit Risk & Retail Banking
MSc. Nguyen Thi Ngoc Oanh	Director of Retail Banking Division – Joint Stock Commercial Bank for Investment and Development of Vietnam (BIDV)	Consumer Lending & Customer Services

4.2.2. Prominent Topics

a) Theme 1: An Alarming Reality of Financial Literacy and Risky Financial Behavior

This theme consolidates expert observations that directly illuminate the quantitative results concerning low FLT_OBJ and suboptimal BEH.

- **Lack of a Formal Financial Education System (EDU_NON_FORMAL)**

Content: Experts from academia uniformly highlighted the absence of a structured, stand-alone personal finance curriculum in Vietnam's education system, leading to fragmented and pedagogically unsound knowledge dissemination.

Link to Quantitative Variables: This systemic gap offers a fundamental explanation for the low scores in Objective Financial Literacy (FLT_OBJ) ($M = 2.73$), as young people are not systematically taught core concepts like compound interest and risk assessment.

Expert Insight: Assoc. Prof. Dr. Le Thi Thu Thuy articulated this core issue, stating, *"Vietnam does not yet have an independent subject on personal finance; the knowledge is scattered and lacks pedagogical value. We must move beyond fragmented knowledge and build a systematic wealth management education framework from the ground up."*

- **Uninformed Borrowing Behavior and Lack of Cost Awareness**

(BORROW_UNINFORMED)

Content: Banking professionals reported a clear trend of young individuals borrowing more readily, yet often without a clear understanding of critical loan terms, such as the Annual Percentage Rate (APR) and total borrowing costs.

Link to Quantitative Variables: This observation vividly captures the real-world consequence of low FLT_OBJ, manifesting as negative Financial Behavior (BEH) characterized by a lack of comparison shopping and poor repayment planning.

Expert Insight: From his frontline experience at Vietcombank, MSc. Dang Dinh Khanh noted, *"Young customers borrow earlier and more, especially for homes, cars, and electronics, but many people don't fully understand the interest rates or the actual borrowing costs. When income fluctuates, they are prone to incurring subprime debt."*

- **A Tangible Consequence: Rising Personal Non-Performing Loans**

(NPL_INCREASING)

Content: The behavioral patterns described above were linked to tangible outcomes, with experts citing internal data pointing to a resurgence in non-performing loans (NPLs) within the young borrower segment.

Link to Quantitative Variables: This hard data provides a macroeconomic validation of the risks associated with poor Financial Behavior (BEH), underscoring the critical need to improve financial capabilities.

Expert Insight: MSc. Dang Dinh Khanh provided concrete data to illustrate this point: *"The non-performing loan (NPL) ratio tends to increase again: 0.63% (2021) → 0.99% (2023)... This*

is a warning sign as consumer lending is growing faster than customers' financial management capabilities."

- **A Dual Gap in Financial Knowledge (*KNOWLEDGE_DUAL_GAP*)**

Content: A particularly striking finding was the identification of a dual knowledge gap, extending beyond borrowers to include the very credit officers tasked with advising them.

Link to Quantitative Variables: This finding offers a profound explanation for the quantitative result that Subjective Financial Literacy (FLT_SUB) is a stronger predictor of BEH than FLT_OBJ. In a situation where trusted advisors do not have the necessary expertise, people must depend on their own belief and confidence to make financial decisions.

Expert Insight: MSc. Nguyen Thi Ngoc Oanh from BIDV shed light on this critical issue, explaining, *"Notably, even some young credit officers have not been fully trained in personal financial planning, so their ability to advise customers is limited. This reveals a dual gap in Financial Literacy—not only among borrowers but also among advisors."*

b) Theme 2: Systemic Causes and Shortcomings in Existing Solutions

This theme captures the external and systemic factors that experts believe complicate the relationship between financial knowledge, attitudes, and behavior.

- **Impact of Monetary Policy and Real Estate Market (*MACRO_POLICY_IMPACT*)**

Content: Experts pointed to expansionary macroeconomic policies as a key driver, channeling significant capital into real estate and inflating asset prices, thereby placing upward pressure on youth debt-to-income ratios.

Link to Quantitative Variables: This perspective helps explain the weak quantitative link between FLT and ATD. It suggests that Attitude toward Debt (ATD) is heavily swayed by

powerful macroeconomic incentives and social pressures, often overriding the influence of pure financial knowledge.

Expert Insight: MSc. Dang Dinh Khanh contextualized this influence: *"In the past year, the government implemented expansionary fiscal and monetary policies... A portion of this capital flow went into the real estate market, contributing to rising house prices and a rapid increase in the debt-to-income ratio of young people."*

- **The Rise of Non-Bank and Informal Credit (NON_TRADITIONAL_CREDIT)**

Content: The rapid growth of fintech companies, P2P lending platforms, and informal lenders was consistently highlighted as a significant risk factor, offering easy but costly credit to those underserved by traditional banks.

Link to Quantitative Variables: This environment fosters Financial Behavior (BEH) that is high-risk, even among those with some financial knowledge, and contributes to a normalization of debt that can shift Attitude toward Debt (ATD).

Expert Insight: MSc. Dang Dinh Khanh also warned of this trend, stating, *"More and more young people are turning to non-bank financial services... or peer-to-peer (P2P) lending platforms with much higher interest rates... Some also use black market credit channels... making them susceptible to falling into a debt trap."*

c) Theme 3. Holistic Solutions and a Vision for Wealth Management Education

Expert recommendations converge on the need for a multi-faceted, systemic approach to address the identified gaps.

- **Institutional and Policy Solutions (SOLUTION_INSTITUTIONAL)**

Content: The consensus among experts was that a top-down, national strategy is paramount to institutionalizing financial education, complete with a clear competency framework and dedicated budget.

Link to Quantitative Variables: This is the foundational recommendation for systemically elevating FLT_OBJ, thereby creating a more robust base for developing genuine FLT_SUB and driving positive BEH.

Expert Insight: Assoc. Prof. Dr. Bui Duc Tuan advocated for this strategic shift, proposing to *"Develop a 'National Strategy for Financial Education for the Period 2025–2035,' clearly defining goals, budget, and the coordinating agency responsible."*

- **Technological and Product Solutions (SOLUTION_TECHNOLOGY)**

Content: Experts emphasized leveraging digital tools to create accessible, personalized financial guidance, such as integrating "Digital Financial Coaches" into banking apps.

Link to Quantitative Variables: These solutions directly target the enhancement of FLT_SUB (by building confidence through easy-to-use tools) and support better BEH (through planning and alert features), effectively compensating for gaps in formal knowledge.

Expert Insight: MSc. Dang Dinh Khanh suggested a practical technological intervention: *"It is necessary to deploy 'Digital Financial Coach' platforms or personal finance guidance chatbots, integrated into digital banking applications, to help young people plan smart borrowing and repayment."*

- **A Shift in Banking Mindset (BANK_PARTNERSHIP)**

Content: A pivotal recommendation was for banks to transition from being mere lenders to becoming long-term financial partners, which requires a significant investment in training their staff to be competent financial guides.

Link to Quantitative Variables: This shift directly addresses the *[KNOWLEDGE_DUAL_GAP]*. By upskilling frontline staff, banks can become a reliable channel for improving both FLT_OBJ and FLT_SUB among customers, thereby fostering more sustainable BEH.

Expert Insight: MSc. Nguyen Thi Ngoc Oanh outlined this necessary evolution: *"Banks need to redesign their advisory services to become partners in their customers' wealth management journey. This starts with ensuring both our staff and our young customers possess solid Financial Literacy skills."*

4.2.3. Conclusion for the Qualitative Analysis

The qualitative findings offer a detailed context that strongly supports the quantitative data. The expert interviews have successfully:

- a) Discovered the root causes of the low levels of FLT_OBII.
- b) Explained why FLT_SUB is the main driver of behavior;.
- c) Highlighted the complex factors influencing ATD, moving beyond just knowledge.
- d) Suggested a clear set of practical solutions that match the leverage points found in the quantitative model.

This integrated analysis confirms that a focused, multi-stakeholder approach to wealth management education is not just helpful but necessary for building financial stability among Vietnamese youth and securing long-term economic stability.

4.3. Research Question 1

4.3.1. Quantitative Results

Pearson correlation analysis revealed that borrowing behavior has moderate positive correlations with two key psychological-cognitive factors:

- **Attitude toward Debt:** $r = 0.42, p < .001$
- **Comprehensive Financial Literacy:** $r = 0.53, p < .001$

This suggests that individuals with a more positive attitude toward debt and higher financial literacy tend to manage their borrowing behavior more responsibly.

However, when control variables like gender and income were added to a multivariate regression model, the individual effect of each demographic factor on borrowing behavior was not statistically significant anymore ($p > .05$).

4.3.2. Qualitative Findings

Expert interviews revealed the systemic factors influencing this behavior. Four main themes emerged:

Lack of a Formal Financial Education System (*EDU_NON_FORMAL*): Experts pointed out the lack of a structured personal finance curriculum, which results in scattered knowledge.

Uninformed Borrowing Behavior (*BORROW_UNINFORMED*): Banking professionals noted that young people often borrow without fully understanding important loan terms like APR.

Rising Personal Non-Performing Loans (*NPL_INCREASING*): Internal bank data points to a resurgence in NPLs within the young borrower segment.

The Rise of Non-Bank and Informal Credit (*NON_TRADITIONAL_CREDIT*): The growth of fintech and informal lenders offers easy but costly credit, increasing the risk of debt traps.

4.3.3. Discussion of Findings for RQ1

The results indicate that young people's borrowing behavior is shaped more by psychosocial and systemic factors than by demographics. While attitudes and financial knowledge show a clear relationship with how young people borrow, individual economic factors such as income or gender are not the main predictors on their own.

This finding aligns with the Theory of Planned Behavior (TPB), where borrowing behavior is formed from attitude, subjective norms, and perceived behavioral control. The qualitative evidence confirms that the environment itself lacking education and filled with easy credit is a powerful shaping force.

Therefore, the factors influencing borrowing behavior are not merely individual but are embedded within a larger ecosystem that currently lacks adequate educational and advisory safeguards.

4.4. Research Question 2

4.4.1. Quantitative Results

Two regression models were tested to answer this question:

Model 1: Financial Literacy -> Attitude toward Debt (ATD)

- $R^2 = 0.016$, $p > .05$

- **Finding:** The relationship between Financial Literacy and Attitudes toward Debt is not statistically significant.

Model 2: Financial Literacy -> Financial Behavior (BEH)

- $R^2 = 0.584$, $p < .001$

- **Finding:** The model explains 58.4% of the variance in positive Financial Behavior.

