PATHWAYS TO FINANCIAL WELL-BEING: AN INTEGRATED FRAMEWORK OF DETERMINANTS, POSITIVE FINANCIAL BEHAVIORS, AND OUTCOMES

by

ZONGZE LI

(Under the Direction of Kristy Archuleta and Lu Fan)

ABSTRACT

This dissertation includes three studies. The common theme that emerged from these studies is that personal traits such as personality traits and materialism were one of the factors constantly associated with one's financial behaviors and well-being. The first study presented, tested, and examined the proposed personality traits and financial well-being framework. The dataset used comes from the Understanding America Study. The research findings demonstrated significant associations between personality traits, financial behaviors, and financial well-being. The results showed that personality traits were indirectly associated with financial well-being via positive financial behaviors. Financial knowledge and self-efficacy were found to be positively associated with financial behaviors and well-being. The second study examined the proposed personality traits and financial well-being framework using a panel dataset. The dataset comes from the Understanding America Study. A latent growth curves (LGCs) analysis was used to examine and test the proposed framework. The findings indicated that individuals with greater financial knowledge started with higher levels of financial well-being. Financial self-efficacy was found to be positively associated with the initial level and slope of financial well-being. The findings showed that most personality traits were either directly or indirectly associated with

financial well-being. The third study proposed and tested a materialism and financial well-being framework using the 2016 National Financial Well-Being Survey. Materialism was found to be negatively associated with financial well-being, while financial socialization and financial capability were positively associated with financial well-being. The research findings highlighted the mediating role of financial behaviors in the connection between materialism, financial socialization, perceived financial capability, and financial well-being. This research contributes to the literature by proposing three conceptual frameworks that can be used in future research. Policymakers and practitioners can use the findings of this research to develop tailored interventions to better help consumers.

INDEX WORDS: Big Five Personality Traits, Financial Knowledge, Financial Self-efficacy, Materialism, Financial Socialization, Financial Capability, Financial Behaviors, Financial Well-being.

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M.S., The University of Missouri, 2020

A Dissertation Submitted to the Graduate Faculty of The University of Georgia in Partial Fulfillment of the Requirements for the Degree

DOCTOR OF PHILOSOPHY

ATHENS, GEORGIA

2025

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May 2025

ACKNOWLEDGEMENTS

I would like to express my deepest gratitude to my co-major advisor, Dr. Kristy Archuleta, co-major advisor, Dr. Lu Fan, and Dr. John Grable. Their support, insightful guidance, and invaluable contributions have been instrumental in the development and completion of my dissertation. I am immensely grateful for the time, patience, and dedication they have shown throughout this journey. Their mentorship has not only enriched my academic experience but also profoundly influenced my growth as a researcher and scholar.

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CHAPTER 1

Introduction

Statement of the Problem

The Consumer Financial Protection Bureau (CFPB) defines financial well-being as individuals who can meet their financial obligations and secure their financial future while enjoying their personal lifestyle choices (CFPB, 2015). Using this definition, this study proposes several frameworks to examine various factors associated with financial well-being. According to CFPB's report (2015), financial knowledge, financial behaviors, and personal traits are key factors that influence individual financial well-being. Despite the efforts of the CFPB on financial well-being, there is a lack of studies that examine how personal traits like personality traits are associated with financial well-being. Although personality traits have been found to be associated with subjective well-being in literature, limited studies explored the relationship between personality traits and financial well-being. This research aims to add to the literature by incorporating personality traits into the financial well-being framework. Although previous research has raised the issue of the suppression effect of the big five personality traits, Lai et al. (2025) suggested that it is good practice to include all theoretically meaningful variables, including suppressor variables, into the model to provide a fuller picture of the relationship. Therefore, this work will include all variables from the Big Five personality traits in the model.

An individual's financial well-being stands as a crucial component of their complete welfare (Utkarsh et al., 2020). The CFPB stated that financial literacy education needs to center on achieving financial well-being (Utkarsh et al.). The CFPB plays a vital role in safeguarding

consumers against unfair or deceptive practices in financial markets to improve their financial well-being (Bastani et al., 2019). As shown by Kandpal (2020), the CFPB's financial well-being mission demands compliance with financial literacy requirements together with sustainable development goals. The CFPB's definition emphasizes the role of financial behaviors, financial knowledge, and personal traits in shaping financial well-being (Rajna, 2018). It is evident that a framework is needed to examine factors associated with financial well-being.

Purpose of the Dissertation

This dissertation conducted three studies that proposed three financial well-being frameworks in different contexts. The first essay established a framework connecting personality traits and financial well-being. This study used structural equation modeling with longitudinal data to examine the association between personality traits in 2018 and financial well-being in 2021. This research employed longitudinal data to enhance its understanding of how variables influence each other in specific directions. This research benefits from insights that cross-sectional datasets cannot supply. The study results showed that personality characteristics were directly connected to financial well-being and were indirectly associated with financial well-being through financial behaviors.

The second study examined the framework suggested in the first paper by applying it to a panel dataset, using the latent growth curves model to track financial well-being progress over several time intervals. The research utilized latent growth curve modeling to simulate trajectories of unobserved latent growth. The study benefits from using a panel dataset to gain advantages unavailable to cross-sectional research. Research results demonstrated a connection between personal characteristics and financial well-being.

The third essay developed a framework to examine both personal traits, such as materialistic value, and environmental factors, including financial socialization, while investigating their connection to financial well-being. The 2015 CFPB report links materialistic values and financial socialization with financial well-being. Structure equation modeling served as the method to evaluate the proposed framework in this study. The results demonstrated associations among materialism, financial socialization, and financial well-being.

This research aims to fill some gaps in existing literature. Two studies conducted by this research investigate the links between personal traits and financial well-being to enhance existing literature. The first study established an integrated framework between personality traits and financial well-being. Practitioners can use this framework to deliver improved client support through customized assistance that considers personality traits. The second study adapted the framework from the first study and applied it to the panel dataset. It provides a framework to study the trajectory of financial well-being over time. The third study established a framework between materialism and financial well-being. This framework provides implications that people should focus on sustainable financial behaviors rather than short-term compulsive buying. All three frameworks lend themselves to future research on financial well-being to help understand how personal characteristics, such as personality traits and materialistic attitudes, connect with financial well-being.

Description of Studies

Essay One

Essay one established an integrated personality traits and financial well-being framework (Figure 1.1). The structural equation modeling will be used to examine the direct and indirect pathways in the framework. This study will examine whether personality is directly or indirectly

related to financial well-being. Moreover, this study will test whether personality is indirectly related to life satisfaction.

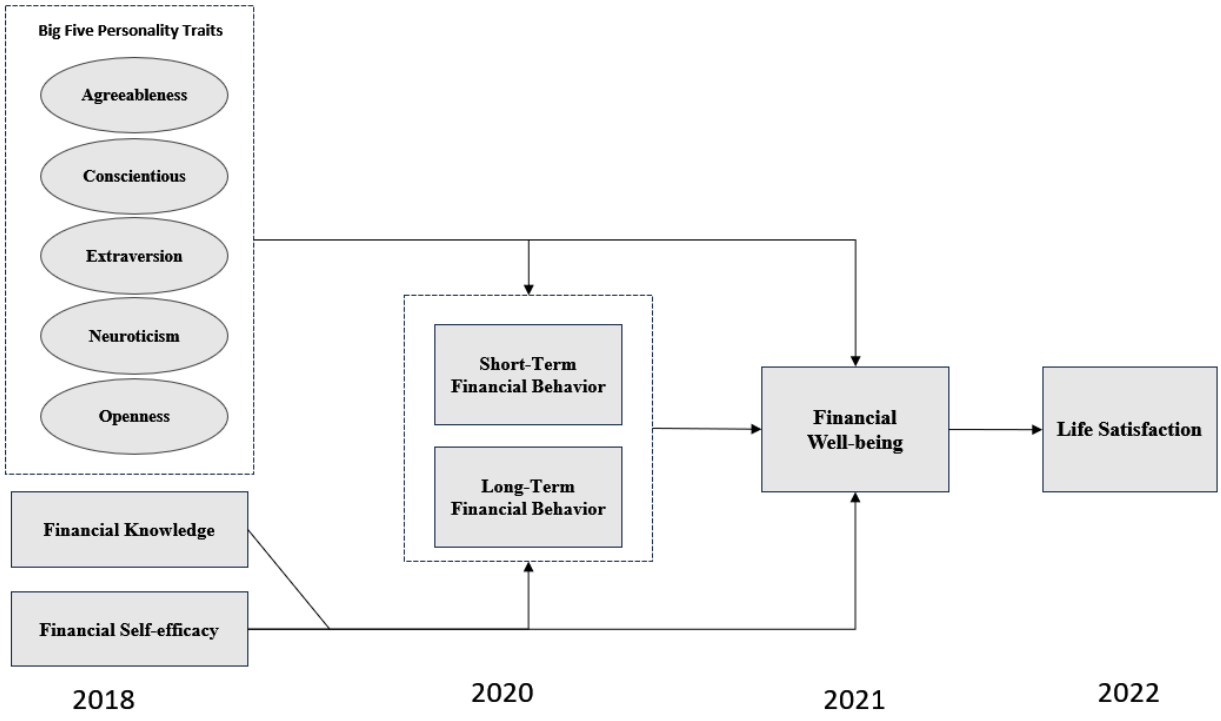


Figure 1.1 Conceptual Framework 1

Essay Two

Essay Two adapted the framework from Essay One and applied it to panel datasets (Figure 1.2). The latent growth curves will be used to examine the direct and indirect pathways in the framework. This study will examine whether personality traits are associated with initial levels of financial well-being as well as the slope of or change in financial well-being. Moreover, this research will test whether financial knowledge and financial self-efficacy are related to both the initial level and the slope of financial well-being.

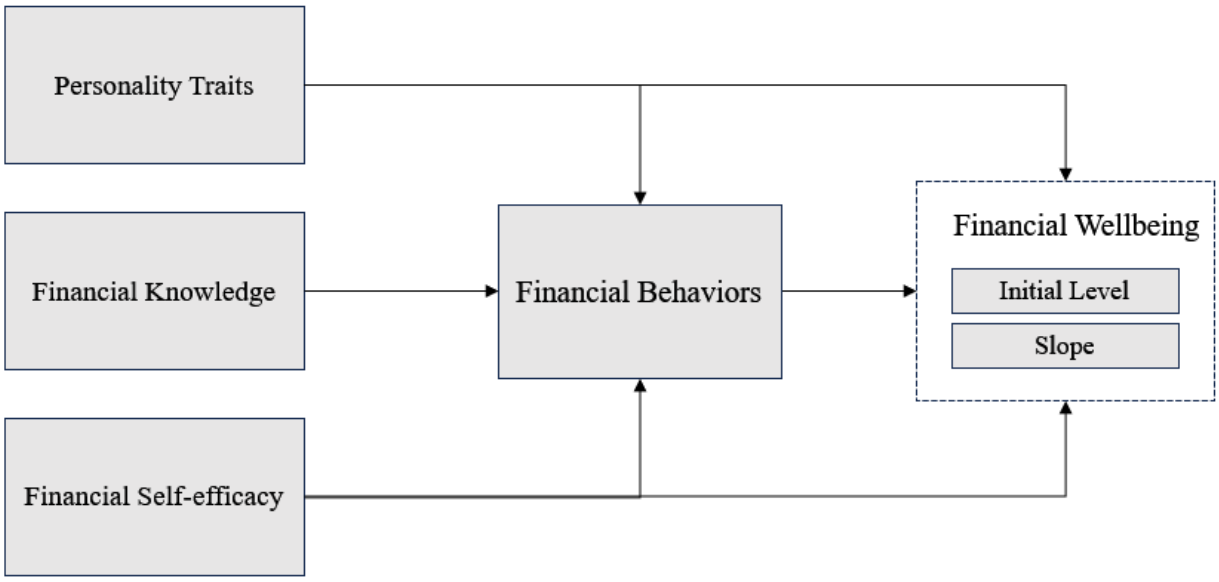


Figure 1.2 Conceptual Framework 2

Essay Three

Essay three established a framework between materialism and financial well-being (Figure 1.3). The structural equation modeling method will be used to test the direct and indirect pathways in the framework. This study will examine whether materialism, financial socialization, and financial capability are directly or indirectly related to financial well-being. Moreover, this research will test whether financial socialization is associated with materialism and financial capability.

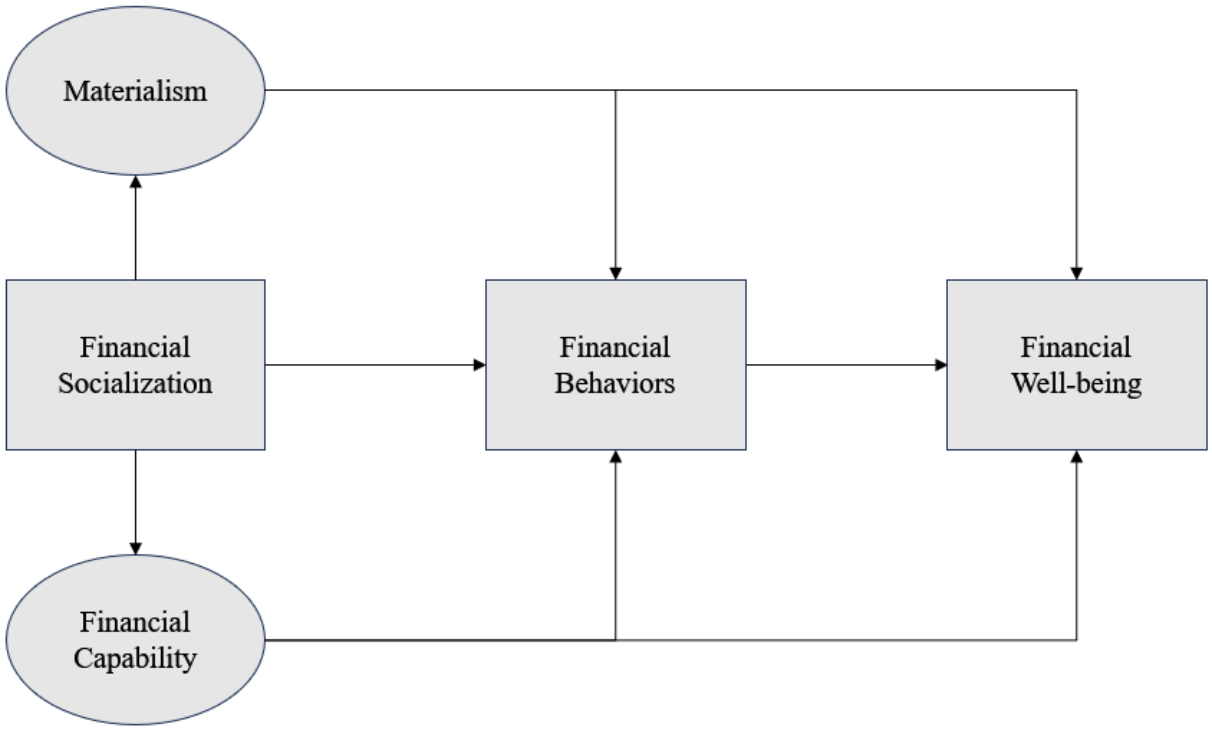


Figure 1.3 Conceptual Framework 3

Summary

Financial well-being is a vital part of one's overall well-being. This dissertation delved into different factors that are associated with financial well-being. By providing new frameworks, researchers and financial practitioners can use these frameworks as guidance to understand what factors are associated with financial well-being. Although previous studies often examined these factors individually, there is a lack of research that combines all these factors and establishes an integrated framework. This study proposed three frameworks that financial professionals can use as tools to better understand what contributes to a client's financial well-being.

Definitions

There are several concepts that are important to this dissertation, including financial well-being, financial behavior, personality traits, materialism, and financial capability. The following concepts and definitions are defined below:

Financial well-being: The ability to fulfill financial responsibilities and protect their financial future while enjoying their personal lifestyle choices (CFPB, 2015).

Financial behavior: Financial behavior is defined as any human behavior relevant to money management performed by consumers (Xiao & Kumar, 2023).

Agreeableness: The degree of cooperativeness displayed by an individual (McCrae & Costa, 1999).

Conscientiousness: The degree of organization and discipline shown by an individual (McCrae & Costa, 1999).

Extraversion: An individual maintaining a strong connection with the external world, displaying enthusiasm, and expressing positive emotions (McCrae & Costa, 1999).

Neuroticism: An individual's tendency to experience negative feelings and emotionally react to them (McCrae & Costa, 1999).

Openness: The extent to which an individual is open-minded and willing to engage in new experiences (McCrae & Costa, 1999).

Materialism: the importance a consumer attaches to worldly possessions (Belk, 1984).

Financial Capability: The ability to translate financial knowledge and decent financial behaviors into achieving financial wellness (Xiao & O'Neill, 2016).

Limitations

There are some limitations related to this research. First, the data used was a secondary dataset, thus some variables cannot be specifically designed for use in this study. Second, the third study used a cross-sectional dataset. This work did not draw any causal conclusions. Third, none of these studies examined the suppression effect of the Big Five personality traits. This is important to note because some previous research has indicated that the suppression effects of Big Five personality traits could endanger the association of certain personality traits (Lai et al., 2025). Lai et al. (2025) demonstrated the suppression effect of openness and suggested that it is important to include all theoretically meaningful variables. Thus, this study will include all variables from the Big Five into the model. In the future, research can focus on examining the suppression effect in the context of financial well-being.

Organization of Dissertation

The remainder of this dissertation is organized as follows: Chapter 2 includes an introduction, literature review, methodology, results, discussion, and conclusion of essay one. Chapter 3 contains an introduction, literature review, methodology, results, discussion, and conclusion of essay two. Chapter 4 contains an introduction, literature review, methodology, results, discussion, and conclusion of essay three. Finally, Chapter 5 discusses the results and implications for research and practice. An appendix that shows the measurements for each of the main variables is included at the end of the dissertation.

Chapter 2

A Framework for Personality Traits and Financial Well-being

Introduction

The Consumer Financial Protection Bureau's definition of financial well-being describes it as when individuals fulfill financial responsibilities and protect their financial future while enjoying their personal lifestyle choices (CFPB, 2015). The definition serves as a structure for understanding elements related to financial well-being. Research has shown that financial well-being is based on financial knowledge, along with individual financial behaviors and personal traits (CFPB, 2015). Lusardi and Mitchell (2011) showed that individuals possessing high financial knowledge tend to exhibit behaviors such as saving money and preparing for retirement. For example, people who possess greater financial knowledge tend to make superior investment choices and retirement plans (Huston, 2010). Financial knowledge has been shown to be associated with financial behaviors and well-being (Prameswar et al., 2023).