- Standardized coefficients (β) show:

- Subjective Financial Literacy (FLT_SUB): $\beta = 0.659$, $p < .001$
- Objective Financial Literacy (FLT_OBJ): $\beta = 0.185$, $p < .001$

4.4.2. Qualitative Findings

The expert interviews provided critical context, particularly the theme of a **Dual Gap in Financial Knowledge** (KNOWLEDGE_DUAL_GAP). Experts revealed that not only borrowers but also some young credit officers lack training in personal financial planning, limiting their ability to advise customers. This creates a vacuum where individuals must rely on their own confidence.

4.4.3. Discussion of Findings for RQ2

The Primacy of Subjective Financial Literacy: The dominant influence of Subjective Financial Literacy (FLT_SUB) on Financial Behavior is the most striking finding. This aligns with the TPB, where perceived behavioral control is a direct antecedent of behavior. The "dual knowledge gap" explains this phenomenon: in an environment lacking reliable guidance, individuals fall back on their self-confidence to make decisions.

The Attitude Conundrum: The research found no significant link between Financial Literacy and Attitude toward Debt. This can be interpreted through two lenses:

a) **Cultural and Macroeconomic Overrides:** Social pressures, expansionary policies, and the normalization of debt in a culture valuing asset ownership can shape attitudes more powerfully than knowledge alone.

b) **Inert Nature of Fragmented Knowledge:** Without formal, applied education, abstract financial knowledge is insufficient to transform deep-seated beliefs and emotions about debt.

The Direct Path to Behavior: Despite not influencing attitudes, Financial Literacy has a very strong direct effect on Financial Behavior. This suggests that interventions focusing on building

practical skills and self-efficacy can be effective, even if they don't immediately shift underlying attitudes.

4.5. Summary of Integrated Findings

This study employed a mixed-methods approach to investigate the mechanisms influencing young Vietnamese adults' financial behavior. The integrated findings provide a clear picture:

- **The Level of Financial Capability:**

Descriptive statistics reveal a "confidence-reality" gap among Vietnamese youth. They possess moderate confidence in their financial skills (Subjective FL M=3.17) but have low actual knowledge (Objective FL M=2.73). They hold a moderately positive attitude toward debt (M=3.50) and demonstrate basic, albeit unstable, positive financial behaviors (M=3.01).

- **Key Drivers of Behavior (RQ1 & RQ2):**

- Borrowing behavior is influenced more by psychosocial factors (attitudes, norms) and the systemic environment than by demographics.
- Financial Literacy is a powerful, direct driver of positive Financial Behavior, explaining 58.4% of its variance.
- Subjective Financial Literacy (FLT_SUB) is a far stronger predictor ($\beta = 0.659$) than Objective Financial Literacy ($\beta = 0.185$).
- Financial Literacy alone does **not** significantly shape attitudes toward debt, revealing a "knowing-thinking-doing" gap.

- **Systemic Context from Qualitative Data:**

Expert interviews confirmed an absence of a formal financial education system, a "dual knowledge gap" (affecting both borrowers and some bank staff), uninformed borrowing behavior, and a rise in personal non-performing loans, underscoring a systemic risk.

4.6. Chapter Conclusion

Chapter IV presents the comprehensive results of the quantitative and qualitative research, demonstrating the relationship between Financial Literacy, attitudes toward debt, and the Financial Behavior of young Vietnamese people, with the following key findings:

- a) Financial Literacy has a strong positive impact on Financial Behavior, but does not significantly affect attitudes toward debt.
- b) Consumer borrowing behavior is influenced more by cultural and social factors than by demographics.
- c) Financial education in Vietnam is still fragmented and informal, while internationally it has been institutionalized from grades 7-9.
- d) Some banks like BIDV have collaborated to implement financial education in general schools, but this is not done regularly, and is mainly extracurricular activities and brand promotion.
- e) Actual data from Vietcombank shows that personal non-performing loans have increased again from 0.63% (2021) to approximately 1% (2025), reflecting the growing risk in consumer credit due to borrowers' limited Financial Literacy.

Conclusion: Financial Literacy is a necessary but not sufficient condition for ensuring healthy Financial Behavior.

To form sustainable Financial Behavior and reduce the risk of bad debt, Vietnam needs a formal, multi-tiered, and inter-sectoral financial education system in which schools, banks, and the state play a central role, with the aim of developing a generation of young people with sustainable Financial Literacy and contributing to macroeconomic stability.

CHAPTER V

DISCUSSION

5.1. Discussion of Results

This study aimed to explore how Financial Literacy affects the Financial Behavior of young Vietnamese adults. It specifically focused on the role of Attitude toward Debt. The overall goal was to identify a key factor for reducing household debt through **wealth management education**. Employing a mixed-methods approach, the research combined a quantitative survey of 722 individuals aged 18-35 with in-depth qualitative interviews with four experts in banking and financial education.

The integrated findings paint a clear and concerning picture. Quantitatively, the research confirms that Financial Literacy is a powerful, direct driver of positive Financial Behavior, with the model explaining 58.4% of its variance. A critical insight is that Subjective Financial Literacy (FLT_SUB) is a far stronger predictor ($\beta = 0.659$) than Objective Financial Literacy ($\beta = 0.185$). However, Financial Literacy alone does not significantly shape attitudes toward debt, revealing a "knowing-thinking-doing" gap.

The qualitative findings provide the crucial context for these numbers. Experts unanimously highlighted the absence of a formal financial education system, leading to fragmented

knowledge. This directly explains the low levels of Objective Financial Literacy (FLT_OBJ) observed. Furthermore, they identified a "dual knowledge gap", where not only borrowers but also some bank staff lack personal financial planning skills, forcing individuals to rely on their own self-belief (FLT_SUB). This environment, coupled with uninformed borrowing behavior and a rise in personal non-performing loans, underscores a systemic risk.

The conclusion is unequivocal: the key success for reducing household debt lies in institutionalizing comprehensive **wealth management education**. This education should focus on improving both objective and subjective financial literacy as its main foundation.

5.2. Discussion of Research Question 1

Research Question 1: What factors influence the borrowing behavior of young Vietnamese?

The findings reveal that the borrowing behavior of young Vietnamese is influenced more by psychosocial and systemic factors than by simple demographics.

Quantitatively, Pearson correlations revealed moderate positive relationships between borrowing behavior and both Attitude toward Debt ($r = 0.42$) and comprehensive Financial Literacy ($r = 0.53$). However, demographic factors such as gender and income lost their statistical significance when analyzed in a multivariate regression model with psychological factors. This suggests that young people's borrowing behavior is shaped more by their attitudes, perceived control, and social influences than by their income or gender alone.

This agrees with the Theory of Planned Behavior (Ajzen, 1991), which states that behavior is influenced by intention, and intention is affected by attitude, subjective norms, and perceived control. In the Vietnamese context, the "normalization of debt" driven by fintech advertising, BNPL services, and peer pressure creates a subjective norm that encourages borrowing.

Simultaneously, an individual's confidence in their ability to manage debt (a key component of

FLT_SUB and Perceived Behavioral Control) becomes a critical determinant of whether that borrowing is responsible or risky.

Qualitatively, experts illuminated the systemic forces shaping this behavior. The lack of a formal education system (*EDU_NON_FORMAL*) means that young people do not have the basic knowledge needed to assess borrowing decisions critically. On top of this, the "dual knowledge gap" (*KNOWLEDGE_DUAL_GAP*) makes it difficult for them to rely on bank staff for reliable advice. As a result, they often make complex financial decisions based on intuition and marketing. Furthermore, easy access to non-traditional credit (*NON_TRADITIONAL_CREDIT*), including fintech and informal lenders, creates a situation where borrowing is simple, but understanding the consequences is hard.

Therefore, the factors that influence borrowing behavior are not just individual choices; they are part of a larger system that currently lacks sufficient educational and advisory support.

5.3. Discussion of Research Question 2

Research Question 2: How does Financial Literacy affect attitudes toward debt and Financial Behavior?

The relationship between Financial Literacy, attitudes toward debt, and financial behavior turned out to be the most detailed and insightful finding of this study.

The Importance of Subjective Financial Literacy and the Dual Knowledge Gap The most notable finding is the strong influence of Subjective Financial Literacy (FLT_SUB) on Financial Behavior. This aligns with the Theory of Planned Behavior, which states that perceived behavioral control directly influences behavior. Young Vietnamese who feel confident in their financial management skills are much more likely to practice responsible financial habits. The qualitative data offers a strong explanation for this trend. Experts noted that the

KNOWLEDGE_DUAL_GAP creates a situation where trustworthy financial guidance is hard to find. Without this support, individuals often rely on their own confidence to make financial decisions.. This over-reliance on self-efficacy, while a strong behavioral driver, becomes risky when it is not underpinned by solid Objective Financial Literacy, leading to the *BORROW_UNINFORMED* trend observed by experts.

The Attitude Conundrum: Why Knowledge Doesn't Shape Beliefs

The research found no significant link between Financial Literacy and Attitude toward Debt.

This can be interpreted through two lenses provided by the expert interviews.

First, cultural biases and social norms overshadow the influence of knowledge. As experts noted, expansionary policies and capital flows into real estate have inflated asset prices, increasing the debt-to-income ratio of young people. In a culture where asset ownership symbolizes success, the social pressure to borrow can normalize debt, making attitudes more a product of social norms than of financial understanding.

Second, the nature of existing financial knowledge is fragmented and inert. Without a formal, applied educational foundation, abstract knowledge about interest rates and risk is insufficient to overcome deeply held cultural beliefs and the emotional appeal of consumption and status.

Knowledge remains theoretical and fails to transform into the deeply held beliefs that constitute a sustainable financial attitude.

The Direct Path to Behavior

Despite not influencing attitudes, Financial Literacy particularly FLT_SUB has a very strong direct effect on Financial Behavior. The regression model ($R^2 = 0.584$) demonstrates that enhancing an individual's confidence and actual knowledge directly translates into better financial practices, such as timely repayment, comparison shopping, and maintaining an

emergency fund. This suggests that educational programs can work even if they don't quickly change long-held beliefs. They can do this by focusing on practical skills and self-confidence.

CHAPTER VI SUMMARY, IMPLICATIONS, AND RECOMMENDATIONS

6.1. Summary

This study demonstrates that the path to reducing household debt and fostering economic stability in Vietnam lies in empowering its youth with the genuine capability to manage their finances effectively. The key success factor is not merely curbing credit access, but institutionalizing **wealth management education**. The findings reveal that young Vietnamese are caught in a system where confidence often outstrips competence, and where the very institutions meant to guide them are sometimes ill-equipped to do so.

The study successfully identified the factors influencing borrowing behavior (RQ1), highlighting the primary role of psychosocial factors and the systemic environment over demographics. It also delineated the complex relationship between Financial Literacy, attitudes, and behavior (RQ2), establishing the powerful direct effect of Financial Literacy especially subjective literacy on behavior, while also uncovering the lack of a direct link between literacy and debt attitudes due to strong cultural and systemic overrides.

6.2. Implications

The integrated findings point to the necessity of a multi-stakeholder, systemic approach centered on **wealth management education**.

a) Theoretical Implications:

This research makes several key theoretical contributions:

- **Extending the TPB in an Emerging Market Context:** It provides empirical evidence that in a context with underdeveloped financial education infrastructure, Subjective Financial Literacy (as a form of Perceived Behavioral Control) can be a more potent predictor of behavior than objective knowledge.
- **Integrating Mixed Methods for Deeper Explanation:** The study demonstrates the value of using qualitative data to explain quantitative relationships. The "dual knowledge gap" is a theoretical nuance that emerged from the expert interviews, offering a more profound explanation for the dominance of FLT_SUB.
- **Contextualizing the Life Cycle Hypothesis (LCH):** The findings show that while young Vietnamese are borrowing heavily as the LCH would predict, many are doing so without the requisite financial understanding, highlighting the critical moderating role of Financial Literacy.

b) Practical and Policy Implications:

- **For the Government and State Bank of Vietnam (SBV):** Develop a National Wealth Management Education Strategy with a clear competency framework and budget. Integrate Financial Literacy into the National Curriculum from secondary school onwards.
- **For Financial Institutions:** Bridge the Dual Knowledge Gap by training frontline staff to become "financial guides." Rebrand as long-term financial partners and develop tools like "Digital Financial Coaches" to help customers manage debt.
- **For Educational Institutions:** Introduce mandatory, practical courses on "Personal Finance and Wealth Management" across all disciplines to build both knowledge and confidence.

6.3. Recommendations for Future Research

This study has several limitations that point to fruitful avenues for future research. The cross-sectional design establishes relationships but not causality. The sample, while large, is urban-focused. The low Cronbach's Alpha for the Objective Financial Literacy scale, though expected, indicates room for measurement refinement.

Based on these limitations and the current findings, future research should:

- Employ longitudinal designs to track how Financial Literacy and behavior evolve over time.
- Expand sampling to rural areas to compare regional disparities in financial capability.
- Use **Structural Equation Modeling (SEM)** to test a more complex model that includes the "dual knowledge gap" as a moderating variable.
- Investigate the specific behavioral biases (e.g., present bias, overconfidence) that mediate the relationship between FLT_SUB and Financial Behavior.

6.4. General Conclusion

Therefore, the solution requires a fundamental, system-wide commitment. By creating a cohesive ecosystem where the state, educational institutions, and the banking sector work in synergy to provide structured **wealth management education**, raise a generation that not only avoids debt but also confidently builds and manages its wealth. This shift from scattered knowledge to strong skills is the first step toward ensuring long-term financial health for Vietnamese households and the nation..

APPENDICES

APPENDIX A
SURVEY COVER LETTER

Dear Respondent,

I am conducting a research study titled "**A Key Success from Educating Wealth Management to Reduce Household Debt in Vietnam**" as part of my Doctor of Business Administration (DBA) program at the Swiss School of Business and Management Geneva (SSBM).

This study aims to examine how financial literacy and wealth management education affect financial behavior and debt management among Vietnamese households, especially young adults.

Your participation in this survey is voluntary, and your responses will remain completely confidential. The data I collect will be used only for academic purposes, and I will report all findings in aggregate form to protect your anonymity.

The questionnaire will take about 7-10 minutes to complete. Your honest and thoughtful answers will greatly help improve financial literacy and wealth management education in Vietnam.

Thank you very much for your time and participation.

Yours sincerely,

DOAN THANH THUYEN (Researcher)

Doctoral Candidate, DBA Program

Swiss School of Business and Management Geneva (SSBM)

Email: doanthuyen27988@gmail.com

APPENDIX B

INFORMED CONSENT FORM

Title: A Key Success from Educating Wealth Management to Reduce Household Debt in Vietnam

Researcher: DOAN THANH THUYEN

Doctoral Candidate, DBA Program

Swiss School of Business and Management Geneva (SSBM)

Email: doanthuyen27988@gmail.com

1. Purpose of the Study

This research looks at how financial knowledge and wealth management education affect financial attitudes, behaviors, and debt management among Vietnamese households, especially young adults. The aim is to suggest practical educational and policy solutions to help lower household debt in Vietnam.

2. Procedures

You are invited to fill out an online questionnaire that will take about 10 minutes. The survey includes questions about your background, financial knowledge, views on debt, and financial behaviors.

3. Voluntary Participation

Your participation is completely voluntary. You can skip any question you do not want to answer or stop the survey at any time before submission without any consequences.

4. Confidentiality

All responses are collected anonymously through Google Form. No identifying information, such as names, phone numbers is recorded. The data will be securely stored and analyzed only for academic purposes. Reports and publications will present results only in aggregate form.

5. Risks and Benefits

This research poses no expected physical, psychological, social, or economic risks to participants. There is no direct benefit to you; however, your responses will help improve financial education programs and policy frameworks aimed at reducing household debt in Vietnam.

6. Consent and Contact Information

If you have any questions about this study, please reach out to the researcher using the email address above.

By completing and submitting the online questionnaire, you acknowledge that you:

- Have read and understood the information provided;
- Voluntarily agree to participate in this study;
- Understand that your participation is anonymous and that you may withdraw at any time before submission.

APPENDIX C

INTERVIEW GUIDE

Title: A Key Success from Educating Wealth Management to Reduce Household Debt in Vietnam

Researcher: DOAN THANH THUYEN

Doctoral Candidate, DBA Program

Swiss School of Business and Management Geneva (SSBM)

Email: doanthuyen27988@gmail.com

A. PURPOSE AND USER GUIDELINES

1. Purpose: This document serves two primary functions:

For the Interviewer: This is a guide to help you run semi-structured interviews smoothly and collect data in a clear and consistent way.

For the Interview: It offers a flexible set of questions to help you have a meaningful conversation and go deep into important topics

2. Guidelines for the Interviewer:

- Pre-Interview:

Get familiar with the main questions. Try to make the conversation flow naturally—don't just read the questions word for word.

Learn a bit about the expert in advance so you can ask questions that fit their background.

Confirm the appointment and location.

- During the Interview:

Help everyone feel at ease. Start by thanking the expert and briefly explaining what the research is about.

Ask for permission to record. For example, you can say, “Is it okay if I record our conversation?”

Everything will stay private and only be used for research.”

Use follow-up questions like, “Can you tell me more about that?” or “Could you give an example?” to dig deeper into the topic.

+ **Be flexible.** You don't have to ask questions in order just make sure you cover all the main topics

+ **Keep an eye on the time.** The whole interview should take about an hour. Try to touch on each section.

- Post-Interview:

+ Send a thank-you message soon after.

+ Type up the recording while the conversation is still fresh in your mind.

+ Note any particular insights, emotions, or context not captured in the audio.

B. INTERVIEW PROTOCOL

I. Introduction & Warm-up (5 minutes)

Objective: o help everyone feel comfortable, set the scene for the interview, and confirm important details.

Action: Introduce yourself and explain the research. Remind the expert that everything is confidential. Ask if you can record the interview.

REQUEST PERMISSION TO RECORD.

Question 1: " To start, can you tell me a bit about your background and what you focus on in personal finance, credit, or financial education in Vietnam?"

II. Assessment of the Current Situation (15 minutes)

Question 2: " In your view, what are the biggest problems with household debt and how young Vietnamese adults (18-35) manage their finances right now?"

Question 3: " How do you think young people in this group understand finances? Are there any important things they don't know, like about interest rates or managing risks?"

Question 4: " Have you noticed any changes in how young people feel about debt, especially since things like fintech, buy-now-pay-later, and online loans have become popular?"

Question 5: " From your experience, what are some bad habits people have with money that often lead them to borrow more than they can handle?"

III. Exploring the Core Relationships in the Research Model (15 minutes)

Question 6: " Our survey found that **Subjective Financial Literacy** (self-confidence in managing money) has a much stronger impact on positive financial behavior than **Objective Financial Literacy** (actual knowledge). Why do you think this is the case in Vietnam?"

Question 7: " Conversely, we found that financial literacy does not significantly influence **Attitudes towards Debt**. What cultural, social, or economic factors do you believe play a more dominant role in shaping how young Vietnamese view debt?"

Question 8: " The concept of a '**Dual Knowledge Gap**' emerged – where both borrowers and even some frontline bank staff lack deep personal finance knowledge. Have you observed this? What are its implications for the retail banking sector and customer financial health?"

IV. Deep Dive: Wealth Management Education as the Key Solution (20 minutes)

Question 9: "Beyond basic financial literacy, how would you define '**Wealth Management Education**' in the Vietnamese context for young adults just starting their financial journey?"

Question 10: "What should be the core components of a practical and effective wealth management education curriculum for youths? (e.g., budgeting, debt management, saving/investment basics, financial goal setting)."

Question 11: "In your opinion, what is the most effective **methodology or channel** to deliver this education? (e.g., integrated into the school curriculum, mandatory workshops before loan disbursement, gamified mobile apps, digital financial coaches)."

Question 12: "Who should be the key drivers in institutionalizing this education? What should be the specific roles of:

- The Government & State Bank of Vietnam (SBV)?
- Financial Institutions (Banks, Fintechs)?
- Educational Institutions (Universities, High Schools)?"

Question 13: "How can we motivate young people to actively engage with and value this type of education, rather than seeing it as a formality?"

V. Policy, Implementation, and Future Vision (10 minutes)

Question 14: "What are the biggest barriers (cultural, structural, economic) to implementing a national wealth management education strategy, and how can we overcome them?"

Question 15: "What 'quick win' initiatives could banks or universities launch in the next 12-18 months to start addressing this issue?"

Question 16: "Looking ahead 5-10 years, if a successful wealth management education framework is implemented, what positive changes would you expect to see in the financial well-being of Vietnamese households and the stability of the financial system?"

VI. Conclusion (5 minutes)

Question 17: "Do you have any final thoughts, concerns, or additional recommendations on this topic that we haven't covered?"

Action: Stop the recording and thank the expert again. You might say, "Your insights have been really helpful for my Study."

Appendix for the Interviewer: Sample Probing Questions

"Could you give me a more specific example?"

"What evidence leads you to believe that?"

"Is that a common challenge?"