Although thousands of studies related to the definition and testing of personality traits have been published in the psychology literature, the financial planning, personal and consumer finance, and household finance literature have tended to underreport the role of personality in describing financial well-being. The existing research shows that conscientiousness, among various traits, predicts responsible financial behavior and successful long-term planning (Wilson et al., 2015). One example is that individuals who achieve high scores in conscientiousness demonstrated an organized approach to handling their money (Song et al., 2023). Other personality traits are also important. Singh (2022) found a connection between openness to

experience and emotional stability with responsible financial conduct. People who exhibit higher levels of openness are willing to take more financial risk (Akhtar & Das, 2020). Personal tendencies towards impulsive behavior can result in suboptimal financial decisions even when individuals have adequate financial understanding (Berry et al., 2014). Chhatwani (2022) found that individuals with conscientiousness traits and strong financial understanding show more effective financial behaviors. From the existing literature, it is evident that personality traits and financial knowledge are connected to financial behaviors and financial well-being, but more must be understood. This study aims to shed light on how specific personality traits are associated with more positive financial behavior and higher scores on financial well-being.

While prior research has explored connections between personality traits and subjective well-being, the existing literature lacks investigation into personality traits' role in describing financial well-being. This study introduces an integrated framework of personality traits and financial well-being to address existing gaps in the literature. This research can help policymakers establish practical interventions and educational programs to improve financial well-being at the individual, household, community, and national levels by detailing how personality traits are associated with financial outcomes. While policymakers can shape financial education programs specifically designed to match different personality dimensions, financial service practitioners can also use this research to develop better ways to deliver customized support through an understanding that financial behavioral change is tied to various personality traits.

Literature Review

Big Five Personality Traits

Personality traits, which this dissertation referred to as the Big Five personality traits (McCrae & Costa, 1999), include agreeableness, conscientiousness, extraversion, neuroticism, and openness. Agreeableness refers to the degree of cooperativeness displayed by an individual (McCrae & Costa, 1999). With this definition of agreeableness, it is no surprise that people with high agreeableness usually rely on financial analysts' guidance when they make financial choices (Pak & Mahmood, 2015). Heo et al. (2018) found that an agreeable personality was associated with a higher possibility of changing their financial behavior.

Conscientiousness refers to the degree of organization and discipline an individual shows (McCrae & Costa, 1999). Some researchers discovered an inverse correlation between conscientiousness and financial distress (Xu et al., 2015). This implies that individuals characterized by conscientiousness not only maintain a positive attitude but also possess sufficient knowledge in managing financial aspects (Peprah-Yeboah et al., 2018; Fenton-O'Creevy & Furnham, 2020). Fachrudin et al. (2022) found that conscientiousness was associated with favorable debt behaviors and better financial well-being. Extraversion is characterized by individuals maintaining a strong connection with the external world, displaying enthusiasm, and expressing positive emotions (McCrae & Costa, 1999). The literature suggested that extroverted individuals take more risks for higher returns (Singh et al., 2023). However, extraversion was positively associated with financial behavior, wherein individuals were more willing to take risks when making investment decisions (Sarwar et al., 2020).

Neuroticism reflects an individual's tendency to experience negative feelings and emotionally react to them (McCrae & Costa, 1999). Research indicated that individuals who

have lower neuroticism are innovative, acquire knowledge from various sources, and exhibit positive attitudes towards events (Bandura, 2009). Furthermore, empirical evidence suggests that low neurotic individuals possess analytical ability, a conceptual understanding of financial matters, and higher cognitive skills (Young et al., 2012).

Finally, openness refers to the extent to which an individual is open-minded and willing to engage in new experiences (McCrae & Costa, 1999). Gokhan and Mutlu (2019) found that people who score high on openness were more likely to participate in long-term investments, resulting in better financial well-being. Earlier research findings showed a connection between openness to experience and engaging in risk-taking behaviors (Matha et al., 2022). Those findings suggested the need to establish a framework for personality traits, financial behaviors, and well-being. This study aims to fill this gap in the literature. Despite the suppressor effect of Big Five personality traits, Lai et al. (2025) recommended including all theoretically meaningful variables, including suppressor variables, in the model. Therefore, all variables of Big Five personality traits were included in the model.

Financial Knowledge

Lusardi (2008) defined financial knowledge as basic financial concepts, such as the working of interest compounding. The association between objective financial knowledge and positive financial behavior has been established by earlier studies (Arofah et al., 2018). For example, investors with more excellent objective financial knowledge showed improved decision-making, resulting in decreased stock price volatility (Yin & Yang, 2022). Eko and colleagues (2022) found that people with higher objective financial knowledge were associated with higher long-term investment participation. Hamid and Loke (2020) revealed that people with higher objective financial knowledge were likelier to pay off their credit card balance. Wata

et al. (2021) found that individuals with high objective financial knowledge were more likely to make informed decisions instead of emotional ones. This finding indicates the significant relationship between financial knowledge and responsible financial behaviors. This is also true for retirees. Retirees with higher objective financial knowledge are more likely to actively plan their finances, resulting in improved financial well-being (Adam et al., 2017). Prameswar et al. (2023) found that objective financial knowledge was also associated with positive financial behaviors and, in turn, led to higher financial well-being. Collectively, these studies support the relationship between financial knowledge, financial behaviors, and financial well-being.

Financial Self-efficacy

Bandura (1977) defined self-efficacy as a person's belief in their ability to succeed at specific tasks. The literature has different measurements for financial self-efficacy. For example, Chan et al. (2017) treated self-efficacy and subjective knowledge as different variables. Atlas et al. (2019) used subjective knowledge as a measurement of self-efficacy. Moreover, research has demonstrated that higher levels of financial self-efficacy are positively associated with better financial management behaviors (Rothwell & Wu, 2017). Farrell et al. (2016) indicated that financial self-efficacy was positively associated with behaviors like saving, while Julianti (2021) found that financial self-efficacy was positively associated with saving behavior among high school students. Furthermore, April (2024) showed that financial self-efficacy was associated with financial socialization, and Young et al. (2024) found that financial self-efficacy acts as a mediator between financial socialization and financial well-being. Collectively, these findings point out the relationship between financial self-efficacy, financial behaviors, and financial well-being. This study will contribute to the literature by examining these factors in a broader framework.

Financial Behaviors

Financial behavior is defined as any human behavior relevant to money management performed by consumers (Xiao & Kumar, 2023). Financial behaviors are influenced by various factors such as financial knowledge, financial self-efficacy, and other personal factors. For example, research by Munawar (2023) showed that financial knowledge was positively associated with financial behaviors such as saving practices. Similarly, Van Raaij (2014) also found that financial knowledge was positively associated with financial behaviors such as budgeting and saving, resulting in improved financial well-being. Moreover, Farrell et al. (2016) showed that financial self-efficacy was positively associated with financial behaviors like saving and investing. They found that people with higher financial self-efficacy are more likely to save and invest. Similarly, research indicated that financial self-efficacy was positively associated with better financial management behaviors, such as creating budgets (Rothwell & Wu, 2017). Other research demonstrated that personality traits are linked with financial behavior. Consider Heo and colleagues' (2018) study, which found that an agreeable personality was positively associated with financial behavior, such as saving and budgeting. Additionally, Fachrudin et al. (2022) found that conscientiousness was associated with favorable debt behaviors. These findings indicate that an integrated framework to examine all those factors is needed. This study aims to establish a framework to connect all those factors.

Financial Well-being

Financial well-being has been linked to several factors in the literature. CFPB's definition of financial well-being involves fulfilling present financial obligations and ensuring future security through choices that boost life satisfaction (CFPB, 2015). Adam et al. (2017) found that people with higher financial knowledge were associated with higher financial well-being.

Similarly, Antwi et al. (2024) showed that financial knowledge was positively associated with financial well-being. Moreover, research has shown that financial self-efficacy was positively associated with financial well-being (Choung et al., 2023). For example, Young et al. (2024) found that people with higher financial self-efficacy showed higher levels of financial well-being. Furthermore, they discovered that financial self-efficacy mediates the relationship between financial socialization and financial well-being.

Other research demonstrated that financial knowledge was associated with positive financial behaviors, resulting in higher financial well-being (Bangun & Kurniyati, 2022), while Lone and Bhat (2022) found positive financial behaviors were positively associated with higher levels of financial well-being. Additionally, Gokhan and Mutlu (2019) found that openness was positively associated with long-term investment behaviors, resulting in better financial well-being. Fachrudin et al. (2022) found that people who score high on conscientiousness were associated with favorable debt behaviors and higher levels of financial well-being. Those findings together indicated that an integrated framework is needed to connect all those factors. This study aims to contribute to the literature by establishing an integrated framework.

Life Satisfaction

Veenhoven (1991) defines life satisfaction as the degree to which an individual judges the overall quality of one's life favorably. Personality traits have been found to be associated with life satisfaction. For example, Xu et al. (2017) found that extraversion was positively associated with life satisfaction, while neuroticism was negatively associated with life satisfaction. Similarly, research found that extraversion and consciousness were positively correlated with life satisfaction (Filipiak & Tychmanowicz, 2022). Moreover, Lounsbury et al. (2005) found that extraversion and consciousness were positively associated with life satisfaction. Collectively,

these findings indicate that a framework is needed to explore the relationship between personality traits and life satisfaction.

Theoretical Framework

The theoretical framework for this study was largely driven by the CFPB's framework of financial well-being (2015). The CFPB highlighted personal characteristics, financial knowledge, and financial behaviors as key factors associated with financial well-being. Rajna (2018) adopted CFPB's framework and showed that personal characteristics, financial knowledge, and financial behaviors were associated with financial well-being. This study adopted the CFPB framework and added personal characteristics using the big five factor inventory to the framework, as suggested by Albert Bandura's Social Cognitive Theory (SCT) (Bandura, 1999). SCT (1999) states that personal characteristics merge with environmental factors and behavior patterns to produce specific outcomes. SCT was added to support the link between personality traits and financial behaviors.

According to the SCT (1999), personal characteristics merge with environmental factors and behavior patterns to produce specific outcomes. The SCT emphasizes the interaction between people, their behavior, and their environments in shaping behaviors (Bandura, 1999). Heo et al. (2018) found that agreeable personality was positively associated with financial behavior. They found that agreeable people are more willing to change their behavior. Donnelly et al. (2012) found that conscientiousness was associated with positive financial behaviors. They found that conscientious people are more active in managing their money. Those findings indicate that personality traits are associated with financial behaviors.

McCrae and Costa (1991) proposed that instrumental theories establish an indirect connection between personality and subjective well-being (SWB) through the choice of

situations or the experience of life events, consequently associated with the levels of positive affection they experience. Extraverts, for example, may choose and engage in more social and financially interactive activities (Kritzler et al., 2020). Conscientious people might develop effective coping mechanisms to deal with stress and challenges (Hampton, 2012). Through the premise of instrumental theories (1991) and Albert Bandura's Social Cognitive Theory (1999), financial well-being can be seen as a result of cumulative financial behaviors influenced by personality traits.

Based on those theoretical foundations, this study proposes an integrated framework (Figure 2-1) to explain the relationships among personality traits (i.e., measured in 2018), financial knowledge (i.e., measured in 2018), financial behaviors (i.e., measured in 2020), financial well-being (i.e., measured in 2021), and life satisfaction (i.e., measured in 2022). Hence, this study has the following hypotheses:

H1a: Personality traits are significantly associated with positive financial behaviors.

H1b: Personality traits are significantly associated with financial well-being.

H2a: Financial knowledge is positively associated with financial behaviors.

H2b: Financial knowledge is positively associated with financial well-being.

H3a: Financial self-efficacy is positively associated with financial behaviors.

H3b: Financial self-efficacy is positively associated with financial well-being.

H4: Financial behaviors are positively associated with financial well-being.

H5: Financial well-being is positively associated with overall life satisfaction.

H6: Personality traits are indirectly associated with financial well-being through their financial behaviors.

H7a: Financial knowledge is indirectly associated with financial well-being through its financial behaviors.

H7b: Financial self-efficacy is indirectly associated with financial well-being through its financial behaviors.

H8a: Personality traits are indirectly associated with life satisfaction through positive financial behaviors and financial well-being as mediators.

H8b: Financial knowledge is indirectly associated with life satisfaction through positive financial behaviors and financial well-being as mediators.

H8c: Financial self-efficacy is indirectly associated with life satisfaction through positive financial behaviors and financial well-being as mediators.

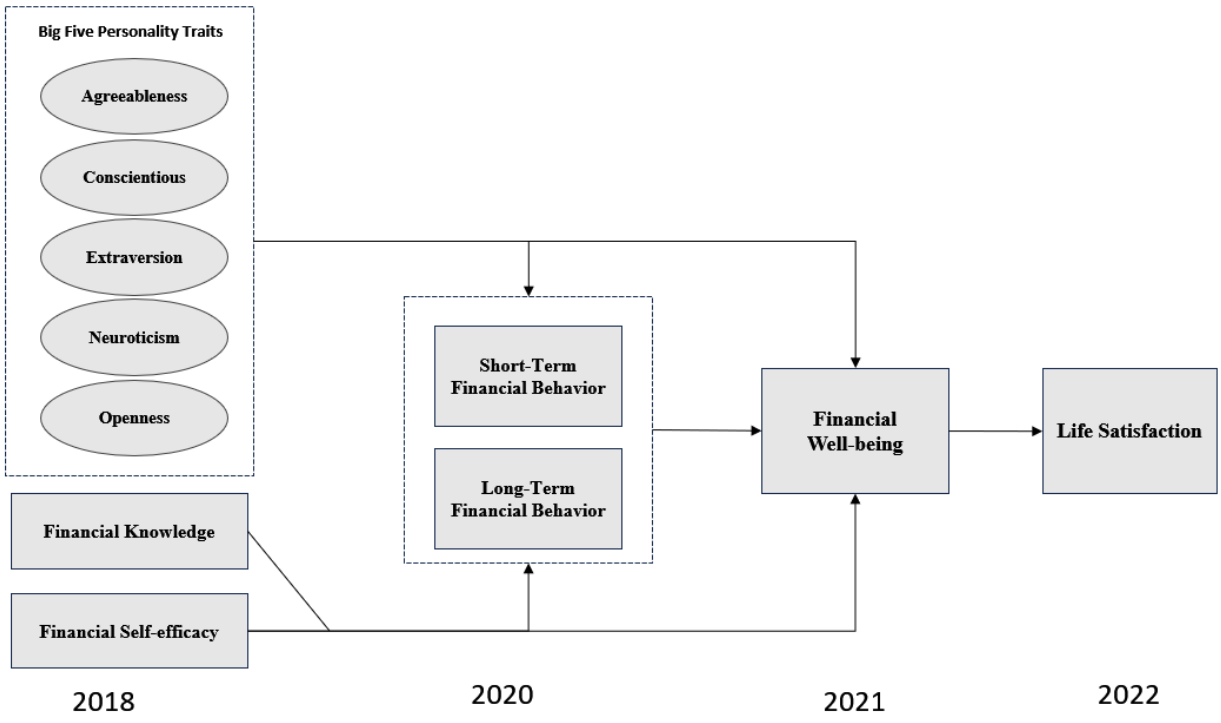


Figure 2.1 Conceptual Framework

Methodology

Data

The data used for this study comes from the Understanding America Study. It is a longitudinal panel survey administered by the Center for Economic and Social Research (CESR) at the University of Southern California (Alattar et al., 2018). The surveys are administered online, and participants are required to complete a variety of questionnaires covering several subjects. The data was weighted to represent the U.S. population aged 18 and older. Missing data was replaced with a negative value. The Fully Information Maximum Likelihood method was used to handle missing data (Allison, 2003). For this study, four rounds of consumer well-being surveys conducted in the years 2018, 2020, 2021, and 2022 were used for the analysis. The final sample size for this study is 4,664 participants. The codebook for studying variables can be found in appendix A.

Measurement

Financial Well-being

This research utilized the 10-item CFPB Financial Well-being Scale to assess financial well-being. Financial well-being came from the 2021-year survey. The answer ranged from 0 to 100. The financial well-being scale included items like “I could handle a major unexpected expense.”; “I am securing my financial future”; “I can enjoy life because of the way I’m managing my money”. The answer for each question ranged from 1 = *Not at all* to 5 = *Completely*. The final score is summed up with the answer to each question, and then a scoring worksheet (CFPB, 2012) was used to convert it to a score between 0 and 100.

Life Satisfaction

Life satisfaction was measured by the question: “How would you rate your satisfaction with life in general?” The response ranged from 1= *No satisfaction* at all to 11 = *Complete satisfaction*. Life satisfaction came from the 2022-year survey. The measurement provides a subjective assessment of an individual's level of life satisfaction.

Financial Behaviors

Financial behaviors were measured by two distinct groups: short-term positive behaviors and long-term positive behaviors. Financial behaviors came from the 2020-year survey. Four questions assessed short-term positive financial behavior, including one that asked, “Did you consistently pay off your credit card balance each month in the past 12 months?” The final answer ranges from 0 to 4. Responses to each question received a coding of 1 for *yes* answers and 0 for *no* answers. A set of six questions measured long-term positive financial behaviors, including “Did you have a savings account?” Responses were assigned a value of 1 for *yes* answers and a value of 0 for *no* answers. The final score ranged from 0 to 6.

Financial Knowledge

Financial knowledge was measured using a set of 14 questions aimed at evaluating participants' understanding of essential financial concepts. Financial knowledge came from the 2018-year survey. The answer ranges from 0 to 14. A higher score suggested higher levels of financial knowledge. These questions covered a broad range of topics, including the stock market, interest rates, and inflation. For example, one question asked, “Assume a friend inherits $10,000 today and his sibling inherits $10,000 3 years from now. Who is richer today because of the inheritance?”

Financial Self-efficacy

Financial self-efficacy was measured by the question: "How confident do you feel in your ability to make financial decisions?" The answer ranges from 1 = *Not at all confident* to 11 = *Very confiden*t. Financial self-efficacy comes from the 2018-year survey. This measure focused on how individuals perceive their own understanding of financial matters, reflecting their self-assessed competence rather than their actual knowledge.

Big Five Personality Traits

Personality traits were measured using the Big Five Inventory (BFI). The Big Five Inventory (BFI) consists of five major personality dimensions: extraversion, agreeableness, conscientiousness, neuroticism, and openness. Personality traits come from the 2018-year survey. The study required participants to respond to specific questions related to each personality trait. Each question provides response options from 1 = *Disagree strongly* to 5 = *Agree strongly*. For example, the extraversion section included eight items. One question asked: "I perceive myself as a person who enjoys speaking to others." Agreeableness included nine items. An example of one of the items was, "Is helpful and unselfish with others." The conscientiousness section (nine items) included an item like "Does a thorough job." The neuroticism section included eight items). One of the items was "Is depressed, blue." Openness included ten items. An example of an openness item was, "Is original, comes up with new ideas." The study represents each personality trait as a latent construct. A confirmatory factor analysis was conducted to evaluate each personality trait.

Control Variables

Age was categorized into three groups: 18 to 34 years old, 35 to 54 years old (reference group), and above 55 years old. Gender was coded as 1 if female and 0 if male. Marital status

was coded as 1 if married and 0 if not. Race was coded as 1 if White and 0 if not. Education was coded as 1 if one obtained a bachelor's degree and a higher degree. Household income was categorized into three groups: (a) less than $40,000, (b) $40,000 to $75,000 (reference group), and (c) $75,000 and above.

Data Analysis

This study performed confirmatory factor analysis (CFA) to evaluate the latent construct of personality traits. The analysis estimated the structural equation model (SEM). The study used the Full Information Maximum Likelihood (FIML) for model analysis. The model fit indices include the Chi-square statistics, Cumulative Fit Index (CFI), Root Mean Square Error of Approximation (RMSEA), and the Tucker-Lewis Index (TLI). For the cut-off value, CFI values near or exceeding .95, along with RMSEA values close to or below .06, suggest a favorable model fit (Hu & Bentler, 1999). The TLI, akin to the CFI, serves as an incremental fit index and values approximately .95 or higher, which indicates a well-fitted model (Kline, 2023). Bootstrapping (with 5,000 draws) was employed to ascertain the statistical significance of indirect effects (Preacher & Hayes, 2008). Lai et al. (2025) suggested that all theoretically meaningful variables and suppressor variables should be included in the model. Therefore, this study included all variables of Big Five personality traits.

Results

Descriptive Results

The descriptive statistics for this study are presented in Table 2.1. The surveyed population showed a diverse age distribution, with 45.4% falling into the 55 and older category. A slight majority of participants were female (56.6%), and the majority were married (61.1%). The sample was predominantly White (82.5%). In terms of education, 44.07% of participants

hold a bachelor's degree or higher. Regarding household income, the distribution revealed 27.00% with incomes below $40,000, 30.75% between $40,000 and $75,000, and 42.25% with incomes above $75,000. In terms of personality traits, participants exhibited moderate levels of Extraversion (*M* = 25.92) and Agreeableness (*M* = 35.92). Higher levels of Conscientiousness (*M* = 36.55) and Openness (*M* = 35.95) are observed. Neuroticism was relatively low, with a mean score of 21.24. Financial knowledge was moderately distributed, with objective financial knowledge at a mean score of 10.2 and relatively high financial self-efficacy at a mean score of 9.30. Participants displayed moderate short-term financial behavior (*M* = 2.58) and above-average long-term financial behavior (*M* = 2.99). Overall, the measured financial well-being had a mean score of 61.32, indicating a moderate level of financial well-being among participants.

Table 2.1 Descriptive Statistics (N = 4,664)

Variable	**Mean**	**S.D.**
Extraversion	25.92	6.40
Agreeableness	35.92	5.37
Conscientiousness	36.55	5.26
Neuroticism	21.24	6.43
Openness	35.95	6.28
Financial knowledge	10.2	3.02
Financial self-efficacy	9.30	1.76
Short-Term financial behavior	2.58	1.25
Long-Term financial behavior	2.99	1.29
Financial well-being	61.32	13.48
Demographics		**Frequency**
Age		
18-34		17.2%
35-54		37.4%

55+	45.4%
Female	56.6%
Married	61.1%
White	82.5%
Bachelor's degree and higher	44.1%
Household Income	
<40k	27.0%
40-75k	30.7%
75k+	42.3%

Table 2.2 presents Pearson's correlation coefficients for the studied variables. It provides a preliminary analysis of key variables. Those coefficients support adding those variables into the model.

Table 2.2 Pearson's Correlation Coefficients

Variables	E	A	C	N	O	FK	FSE	STFB	LTFB	LS	FWB
Extraversion	-	-	-	-	-	-	-	-	-	-	-
Agreeableness	.240***	-	-	-	-	-	-	-	-	-	-
Conscientiousness	.317***	.310***	-	-	-	-	-	-	-	-	-
Neuroticism	-.222***	-.320***	-.308***	-	-	-	-	-	-	-	-
Openness	.368***	.206***	.449***	-.211***	-	-	-	-	-	-	-
FK	.150*	.160*	.180*	.170*	.140*	-	-	-	-	-	-
FSE	.162*	.166*	.181*	.173*	.145*	.331***	-	-	-	-	-
STFB	.231**	-.222**	.266***	-.265***	-.219**	.273***	.239**	-	-	-	-
LTFB	.262***	-.204**	.250**	-.252**	-.216**	.300***	.256**	.309***	-	-	-

LS	.268***	-.204**	.268***	-.244**	-.254**	.233**	.284***	.265**	.221**	-	-
FWB	.228**	-.213**	.272***	-.285***	-.242**	.331***	.457***	.596***	.374***	.445***	-

Note: * p <.05. ** p <.01. *** p <.001.

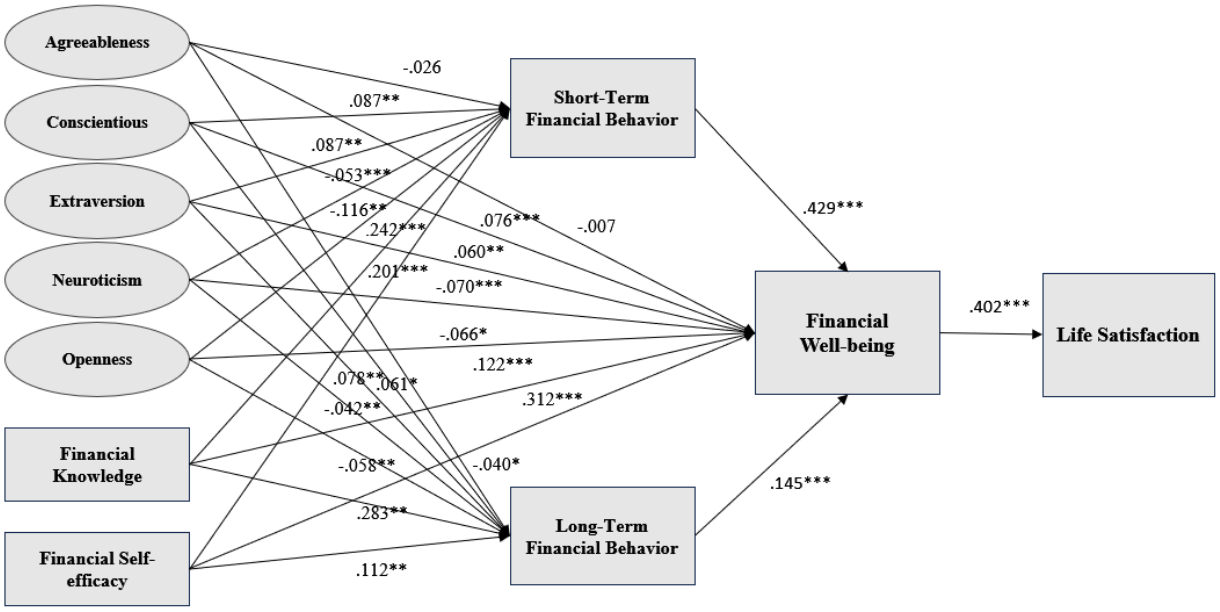
The factor loading suggests that those items for each personality trait represent the latent variable well.

Table 2.3 Factor Loading

Extraversion		Agreeableness		Conscientiousness		Neuroticism		Openness	
Item 1	.741	Item 2	.563	Item 3	.646	Item 4	.643	Item 5	.711
Item 6	.622	Item 7	.596	Item 8	.569	Item 9	.762	Item 10	.632
Item 11	.521	Item 12	.588	Item 13	.534	Item 14	.644	Item 15	.619
Item 16	.644	Item 17	.623	Item 18	.628	Item 19	.716	Item 20	.682
Item 21	.765	Item 22	.517	Item 23	.646	Item 24	.720	Item 25	.724
Item 26	.606	Item 27	.583	Item 28	.667	Item 29	.643	Item 30	.656
Item 31	.705	Item 32	.734	Item 33	.703	Item 34	.654	Item 35	.573
Item 36	.792	Item 37	.640	Item 38	.655	Item 39	.697	Item 40	.685
		Item 42	.633	Item 43	.559			Item 41	.498
								Item 44	.577

Structural Equation Model Results

The SEM model examined the associations among the Big Five Factors of personality in the year 2018, financial behaviors in the year 2020, individuals' financial well-being in the year 2021, and life satisfaction in the year 2022. A CFA was run to examine latent variables used in this study. The model fit indices for the SEM model suggest a good model fit ($\chi 2$ (850) = 3307.440, RMSEA = 0.028, SRMR = 0.041, CFI = 0.969). Figure 2.2 shows the path diagram with model results.



Note: * p <.05. ** p <.01. *** p <.001.

Figure 2.2 SEM Model Results

The SEM results showed that financial well-being is positively associated with life satisfaction (β = 0.402, p < 0.001). This finding indicated that financial well-being is part of overall well-being. Moreover, the SEM results revealed that extraversion (β = 0.060, p < 0.01) and conscientiousness (β = 0.076, p < 0.001) were positively associated with financial well-being. In contrast, neuroticism (β = -0.070, p < 0.001) and openness (β = -0.066, p < 0.05) were negatively associated with financial well-being. This finding suggested personality traits were associated with financial well-being. Furthermore, financial knowledge was found to be positively associated with financial well-being (β = 0.122, p < 0.001). Financial self-efficacy was found to be positively associated with financial well-being (β = 0.312, p < 0.001). Individuals who believe in their capacity to manage their finances effectively are more likely to take proactive steps that enhance their financial situation. Short-term positive financial behaviors were positively associated with financial well-being (β = 0.429, p < 0.001). Long-term positive

financial behaviors were positively associated with financial well-being ($\beta = 0.146$, $p < 0.001$), reflecting their importance in building a secure financial future.

For the direct effects (Table 2.4) on short-term positive financial behaviors, the SEM results showed that extraversion ($\beta = 0.087$, $p < 0.01$) and conscientiousness ($\beta = 0.087$, $p < 0.001$) were positively associated with short-term positive financial behaviors. In contrast, neuroticism ($\beta = -0.053$, $p < 0.001$) and openness ($\beta = -0.116$, $p < 0.05$) were negatively associated with short-term positive financial behaviors. Moreover, financial knowledge was found to be positively associated with short-term positive financial behaviors ($\beta = 0.242$, $p < 0.001$). Financial self-efficacy was found to be positively associated with short-term positive financial behaviors ($\beta = 0.201$, $p < 0.001$), emphasizing the role of confidence in one's ability to manage day-to-day financial challenges effectively.

For the direct effects on long-term positive financial behaviors, the SEM results showed that extraversion ($\beta = 0.078$, $p < 0.01$) and conscientiousness ($\beta = 0.061$, $p < 0.001$) were positively associated with long-term positive financial behaviors, suggesting that the same traits that drive short-term financial discipline also encourage a future-oriented approach to financial management. Conversely, neuroticism ($\beta = -0.042$, $p < 0.001$) and agreeableness ($\beta = -0.040$, $p < 0.05$) were negatively associated with long-term positive financial behaviors. While the impact of neuroticism aligns with its negative influence on short-term behaviors, the negative association of agreeableness suggests that overly accommodating individuals may prioritize the needs or preferences of others over their long-term financial goals. Financial knowledge was found to be positively associated with long-term positive financial behaviors ($\beta = 0.283$, $p < 0.001$), reinforcing the importance of education and understanding in enabling individuals to make informed financial decisions with a future focus. Financial self-efficacy was found to be

positively associated with long-term positive financial behaviors (β = 0.112, $p < 0.001$). The SEM results with direct effects are presented in Table 2.4

Table 2.4 SEM Results – Direct effects (N = 4,664)

Paths	Std. Coef.	Std. Err.	*p*	Sig.
To LS, from				
FWB	0.402	0.015	0.000	***
To FWB, from				
Extraversion	0.060	0.020	0.002	**
Agreeableness	-0.007	0.013	0.586	
Conscientiousness	0.076	0.019	0.000	***
Neuroticism	-0.070	0.011	0.000	***
Openness	-0.066	0.032	0.037	*
FK	0.122	0.014	0.000	***
FSE	0.312	0.013	0.000	***
SPFB	0.429	0.013	0.000	***
LPFB	0.146	0.013	0.000	***
To SPFB, from				
Extraversion	0.087	0.027	0.001	**
Agreeableness	-0.026	0.017	0.119	
Conscientiousness	0.087	0.026	0.001	**
Neuroticism	-0.053	0.014	0.000	***
Openness	-0.116	0.043	0.007	**
FK	0.242	0.016	0.000	***
FSE	0.201	0.016	0.000	***
To LPFB, from				
Extraversion	0.078	0.023	0.001	**
Agreeableness	-0.040	0.016	0.014	*
Conscientiousness	0.061	0.023	0.009	**
Neuroticism	-0.042	0.014	0.002	**

Openness	-0.058	0.038	0.129	
FK	0.283	0.016	0.000	***
FSE	0.112	0.017	0.000	***

Note: * p <.05. ** p <.01. *** p <.001.
LS = Life Satisfaction; FWB = Financial Well-being; SPFB = Short-Term Positive Financial Behaviors; LPFB = Long-Term Positive Financial Behaviors; FK = Financial Knowledge; FSE = Financial Self-efficacy.
Model fit: $\chi 2$ (850) = 3307.440, RMSEA = 0.028, SRMR = 0.041, CFI = 0.969.

The SEM results for the indirect effects (Table 2.5) provide deeper insights into the mechanisms by which personality traits, financial knowledge, and self-efficacy influence financial well-being and, subsequently, life satisfaction. These findings highlight the role of both short-term and long-term positive financial behaviors as critical mediators in this process. The SEM results for the indirect effects showed that short-term positive financial behaviors (β = 0.173, $p < 0.001$) and long-term positive financial behaviors ($\beta = 0.059$, $p < 0.001$) were indirectly and positively associated with life satisfaction through financial well-being. The results showed that extraversion ($\beta = 0.037$, $p < 0.01$) and conscientiousness ($\beta = 0.037$, $p <$ 0.01) were positively and indirectly associated with financial well-being through short-term positive financial behaviors, highlighting that sociable, organized, and disciplined individuals are more likely to engage in prudent short-term financial actions, which in turn bolster their financial well-being. Conversely, neuroticism ($\beta = -0.023$, $p < 0.001$) and openness ($\beta = -0.050$, $p < 0.05$) were negatively and indirectly associated with financial well-being through short-term positive financial behaviors, suggesting that emotional instability and a preference for novelty may hinder the development of sound short-term financial habits. Financial knowledge was found to be indirectly and positively associated with financial well-being through short-term positive financial behaviors ($\beta = 0.104$, $p < 0.001$). Financial self-efficacy was found to be indirectly and

positively associated with financial well-being through short-term positive financial behaviors (β = 0.086, p < 0.001).

For results on long-term financial behaviors, the results showed that extraversion (β = 0.011, $p < 0.01$) and conscientiousness (β = 0.009, $p < 0.05$) were positively and indirectly associated with financial well-being through long-term positive financial behaviors. In contrast, neuroticism (β = -0.006, $p < 0.001$) and agreeableness (β = -0.006, $p < 0.05$) were negatively and indirectly associated with financial well-being through long-term positive financial behaviors, indicating that emotional instability and excessive accommodation of others' needs may detract from long-term financial focus. Financial knowledge was found to be indirectly and positively associated with financial well-being through long-term positive financial behaviors (β = 0.041, p < 0.001). Financial self-efficacy was found to be indirectly and positively associated with financial well-being through long-term positive financial behaviors (β = 0.016, p < 0.001).

From the SEM results of total effects, extraversion (β = 0.108, $p < 0.001$) and conscientiousness (β = 0.009, $p < 0.05$) were positively associated with financial well-being (β = 0.122, $p < 0.001$). On the other hand, neuroticism (β = -0.099, $p < 0.001$) and openness (β = -0.125, $p < 0.01$) were negatively associated with financial well-being. Moreover, financial knowledge was found to be positively associated with financial well-being (β = 0.267, p < 0.001). Financial self-efficacy was found to be positively associated with financial well-being (β = 0.415, p < 0.001). The SEM results with indirect and total effects are presented in Table 2.5.

Table 2.5 SEM Results – Indirect and Total Effects (N = 4,664)

	Indirect effect			
Paths	Std. Coef.	Std. Err.	*p*	Sig.
To LS, from				
Extraversion	0.044	0.011	0.000	***

Agreeableness	-0.010	0.006	0.133	
Conscientiousness	0.049	0.010	0.000	***
Neuroticism	-0.040	0.006	0.000	***
Openness	-0.050	0.017	0.003	**
FK	0.107	0.007	0.000	***
FSE	0.167	0.009	0.000	***
SPFB	0.173	0.009	0.000	***
LPFB	0.059	0.006	0.000	***
To SPFB, FWB, from				
Extraversion	0.037	0.012	0.001	**
Agreeableness	-0.011	0.007	0.119	
Conscientiousness	0.037	0.011	0.001	**
Neuroticism	-0.023	0.006	0.000	***
Openness	-0.050	0.018	0.007	**
FK	0.104	0.007	0.000	***
FSE	0.086	0.007	0.000	***
To LPFB, FWB, from				
Extraversion	0.011	0.003	0.001	**
Agreeableness	-0.006	0.002	0.016	*
Conscientiousness	0.009	0.003	0.010	*
Neuroticism	-0.006	0.002	0.003	**
Openness	-0.009	0.006	0.128	
FK	0.041	0.004	0.000	***
FSE	0.016	0.003	0.000	***
	Total effect			
To FWB, from				
Extraversion	0.108	0.028	0.000	***
Agreeableness	-0.024	0.016	0.134	
Conscientiousness	0.122	0.026	0.000	***

Neuroticism	-0.099	0.014	0.000	***
Openness	-0.125	0.043	0.004	**
FK	0.267	0.015	0.000	***
FSE	0.415	0.014	0.000	***

Note: * p <.05. ** p <.01. *** p <.001.
LS = Life Satisfaction; FWB = Financial Well-being; SPFB = Short-Term Positive Financial Behaviors; LPFB = Long-Term Positive Financial Behaviors; FK = Financial Knowledge; FSE = Financial Self-efficacy.

Discussion

Based on the results, the first hypothesis was partially supported. As per H1a, there exists a significant association between extraversion, conscientiousness, neuroticism, and openness and an individual's positive financial behaviors. The findings demonstrated that individuals with extraversion and conscientiousness personality traits were positively associated with both short-term and long-term positive financial behaviors, while neuroticism and openness were negatively associated with short-term positive financial behaviors, and neuroticism and agreeableness were negatively associated with long-term positive financial behaviors. The results were aligned with earlier studies. For example, research indicated that low neuroticism individuals were associated with positive financial behaviors (Heo et al., 2018). According to H1b, extraversion, conscientiousness, neuroticism, and openness were associated with financial well-being. These findings indicated that extraversion and conscientiousness personality traits were positively associated with financial well-being. Neuroticism and openness were negatively associated with financial well-being, aligning with previous research. Fachrudin et al. (2022) found that conscientiousness was associated with favorable debt behaviors and better financial well-being. Research findings demonstrated that people who are conscientious and possess extensive

financial knowledge tended to be associated with careful financial behaviors and better financial health (Chhatwani, 2022).