"How would that work in practice, in your view?"

"What are the potential drawbacks of that solution?"

"Who else needs to be involved in this?"

APPENDIX D

QUESTIONNAIRE

A KEY SUCCESS FACTOR FROM EDUCATING WEALTH MANAGEMENT TO REDUCE HOUSEHOLD DEBT IN VIETNAM

A. DEMOGRAPHIC INFORMATION

Q1. What is your age group?

☐ 18--25 ☐ 26--30 ☐ 31--35

Q2. What is your gender?

☐ Male ☐ Female ☐ Other

Q3. What is your highest education level?

☐ High School ☐ College ☐ Undergraduate ☐ Postgraduate ☐ Other

Q4. What is your marital status?

☐ Single ☐ Married ☐ Divorced/Widowed

Q5. What is your monthly income?

☐ Under 10 million VND ☐ 10--20 million VND ☐ 21--35 million VND ☐ Over 35
million VND

Q6. What is your main field of work/study?

☐ Economics, Finance, Business Administration ☐ Engineering, Information Technology
☐ Social Sciences, Education, Law ☐ Medicine, Pharmacy ☐ Arts, Design ☐ Other

Q7. What is your current living situation?

☐ Living with family/parents ☐ Renting a house/room ☐ Owning a private house
(may be paying installments)

Q8. Suppose you deposit 10 million VND into a savings account with a compound interest rate of 5% per year. How much money will you have after 2 years?

- ☐ 11,000,000 VND ☐ 11,025,000 VND ☐ More than 11,025,000 VND ☐

Don't know

Q9. If the inflation rate is higher than the bank deposit interest rate, the purchasing power of your savings will:

- ☐ Increase ☐ Decrease ☐ Remain unchanged ☐ Don't know

Q10. Which statement is most accurate about investment risk?

- ☐ Buying stock of a single company has lower risk than buying a diversified investment fund
☐ Buying stock of a diversified investment fund has lower risk than buying stock of a single company
☐ Both carry the same risk ☐ Don't know

Q11. How well do you understand how a 'credit score' (e.g., CIC score in Vietnam) affects borrowing ability?

- ☐ Understand very clearly ☐ Basic understanding ☐ Only heard of it ☐

Completely unaware

Q12. Among financial products, which one typically offers the highest return along with the highest risk?

- ☐ Savings deposit ☐ Government bonds ☐ Stocks ☐ Don't know

Q13. When considering a loan contract, which factor is the most important to understand clearly?

- ☐ Annual Percentage Rate (APR) ☐ Penalty fees for late or early repayment ☐ Loan term
☐ All of the above factors

Q14. Do you clearly understand the difference between unsecured loans and secured loans?

☐ Yes, I understand clearly ☐ No, I'm not very sure

Q15. Do you currently have any debts (including credit card balances)?

☐ Yes ☐ No

Q15a. Have you ever had a loan in the past?

☐ Currently repaying a loan ☐ Have borrowed before, but fully repaid now ☐ Never
had a loan

Q15b. Do you plan to take out a loan in the next 6 months?

☐ Yes ☐ No ☐ Not sure

Q15c. If you plan to borrow, what is the main purpose of your (hypothetical) loan?

☐ Buy a vehicle (car, motorbike) ☐ Buy personal items, electronics (phone, laptop..) ☐

Invest in education, improve skills ☐ Business/Investment

☐ Cover urgent personal expenses (sickness, home repairs...) ☐ Travel, Entertainment ☐

Other

Q16. What percentage of your monthly income is spent on debt repayment?

☐ Under 10% ☐ 10% -- 30% ☐ 31% -- 50% ☐ Over 50%

Q17. Have you ever used a 'Buy Now, Pay Later' (BNPL) service?

☐ Yes, frequently ☐ Yes, a few times ☐ Never

Q18. Have you ever borrowed money from informal sources (e.g., black credit, loan sharks)?

☐ Yes ☐ No

Q19. When you need money urgently, what is your first choice?

☐ Use savings ☐ Borrow from relatives/friends ☐ Use credit card or consumer loan from
bank/finance company ☐ Borrow through online lending apps ☐ Other

Q20. Do you systematically track your debts? (e.g., using an app, Excel spreadsheet)

☐ Yes, I track in great detail ☐ Yes, but not regularly ☐ No, I only estimate in my head

Q21. Have you ever been rejected for a loan application?

☐ Yes ☐ No

Q22. What worries you the most about being in debt?

☐ Inability to repay on time ☐ High interest rates ☐ Impact on credit score ☐ I don't feel worried ☐ Other

Q31. Have you ever studied personal finance in school?

☐ Yes ☐ No

Q32. Which source of information do you trust most when making financial decisions? (Can choose multiple answers)

☐ Financial Experts/Advisors ☐ Family/Relatives ☐ Reputable Financial Websites/Forums
☐ Information from Banks/Credit Institutions ☐ Self-research ☐ Other

Q33. How do you prefer to learn about personal finance? (Can choose multiple answers)

☐ Online Courses ☐ In-person Seminars/Workshops ☐ Mobile Apps with Guidance Features
☐ Short Articles/Videos on Social Media ☐ Formal School Curriculum ☐ Other

Q34. Should financial institutions be responsible for educating customers about risks before lending?

☐ Definitely responsible ☐ Should be responsible ☐ No, that's the borrower's responsibility

Q35. Is integrating financial education into the high school curriculum necessary?

☐ Very Necessary ☐ Necessary ☐ Not Very Necessary

Q36. Which financial topic do you need to improve your knowledge of the most? (Choose the 2 most important topics)

☐ Budgeting and Expense Management ☐ Saving and Building an Emergency Fund ☐

Investing (Stocks, Real Estate, ...) ☐ Debt and Credit Management ☐ Retirement Planning

☐ Taxes and Insurance ☐ Other

Q37. Do you believe that financial knowledge helps reduce stress in life?

☐ Definitely Yes ☐ Possibly ☐ Not Much Effect

B. Objective Financial Literacy (FLT_OBJ)

Q34a. Compound interest means you earn interest not only on the principal but also on the accumulated interest.

☐ True ☐ False ☐ Don't Know

Q34b. If the inflation rate exceeds the savings interest rate, the purchasing power of your savings will decrease.

☐ True ☐ False ☐ Don't Know

Q34c. Do you think diversifying an investment portfolio reduces overall risk?

☐ True ☐ False ☐ Don't Know

Q34d. APR (Annual Percentage Rate, the real interest rate when you borrow) and APY (Annual Percentage Yield, the rate to measure investment returns, compound interest) are always the same.

☐ True ☐ False ☐ Don't Know

Q34e. Paying only the minimum amount on a credit card increases the total interest paid.

☐ True ☐ False ☐ Don't Know

C. Subjective Financial Literacy (FLT_SUB)

Q35a. I am confident in comparing loan options to choose the one with the lower total cost.

☐ Strongly Disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly Agree

Q35b. I can quickly estimate the approximate interest/cost of a loan.

☐ Strongly Disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly Agree

Q35c. I clearly understand common credit terms (APR, fees, prepayment).

☐ Strongly Disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly Agree

Q35d. Information about consumer loans confuses me.

☐ Strongly Disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly Agree

D. Attitude toward Debt (ATD)

Q23. I feel pressured to spend money to keep up with friends/consumer trends

☐ Strongly Disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly Agree

Q24. I am willing to accept higher financial risk for the chance of achieving higher returns

☐ Strongly Disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly Agree

Q25. *(Appears to be a duplicate of Q24 in the original)*

☐ Strongly Disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly Agree

Q26. Owning a credit card makes me tend to spend more.

☐ Strongly Disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly Agree

Q27. Advertisements for consumer loans and installment purchases significantly influence my spending decisions.

☐ Strongly Disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly Agree

Q28. I feel stressed or anxious about my personal financial situation.

☐ Strongly Disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly Agree

Q29. In my opinion, banks and financial companies provide sufficient clear and transparent information to borrowers.

☐ Strongly Disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly Agree

Q30. Being in debt (e.g., mortgage, business loan) is an inevitable part of building assets and improving life.

☐ Strongly Disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly Agree

E. Financial Behavior (BEH)

Q38. I compared at least two loan options (interest rates/fees) before borrowing.

☐ Strongly Disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly Agree

Q39. I carefully read the important terms (APR, penalties, total cost) before signing...

☐ Strongly Disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly Agree

Q40. I have been late on a scheduled debt repayment at least once.

☐ Strongly Disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly Agree

Q41. I have paid only the minimum amount on my credit card/consumer loan.

☐ Strongly Disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly Agree

Q42. I immediately created a repayment plan (amount and due date) right after borrowing.

☐ Strongly Disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly Agree

Q43. I have maintained an emergency fund of at least three months' living expenses.

☐ Strongly Disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly Agree

APPENDIX D QUESTIONNAIRE (VIETNAMESE)

A KEY SUCCESS FROM EDUCATING WEALTH MANAGEMENT TO REDUCE HOUSEHOLD DEBT IN VIETNAM

A. Thông tin nhân khẩu học

Q1. Nhóm tuổi của bạn? (Age group)

☐ 18–25 ☐ 26–30 ☐ 31–35

Q2. Giới tính của bạn? (Gender)

☐ Nam ☐ Nữ ☐ Khác

Q3. Trình độ học vấn cao nhất? (Education level)

☐ Trung học ☐ Cao đẳng ☐ Đại học ☐ Sau đại học ☐ Khác

Q4. Tình trạng hôn nhân của bạn? (Marital status)

☐ Độc thân ☐ Đã kết hôn ☐ Đã ly hôn/Góa

Q5. Thu nhập hàng tháng của bạn?

☐ Dưới 10 triệu ☐ 10–20 triệu ☐ 21–35 triệu ☐ Trên 35 triệu

Q6. Lĩnh vực công việc/học tập chính của bạn là gì? (Occupation)

☐ Kinh tế, Tài chính, Quản trị kinh doanh ☐ Kỹ thuật, Công nghệ thông tin ☐ Khoa học xã hội, Giáo dục, Luật ☐ Y tế, Dược ☐ Nghệ thuật, Thiết kế ☐ Khác

Q7. Tình trạng nhà ở hiện tại của bạn là gì?

☐ Sống cùng gia đình/bố mẹ ☐ Thuê nhà/phòng trọ ☐ Sở hữu nhà riêng (có thể đang trả góp)

Q8. Giả sử bạn gửi 10 triệu VNĐ vào tài khoản tiết kiệm với lãi suất kép là 5%/năm. Sau 2 năm bạn sẽ có bao nhiêu tiền?