Evidence from this study supported the second hypothesis (H2a) since a significant positive relationship exists between financial knowledge and positive financial behaviors. In other words, individuals with greater objective financial knowledge were more likely to engage in positive financial behaviors. This was aligned with previous research by Eko and colleagues (2022), who found that people with higher financial knowledge were associated with higher long-term investment participation. Hamid and Loke (2020) revealed people with higher financial knowledge were more likely to pay off their credit card balance. Moreover, the results supported H2b by showing that financial knowledge was significantly associated with financial well-being. In this case, people with higher financial knowledge tended to have higher financial well-being scores.

The evidence supported the third hypothesis because H3a shows that financial self-efficacy was positively associated with positive financial behaviors. The confidence people hold in their financial knowledge leads them to develop more positive financial behaviors. The results confirmed that H3b shows a positive link between financial self-efficacy and financial well-being. This research indicated that people who possess confidence in their financial skills exhibit stronger connections to elevated financial well-being. This is similar to research by Young et al. (2024), who found that financial self-efficacy was positively associated with financial well-being.

The fourth hypothesis supported a substantial connection between positive financial behaviors and financial well-being. The study demonstrated that people who practice positive financial behaviors are associated with higher financial well-being. These results help to validate

previous research. For example, Selvia et al. (2021) found a positive connection between financial behaviors and financial well-being. They showed that financial behaviors, such as the utilization of financial products, contribute to a higher level of financial well-being. According to Mohamed (2017), developing positive financial behaviors were associated with improved financial well-being. They found that financial behaviors like saving management and debt management contribute to a higher level of financial well-being. The fifth hypothesis supported the idea that financial well-being is associated with better overall life satisfaction. Again, this finding was supported by previous research, such as Araújo and colleagues (2022), who found financial well-being was associated with people's life satisfaction. This was aligned with the findings that financial well-being is an important part of one's overall well-being.

The sixth hypothesis (H6) demonstrated a substantial indirect relationship between personality traits and financial well-being through their association with financial behaviors. People who exhibit traits like conscientiousness or extraversion tended to be associated with positive financial behaviors and improved financial well-being. Heo et al. (2018) found that an agreeable personality was associated with a higher possibility of changing their financial behavior, resulting in a higher level of financial well-being. The results showed empirical support for the seventh hypothesis because H7a demonstrates that financial knowledge was indirectly associated with financial well-being through financial behaviors. H7b indicated financial self-efficacy was indirectly associated with financial well-being through financial behaviors. People with higher perceived financial knowledge tended to engage in better financial behaviors, which led to improved financial well-being. Prameswar et al. (2023) found that financial knowledge was associated with positive financial behaviors and, in turn, led to higher

financial well-being. This study's framework demonstrated how financial knowledge is associated with financial well-being via multiple pathways.

The eighth hypothesis (H8a) was supported since personality traits were indirectly associated with life satisfaction through positive financial behaviors and financial well-being. The research demonstrated that conscientiousness indirectly correlates positively with life satisfaction via short-term and long-term financial behaviors and financial well-being. Neuroticism and openness had an indirect negative connection to life satisfaction because of their relationship with financial behavior patterns and financial well-being. Fachrudin et al. (2022) found that conscientiousness traits were associated with favorable debt behaviors and better financial well-being. Hypothesis H8b proposed that financial knowledge was associated with life satisfaction through financial behaviors and financial well-being. The findings showed that people who possess a higher level of financial knowledge tend to participate in positive financial behaviors, which leads to enhanced financial well-being and life satisfaction. Hypothesis H8c suggested that there was an indirect relationship between financial self-efficacy and life satisfaction through positive financial behaviors and financial well-being. The results demonstrated high financial self-efficacy associated with financial well-being through positive financial behaviors across short-term and long-term periods. Collectively, this study indicated the need for practitioners to understand how personality traits interact with financial well-being through an integration framework.

Implications

The understanding of the underlying mechanisms that govern these relationships provides some implications for future research, particularly for practitioners like financial educators and policymakers. Financial and educational programs must adapt their design to fit individual

personality profiles to provide effective learning experiences. Traditional financial education programs frequently prove inadequate for addressing the diverse needs and preferences of different people (Atkinson & Messy, 2013). Financial professionals who recognize how personality traits influence financial choices can build educational programs that effectively meet the requirements of each participant. Individuals who score high on conscientiousness benefit significantly from structured financial planning and goal-setting workshops designed around detailed long-term financial strategies (Stock & Beste, 2015). People who display high openness to experience become more involved with programs that present new investment possibilities and financial products (Pak & Mahmood, 2015). Thus, the effectiveness of financial counseling and planning improves when practitioners tailor their advice based on clients' personality assessments to match clients' inherent preferences. Financial coaches use motivational methods together with customized feedback to assist highly extroverted clients in managing their impulsive spending patterns. This study demonstrated that successful interventions need to address both specific financial behaviors as well as the personality traits that drive these behaviors.

Limitations and Future Research

One limitation is that this study did not examine the suppressor effects of the Big Five personality traits in detail. Future research can delve into the suppressor effect of the big five personality traits in the context of financial well-being. Another limitation is that this study used secondary data. Future studies can use primary data to design questions that better capture the variables used. Subsequent research can also delve into the mechanisms of these relationships and evaluate the potential moderate or mediating variables that could influence these patterns.

Future research can use the framework proposed by this study to examine the relationship between personality traits and financial well-being.

Conclusion

In conclusion, this study developed an integrated framework for financial well-being that describes the connections among personality traits, financial behaviors, financial well-being, and life satisfaction. The findings demonstrated that individuals with certain personality traits tend to be associated with more positive financial behaviors. This research investigated how financial behaviors function as a mediator in linking personality traits to financial well-being and how particular personality factors relate to financial health by analyzing financial behaviors. By understanding the underlying mechanisms that govern these relationships, policymakers, financial service practitioners, and researchers can work together to develop interventions to help improve the wellness of individuals, households, and populations.

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Chapter 3

A Longitudinal Framework for Personality Traits and Financial Well-being

Introduction

Financial well-being plays a vital role in shaping the overall quality of life for any individual. Although financial well-being holds great importance, numerous people find it hard to achieve lasting prosperity since they frequently face debt and anxiety. This research applies the previous framework with a panel dataset to assess how financial well-being evolved longitudinally. The framework illustrates how personality traits connect with financial knowledge, financial behaviors, and financial well-being. For example, people who score high in conscientiousness usually demonstrate greater organization when managing their finances. People with high extraversion levels tend to show a greater propensity for impulsive purchases instead of focusing on long-term financial objectives.

Research findings indicate a substantial link between higher financial knowledge levels and improved financial well-being (Estela-Delgado et al., 2023). Studies show that financial behaviors have a substantial link to financial well-being (Chaulagain, 2015). This framework demonstrates that these elements function in conjunction with one another. The way people learn financial knowledge and use it in everyday financial actions depends on their personality traits. Those findings suggest that interventions aimed at improving financial well-being should address multiple dimensions, including personality traits, financial knowledge, and financial behaviors.

Although previous research has investigated personality traits and financial well-being using cross-sectional data, this study employs panel data to test the proposed framework. The

study's longitudinal design looks at the relationship between financial knowledge and personality traits with positive financial behaviors and changes in financial well-being throughout time. This suggests that there is a need for ongoing financial education rather than a one-time intervention.

Literature Review

Financial Knowledge

Lusardi (2008) defined financial knowledge as knowledge of basic financial concepts, such as the working of interest compounding. Kumar et al. (2023) demonstrated a positive link between objective financial knowledge and financial well-being. Zulfiqar and Bilal (2016) discovered that objective financial knowledge shows a positive connection with financial well-being. Objective financial knowledge has become increasingly important because it helps individuals improve their financial well-being through better financial decision-making and enhanced financial situations (Garg & Singh, 2018). Researchers executed meta-analyses and found that studies have shown that both subjective and objective financial knowledge were positively associated with desirable financial behavior and financial well-being (Hwang & Park, 2022). Other research has demonstrated that individuals with higher general financial knowledge tended to manage their finances well and build wealth over time (Lone & Bhat, 2022). Prior research has shown that subjective financial knowledge was positively associated with financial behaviors and well-being (Riitsalu & Murakas,2019). Additionally, Delafrooz and Paim (2011) demonstrated that objective financial knowledge was indirectly associated with financial well-being. Research shows varying results on the connection between financial knowledge and financial well-being, which suggests further investigation is required to understand their relationship dynamics.

Financial Self-efficacy

Bandura (1977) defined self-efficacy as a person's belief in their ability to succeed at specific tasks. The literature has different measurements for financial self-efficacy. For example, Atlas et al. (2019) used subjective knowledge as a measurement of self-efficacy, while Chan et al. (2017) treated self-efficacy and subjective knowledge as different variables. Financial self-efficacy was found to be positively associated with better financial management behaviors (Rothwell & Wu, 2017). They treated financial self-efficacy as a different variable from subjective financial knowledge and found that people who are confident in their financial ability are more likely to engage in saving and budgeting. Research by Farrell et al. (2016) indicated that financial self-efficacy was positively associated with behaviors like saving. They also used a different definition for financial self-efficacy than subjective financial knowledge. Similarly, Purwidianti et al. (2022) showed that financial self-efficacy was positively associated with financial behaviors. They also treated financial self-efficacy and subjective financial knowledge differently and found that people with higher financial self-efficacy are more likely to save money. Moreover, Olajide et al. (2023) found that financial self-efficacy was positively associated with financial satisfaction. They used the definition of financial self-efficacy rather than subjective financial knowledge. Furthermore, Dare (2022) showed that financial self-efficacy was positively associated with financial well-being. They also used the definition of financial self-efficacy instead of subjective financial knowledge for the measurement. Collectively, this literature highlights that financial self-efficacy is associated with financial behaviors and well-being.

Personality Traits

Personality traits are referred to in this dissertation as the Big Five Personality traits (McCrae & Costa, 1999) and include (a) agreeableness, (b) conscientiousness, (c) extraversion, (d) neuroticism, and (e) openness. Agreeableness refers to the degree of cooperativeness displayed by an individual (McCrae & Costa, 1999). Conscientious people are organized and disciplined and tend to make rational decisions (McCrae & Costa, 1999). Extraversion is characterized by individuals maintaining a strong connection with the external world, displaying enthusiasm, and expressing positive emotions (McCrae & Costa, 1999). Neuroticism reflects an individual's tendency to experience negative feelings and emotionally react to them (McCrae & Costa, 1999). Finally, openness refers to the extent to which an individual is open-minded and willing to engage in new experiences (McCrae & Costa, 1999).

Existing literature has connected personality traits, financial behavior, and financial well-being. Heo et al. (2018) found that an agreeable personality was associated with a higher possibility of changing their financial behavior. Similarly, research showed that people who have high conscientiousness scores tend to experience better financial well-being (Fenton-O'Creevy & Furnham, 2019). They found that conscientious people are more likely to plan ahead and save, resulting in less financial stress. Moreover, research has demonstrated that conscientiousness was positively associated with higher savings, while neuroticism and extraversion were negatively associated with savings (Fenton-O'Creevy & Furnham, 2023). They found that conscientiousness was associated with more wealth accumulation. Furthermore, research has shown that extroverted investors were more likely to exhibit herding and overconfidence, using data from 345 college students who have investment experience (Ahmad et al., 2020). Collectively, those studies showed how certain personality traits are associated with financial behaviors and well-

being. While the existing study explored personality traits and financial behaviors and well-being using cross-section data, this study aims to examine Big Five personality traits together with financial behaviors and well-being using longitudinal data.

Financial Behaviors

Financial behavior is defined as any human behavior relevant to money management performed by consumers (Xiao & Kumar, 2023). Prior research showed that financial knowledge was positively associated with financial behaviors (Khawar & Sarwar, 2021). They found that people with higher financial knowledge are more likely to budget and save. Similarly, Grohmann (2018) found that financial knowledge was positively associated with improved financial behaviors among the Asian middle class. They found that people with higher financial knowledge are more likely to own savings accounts and life insurance. Moreover, financial self-efficacy was positively associated with financial behaviors like saving (Farrell et al., 2016). They found that people with higher financial self-efficacy were more likely to own savings products. Purwidianti et al. (2022) showed that financial self-efficacy was positively associated with financial behaviors such as saving Furthermore, Heo et al. (2018) found that an agreeable personality was positively associated with financial behavior such as saving and budgeting. Donnelly et al. (2012) found that conscientiousness was associated with positive financial behaviors such as saving and investing. Those findings indicate that an integrated framework to examine all those factors is needed.

Financial Well-being

CFPB defines financial well-being as fulfilling present financial obligations and ensuring future security through choices that boost life satisfaction (CFPB, 2015). The CFPB defines financial well-being as being influenced by financial behaviors along with financial knowledge

and personal characteristics (Rajna, 2018). Research showed that financial knowledge was positively associated with financial well-being (Selvia et al., 2020). Moreover, research has shown that financial self-efficacy was positively associated with financial well-being (Choung et al., 2023). They found that people who have high financial self-efficacy are more likely to show a higher level of financial well-being. Similarly, Dare (2022) showed that financial self-efficacy was positively associated with financial well-being. Furthermore, Lone and Bhat (2022) also found positive financial behaviors were positively associated with higher levels of financial well-being. They found that people who engage in saving and budgeting showed a higher level of financial well-being. Additionally, Gokhan and Mutlu (2019) found that openness was positively associated with long-term investment behaviors, resulting in better financial well-being. Fachrudin et al. (2022) found that people who score high on conscientiousness were associated with favorable debt behaviors and higher levels of financial well-being. These findings from existing literature together indicate an integrated framework is needed to connect all those factors (i.e., financial knowledge, financial self-efficacy, financial behaviors and personality traits). While existing studies explored finance well-being using cross-section data, this study aims to contribute to the literature by establishing an integrated framework using longitudinal data.

CFPB Financial Well-being Framework

CFPB (2015) defines financial well-being as when individuals fulfill financial responsibilities and protect their financial future while enjoying their personal lifestyle choices. The Consumer Financial Protection Bureau has underscored that financial well-being stands as the primary objective of financial knowledge (Utkarsh et al., 2020). Fan and Henager (2021) used the 2018 National Financial Capability Study data to identify both direct and indirect

financial well-being determinants. This study adopted the CFPB framework and added personal characteristics by using personality traits from the Big Five to the framework to account for Albert Bandura's (1999) Social Cognitive Theory (SCT), which indicates that personal characteristics merge with environmental factors and behavior patterns to produce specific outcomes. This assumption supports the link between personality traits and financial behaviors. Furthermore, SCT can be considered an example of instrumental theories of personality traits, which suggests that individuals' choices and self-regulatory behaviors mediate the link between personality traits and specific outcomes (McCrae & Costa, 1991), making the case that there is a link between personality traits and financial well-being.

Personal characteristics merge with environmental factors and behavior patterns to produce specific outcomes (Bandura, 1999). SCT emphasizes the interaction between people, their behavior, and their environments in shaping behaviors (Bandura, 1999). Heo et al. (2018) found that agreeable personality was positively associated with financial behavior. They found that agreeable people are more willing to change their behavior, while Donnelly et al. (2012) found that conscientious people were associated with positive financial behaviors. They found that conscientious people are more active in managing their money. These findings indicate that personality traits are associated with financial behaviors.

McCrae and Costa (1991) proposed that instrumental theories establish an indirect connection between personality and subjective well-being (SWB) through the choice of situations or the experience of life events, consequently associated with the levels of positive affection they experience. Extraverts, for example, may choose and engage in more social and financially interactive activities (Kritzler et al., 2020). Conscientious people might develop effective coping mechanisms to deal with stress and challenges (Hampton, 2012). Through the

lens of McCrae and Costa's instrumental theories (1991) and Albert Bandura's Social Cognitive Theory (1999), financial well-being can be seen as a result of cumulative financial behaviors influenced by personality traits.

Drawing from the above, this study proposed an integrated framework (Figure 3.1) and examined the framework using longitudinal data. This framework captures the relationship between personality traits, financial knowledge, and change in financial well-being.

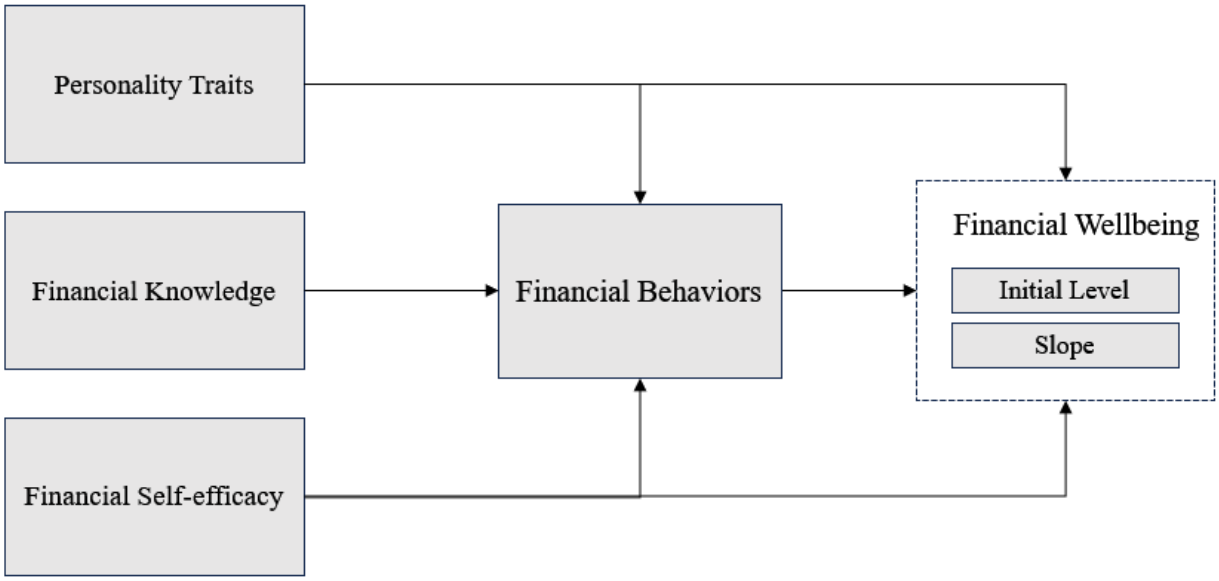


Figure 3.1 Conceptual Framework

Therefore, this study tested the following hypotheses:

Hypothesis 1a: Personality traits are significantly associated with financial behaviors.

Hypothesis 1b: Personality traits are significantly associated with the initial level of financial well-being.

Hypothesis 1c: Personality traits are significantly associated with the slope of financial well-being.

Hypothesis 2a: Financial knowledge is positively associated with financial behaviors.