☐ 11,000,000 VNĐ ☐ 11,025,000 VNĐ ☐ Nhiều hơn 11,025,000 VNĐ ☐

Không biết

Q9. Nếu tỷ lệ lạm phát cao hơn lãi suất tiền gửi ngân hàng, sức mua của số tiền tiết kiệm sẽ:

- ☐ Tăng lên ☐ Giảm đi ☐ Không thay đổi ☐ Không biết

Q10. Nhận định nào đúng nhất về rủi ro khi đầu tư

- ☐ Mua cổ phiếu của một công ty duy nhất có rủi ro thấp hơn mua một quỹ đầu tư đa dạng
☐ Mua cổ phiếu của một quỹ đầu tư đa dạng có rủi ro thấp hơn mua công ty duy nhất ☐ Cả hai đều rủi ro như nhau ☐ Không biết

Q11. Bạn hiểu 'điểm tín dụng' (ví dụ: điểm CIC ở Việt Nam) ảnh hưởng đến khả năng vay vốn như thế nào không?

- ☐ Hiểu rất rõ ☐ Hiểu cơ bản ☐ Chỉ nghe nói qua ☐ Hoàn toàn không biết

Q12. Trong các sản phẩm tài chính, sản phẩm nào thường có lợi nhuận cao nhất đi kèm rủi ro cao nhất?

- ☐ Gửi tiết kiệm ☐ Trái phiếu chính phủ ☐ Cổ phiếu ☐ Không biết

Q13. Khi xem xét hợp đồng vay, yếu tố nào quan trọng nhất cần hiểu rõ?

- ☐ Lãi suất hàng năm (APR – Annual Percentage Rate) ☐ Các loại phí phạt trả nợ trễ hạn hoặc trả nợ trước hạn ☐ Thời hạn của khoản vay ☐ Tất cả các yếu tố trên

Q14. Bạn có hiểu rõ sự khác biệt giữa vay tín chấp và vay thế chấp không?

- ☐ Có, tôi hiểu rõ ☐ Không, tôi không chắc lắm

Q15. Bạn hiện có bất kỳ khoản nợ nào không (bao gồm cả dư nợ thẻ tín dụng)?

- ☐ Có ☐ Không

Q15a. Bạn đã bao giờ vay nợ trong quá khứ chưa?

- ☐ Đang trong quá trình trả nợ ☐ Đã từng vay, nhưng hiện tại đã trả hết ☐ Chưa bao giờ vay nợ

Q15b. Bạn có dự định vay nợ trong 6 tháng tới không?

☐ Có ☐ Không ☐ Chưa chắc chắn

Q15c. Nếu có dự định vay, mục đích chính của khoản vay (giả định) của bạn là gì?

☐ Mua xe (ô tô, xe máy) ☐ Mua sắm đồ dùng cá nhân, đồ điện tử (điện thoại, laptop..) ☐

Đầu tư học tập, nâng cao kỹ năng ☐ Kinh doanh/đầu tư ☐ Chi tiêu cho nhu cầu cá nhân

khẩn cấp (ốm đau, sửa nhà...) ☐ Du lịch, giải trí ☐ Khác

Q16. Tổng số tiền trả nợ hàng tháng chiếm khoảng bao nhiêu % thu nhập?

☐ Dưới 10% ☐ 10% – 30% ☐ 31% – 50% ☐ Trên 50%

Q17. Bạn đã bao giờ sử dụng dịch vụ 'Mua trước, Trả sau' (Buy Now, Pay Later - BNPL) chưa?

☐ Rồi, thường xuyên ☐ Rồi, vài lần ☐ Chưa bao giờ

Q18. Bạn đã bao giờ vay tiền từ các nguồn không chính thức (tín dụng đen, cho vay nặng lãi)?

☐ Rồi ☐ Chưa

Q19. Khi cần tiền gấp, lựa chọn đầu tiên của bạn là gì?

☐ Sử dụng tiền tiết kiệm ☐ Vay từ người thân/bạn bè ☐ Sử dụng thẻ tín dụng hoặc vay tiêu

dùng từ ngân hàng/công ty tài chính ☐ Vay qua các ứng dụng (app) cho vay online ☐ Khác

Q20. Bạn có theo dõi các khoản nợ một cách có hệ thống không? (ví dụ: dùng ứng dụng, bảng tính Excel)

☐ Có, tôi theo dõi rất chi tiết ☐ Có, nhưng không thường xuyên ☐ Không, tôi chỉ ước tính trong đầu

Q21. Bạn đã bao giờ bị từ chối hồ sơ vay vốn chưa?

☐ Rồi ☐ Chưa

Q22. Điều gì khiến bạn lo lắng nhất khi mang nợ?.

- ☐ Không có khả năng trả nợ đúng hạn ☐ Lãi suất tăng cao ☐ Ảnh hưởng đến điểm tín dụng
- ☐ Tôi không cảm thấy lo lắng ☐ Khác

Q31. Bạn đã bao giờ học môn tài chính cá nhân ở trường chưa?

- ☐ Rồi ☐ Chưa

Q32. Nguồn thông tin nào bạn tin tưởng nhất khi quyết định tài chính? (Có thể chọn nhiều đáp án)

- ☐ Chuyên gia/cố vấn tài chính ☐ Gia đình/người thân ☐ Các trang web/diễn đàn tài chính uy tín ☐ Thông tin từ ngân hàng/tổ chức tín dụng ☐ Tự nghiên cứu ☐ Khác

Q33. Bạn mong muốn học tài chính cá nhân qua hình thức nào? (Có thể chọn nhiều đáp án)

- ☐ Các khóa học trực tuyến (Online Courses) ☐ Hội thảo/workshop trực tiếp ☐ Các ứng dụng di động (mobile apps) có tính năng hướng dẫn ☐ Bài viết, video ngắn trên mạng xã hội
- ☐ Chương trình học chính thức trong nhà trường ☐ Khác

Q34. Bạn mong muốn học tài chính cá nhân qua hình thức nào? (Có thể chọn nhiều đáp án)

- ☐ Chắc chắn có trách nhiệm ☐ Nên có trách nhiệm ☐ Không, đó là trách nhiệm của người đi vay

Q36. Chủ đề tài chính nào bạn cần cải thiện kiến thức nhất? (Chọn 2 chủ đề quan trọng nhất)

- ☐ Lập ngân sách và quản lý chi tiêu ☐ Tiết kiệm và xây dựng quỹ khẩn cấp ☐ Đầu tư (chứng khoán, bất động sản, ...)
- ☐ Quản lý nợ và tín dụng ☐ Lập kế hoạch hưu trí ☐ Thuế và bảo hiểm ☐ Khác

Q37. Bạn có tin rằng hiểu biết tài chính giúp giảm căng thẳng trong cuộc sống?

- ☐ Chắc chắn có ☐ Có thể ☐ Không ảnh hưởng nhiều

B. Kiến thức tài chính khách quan (Objective Financial Literacy)

Q34a. Lãi kép có nghĩa là bạn nhận được lãi không chỉ trên số tiền gốc mà còn trên cả số lãi đã kiếm được

☐ Đúng ☐ Sai ☐ Không biết

Q34b. Nếu tỷ lệ lạm phát vượt quá lãi suất tiết kiệm, sức mua của khoản tiết kiệm của bạn sẽ giảm theo

☐ Đúng ☐ Sai ☐ Không biết

Q34c. Bạn có cho rằng đa dạng hóa danh mục đầu tư sẽ làm giảm rủi ro tổng thể.

☐ Đúng ☐ Sai ☐ Không biết

Q34d. APR (Lãi suất phần trăm hàng năm, lãi suất thực khi bạn đi vay vốn) và APY (Lãi suất phần trăm hiệu dụng hàng năm, lãi suất để đo lường lợi nhuận, lãi kép) luôn luôn giống nhau.

☐ Đúng ☐ Sai ☐ Không biết

Q34e. Chi thanh toán số tiền tối thiểu trên thẻ tín dụng làm tăng tổng số tiền lãi phải trả.

☐ Đúng ☐ Sai ☐ Không biết

C. Kiến thức tài chính chủ quan (Subjective Financial Literacy)

Q35a. Tôi tự tin khi so sánh các lựa chọn khoản vay để chọn ra khoản có tổng chi phí thấp hơn.

☐ Hoàn toàn không đồng ý ☐ Không đồng ý ☐ Bình thường ☐ Đồng ý ☐ Hoàn toàn đồng ý

Q35b. Tôi có thể nhanh chóng ước tính chi phí lãi/phí gần đúng của một khoản vay.

☐ Hoàn toàn không đồng ý ☐ Không đồng ý ☐ Bình thường ☐ Đồng ý ☐ Hoàn toàn đồng ý

Q35c. Tôi hiểu rõ các thuật ngữ tín dụng phổ biến (APR, phạt phí, trả trước).

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Q35d. Thông tin về các khoản vay tiêu dùng làm tôi cảm thấy bối rối.

☐ Hoàn toàn không đồng ý ☐ Không đồng ý ☐ Bình thường ☐ Đồng ý ☐ Hoàn toàn đồng ý

D. Thái độ với nợ (Attitude toward Debt)

Q23. Tôi cảm thấy áp lực phải chi tiêu để theo kịp bạn bè/xu hướng tiêu dùng

☐ Hoàn toàn không đồng ý ☐ Không đồng ý ☐ Bình thường ☐ Đồng ý ☐ Hoàn toàn đồng ý

Q24. Tôi sẵn sàng chấp nhận rủi ro tài chính cao hơn để có cơ hội đạt được lợi nhuận cao hơn

☐ Hoàn toàn không đồng ý ☐ Không đồng ý ☐ Bình thường ☐ Đồng ý ☐ Hoàn toàn đồng ý

Q25. Tôi sẵn sàng chấp nhận rủi ro tài chính cao hơn để có cơ hội đạt được lợi nhuận cao hơn

☐ Hoàn toàn không đồng ý ☐ Không đồng ý ☐ Bình thường ☐ Đồng ý ☐ Hoàn toàn đồng ý

Q26. Việc sở hữu một chiếc thẻ tín dụng khiến tôi có xu hướng chi tiêu nhiều hơn.

☐ Hoàn toàn không đồng ý ☐ Không đồng ý ☐ Bình thường ☐ Đồng ý ☐ Hoàn toàn đồng ý

Q27. Các quảng cáo về cho vay tiêu dùng và mua sắm trả góp ảnh hưởng nhiều đến quyết định chi tiêu của tôi.

☐ Hoàn toàn không đồng ý ☐ Không đồng ý ☐ Bình thường ☐ Đồng ý ☐ Hoàn toàn đồng ý

Q28. Tôi cảm thấy căng thẳng hoặc lo lắng về tình hình tài chính cá nhân của mình.

☐ Hoàn toàn không đồng ý ☐ Không đồng ý ☐ Bình thường ☐ Đồng ý ☐ Hoàn toàn đồng ý

Q29. Theo tôi, các ngân hàng và công ty tài chính đã cung cấp đủ thông tin rõ ràng và minh bạch cho người vay.

☐ Hoàn toàn không đồng ý ☐ Không đồng ý ☐ Bình thường ☐ Đồng ý ☐ Hoàn toàn đồng ý

Q30. Việc mang nợ (như vay mua nhà, vay kinh doanh) là một phần tất yếu để xây dựng tài sản và cải thiện cuộc sống.

☐ Hoàn toàn không đồng ý ☐ Không đồng ý ☐ Bình thường ☐ Đồng ý ☐ Hoàn toàn đồng ý

E. Hành vi tài chính (Financial Behavior)

Q38. Tôi đã so sánh ít nhất hai lựa chọn khoản vay (lãi suất/phí) trước khi vay.

☐ Hoàn toàn không đồng ý ☐ Không đồng ý ☐ Bình thường ☐ Đồng ý ☐ Hoàn toàn đồng ý

Q39. Tôi đã đọc kỹ các điều khoản quan trọng (APR, hình phạt, tổng chi phí) trước khi ký kết...

☐ Hoàn toàn không đồng ý ☐ Không đồng ý ☐ Bình thường ☐ Đồng ý ☐ Hoàn toàn đồng ý

Q40. Tôi đã từng ít nhất một lần trễ hạn thanh toán khoản nợ theo lịch trình.

☐ Hoàn toàn không đồng ý ☐ Không đồng ý ☐ Bình thường ☐ Đồng ý ☐ Hoàn toàn đồng ý

Q41. Tôi đã chỉ trả số tiền tối thiểu trên thẻ tín dụng/khoản vay tiêu dùng.

☐ Hoàn toàn không đồng ý ☐ Không đồng ý ☐ Bình thường ☐ Đồng ý ☐ Hoàn toàn đồng ý

Q42. Tôi đã lập ngay một kế hoạch trả nợ (số tiền và ngày đến hạn) ngay sau khi vay.

☐ Hoàn toàn không đồng ý ☐ Không đồng ý ☐ Bình thường ☐ Đồng ý ☐ Hoàn toàn đồng ý

Q43. Tôi đã duy trì một quỹ khẩn cấp ít nhất bằng ba tháng chi phí sinh hoạt..

☐ Hoàn toàn không đồng ý ☐ Không đồng ý ☐ Bình thường ☐ Đồng ý ☐ Hoàn toàn đồng ý

APPENDIX E

EXPERT INTERVIEW QUESTIONNAIRE

A KEY SUCCESS FACTOR FROM EDUCATING WEALTH MANAGEMENT TO REDUCE HOUSEHOLD DEBT IN VIETNAM

(Validation of Theoretical Model: Financial Literacy, Attitude toward Debt, and Wealth Management Education)

Section A. General Information

1. Full name:
2. Current position:
3. Institution:
4. Years of experience in finance or education:

Section B. Expert Opinions

Part 1. Financial Literacy

1. How would you define Financial Literacy in the Vietnamese context?
2. In your opinion, what are the main dimensions of Financial Literacy (knowledge, skills, and attitudes)?
3. Which aspects of financial knowledge are most lacking among Vietnamese citizens?
4. How does Financial Literacy influence individuals' financial decision-making?
5. To what extent can Financial Literacy contribute to debt prevention and repayment behavior?

Part 2. Financial Behavior and Attitude toward Debt

6. Based on your experience, what Financial Behaviors commonly lead to household over-indebtedness in Vietnam?

7. How do Financial Literacy and Financial Behavior interact in influencing borrowing decisions?
8. Do you think attitudes toward debt vary by age, income, or education level?
9. What are the most common misconceptions about debt among Vietnamese households?
10. In your opinion, how can financial education reshape people's attitudes toward debt and savings?

Part 3. Financial Education Programs

11. How effective are current financial education programs implemented in Vietnam?
12. What are the major barriers to improving Financial Literacy in Vietnam?
13. Should financial education be integrated into the national school curriculum?
14. What role should banks and financial institutions play in promoting Financial Literacy?
15. How can government and policymakers encourage long-term financial capability among citizens?

Part 4. Wealth Management Education – Advanced Perspective

16. How would you define Wealth Management Education compared to Financial Literacy?
17. Do you agree that Financial Literacy serves as a foundation for Wealth Management Education?
18. What skills should Wealth Management Education focus on (e.g., financial planning, portfolio management, risk control)?
19. How can Wealth Management Education contribute to sustainable debt reduction in households?
20. What is the feasibility of implementing Wealth Management Education programs in Vietnam?

Part 5. Policy, Stakeholders, and Future Directions

21. Which stakeholders (government, banks, universities, NGOs) should lead the national Financial Literacy agenda?
22. What type of public–private partnership could enhance the reach of financial education programs?
23. How can technology (e.g., mobile apps, AI chatbots, digital platforms) enhance financial learning and awareness?
24. What performance indicators should be used to evaluate the success of national Financial Literacy initiatives?
25. What long-term strategies would you recommend to promote Financial Literacy and responsible borrowing behavior?

Part 6. Additional Comments

26. Do you have any additional recommendations to strengthen Financial Literacy and wealth management education in Vietnam?

APPENDIX E EXPERT INTERVIEW QUESTIONNAIRE (VIETNAMESE)

A KEY SUCCESS FACTOR FROM EDUCATING WEALTH MANAGEMENT TO REDUCE HOUSEHOLD DEBT IN VIETNAM

(Xác thực mô hình lý thuyết: Hiểu biết tài chính, Thái độ đối với nợ và Giáo dục quản lý tài sản)

Mục A. Thông tin chung

1. Họ tên:
2. Chức vụ hiện tại:
3. Cơ quan công tác:
4. Số năm kinh nghiệm trong lĩnh vực tài chính hoặc giáo dục:

Mục B. Ý kiến chuyên gia

Phần 1. Hiểu biết tài chính

1. Ông/bà định nghĩa “Hiểu biết tài chính” như thế nào trong bối cảnh Việt Nam hiện nay?
2. Theo ông/bà, hiểu biết tài chính bao gồm những khía cạnh chính nào (kiến thức, kỹ năng, thái độ)?
3. Theo ông/bà, người dân Việt Nam còn thiếu kiến thức nhất ở khía cạnh nào (tiết kiệm, vay nợ, đầu tư, bảo hiểm...)?
4. Hiểu biết tài chính ảnh hưởng như thế nào đến việc ra quyết định tài chính của cá nhân?
5. Ở mức độ nào, hiểu biết tài chính có thể giúp ngăn ngừa nợ và cải thiện hành vi trả nợ?

Phần 2. Hành vi tài chính và thái độ đối với nợ

6. Theo kinh nghiệm của ông/bà, những hành vi tài chính nào thường dẫn đến tình trạng nợ hộ gia đình quá mức tại Việt Nam?

7. Hiểu biết tài chính và hành vi tài chính tương tác như thế nào trong việc ảnh hưởng đến quyết định vay nợ?
8. Ông/bà có cho rằng thái độ đối với nợ khác nhau giữa các nhóm tuổi, thu nhập hay trình độ học vấn không?
9. Những hiểu lầm phổ biến nhất về nợ trong các hộ gia đình Việt Nam là gì?
10. Theo ông/bà, giáo dục tài chính có thể thay đổi thái độ của người dân đối với nợ và tiết kiệm như thế nào?

Phần 3. Chương trình giáo dục tài chính

11. Các chương trình giáo dục tài chính hiện nay tại Việt Nam có hiệu quả như thế nào?
12. Những rào cản chính trong việc nâng cao hiểu biết tài chính tại Việt Nam là gì?
13. Giáo dục tài chính có nên được tích hợp vào chương trình học quốc gia không?
14. Theo ông/bà, các ngân hàng và tổ chức tài chính nên đóng vai trò gì trong việc thúc đẩy hiểu biết tài chính?
15. Nhà nước và các nhà hoạch định chính sách có thể làm gì để khuyến khích năng lực tài chính bền vững của người dân?

Phần 4. Giáo dục quản lý tài sản – Góc nhìn mở rộng

16. Ông/bà định nghĩa “Giáo dục quản lý tài sản” và phân biệt nó với “Hiểu biết tài chính” như thế nào?
17. Ông/bà có đồng ý rằng hiểu biết tài chính là nền tảng cho giáo dục quản lý tài sản không?
18. Giáo dục quản lý tài sản nên tập trung vào những kỹ năng nào (lập kế hoạch tài chính, quản lý danh mục, kiểm soát rủi ro...)?
19. Giáo dục quản lý tài sản có thể giúp giảm nợ hộ gia đình một cách bền vững như thế nào?

20. Theo ông/bà, tính khả thi của việc triển khai chương trình giáo dục quản lý tài sản tại Việt Nam như thế nào?

Phần 5. Chính sách và định hướng tương lai

21. Theo ông/bà, bên nào (nhà nước, ngân hàng, trường đại học, tổ chức phi chính phủ) nên đóng vai trò dẫn dắt chiến lược quốc gia về hiểu biết tài chính?
22. Hình thức hợp tác công – tư nào có thể giúp mở rộng hiệu quả các chương trình giáo dục tài chính?
23. Công nghệ (như ứng dụng di động, AI chatbot, nền tảng số) có thể giúp nâng cao hiểu biết tài chính và nhận thức quản lý tài sản như thế nào?
24. Những chỉ số nào nên được sử dụng để đánh giá thành công của các chương trình giáo dục tài chính quốc gia?
25. Ông/bà có khuyến nghị chiến lược dài hạn nào nhằm thúc đẩy hiểu biết tài chính và hành vi vay nợ có trách nhiệm không?

Phần 6. Ý kiến bổ sung

26. Ông/bà có đề xuất bổ sung nào để nâng cao hiệu quả giáo dục tài chính và giáo dục quản lý tài sản tại Việt Nam không?