Hypothesis 2b: Financial knowledge is positively associated with the initial level of financial well-being.

Hypothesis 2c: Financial knowledge is significantly associated with the slope of financial well-being.

Hypothesis 3a: Financial self-efficacy is positively associated with financial behaviors.

Hypothesis 3b: Financial self-efficacy is positively associated with the initial level of financial well-being.

Hypothesis 3c: Financial self-efficacy is significantly associated with the slope of financial well-being.

Hypothesis 4a: Financial behaviors are significantly associated with the initial level of financial well-being.

Hypothesis 4b: Financial behaviors are significantly associated with the slope of financial well-being.

Hypothesis 5a: Personality traits are indirectly associated with financial well-being through financial behaviors.

Hypothesis 5b: Financial knowledge is indirectly associated with financial well-being through financial behaviors.

Hypothesis 5c: Financial self-efficacy is indirectly associated with financial well-being through financial behaviors.

Methodology

Data

The data utilized in this study is sourced from surveys administered by the Understanding America Study—a longitudinal panel survey managed by the Center for Economic and Social

Research (CESR) at the University of Southern California. Designed to capture information from a nationally representative sample of American households and individuals, the survey seeks to enhance our understanding of social, economic, and health issues prevalent in the country. Conducted through online surveys, participants engage in a comprehensive array of questionnaires covering aspects like education, employment, health, financial well-being, and family dynamics. This study used data from four waves of surveys conducted in the years 2014, 2016, 2019, and 2021. Financial knowledge, financial self-efficacy, financial behaviors, and personality traits were from the 2014 survey. Financial well-being used three waves of data from 2016, 2019, and 2021. The final sample size is 2,548. The codebook for studying variables can be found in appendix A.

Measurement

Financial Well-being

The 10-item CFPB Financial Well-being Scale was used to measure financial well-being. Financial well-being used three waves of data from 2016, 2019, and 2021. The financial well-being score ranged from 0 to 100. The financial well-being scale included items like (a) "I could handle a major unexpected expense," (b) "I am securing my financial future," and (c) "I can enjoy life because of the way I'm managing my money." The answer for each question ranged from 1 = *Not at all* to 5 = *Completely*. The final score was summed up with the answer to each question, and then a scoring worksheet (CFPB, 2012) was used to convert it to a score between 0 and 100.

Financial Knowledge

Financial knowledge was measured by 14 questions to evaluate knowledge in areas such as the stock market, interest rates, and other financial subjects. The financial knowledge variable

came from the 2014 survey. It included item questions like, “Suppose you had $100 in a savings account, and the interest rate was 20% per year, and you never withdraw money or interest payments. After 5 years, how much would you have on this account in total?”. If answered correctly, 1 point is assigned for each question. The items were summed, and the total score of the measure ranged from 0 to 14.

Financial Self-efficacy

Financial self-efficacy was measured by the question, “How confident do you feel in your ability to make financial decisions?” The response options ranged from 1 = *not at all confident* to 11 = *very confident.* It gives a subjective assessment of one’s confidence in financial ability. Financial self-efficacy came from the 2014 survey.

Financial Behaviors

Financial behaviors were measured by ten questions to capture both immediate financial decisions and long-term practices essential for enduring financial health. One item asked, “Did you pay your bills on time in the past 12 months?” The answer is 1 if *yes,* 0 if *no*. Another question asked, “Did you have a savings account?” The answer is coded as 1 if *yes* and 0 if *no*. The items were summed, and total scores ranged from 0 to 10. Financial behaviors came from the 2014 survey.

Big Five Personality Traits

The Big Five Inventory (BFI) was used to measure personality traits. Each personality trait (i.e., extraversion, agreeableness, conscientiousness, neuroticism, openness) was measured by a set of items for the BFI. Personality traits came from the 2014 survey. The study required participants to respond to specific questions about each personality trait. Each question provides response options from 1 = *Disagree strongly* to 5 = *Agree strongly*. For example, the extraversion

section included eight items. One question asked: “I perceive myself as a person who enjoys speaking to others”. The score for extraversion ranges from 8 to 40. Agreeableness included nine items. An example of one of the items was, “Is helpful and unselfish with others.” Agreeableness ranges from 9 to 45. The conscientiousness section (nine items) included an item like “Does a thorough job.” Conscientiousness ranges from 9 to 45. The neuroticism section included eight items. One of the items was “Is depressed, blue.” Neuroticism ranges from 8 to 40. Openness included ten items. An example of an openness item was, “Is original, comes up with new ideas.” Openness ranges from 10 to 50

Control Variables

Age was categorized into three groups: 18 to 34 years old, 35 to 54 years old (reference group), and above 55 years old. Gender, marital status, race, and education were dichotomously coded. Gender was coded as 1 if f*emale* and 0 if *male*. Marital status was coded as 1 if *married* and 0 if not. Race was coded as 1 for *White* and 0 for all others. Education was coded as 1 if one obtained a *bachelor’s degree or higher*. Household income was categorized into three groups: (a) less than $40,000, (b) $40,000 to $75,000 (reference group), and (c) $75,000 and above.

Cognitive abilities (UAS, 2025) were included as a control measure because cognitive ability was widely used as a control variable in the social sciences (Junker et al., 2012). Gladstone and Barrett (2023) showed that subjective financial well-being was linked to cognitive ability in adulthood. Bai (2022) indicated that cognitive ability tends to be associated with subjective well-being. In this study, ognitive abilities were measured by the Woodcock-Johnson test sets (UAS, 2024). The tests were created to assess the respondent's vocabulary and number series. Each set consists of 15 items that are scored either correctly or incorrectly on a dichotomous scale. The final score ranged from 0 to 100.

Data Analysis

Latent Growth Curve Models (LGCs) were used to examine the proposed framework. LGCs are particularly well-suited for the analysis of data collected at multiple time points from the same individuals. Latent growth curve modeling (LGM) is one application of structural equation modeling to the analysis of change (Preacher, 2018). The analysis was performed using Mplus with maximum likelihood techniques. The Comparative Fit Index (CFI), Normative Fit Index (NFI), and Root Mean Square Error of Approximation (RMSEA) were provided for model evaluation. To demonstrate a well-fitting model, the CFI and NFI values are expected to be close to or greater than .95, and the RMSEA should be less than .06, as recommended by Hu and Bentler (1999).

Latent growth curves (LGCs) were estimated while controlling an individual's cognitive ability at each measurement. Demographic variables were later added as control variables. Control variables were added to paths to financial behaviors and financial well-being. It estimated how an individual's financial well-being changed from 2016 to 2021. The linear growth curve equation, expressing the trajectory of financial well-being for each individual, is as follows:

$$FWB = \Pi_0 + \Pi_1(Time) + \Pi_2(Cognitive\ Ability) + \varepsilon$$

The last three waves of data were used to measure the slope of financial well-being. Latent growth curve modeling is one application of structural equation modeling to the analysis of change (Preacher, 2018). For the indicators measuring each initial level, factor loadings were uniformly set to 1. Regarding the latent linear slope (representing time), factor loadings were assigned values of 0, 3, and 5 for the three subsequent assessment time points. While the initial level and rate of change in each individual's financial well-being trajectory may differ, these

factors are amalgamated to establish an average initial level with variance and an average rate of change, also with variances, across the entire sample. The mean for the rate of change describes the average change across individuals over time. Population variances for the parameters of change reflect interindividual variations in rates of change, suggesting the existence of different rates of change among sample members when there is significant variance in a change parameter.

After controlling demographic factors, this study used objective financial knowledge, subjective financial knowledge (i.e., financial self-efficacy), and the Big Five Factors of personality to predict the growth parameters of financial well-being. The following is a representation of the second-level equation for the inter-individual differences in the initial level (Π_0) and the rate of change (Π_1):

$$\Pi_0 = \beta_{00} + \beta_{01}(OFK) + \beta_{02}(FSE) + \beta_{03}(Big\ Five) + \beta \dots (Controls) + \zeta_1$$

$$\Pi_1 = \beta_{10} + \beta_{11}(OFK) + \beta_{12}(FSE) + \beta_{13}(Big\ Five) + \beta \dots (Controls) + \zeta_2$$

Results

Descriptive Statistics

The dataset presented a detailed overview of various cognitive, financial, personality, and demographic characteristics. Among key variables, financial knowledge, with a mean of 9.73 and a standard deviation of 3.20, reflecting participants' varying levels of familiarity with financial concepts. Financial well-being, an indicator of participants' perceived economic security and comfort, had a mean of 55.72 and a wider standard deviation of 13.00, suggesting greater diversity in financial satisfaction among the sample. Personality traits were measured across five dimensions: extroversion, agreeableness, conscientiousness, neuroticism, and openness. These traits presented mean values ranging from 21.70 for neuroticism, indicating lower average levels of this trait in the sample, to 36.24 for conscientiousness, suggesting a tendency toward

organized and responsible behavior. Extroversion had a mean of 25.72, while agreeableness and openness had a mean of 35.84 and 35.51, respectively. Each trait exhibited moderate variation, as reflected in standard deviations from 5.33 to 6.48, indicating diversity in personality across the sample. The demographic profile showed a balanced age distribution, with the largest proportions in the 35–54 (41.9%) and 55+ (42.3%) age groups, while the younger group (18-34) represented 15.8% of the sample. Females made up 57.9% of the sample, and a majority (61.7%) reported being married. Racially, the sample was predominantly White (83.6%), and 38.7% had attained at least a bachelor's degree, indicating a relatively educated group. Household income levels were spread across three categories, with 30.7% earning below $40,000, 29.4% earning between $40,000 and $75,000, and 39.9% earning above $75,000, indicating a range of income levels. Cognitive ability showed a mean score of 51.28 with a standard deviation of 8.61, indicating moderate variation within this sample's cognitive ability levels. This demographic and income data, combined with individual differences in financial behaviors, knowledge, and well-being, provided a comprehensive view of the sample's socioeconomic and psychological diversity, useful for analyzing relationships across financial and personality variables.

Table 3.1 Descriptive Statistics (N = 2,548)

Variable	Mean	S.D.
Cognitive ability	51.28	8.61
Extroversion	25.72	6.24
Agreeableness	35.84	5.38
Conscientiousness	36.24	5.33
Neuroticism	21.70	6.48
Openness	35.51	6.30
Financial knowledge	9.73	3.20
Financial self-efficacy	9.12	1.82

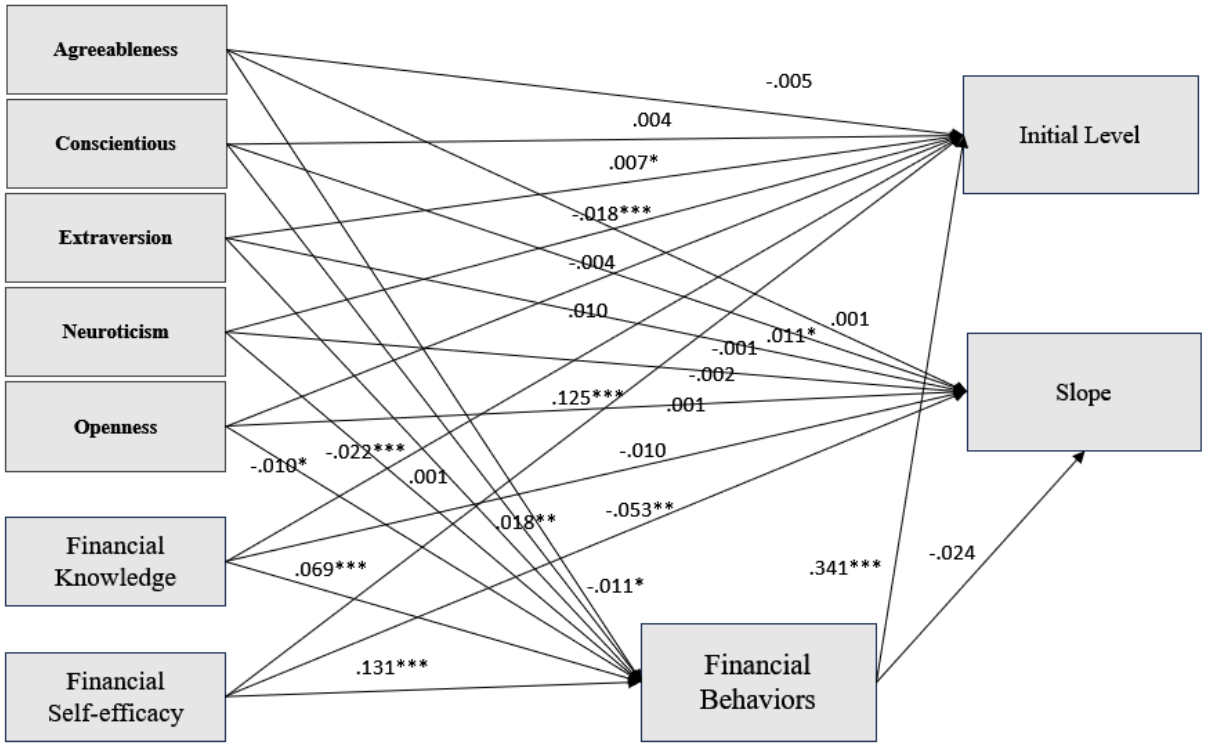
Financial behaviors	2.94	1.52
Financial well-being	55.72	13.00

Demographics	**Frequency**
Age	
18-34	15.8%
35-54	41.9%
55+	42.3%
Female	57.9%
Married	61.7%
White	83.6%
Bachelor's degree and higher	38.7%
Household Income	
<40k	30.7%
40-75k	29.4%
75k+	39.9%

Latent Growth Curves Results

Three waves of data were used to assess changes in financial well-being over time (2016, 2019, and 2021). This study first estimated a univariate linear growth curve model. The mean and variance of the intercept were 39.258 (t = 26.150) and 135.502 (t = 26.569), respectively, while the slope's mean and variance were 0.115 (t = 0.415) and 2.509 (t = 5.583). These findings suggested a modest but statistically significant increase in financial well-being on average from 2019 to 2023. In extending our analysis, this study incorporated personality traits, financial knowledge, financial self-efficacy, financial behaviors, and demographic controls (age, income, and education) to adjust the cognitive ability-adjusted growth curve model for financial well-being. This approach aimed to explain variation in initial financial well-being levels and intraindividual changes. The overall model demonstrated a good fit to the data, with CFI = 0.999,

TLI = 0.997, RMSEA = 0.011, SRMR = 0.011, and $\chi^2(24) = 31.866$. Unless otherwise indicated, all reported coefficients are statistically significant at $p < 0.05$. Figure 3.2 shows the path diagram with model results.



Note: * p <.05. ** p <.01. *** p <.001.

Figure 3.2 LGC Model Results

The analysis revealed several significant relationships between demographic factors—such as age, education, and income—and financial behaviors, showing how these background factors shape individuals' financial actions. Specifically, individuals with higher education levels and incomes demonstrated more positive financial behaviors, potentially due to greater access to financial resources and knowledge, as well as the influence of stable, long-term economic positions. Financial knowledge emerged as a strong positive predictor of financial behaviors (β =

0.069, $p < 0.001$). This finding highlighted that individuals with a solid understanding of financial principles were better equipped to make informed financial decisions. Moreover, financial self-efficacy was positively associated with positive financial behaviors ($\beta = 0.131$, $p < 0.001$). Furthermore, personality traits like agreeableness ($\beta = -0.011$, $p < 0.05$), neuroticism ($\beta = -0.022$, $p < 0.001$), and openness ($\beta = -0.010$, $p < 0.05$) showed a negative association, while conscientiousness demonstrated a positive association ($\beta = 0.018$, $p < 0.01$). This finding indicates that conscientious individuals are more likely to engage in prudent financial behaviors.

Financial behaviors were found to be positively related to the initial level of financial well-being ($\beta = 0.341$, $p < 0.001$). Financial self-efficacy was also positively associated with the initial level of financial well-being ($\beta = 0.125$, $p < 0.001$), suggesting that confidence in financial decision-making contributes to higher baseline well-being. However, financial self-efficacy was negatively associated with the slope of financial well-being over time ($\beta = -0.053$, $p < 0.01$), meaning that individuals with higher self-efficacy experience stability rather than a significant improvement in their financial well-being as time progresses. Personality traits also contribute meaningfully to financial well-being. Extroversion was positively associated with the initial level of financial well-being ($\beta = 0.007$, $p < 0.01$), suggesting that more extroverted individuals might experience higher baseline well-being. Neuroticism, on the other hand, was negatively related to initial levels of financial well-being ($\beta = -0.018$, $p < 0.001$), reflecting the tendency of more neurotic individuals to experience lower baseline financial well-being. Conscientiousness was positively associated with the slope of financial well-being ($\beta = 0.011$, $p < 0.05$). This finding suggested that those with higher conscientiousness see gradual improvements in their financial well-being over time. Table 3.2 provides a detailed overview of the results from the latent growth curve models.

Table 3.2 Latent Growth Curves Results (N = 2,548)

	Std. Coef.	*p*	Sig.			
Path						
To FB, from						
Age	0.011	0.000	***			
Female	-0.024	0.676				
White	0.109	0.125				
Education	0.061	0.003	**			
Income	0.467	0.000	***			
Financial Knowledge	0.069	0.000	***			
Financial self-efficacy	0.131	0.000	***			
Extroversion	0.001	0.983				
Agreeableness	-0.011	0.047	*			
Conscientiousness	0.018	0.001	**			
Neuroticism	-0.022	0.000	***			
Openness	-0.010	0.028	*			
	Initial Level			**Slope**		
	Std. Coef.	*p*	Sig.	Std. Coef.	*p*	Sig.
To FWB, from						
Financial Behaviors	0.341	0.000	***	-0.024	0.225	
Financial Knowledge	0.010	0.182		-0.010	0.390	
Financial self-efficacy	0.125	0.000	***	-0.053	0.001	**
Extroversion	0.007	0.012	*	-0.001	0.788	
Agreeableness	-0.005	0.171		0.001	0.844	
Conscientiousness	0.004	0.266		0.011	0.047	*
Neuroticism	-0.018	0.000	***	-0.002	0.709	
Openness	-0.004	0.144		0.001	0.749	

Note: *$p < 0.05$. **$p < 0.01$. ***$p < 0.001$.
FWB = Financial Well-being; FB = Financial Behaviors.
Model fit: $\chi 2$ (24) = 31.866, RMSEA = 0.011, SRMR = 0.011, CFI = 0.999, TLI = 0.997.

Table 3.3 presents the indirect results and total effects. Conscientiousness (β = 0.006, $p < 0.001$) was found to be positively and indirectly associated with financial well-being via financial behaviors. On the other hand, agreeableness (β = -0.004, $p < 0.05$), neuroticism (β = -0.008, $p < 0.001$), and openness (β = -0.003, $p < 0.05$) were negatively and indirectly associated with financial well-being through financial behaviors. Moreover, financial knowledge (β = 0.023, $p < 0.001$) and financial self-efficacy (β = 0.045, $p < 0.001$) were positively and indirectly associated with financial well-being via financial behaviors.