APPENDIX F

DATA ANALYSIS RESULTS

This appendix summarizes all main statistical results obtained from the final SPSS analysis using the dataset

Table F.1 – Descriptive Statistics (N = 722)

Variable	Mean	Std. Deviation	Min	Max
AttitudeDebt_core6_mean	3.42	0.62	1.0	5.0
AttitudeDebt_full_mean	3.37	0.61	1.0	5.0
FE_Objective	3.03	1.16	0.0	5.0
FE_Subjective	3.79	0.69	1.0	5.0
FinancialBehavior	3.71	0.69	1.0	5.0

Statistics

		sex_n	Q5_n
N	Valid	714	722
	Missing	8	0

sex_n

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	283	39.2	39.6	39.6
	2	431	59.7	60.4	100.0
	Total	714	98.9	100.0	
Missing	System	8	1.1		
Total		722	100.0		

Q5_n

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	651	90.2	90.2	90.2
	2	39	5.4	5.4	95.6
	3	9	1.2	1.2	96.8
	4	23	3.2	3.2	100.0
	Total	722	100.0	100.0	

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
AttitudeDebt_core6_mean	722	1.33	5.00	3.5018	.67835
AttitudeDebt_full_mean	722	1.75	4.88	3.4235	.54808
FE_Objective	722	.00	5.00	2.7258	1.33745
FE_Subjective	722	1.50	4.25	3.0111	.55322
FinancialBehavior	722	1.83	4.17	2.9942	.40939
Valid N (listwise)	722				

Table F.2 – Reliability Analysis (Cronbach's Alpha)Scale

Variable	No. of Items	Cronbach's Alpha	Interpretation
Attitude (6 items)	6	0.662	Acceptable
Attitude (8 items)	8	0.602	Marginal
FE Objective	5	0.383	Poor (knowledge-based)
FE Subjective	4	0.646	Acceptable
Financial Behavior	6	0.857	Excellent

Reliability

Scale: 1- Attitude core-6

Case Processing Summary

	N	%
Cases		
Valid	722	100.0
Excluded ^a	0	.0
Total	722	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.662	6

Reliability

Scale: 2- Attitude full-8

Case Processing Summary

	N	%
Cases		
Valid	722	100.0
Excluded ^a	0	.0
Total	722	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.602	8

Reliability

Scale: 3- FE Objective (5 items)

Case Processing Summary

		N	%
Cases	Valid	722	100.0
	Excluded ^a	0	.0
	Total	722	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.383	5

Reliability

Scale: 4- FE Subjective (4 items, FE_Subj2_r

Case Processing Summary

		N	%
Cases	Valid	508	70.4
	Excluded ^a	214	29.6
	Total	722	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.646	4

Reliability

Scale: 5- Financial Behavior (6 items)

Case Processing Summary

		N	%
Cases	Valid	722	100.0
	Excluded ^a	0	.0
	Total	722	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.857	6

Table F.3 – Exploratory Factor Analysis (EFA)

Scale	KMO	Bartlett's Test (p)	Extraction	Rotation	No. of Factors	Total Variance Explained
Attitude (8 items)	0.726	<0.001	PAF	Oblimin	2	44.99%
Attitude (6 items)	0.776	<0.001	PAF	None	1	24.90%

8 ITEMS

Factor Analysis

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.726
Bartlett's Test of Sphericity	Approx. Chi-Square	567.581
	df	28
	Sig.	.000

Communalities

	Initial	Extraction
Q23	.198	.304
Q24	.173	.267
Q25	.131	.191
Q26	.137	.212
Q27	.197	.297
Q28	.148	.228
Q29	.130	.358
Q30	.129	.353

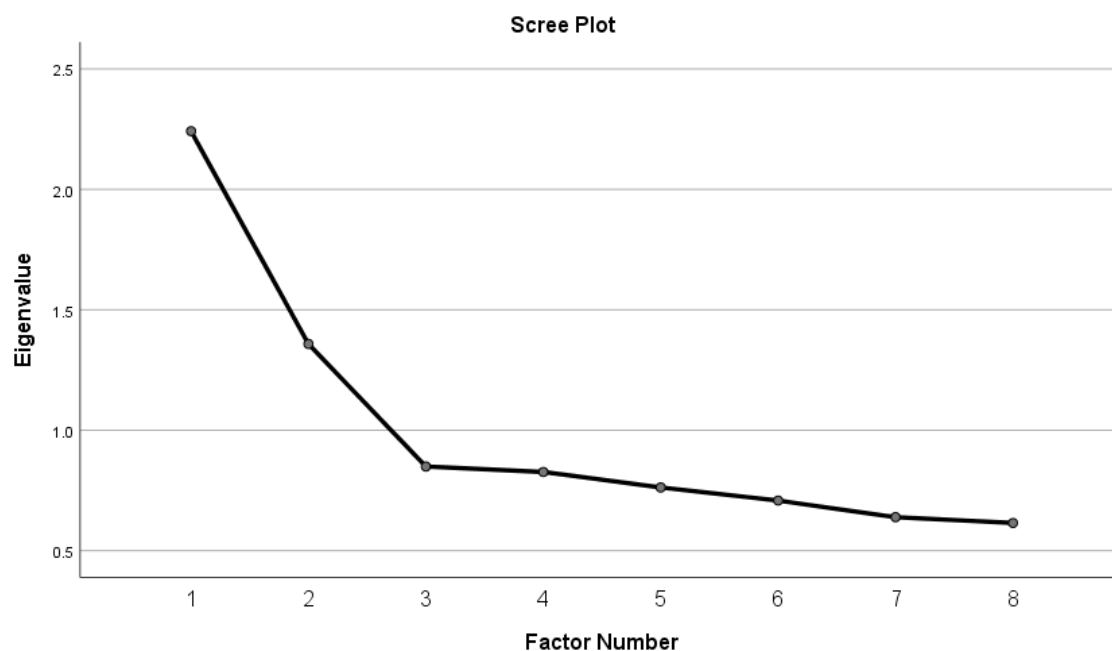
Extraction Method: Principal Axis Factoring.

Total Variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings ^a
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	2.242	28.020	28.020	1.498	18.722	18.722	1.497
2	1.358	16.975	44.995	.712	8.898	27.620	.719
3	.849	10.617	55.612				
4	.827	10.334	65.945				
5	.762	9.531	75.476				
6	.708	8.850	84.326				
7	.639	7.988	92.313				
8	.615	7.687	100.000				

Extraction Method: Principal Axis Factoring.

a. When factors are correlated, sums of squared loadings cannot be added to obtain a total variance.



Factor Matrix^a

	Factor	
	1	2
Q23	.550	
Q27	.544	
Q24	.516	
Q28	.477	
Q26	.458	
Q25	.436	
Q29		.595
Q30		.592

Extraction Method: Principal Axis Factoring.

a. 2 factors extracted. 9 iterations required.

6 ITEMS

Factor Analysis

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.776
Bartlett's Test of Sphericity	Approx. Chi-Square	465.779
	df	15
	Sig.	.000

Communalities

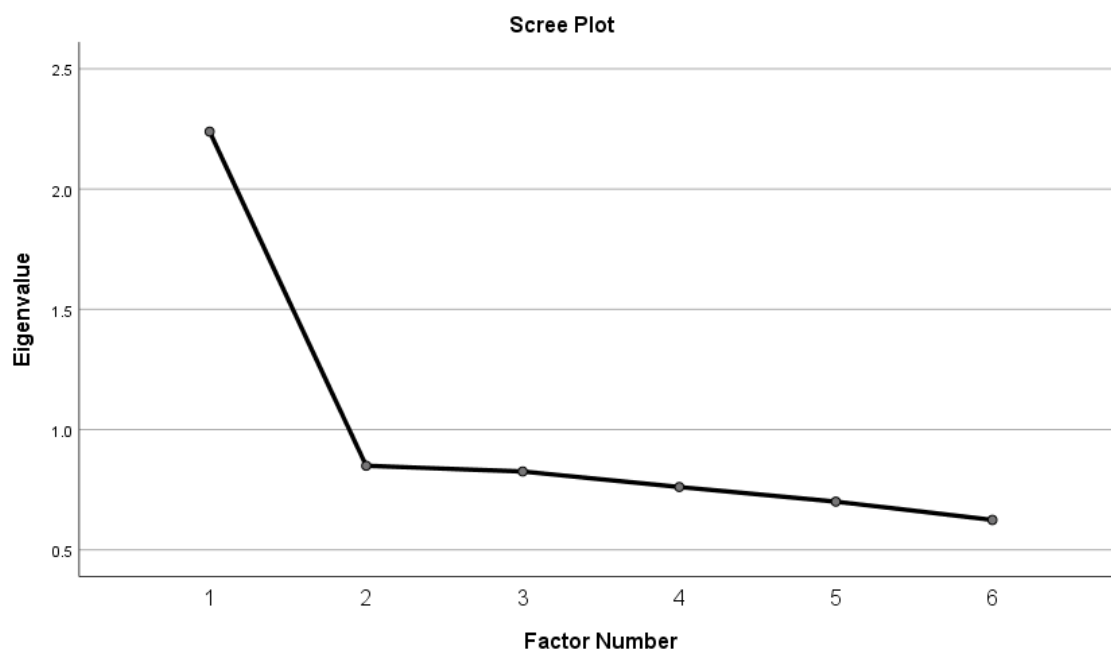
	Initial	Extraction
Q23	.198	.303
Q24	.172	.267
Q25	.129	.188
Q26	.137	.211
Q27	.195	.297
Q28	.148	.228

Extraction Method: Principal Axis Factoring.

Total Variance Explained

Factor	Total	Initial Eigenvalues		Extraction Sums of Squared Loadings		
		% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.239	37.312	37.312	1.494	24.896	24.896
2	.850	14.160	51.471			
3	.826	13.763	65.234			
4	.761	12.686	77.920			
5	.701	11.675	89.595			
6	.624	10.405	100.000			

Extraction Method: Principal Axis Factoring.



Factor Matrix^a

	Factor 1
Q23	.551
Q27	.545
Q24	.517
Q28	.477
Q26	.460
Q25	.433

Extraction
Method: Principal
Axis Factoring.

a. 1 factors
extracted.
5
iterations
required.