Table 3.3 LGC Indirect Results (N = 2,548)

	Indirect effect			
Paths	Std. Coef.	Std. Err.	*p*	Sig.
To FB, FWB, from				
Extraversion	0.001	0.002	0.983	
Agreeableness	-0.004	0.002	0.047	*
Conscientiousness	0.006	0.002	0.001	**
Neuroticism	-0.008	0.002	0.000	**
Openness	-0.003	0.001	0.028	*
Financial Knowledge	0.023	0.004	0.000	***
Financial self-efficacy	0.045	0.005	0.000	***
	Total effect			
To FWB, from				
Extraversion	0.007	0.003	0.027	*
Agreeableness	-0.008	0.004	0.031	*
Conscientiousness	0.010	0.004	0.011	**
Neuroticism	-0.026	0.003	0.000	***
Openness	-0.007	0.003	0.020	*
Financial Knowledge	0.033	0.008	0.000	***
Financial self-efficacy	0.170	0.010	0.000	***

Note: * p <.05. ** p <.01. *** p <.001.
FWB = Financial Well-being; FB = Financial Behaviors.

For total effects, extraversion (β = 0.007, p < 0.05) and conscientiousness (β = 0.010, p < 0.01) were positively associated with financial well-being. In contrast, agreeableness (β = -0.008, p < 0.05), neuroticism (β = -0.026, p < 0.001), and openness (β = -0.007, p < 0.05) were negatively associated with financial well-being. Furthermore, financial knowledge (β = 0.033, p < 0.001) and financial self-efficacy (β = 0.170, p < 0.001) were positively associated with financial well-being.

Discussion

Hypothesis 1a was partially supported. It demonstrated a significant connection between financial behaviors and personality traits. Conscientiousness was found to be positively associated with positive financial behaviors, while agreeableness, neuroticism, and openness were negatively associated with positive financial behaviors. Extraversion showed no meaningful relationship with financial behaviors. Potential suppressor effects might explain why there is no significant association between extraversion and financial behaviors. Similarly, Hypotheses H1b and H1c were partially supported. Extraversion was positively associated with the starting point of financial well-being. People who scored high on conscientiousness tend to achieve better financial well-being over time. Openness showed no significant relationship with financial well-being. Potential suppressor effects may explain why this relationship does not exist. Moreover, people who exhibited high levels of neuroticism tend to experience diminishing financial well-being. These findings align with a prior study that conscientiousness was positively associated with higher savings, while neuroticism was negatively associated with savings (Fenton-O'Creevy & Furnham, 2023).

Hypothesis H2a was also supported. This research showed that an individual's financial behaviors positively correlate with their financial knowledge. Individuals who possessed high levels of financial understanding tend to show better financial behaviors. Multiple research studies confirm this relationship through evidence of strong positive relationships between financial knowledge and behaviors, such as retirement planning and wealth building (Lusardi & Mitchell, 2011; Bruggen et al., 2017; Netemeyer et al., 2018). For instance, Hastings et al. (2013) demonstrated that people with extensive financial knowledge achieve superior financial results. Research confirmed hypotheses H2b and H2c, which show that financial knowledge correlates positively to both the starting point and growth rate of financial well-being. People with higher financial knowledge begin their paths with significant advantages that create a more secure basis for financial well-being. Financial knowledge was positively associated with financial well-being (Garg & Singh, 2018). This finding suggests that policymakers need to fund financial education programs to enable people to acquire essential skills for making informed financial decisions, which will lead to improved financial well-being.

The empirical evidence supported Hypothesis H3a, demonstrating that financial self-efficacy was positively associated with financial behaviors. Individuals who possess high levels of financial self-efficacy tended to demonstrate positive financial behaviors. The research demonstrated why financial empowerment must be developed through customized educational programs. Similarly, Hypothesis H3b and H3c were supported by evidence that financial self-efficacy was positively related to both the starting point and the progression rate of financial well-being. Individuals who possess strong financial self-efficacy started with higher financial well-being levels and maintained this stability over time. Building financial self-efficacy stands

out as an essential approach to achieving sustained financial well-being (Riitsalu & Murakas,2019).

Hypothesis H4a was also supported, showing that financial behavior has a positive correlation with financial well-being. The study results revealed that people who demonstrate positive financial behaviors showed improved levels of financial well-being. The positive link between financial behaviors and well-being showed why we need to promote healthy financial habits through educational programs and support systems (Hwang & Park, 2022). Moreover, Hypothesis 5a received support. It showed personality traits are indirectly associated with financial well-being through financial behaviors. People who scored high on conscientiousness were associated with positive financial behaviors and, in turn, better financial well-being. Similarly, Hypothesis 5b was supported. Financial knowledge was indirectly associated with financial well-being through financial behaviors. Furthermore, Hypothesis 5c was supported. Financial self-efficacy was indirectly associated with financial well-being via financial behaviors. Those with higher levels of financial knowledge and self-efficacy were associated with positive financial behaviors and, in turn, better financial outcomes. Individuals possessing greater financial knowledge and confidence displayed positive financial behaviors, resulting in improved financial well-being. Prior study research has similar findings. Delafrooz and Paim (2011) demonstrated that financial knowledge was indirectly associated with financial well-being. Collectively, those findings suggested that the proposed framework explained the relationship between personality traits, financial knowledge, financial behaviors, and financial well-being.

Implications

This study has several implications. The study revealed that people with higher financial self-efficacy displayed a greater tendency to perform positive financial behaviors than those with lower levels of financial self-efficacy. The results indicated that enhancing financial knowledge alongside financial self-efficacy will likely lead to better financial well-being. Policymakers can design education programs that promote both financial knowledge and self-efficacy to encourage positive financial behaviors. Moreover, those who adopted positive financial behaviors experienced better financial well-being. Policymakers can advance positive financial behavior through the implementation of incentives like tax benefits that reward these actions. The results of this study provide important insights for policymakers and financial professionals as well as people who want to enhance their financial health.

Programs designed to match personality characteristics with specific interventions can enhance their success because people who exhibit greater neuroticism can gain from financial stress management techniques, and people with high conscientiousness respond positively to goal-setting and budgeting resources. The significant role of financial self-efficacy and knowledge in determining financial well-being demonstrates that accessible financial education programs should teach financial knowledge and strengthen confidence in financial decision-making.

Limitations and Future Research

One of the limitations of this study is that the potential suppression effect of Big Five personality traits was not examined. Future research can delve into the suppression effect of the big five personality traits in the context of financial well-being. Another limitation is that this study used secondary data. Future research can use primary data to design variable questions that

better capture the variables used. Moreover, this study did not examine any moderating effects of those factors. Future research can test the potential moderating effects of those personality trait factors. Future research can use the framework proposed by this study to examine the relationship between personality traits and financial well-being. They can also use theories used in this study to support their research.

Conclusion

This research utilized a panel dataset to evaluate the proposed framework that links personality to financial well-being using longitudinal data. This study examined the mediating effect of financial behaviors. Overall, the study's findings showed that personality traits and financial knowledge had a direct or indirect link to financial well-being.

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Chapter 4

A Framework for Materialism and Financial Well-being

Introduction

The belief that material possessions determine happiness and success strongly influences how individuals make financial decisions. Lucic et al. (2021) showed that materialistic people tend to focus on current spending instead of developing future financial plans. Individuals who reject materialistic ideals and maintain moderate attitudes toward wealth tend to adopt practices that promote financial accountability (Nye & Hillyard, 2013). These people build financial security by focusing on saving money alongside budgeting and investing practices.

Financial socialization is important for one's financial well-being. The financial behaviors and beliefs people develop early in life come from interactions with their friends and family (Zhao & Zhang, 2020). For example, people who mature in surroundings that associate wealth with success and highly value material possessions tend to develop materialistic values and show patterns of unhealthy financial behavior (Arofah et al., 2018). They found people with high materialism scores are more likely to engage in compulsive buying.

Moreover, financial capability holds a substantial influence on this financial equation. Xiao and colleagues (2014) defined financial capability as the ability to apply appropriate financial knowledge and perform desirable financial behaviors to achieve financial well-being. People who score highly in financial capability demonstrate superior decision-making skills when dealing with financial matters (Sirsch et al., 2019). Individuals who understand budgeting and saving principles demonstrate superior investment strategies and maintain better financial

resilience against hardships. Earlier studies demonstrated that financial capability diminishes the harmful impact of materialistic attitudes on financial conduct (Khan et al., 2024). People who have strong financial capabilities can overcome materialistic tendencies, which lead to consumption and immediate gratification by making well-informed financial decisions.

While there are some studies on materialism and financial behaviors or materialism and financial well-being, this study aims to fill gaps in the literature by proposing a framework that connects materialism, financial socialization, and financial capability to financial behaviors and financial well-being. This study offers important insights for policymakers. For example, financial education programs can teach people with higher scores on materialism the benefit of long-term planning to prevent irresponsible spending for immediate satisfaction. Policymakers can make financial education advancement and positive financial socialization their main priorities to enhance people's financial health. Through understanding and addressing the foundational causes of unhealthy financial behaviors, people can obtain the necessary tools to reach improved financial well-being.

Literature Review

Materialism

Belk (1984) defined materialism as the importance a consumer attaches to worldly possessions. The literature has demonstrated a connection between materialism and financial behaviors. For example, Pangestu and Karnadi (2020) showed that impulse buying functions as an intermediary factor connecting financial behavior with materialism. They found that people with high materialism are less likely to save. Research indications from various populations, such as college students (Gong & Zheng, 2022), indicated that materialism is associated with financial behaviors across different life contexts. They found that students with high materialism

values are more likely to shop online. Moreover, Chan and colleagues (2020) examined how materialism was associated with financial behaviors in situations involving health challenges. Furthermore, despite these contributions, the relationship between materialism and financial behaviors is not clear. Former research has shown inconsistent associations between financial knowledge, materialism, and financial behavior, necessitating further study to examine materialism's effects on financial behaviors (Yudha & Pradana, 2022). For instance, Arofah (2018) found a positive relationship between materialism and financial behaviors, while Lucic et al. (2021) did not find a correlation between the two. Other research has shown that materialism is positively associated with conspicuous consumption (Lee et al., 2021). They found that materialistic people are more likely to buy luxury brands' products. Potrich and Vieira's research (2018) showed that financial literacy level is negatively associated with materialism. This study aims to fill some gaps by examining the influence of materialism on financial behaviors together with other factors.

Financial Socialization

Danes (1994) defined financial socialization as the process of acquiring and developing values, attitudes, standards, norms, knowledge, and behaviors that contribute to financial viability and individual well-being. Gudmunson and Danes (2011) introduced a framework that embeds family financial socialization within personal finance. Research on financial socialization has indicated its connection to financial behaviors. For example, multiple studies have investigated the impact of financial socialization on financial behaviors (LeBaron-Black et al., 2022; Zhao & Zhang, 2020). The study by Zhao and Zhang (2020) showed how financial socialization was positively associated with financial behavior and financial well-being. They found that people with higher financial socialization scores are more likely to show desirable

financial behaviors, such as saving and credit management. Similarly, LeBaron-Black et al. (20220) indicated that financial socialization was positively associated with financial behaviors. Beyond these findings, research has demonstrated that financial socialization is associated with youth behaviors such as saving behavior (Kagotho et al., 2017). They found that children who grow up in families that socialize with their children around money are more likely to save money. Moreover, research conducted by Ameliawati and Setiyani (2018) further indicated financial knowledge acts as a mediating factor between financial socialization and financial behavior. Similarly, Sun et al. (2022) found that higher financial knowledge, together with higher financial socialization, was associated with positive financial behaviors. Additionally, Mohamed (2017) indicated that financial socialization was positively associated with the financial well-being of young workers. Despite those findings, this study aims to provide more insight by connecting financial socialization with not only financial behaviors and financial well-being but also materialism and financial capability.

Financial Capability

Financial capability refers to the ability to translate financial knowledge and decent financial behaviors into achieving financial wellness (Xiao & O'Neill, 2016). Taylor (2010) further described financial capability as linking the skills you need to manage savings and consumption. Research demonstrated that financial capability was positively associated with financial behaviors (Ramli et al.,2022). They found that people with high financial capability are more likely to engage in saving and investing. Similarly, Wulandari (2022) also found that financial capability was positively associated with financial behavior, such as saving. Moreover, financial capability was associated with financial socialization and financial behaviors (e.g., saving and investing) (Sun et al., 2022). They found that people with high financial socialization

are more likely to show high financial capability. Additionally, Ameliawati and Setiyani (2018) indicated that financial capability plays a mediating role in financial socialization and financial behaviors. Collectively, those studies showed how financial capability is associated with financial behavior and well-being. This study will contribute to the literature by examining financial capability in a comprehensive framework.

Financial Behaviors

Financial behavior was defined as any human behavior relevant to money management (saving and investing) performed by consumers (Xiao & Kumar, 2023). As recognized in the literature above, there are many factors that inform individuals' financial behaviors. Research indicated that materialism was associated with financial behaviors among college students (Gong & Zheng, 2022). Prior research showed that financial knowledge was positively associated with financial behaviors (Khawar & Sarwar, 2021). Moreover, research showed financial socialization was positively associated with financial behavior (Zhao & Zhang, 2020). Similarly, LeBaron-Black et al. (20220) found that financial socialization was positively associated with financial behaviors. Furthermore, Ramli et al. (2022) demonstrated that financial capability was positively associated with financial behaviors. Sawitri and Arifin (2021) found that financial capability was also associated with positive changes in financial behavior. Those findings indicate that an integrated framework is needed to examine all those factors is needed.

Financial Well-being

The Consumer Financial Protection Bureau defines financial well-being as individuals who can meet their financial obligations and secure their financial future while enjoying their personal lifestyle choices (CFPB, 2015). Arofah et al. (2018) found that materialism was associated with irresponsible financial behaviors, resulting in negative financial outcomes.

Similarly, research found that financial well-being was negatively associated with materialism in situations involving health challenges (Chan et al., 2020). Moreover, research has shown that financial socialization is positively associated with financial well-being through financial behaviors (Zhao & Zhang, 2020). They found that people with higher financial socialization are more likely to participate in behaviors like savings and credit management. As a result of those positive financial behaviors, people have high financial well-being levels. Furthermore, Lone and Bhat (2022) also found positive financial behaviors were positively associated with higher levels of financial well-being. They found that people who engaged in financial behaviors like saving and retirement planning were more likely to be associated with higher level of financial well-being. Additionally, research showed that financial knowledge was positively associated with financial well-being (Selvia et al., 2020). Collectively, these studies indicate that an integrated framework is needed to explore the relationship between materialism, financial socialization, financial capability, financial behaviors, and financial well-being.

Theoretical Framework

According to Albert Bandura's (1999) Social Cognitive Theory (SCT), personal characteristics merge with environmental factors and behavior patterns to produce specific outcomes. The SCT emphasizes the interaction between people (i.e., personal factors), their behavior, and their environments in shaping behaviors (Bandura, 1999). People with a high value on material possessions tend to develop materialistic values and show patterns of unhealthy financial behavior (Arofah et al., 2018). Through interactions with family members, peers, and media exposure, people learn money management as part of financial socialization (Zhao & Zhang, 2020). SCT highlights reciprocal determinism, where financial behaviors and socialization experiences influence one another (Bandura, 1999).

Financial capability is the combination of knowledge, skills, and confidence needed to manage finances effectively (Taylor, 2010). A strong sense of self-efficacy in financial matters (e.g., confidence in budgeting or saving) stems from mastery experiences (e.g., successfully managing money) and vicarious learning (e.g., observing successful financial behaviors in role models). In a financial context, SCT explains that financial behaviors are outcomes of personal factors and environmental factors. Positive financial behaviors (e.g., saving regularly, paying off credit card balance each month, having a savings account, etc.) lead to improved financial well-being. Figure 1 illustrates the conceptual framework shaped by SCT and designed for this study.

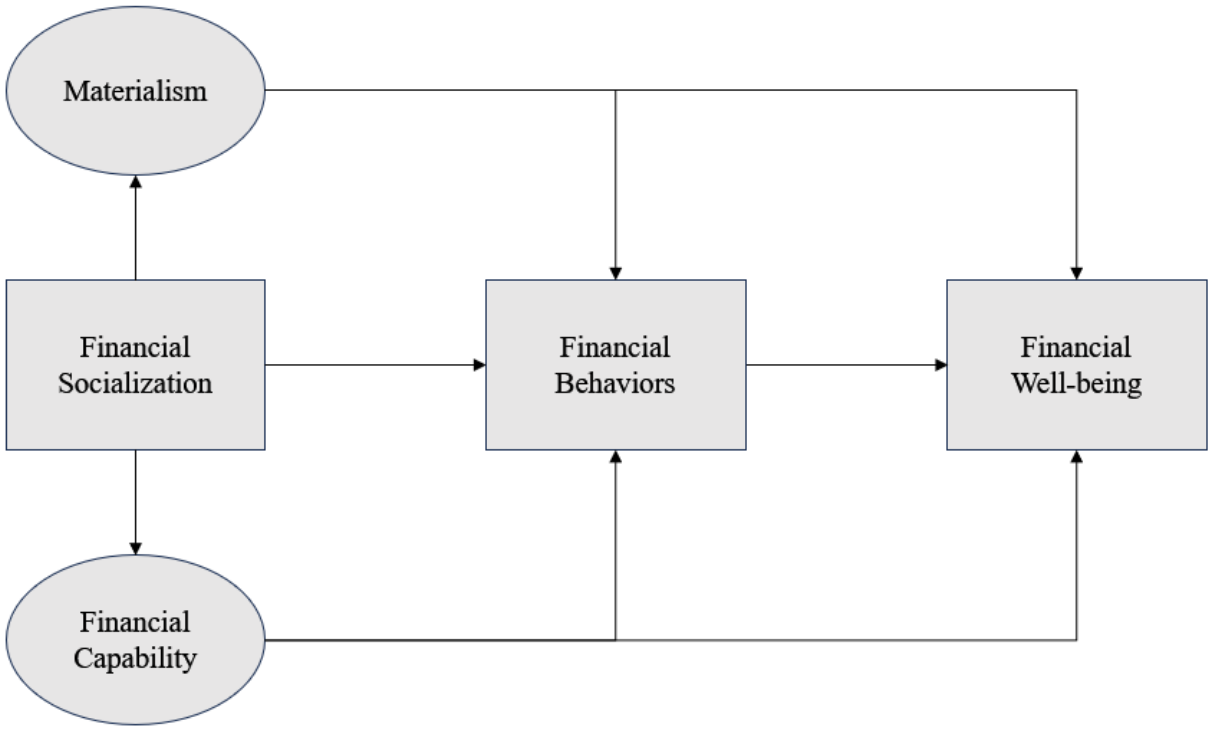

Figure 4.1 Conceptual Framework

Based on the conceptual framework, this study examined the following hypotheses:

H1a: Materialism is significantly associated with an individual's financial behaviors.

H1b: Materialism is significantly associated with an individual's financial well-being.

H2a: Financial socialization is significantly associated with an individual's financial behaviors.

H2b: Financial socialization is significantly associated with an individual's financial well-being.

H2c: Financial socialization is significantly associated with materialism.

H2d: Financial socialization is significantly associated with an individual's financial capability.

H3a: Perceived financial capability is significantly associated with an individual's financial behaviors.

H3b: Perceived financial capability is significantly associated with an individual's financial well-being.

H4: Financial behaviors are significantly associated with an individual's financial well-being.

H5a: Materialism is indirectly and significantly associated with an individual's financial well-being through financial behaviors.

H5b: Financial socialization is indirectly and significantly associated with an individual's financial well-being through financial behaviors.

H5c: Perceived financial capability is indirectly and significantly associated with an individual's financial well-being through financial behaviors.

Methodology

Data

This study used data from the National Financial Well-Being Survey (CFPB, 2017). The National Financial Well-Being Survey presents a comprehensive overview of the financial

landscape in the United States, offering detailed insights into the levels and distribution of financial well-being among the adult population. The report delves into various subgroups, categorizing them based on individual characteristics, household and family features, income and employment specifics, savings and safety nets, financial experiences, financial behaviors, skills, and attitudes. To ensure a representative sample, the survey captured data from the adult population aged 18 and older across all 50 U.S. states and Washington, D.C (CFPB, 2017). The survey sample was carefully drawn from the GfK KnowledgePanel, a recruited sample intentionally crafted to mirror the national demographic composition of U.S. households. The final sample size for this study is 5,971 participants. The codebook for studying variables can be found in appendix B.

Measurement

Financial Well-Being

The 10-item CFPB Financial Well-being Scale was used to measure financial well-being. The financial well-being scale included item questions like "I could handle a major unexpected expense." The answers to each question ranged from 1 = *not at all* to 5 = *completely*. Another question asked was, "I have money left over at the end of the month." The response options ranged from 1 = *never* to 5 = *always*. A worksheet (CFPB, 2012) was used to convert the score to 100. Each participant received a score from 0 to 100.

Financial Behaviors

Financial behaviors were measured by eight questions that captured positive financial practices. For example, one question asked the participants, "Did you pay off your credit card balance in full each month?" The answer was coded as 1 if *yes* and 0 if *no*. Another question

asked, “Did you have a checking or savings account?” The answer is 1 if *yes* and 0 *if not*. The final score was created by summing the eight items, ranging from 0 to 8.

Materialism

Materialism was measured by Richins' (1992) three-item Material Values Scale. An example of one of the items asked, “I admire people who own expensive homes, cars, and clothes.” The response options ranged from 1 = *strongly disagree* to 5 = *strongly agree*. Another item asked, “The things I own say a lot about how well I’m doing in life.” The response options ranged from 1 = *strongly disagree* to 5 = *strongly agree*. A confirmatory factor analysis was performed to evaluate the latent construct. The factor loadings are .843, .772, and .853.

Financial Socialization

Financial socialization was assessed using a set of seven items. These items aimed to capture how various external sources, such as family, peers, and societal norms, influence participants' beliefs about financial practices. For example, one question asked, “…discussed family financial matters with me.” The answer is coded as 1 if *yes* and 0 if *no*. Another question asked, “…spoke to me about the importance of saving.” The answer is coded as 1 if *yes* and 0 if *no*. The final score for financial socialization ranges from 0 to 7.

Perceived Financial Capability

Based on CFPB’s report (2016), perceived financial capability was measured by subjective financial knowledge, the ability to achieve financial goals, and practical financial skills. The question for subjective knowledge asked, “How would you assess your overall financial knowledge?” The answer ranges from 1 = *very low* to 7 = *very high*. Another item referred to how confident someone was in their ability to achieve their financial goals. More specifically, the item was worded, “How confident are you in your own ability to achieve

financial goals." The answer ranges from 1 = *not at all confiden*t to 4 = *very confident*. The confirmatory factor analysis was conducted to examine the latent construct. The factor loadings are .848, .779, and .885.

Control Variables

Age was categorized into three groups: 18 to 34 years old, 35 to 54 years old (Reference), and above 55 years old. Gender was coded as 1 if *female* and 0 if *male*. Marital status was coded as 1 if *married* and 0 if not. Race was coded as 1 for *White* and 0 for all other races. Education was coded as 1 if one obtained a *bachelor's degree and a higher degree*. Household income was categorized into three groups: (a) less than $40,000, (b) $40,000 to $75,000 (reference), and (c) $75,000 and above.

Analysis

Latent variables were assessed using the confirmatory factor analysis (CFA). A structural equation model (SEM) was used to analyze the proposed framework. Hypothesis testing was performed using Full Information Maximum Likelihood (FIML). Several fit indices were used to assess the fit of the model, including the chi-square statistic, Cumulative Fit Index (CFI), Root Mean Square Error of Approximation (RMSEA), and Tucker-Lewis Index (TLI). The CFI values would be close to or greater than .95 and RMSEA of about or less than .06, indicating an acceptable model fit (Hu & Bentler, 1999). Bootstrapping with 5,000 draws was used to test for the statistical significance of any indirect effect (Preacher & Hayes, 2008).

Results

Descriptive Statistics

The participant demographics displayed a wide range of age groups, with 23.8% falling within the 18-34 range, 29.9% in the 35-54 range, and 46.3% aged 55 and above. Female participants made up 47.0% of the sample, and 25.1% belong to the millennial generation. A significant 60.0% of participants were married, and the majority, accounting for 70.9%, identified as White. In terms of employment status, 60.0% of participants were currently employed. Moreover, 37.9% of participants hold a bachelor's degree or higher. The participants included 19.8% with a military background, highlighting a diverse range of experiences. Household income varied among participants, with 28.5% reporting incomes below $40,000, 25.5% falling between $40,000 and $75,000, and 46.0% reporting incomes above $75,000. The participants, on average, rated their subjective financial knowledge at 4.73. Additionally, participants exhibited an average score of 8.02 on the materialism scale, and the average financial well-being score among participants was 42.07. A comprehensive summary of descriptive statistics is available in Table 4.1.

Table 4.1 Descriptive Statistics (N = 5,971)

Variable	Mean	S.D.
Financial socialization	3.56	2.19
Subjective financial knowledge	4.73	1.17
Financial goal reach ability	3.24	0.73
Financial skills	3.29	1.02
Positive financial behaviors	5.45	2.06
Materialism	8.02	3.16
Financial well-being	42.07	13.95
Demographics		**Frequency**

Age	
18-34	23.8%
35-54	29.9%
55+	46.3%
Female	47.0%
Married	60.0%
White	70.9%
Bachelor's degree and higher	37.9%
Household Income	
<40k	28.5%
40-75k	25.5%
75k+	46.0%

Table 4.2 presents Pearson's correlation coefficients for the studied variables. It provides a preliminary analysis of key variables. Those coefficients support adding those variables into the model.

Table 4.2 Pearson's Correlation Coefficients

Variables	M	FS	FC	FB	FWB
Materialism	-	-	-	-	-
Financial socialization	-.264***	-	-	-	-
Financial capability	-.290***	.306***	-	-	-
Financial behaviors	-.243***	.323***	.610***	-	-
Financial well-being	-.241***	.316***	.670***	.619***	-

Note: * p <.05. ** p <.01. *** p <.001.

Structural Equation Model Results

A CFA was run to examine the latent variables used in this study. The model fit indices for the SEM model suggest a good model fit ($\chi 2$ (126) = 1380.518, RMSEA = 0.041, CFI = 0.963). Figure 4.2 shows the path diagram with model results.

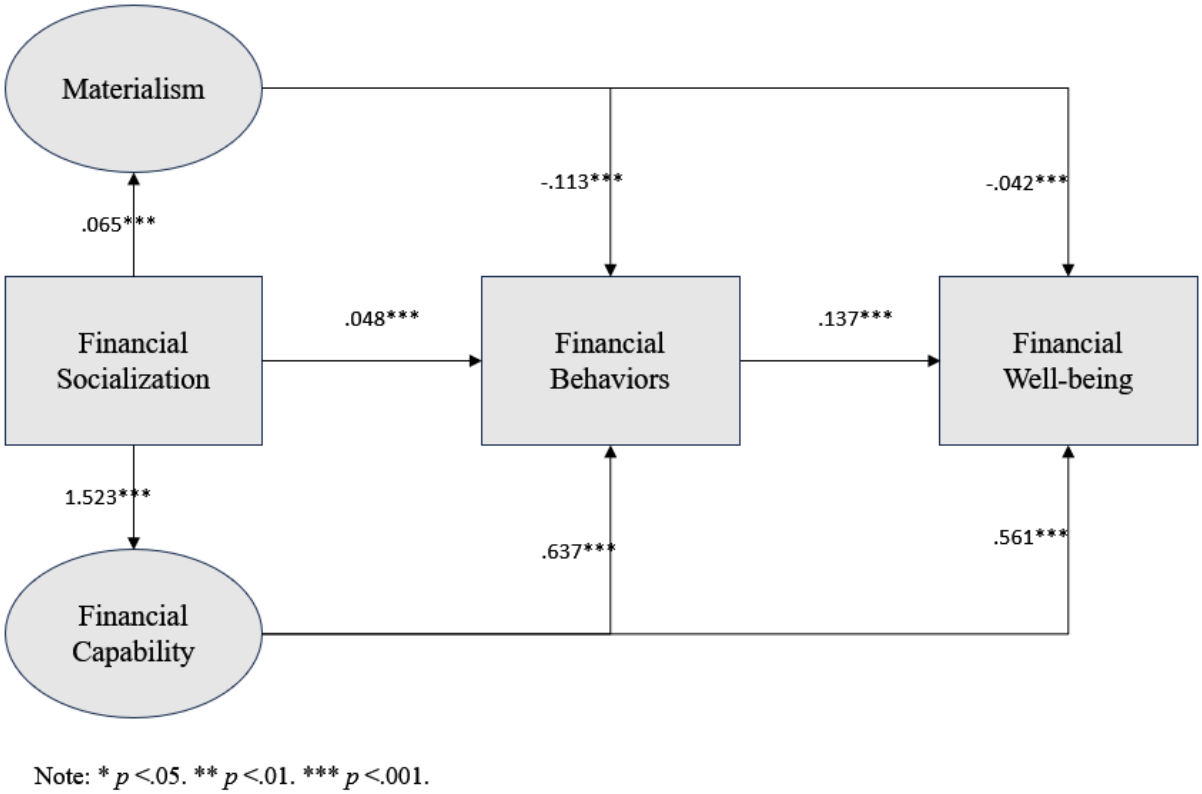

Figure 4.2 SEM Model Results

The SEM analysis revealed a number of important relationships between key variables, providing insight into the factors that influence financial behaviors and well-being. One of the key findings was the negative association between materialism and positive financial behaviors ($\beta = -0.113$, $p < 0.001$). This suggested that individuals who place a high value on material goods and acquisition are less likely to engage in responsible financial behaviors. In other words, materialistic values may undermine an individual's motivation to prioritize financial prudence

and long-term financial goals, potentially leading to less favorable financial outcomes. On the other hand, financial socialization demonstrated a positive relationship with financial behaviors ($\beta = 0.048$, $p < 0.001$), indicating that the influence of family, peers, and societal norms plays a crucial role in shaping one's financial behaviors. This highlighted the importance of social learning and external guidance in fostering a proactive approach toward financial decision-making. Moreover, perceived financial capability was strongly associated with financial behaviors ($\beta = 0.637$, $p < 0.001$). Financial behaviors were found to be positively associated with financial well-being ($\beta = 0.137$, $p < 0.001$). Materialism, on the other hand, was negatively associated with financial well-being ($\beta = -0.042$, $p < 0.001$). Finally, perceived financial capability ($\beta = 0.561$, $p < 0.001$) was positively associated with financial well-being. Table 4 presents a detailed summary of the model results.

From indirect results, materialism was found to be indirectly associated with financial well-being through positive financial behaviors ($\beta = -0.016$, $p < 0.001$). It demonstrated that people who displayed materialistic tendencies tended to avoid responsible financial behaviors, which resulted in lower financial well-being levels. Moreover, financial socialization was indirectly associated with financial well-being via positive financial behaviors ($\beta = 0.989$, $p < 0.001$). Research showed that people who receive positive external influences tended to participate more in behaviors that support financial health. Furthermore, perceived financial capability was indirectly associated with financial well-being through positive financial behaviors ($\beta = 0.087$, $p < 0.001$). People who believe they possess strong financial management abilities demonstrated more positive financial behaviors, which leads to improved financial well-being. The total effect analysis revealed that materialism ($\beta = -0.057$, $p < 0.001$) was negatively associated with financial well-being. Financial socialization ($\beta = 0.971$, $p < 0.001$) was positively

associated with financial well-being. Financial capability (β = 0.648, $p < 0.001$) also showed a positive association with financial well-being. Table 4.3 provides a detailed summary of the model results.

Table 4.3 SEM Model Results (N = 5,971)

Paths	Std. Coef.	Std. Err.	*p*	Sig.
To FWB, from				
Age	0.193	0.011	0.000	***
Education	-0.055	0.011	0.000	***
Female	0.007	0.009	0.467	
Income	0.164	0.012	0.000	***
PFB	0.137	0.017	0.000	***
Materialism	-0.042	0.010	0.000	***
Financial socialization	-0.018	0.011	0.088	
PFC	0.561	0.017	0.000	***
To PFB, from				
Materialism	-0.113	0.011	0.000	***
Financial socialization	0.048	0.012	0.000	***
PFC	0.637	0.012	0.000	***
From FS, to				
Materialism	0.065	0.014	0.000	***
PFC	1.523	0.079	0.000	***
	Indirect effect			
To FWB, from				
Materialism	-0.016	0.002	0.000	***
Financial socialization	0.989	0.055	0.000	***
PFC	0.087	0.010	0.000	***
	Total effect			
To FWB, from				

Materialism	-0.057	0.011	0.001	**
Financial socialization	0.971	0.055	0.000	***
PFC	0.648	0.012	0.000	***

Note: * p <.05. ** p <.01. *** p <.001.
FWB = Financial Well-being; PFB = Positive Financial Behaviors; PFC = Perceived Financial Capability; FS = Financial socialization.
Model fit: $\chi 2$ (39) = 478.332, RMSEA = 0.043, SRMR = 0.033, CFI = 0.979, TLI = 0.963

Discussion

Hypothesis H1a received support because H1a demonstrated that materialism was significantly associated with financial behaviors. Previous studies support this finding. Arofah et al. (2018) demonstrated how materialistic values were associated with financial behaviors. The results of H1b demonstrated a connection between materialistic values and personal financial well-being. People who focus on acquiring material goods tended to have reduced financial well-being. Lucic et al. (2021) showed that materialism was negatively associated with positive financial behaviors. Moreover, the second hypothesis was validated because H2a demonstrates a substantial link between financial socialization and financial behaviors. This research demonstrated that social factors shape how people think about money and make financial choices. The financial socialization of an individual was directly associated with their financial well-being. Zhao and Zhang (2020) demonstrated that financial socialization was directly associated with financial behaviors as well as financial well-being. While they examined the indirect effects of financial socialization on financial well-being, this study examined other factors like materialism and financial capability using an integrated framework.

The empirical findings supported the third hypothesis, which is that H3a demonstrated a strong connection between perceived financial capability and financial behaviors. The study results suggested that individuals who consider themselves financially capable tended to engage

actively in responsible financial practices. These results were aligned with previous research. Financial capability emerged as a primary predictor of positive financial behaviors (Wulandari, 2022). Sawitri and Arifin (2021) demonstrated that people who feel financially capable were positively associated with changes in their financial habits. Moreover, H3b was supported. Research indicated that financial capability shares a significant connection with financial well-being. People who feel financially capable showed greater financial well-being because they adopt positive financial behaviors. Furthermore, the fourth hypothesis received validation through H4, which demonstrated a significant correlation between financial behaviors and financial well-being. The findings demonstrated that regular positive financial activities were directly associated with overall financial well-being. A prior study agrees that financial behavior was positively associated with financial well-being (Hwang & Park, 2022).

The fifth hypothesis was also supported. The results of H5a revealed an indirect relationship between materialism and financial well-being through financial behaviors. People who prioritize materialistic values tended to exhibit irresponsible financial behaviors, which lead to reduced financial well-being. Moreover, H5b showed how financial socialization was indirectly connected to financial well-being via financial behaviors. People who receive positive financial socialization develop behaviors that support their financial well-being over the long term. Furthermore, H5c indicated that perceived financial capability was associated with financial well-being in an indirect manner through financial behaviors. The results suggested that people who view themselves as financially competent tended to adopt behaviors that enhance their financial well-being. Previous research by Ramli et al. (2022) indicated that financial behaviors played a mediating role in the relationship between financial capability and financial well-being.

Implications

This study has several implications. First, the harmful effect of materialism on financial well-being can be addressed through interventions that teach spending mindfulness and emphasize long-term financial planning while highlighting materialism's downsides to help people pursue sustainable financial health rather than immediate satisfaction. Second, financial socialization had a significant impact on how individuals develop their money-related attitudes and actions, which are associated with their financial well-being. Therefore, it would be beneficial for people to have more conversations about money with their family and friends. Third, the link between perceived financial capability and financial well-being demonstrated that financial literacy programs must focus on delivering information and developing participants' self-efficacy. Finally, this study demonstrated how financial behaviors serve as crucial intermediaries between different elements that were associated with financial well-being. The findings indicated that financial well-being interventions would benefit from emphasizing financial behaviors, including consistent savings. These insights provide policymakers with tools to create public initiatives that promote financial habits that are supportive of enduring well-being.

Limitations and Future Research

One of the limitations is that this study used cross-sectional data to examine the framework. Future research can use longitudinal data to test the framework proposed by this study. Another limitation is that this study used secondary data to test the proposed framework. Future research can use primary data with carefully designed questions that better capture the variables used in this study. This study only examined the mediating effect using the framework. Future research can also explore the moderating effects of factors examined in this study.

Conclusion

This study proposed a framework for analyzing the interconnections between materialism and financial socialization, financial capability, financial behavior, and financial well-being. Materialism, financial socialization, and financial capability showed either a direct or indirect connection to financial well-being. Overall, this research showed a significant association between materialism, financial socialization, financial capability, and financial behaviors and well-being.

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Chapter 5

Conclusion

Summary

This dissertation established three frameworks to examine financial well-being under different contexts. Each essay has some unique findings that provide a fuller picture of factors associated with financial well-being. The following will provide a summary of key findings from those three studies. A review of common themes is also provided. This chapter concludes with implications and future research.