Table F.4 – Group Tests (Gender & Income)

Test	Variable	F / t	Sig.	Result
T-test (Gender)	FE_Subjective	0.325	0.746	No significant difference
ANOVA (Income)	FE_Subjective	0.548	0.650	No significant difference

Group Statistics

	sex_n	N	Mean	Std. Deviation	Std. Error Mean
AttitudeDebt_core6_mean	1	283	3.5141	.67954	.04039
	2	431	3.4973	.67662	.03259
AttitudeDebt_full_mean	1	283	3.4192	.55327	.03289
	2	431	3.4301	.54353	.02618
FE_Subjective	1	204	3.1654	.63159	.04422
	2	299	3.1756	.61893	.03579

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference Lower Upper
AttitudeDebt_core6_mean	Equal variances assumed	.126	.723	.325	712	.745	.01684	.05186	-.08497 .11865
	Equal variances not assumed			.324	601.489	.746	.01684	.05190	-.08509 .11877
AttitudeDebt_full_mean	Equal variances assumed	.139	.710	-.261	712	.794	-.01093	.04188	-.09316 .07129
	Equal variances not assumed			-.260	595.756	.795	-.01093	.04204	-.09349 .07162
FE_Subjective	Equal variances assumed	1.017	.314	-.179	501	.858	-.01014	.05667	-.12149 .10120
	Equal variances not assumed			-.178	430.315	.859	-.01014	.05689	-.12196 .10168

Descriptives

AttitudeDebt_core6_mean

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum	Between-Component Variance
						Lower Bound	Upper Bound			
1		39	3.3846	.65912	.10554	3.1710	3.5983	1.67	4.83	
2		9	3.3889	.57130	.19043	2.9497	3.8280	2.17	4.00	
3		23	3.3768	.61590	.12842	3.1105	3.6431	2.33	4.50	
4		651	3.5148	.68297	.02677	3.4623	3.5674	1.33	5.00	
Total		722	3.5018	.67835	.02525	3.4523	3.5514	1.33	5.00	
Model	Fixed Effects			.67862	.02526	3.4523	3.5514			
	Random Effects				.02526 ^a	3.4215 ^a	3.5822 ^a			-.00198

a. Warning: Between-component variance is negative. It was replaced by 0.0 in computing this random effects measure.

ANOVA

AttitudeDebt_core6_mean

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.120	3	.373	.811	.488
Within Groups	330.655	718	.461		
Total	331.775	721			

Descriptives

FE_Subjective

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum	Between-Component Variance
					Lower Bound	Upper Bound			
1	26	3.2981	.70363	.13799	3.0139	3.5823	2.25	4.50	
2	6	3.0417	.48520	.19808	2.5325	3.5509	2.25	3.50	
3	11	3.0682	.58192	.17546	2.6772	3.4591	2.25	3.75	
4	465	3.1688	.62089	.02879	3.1122	3.2254	1.75	4.75	
Total	508	3.1718	.62248	.02762	3.1175	3.2260	1.75	4.75	
Model	Fixed Effects		.62331	.02766	3.1174	3.2261			
	Random Effects			.02766 ^a	3.0837 ^a	3.2598 ^a			-.00653

a. Warning: Between-component variance is negative. It was replaced by 0.0 in computing this random effects measure.

ANOVA

FE_Subjective

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.638	3	.213	.548	.650
Within Groups	195.814	504	.389		
Total	196.452	507			

Table F.5 – Regression Analysis – Attitude Models

Model	Dependent Variable	Independent Variables	R ²	F-test (Sig.)	Interpretation
Model A	AttitudeDebt_core6_mean	FE_Subjective, sex_n, Q5_n	0.016	0.042	FE_Subjective significant
Model B	AttitudeDebt_core6_mean	FE_Objective, FE_Subjective, sex_n, Q5_n	0.017	0.078	FE_Objective not significant

Model A**Variables Entered/Removed^a**

Model	Variables Entered	Variables Removed	Method
1	Q5_n, sex_n, FE_Subjective ^b	.	Enter

a. Dependent Variable:
AttitudeDebt_core6_mean

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.128 ^a	.016	.010	.66079

a. Predictors: (Constant), Q5_n, sex_n, FE_Subjective

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.610	3	1.203	2.755	.042 ^b
	Residual	217.886	499	.437		
	Total	221.495	502			

a. Dependent Variable: AttitudeDebt_core6_mean

b. Predictors: (Constant), Q5_n, sex_n, FE_Subjective

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2.868	.243		11.818	.000		
	FE_Subjective	.066	.047	.062	1.387	.166	.999	1.001
	sex_n	.025	.060	.018	.410	.682	1.000	1.000
	Q5_n	.106	.042	.112	2.522	.012	.999	1.001

a. Dependent Variable: AttitudeDebt_core6_mean

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions			
				(Constant)	FE_Subjective	sex_n	Q5_n
1	1	3.882	1.000	.00	.00	.01	.00
	2	.072	7.362	.01	.06	.90	.04
	3	.036	10.342	.00	.52	.00	.45
	4	.011	19.181	.99	.41	.09	.51

a. Dependent Variable: AttitudeDebt_core6_mean

Model B**Variables Entered/Removed^a**

Model	Variables Entered	Variables Removed	Method
1	Q5_n, sex_n, FE_Subjective, FE_Objective ^b	.	Enter

a. Dependent Variable:
AttitudeDebt_core6_mean

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.129 ^a	.017	.009	.66132

a. Predictors: (Constant), Q5_n, sex_n, FE_Subjective, FE_Objective

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.695	4	.924	2.112	.078 ^b
	Residual	217.800	498	.437		
	Total	221.495	502			

a. Dependent Variable: AttitudeDebt_core6_mean

b. Predictors: (Constant), Q5_n, sex_n, FE_Subjective, FE_Objective

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2.874	.243		11.813	.000		
	FE_Objective	.012	.026	.022	.442	.659	.778	1.285
	FE_Subjective	.055	.054	.051	1.016	.310	.778	1.285
	sex_n	.024	.060	.018	.394	.693	.999	1.001
	Q5_n	.105	.042	.111	2.498	.013	.997	1.003

a. Dependent Variable: AttitudeDebt_core6_mean

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions				
				(Constant)	FE_Objective	FE_Subjective	sex_n	Q5_n
1	1	4.755	1.000	.00	.01	.00	.00	.00
	2	.137	5.894	.00	.67	.00	.12	.01
	3	.066	8.464	.01	.10	.03	.78	.11
	4	.031	12.391	.00	.19	.53	.00	.40
	5	.010	21.523	.98	.03	.44	.09	.48

a. Dependent Variable: AttitudeDebt_core6_mean

Table F.6 – Regression Analysis – Financial Behavior Models

Model	Dependent Variable	Independent Variables	R ²	F-test (Sig.)	Interpretation
Model C	FinancialBehavior	FE_Objective, FE_Subjective, sex_n, Q5_n	0.587	<0.001	Highly significant
Model D	FinancialBehavior	FE_Objective, FE_Subjective, AttitudeDebt_core6_mean, sex_n, Q5_n	0.588	<0.001	Attitude partially mediates effect

Model C**Variables Entered/Removed^a**

Model	Variables Entered	Variables Removed	Method
1	Q5_n, sex_n, FE_Subjective, FE_Objective ^b	.	Enter

a. Dependent Variable: FinancialBehavior

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.766 ^a	.587	.584	.44838

a. Predictors: (Constant), Q5_n, sex_n, FE_Subjective, FE_Objective

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	142.229	4	35.557	176.860	.000 ^b
	Residual	100.122	498	.201		
	Total	242.351	502			

a. Dependent Variable: FinancialBehavior

b. Predictors: (Constant), Q5_n, sex_n, FE_Subjective, FE_Objective

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.543	.165		3.290	.001		
	FE_Objective	.102	.018	.186	5.698	.000	.778	1.285
	FE_Subjective	.736	.036	.661	20.238	.000	.778	1.285
	sex_n	.005	.041	.004	.130	.897	.999	1.001
	Q5_n	-.010	.028	-.010	-.335	.738	.997	1.003

a. Dependent Variable: FinancialBehavior

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions				
				(Constant)	FE_Objective	FE_Subjective	sex_n	Q5_n
1	1	4.755	1.000	.00	.01	.00	.00	.00
	2	.137	5.894	.00	.67	.00	.12	.01
	3	.066	8.464	.01	.10	.03	.78	.11
	4	.031	12.391	.00	.19	.53	.00	.40
	5	.010	21.523	.98	.03	.44	.09	.48

a. Dependent Variable: FinancialBehavior

Model D**Variables Entered/Removed^a**

Model	Variables Entered	Variables Removed	Method
1	Q5_n, sex_n, FE_Subjective, AttitudeDebt_core6_mean, FE_Objective ^b	.	Enter

a. Dependent Variable: FinancialBehavior

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.767 ^a	.588	.584	.44818

a. Predictors: (Constant), Q5_n, sex_n, FE_Subjective, AttitudeDebt_core6_mean, FE_Objective

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	142.520	5	28.504	141.905	.000 ^b
	Residual	99.831	497	.201		
	Total	242.351	502			

a. Dependent Variable: FinancialBehavior

b. Predictors: (Constant), Q5_n, sex_n, FE_Subjective, AttitudeDebt_core6_mean, FE_Objective

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.438	.187		2.346	.019		
	FE_Objective	.101	.018	.185	5.676	.000	.778	1.286
	FE_Subjective	.734	.036	.659	20.172	.000	.777	1.287
	AttitudeDebt_core6_mean	.037	.030	.035	1.203	.229	.983	1.017
	sex_n	.004	.041	.003	.109	.913	.998	1.002
	Q5_n	-.013	.029	-.014	-.467	.641	.985	1.016

a. Dependent Variable: FinancialBehavior

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions					
				(Constant)	FE_Objective	FE_Subjective	AttitudeDebt_core6_mean	sex_n	Q5_n
1	1	5.717	1.000	.00	.00	.00	.00	.00	.00
	2	.142	6.351	.00	.69	.00	.01	.07	.01
	3	.072	8.885	.00	.05	.01	.05	.84	.05
	4	.031	13.520	.00	.12	.32	.08	.00	.57
	5	.029	14.100	.00	.11	.35	.66	.00	.06
	6	.009	25.485	.99	.02	.31	.20	.08	.31

a. Dependent Variable: FinancialBehavior

Table F.7 – Correlation Matrix (Pearson, two-tailed)

Variable	Attitude	FE_Objective	FE_Subjective	Financial Behavior
Attitude	1	.013	.055	.017
FE_Objective	.013	1	.469	.597
FE_Subjective	.055	.469	1	.746
Financial Behavior	.017	.597	.746	1

Note: $p < .01$ (2-tailed)

Correlations

		AttitudeDebt_ core6_mean	FE_Objective	FE_Subjectiv e	FinancialBeh avior
AttitudeDebt_core6_mean	Pearson Correlation	1	.013	.055	.017
	Sig. (2-tailed)		.732	.218	.640
	N	722	722	508	722
FE_Objective	Pearson Correlation	.013	1	.469	.597
	Sig. (2-tailed)	.732		.000	.000
	N	722	722	508	722
FE_Subjective	Pearson Correlation	.055	.469	1	.746
	Sig. (2-tailed)	.218	.000		.000
	N	508	508	508	508
FinancialBehavior	Pearson Correlation	.017	.597	.746	1
	Sig. (2-tailed)	.640	.000	.000	
	N	722	722	508	722

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