Key Findings from the Studies

The first study developed an integrated framework for personality traits and financial well-being (Figure 5.1). The results showed a significant connection between personality traits and financial behaviors, as well as well-being. Consciousness and extraversion were found to be positively associated with financial behavior and well-being, while neuroticism and openness were found to be negatively associated with financial behaviors and well-being. The research revealed that educational programs in finance must customize their structure according to distinct personality profiles to ensure effective learning outcomes. When financial professionals understand the relationship between personality traits and financial choices, they can create educational programs that address each participant's unique needs. Practitioners achieve more effective financial counseling outcomes when they customize advice to align with clients' personality assessments and inherent preferences. The proposed framework could inform interventions that target both specific financial behaviors and the personality traits behind them.

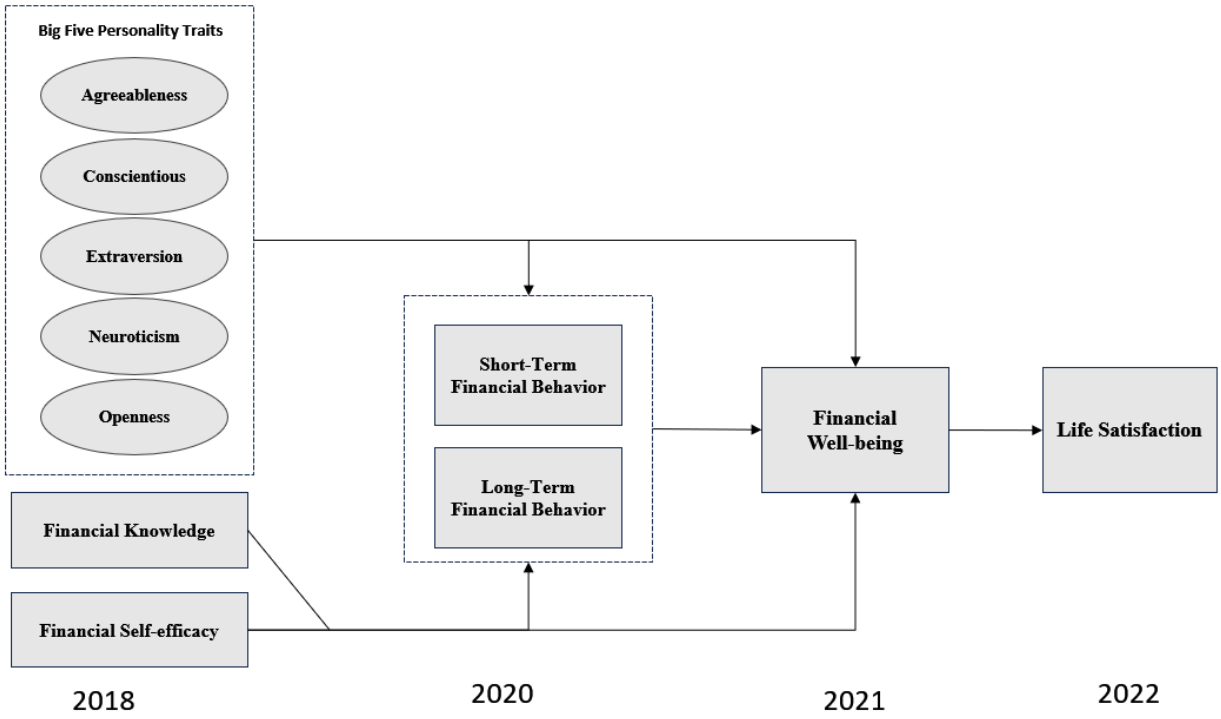

Figure 5.1 Conceptual Framework 1

The second study proposed a longitudinal framework to examine personality traits and financial well-being (Figure 5.2). The research demonstrated that financial knowledge developed a connection to financial well-being during the study period. Policymakers can promote financial literacy advancement through programs that build and enhance positive financial behaviors. The research demonstrated that individuals with positive financial behaviors have improved financial well-being. Policymakers can promote positive financial behaviors by utilizing tax benefits as incentives that reward financial actions. For example, people should get tax deductions on contributions when they contribute to their retirement accounts. Program success rates increase when interventions are matched to personality traits, as individuals who score high in conscientiousness exhibit positive reactions to goal-oriented and budgeting activities.

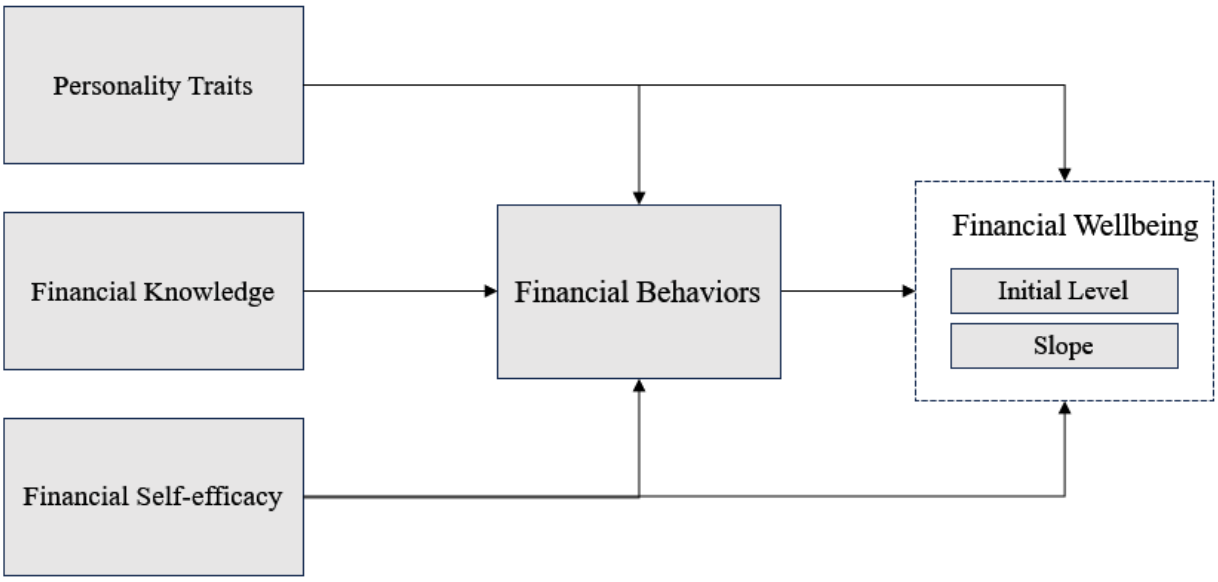

Figure 5.2 Conceptual Framework 2

The third study proposed a framework for materialism and financial well-being (Figure 5.3). The study found that materialistic values correlated with irresponsible financial behavior. The development of people's money-related attitudes and actions depends on their financial socialization. The connection between financial capability and financial wellness indicates that educational and financial programs need to concentrate on information dissemination and confidence building among participants. Financial well-being programs would improve by focusing on essential financial behaviors such as regular savings practices. The insights deliver resources for policymakers to design public programs that foster financial practices that ensure lasting well-being.

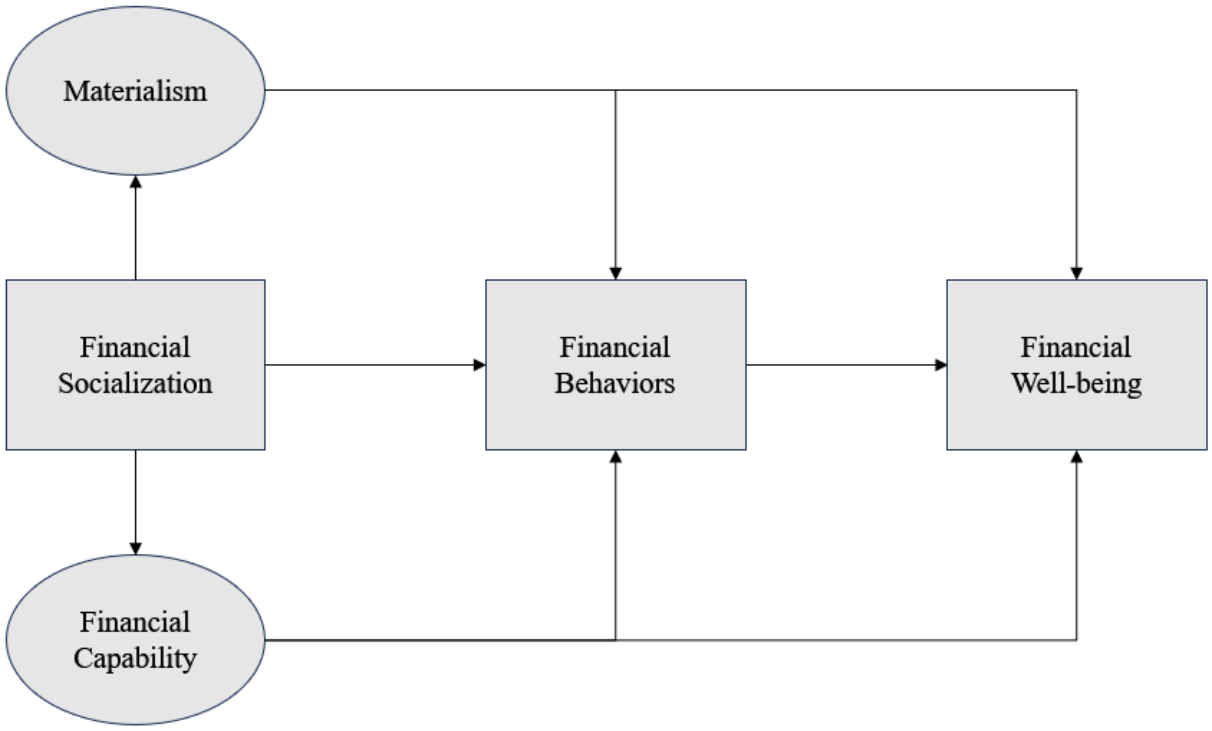

Figure 5.3 Conceptual Framework 3

Common Themes

This dissertation contributed to the body of knowledge on financial well-being. The three studies explored different factors that are associated with financial well-being. Looking at the three frameworks shown above, the common theme that emerged from those studies is that personality characteristics (i.e., personality traits and materialism) were the factors constantly associated with one's financial behaviors and well-being. Personality characteristics were either directly associated with financial well-being or indirectly associated with financial well-being through financial behaviors.

Each of the three studies established a framework connecting personal characteristics with one's financial well-being. Future research can use these frameworks to explain the relationship between one's personality traits and financial well-being. Personality traits such as extraversion and conscientiousness were positively associated with financial behaviors and well-

being, while neuroticism was negatively associated with financial behaviors and well-being. This work has empirical evidence for most of the five personality traits. However, personality traits like agreeableness can be found insignificant due to potential suppression effects. Future research can explore those effects.

Some other noteworthy themes emerged from this dissertation. For instance, financial knowledge has been constantly linked to financial behavior and well-being, either directly or indirectly. People who have high financial self-efficacy are often associated with positive financial behaviors and better levels of financial well-being. Financial capability has been linked to positive financial behaviors and well-being. Personal traits like materialism have been linked to lower levels of financial well-being. This dissertation has shown that McCrae and Costa's (1991) suggestion of how personality traits interact with environments (e.g., instrumental theories) and Albert Bandura's Social Cognitive Theory (1999) can be used together as a theoretical foundation to explain the relationship between personality traits and financial well-being.

Theoretical and Practitioner Implications

There are some theoretical implications. For example, previous studies focused solely on financial knowledge, whereas this study incorporates financial knowledge and various factors, such as personality traits and materialism, into comprehensive frameworks. This innovative method pushes theoretical boundaries for researchers and delivers actionable techniques for professionals. This dissertation contributes to financial well-being literature by demonstrating that successful financial interventions must account for individual personality traits while enhancing financial knowledge.

This work is one of the first to establish a longitudinal framework to model the change in one's level of financial well-being. Future research can use the three frameworks proposed by this work to explain the relationship between personality traits and financial well-being. They can also use these frameworks as a foundation to build their own framework. This dissertation integrated the CFPB financial well-being framework (2015) with the premise of instrumental theories (McCrae & Costa, 1991) and Social Cognitive Theory (Bandura, 1999) to establish a theoretical foundation that can be used to examine personality traits and financial well-being. This has great implications for the expansion of our understanding of financial well-being in the future.

Multiple websites provide personality assessment instruments, including tests like the Big Five (2025) and the 16Personality test (2025). Practitioners can utilize these tools to provide improved services to their clients. For example, practitioners can implement goal-oriented strategies in their work with conscientious clients. These clients would benefit from this approach because they prefer organized solutions. Practitioners can use brainstorming sessions to better serve clients who demonstrate high openness traits. These clients often benefit from innovative approaches that allow for self-expression. Extraverted clients find fulfillment in social engagement and external sources of stimulation. A practitioner might create group activities and interactive workshops to enable participants to engage in discussions and work collaboratively together. Clients who exhibit high agreeableness prioritize environments that promote harmony and supportiveness. Practitioners can enhance community bonds and mutual support through collaborative methods, including cooperative goal-setting exercises, which strengthen their inherent tendency for empathy and cooperation. Clients with pronounced neuroticism experience positive effects from approaches that target stress management and emotional control abilities.

Financial practitioners can use mindfulness methods along with cognitive-behavioral techniques as tools to enhance emotional stability while assisting clients with anxiety management.

Financial knowledge and financial self-efficacy have been constantly linked to positive financial behaviors and well-being. This suggests that financial education programs should be designed to promote clients' financial knowledge as well as financial self-efficacy. This longitudinal study indicated the progressive influence of financial knowledge on well-being. This suggests that there is a need for ongoing financial education rather than a one-time intervention. The findings from materialism and financial well-being indicate that materialistic values were negatively associated with positive financial behaviors. Practitioners should teach clients the importance of sustainable financial behaviors such as regular savings instead of compulsive buying. This dissertation established integrated frameworks, offering practitioners a fuller picture of the factors associated with financial well-being.

Future Research

This work used secondary data. Future research can use primary data if they want to have more items for variables such as materialism and financial behaviors. The third study used a cross-sectional dataset to test the proposed framework. Future research can use longitudinal datasets to examine the framework. It can reduce the concerns of endogeneity problems. This dissertation explored the mediating effects of financial behaviors. Future research can explore potential moderate factors in the context of financial well-being. For example, research indicated that gender could moderate the relationship between financial attitudes and financial socialization (Falahati & Palm, 2012). This work did not examine the potential suppression effects of the Big Five personality traits. Further studies can be done to test how suppression effects play a role in the context of financial well-being. This dissertation used the CFPB

financial well-being framework (2015) with the premise of personality traits in instrumental theories (McCrae & Costa, 1991) and Social Cognitive Theory (Bandura, 1999) to establish a theoretical foundation that can be applied to future research on personality traits and financial well-being. Future researchers can borrow this theoretical foundation to build their research or continue to expand upon these conceptual frameworks.

In conclusion, this research contributes to the literature by proposing three frameworks. This work also advances the theoretical understanding of personality traits and financial well-being. The longitudinal nature of the first and second studies provides advantages that cross-sectional studies do not have. Policymakers and practitioners can use the findings of this research to develop tailored interventions to better help consumers. Future researchers can build upon those frameworks and conduct further research. Future research can look at the suppression effects of the big five personality traits and how they work in the context of financial well-being.

Appendices

Appendix A

This appendix A provides the codebook for variables used in chapters 2 and 3. It includes the measurement for financial well-being, financial behaviors, financial knowledge, and personality traits.

Financial Well-being Scale

Questions	Response Options
How well does this statement describe you or your situation?	
1. I could handle a major unexpected expense 2. I am securing my financial future 3. Because of my money situation, I feel like I will never have the things I want in life* 4. I can enjoy life because of the way I'm managing my money 5. I am just getting by financially* 6. I am concerned that the money I have or will save won't last*	1. Not at all 2. Very little 3. Somewhat 4. Very well 5. Completely
How often does this statement apply to you?	
7. Giving a gift for a wedding, birthday, or other occasion would put a strain on my finances for the month* 8. I have money left over at the end of the month 9. I am behind with my finances* 10. My finances control my life*	1. Never 2. Rarely 3. Sometimes 4. Often 5. Always

* Denotes questions for which the response options are reverse coded Source: Consumer Financial Protection Bureau (CFPB) Financial Well-being Scale

Financial Behavior

Questions	Response Options
Short-Term Positive Financial Behavior	
Was your total spending less than its total income in the past 12 months?	1 Yes 0 No
Did you pay its bills on time in the past 12 months?	1 Yes 0 No
Did you consistently pay off your credit card balance each month in the past 12 months?	1 Yes 0 No
Have not overdrawn your checking account in the past 12 months.	1 Yes 0 No
No late mortgage payment in the past 12 months.	1 Yes 0 No
Long-Term Positive Financial Behavior	
Did your household plan ahead financially?	1 Yes 0 No
Are you currently setting aside money for an emergency?	1 Yes 0 No
Did you have a savings account?	1 Yes 0 No
Did you have a retirement account (e.g. 401k, pension plan, IRA)?	1 Yes 0 No
Did you have an investment account?	1 Yes 0 No

Source: The Understanding America Study

Financial Knowledge Questionnaire

Questions	Response Options
We would like to begin with a few general financial questions.	
Suppose you had $100 in a savings account and the interest rate was 2% per year. After 5 years, how much do you think you would have in the account if you left the money to grow: more than $102, exactly $102, less than $102?	1 More than $102 2 Exactly $102 3 Less than $102 4 I don't know
Suppose you had $100 in a savings account and the interest rate was 20% per year and you never withdraw money or interest payments. After 5 years, how much would you have on this account in total?	1 More than $200 2 Exactly $200 3 Less than $200 4 I don't know
Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After 1 year, would you be able to buy more than, exactly the same as, or less than today with the money in this account?	1 More than today 2 Exactly the same as today 3 Less than today 4 I don't know
Assume a friend inherits $10,000 today and his sibling inherits $10,000 but 3 years from now. Who is richer today because of the inheritance?	1 My friend 2 His sibling 3 They are equally rich 4 I don't know
Suppose that in the year 2020, your income has doubled and prices of all goods have doubled too. In 2020, will you be able to buy more, the same or less than today with your income?	1 Buy more than today 2 Buy the same as today 3 Buy less than today 4 I don't know
Which of the following statements describes the main function of the stock market?	

1 The stock market helps to predict stock earnings 2 The stock market results in an increase in the price of stocks 3 The stock market brings people who want to buy stocks together with those who want to sell stocks 4 None of the above 5 I don't know
Which of the following statements is correct?
1 Once one invests in a mutual fund, one cannot withdraw money in the first year 2 Mutual funds can invest in several assets, for example invest in both stocks and bonds 3 Mutual funds pay a guaranteed rate of return which depends on their past performance 4 None of the above 5 I don't know
If the interest rates (rise/fall), what should happen to bond prices? 1 They should rise 2 They should fall 3 They should stay the same 4 I don't know
Do you think the following statement is true? Buying a (single company/stock mutual fund) usually provides a safer return than a (single company/stock mutual fund). 1 True 2 False 3 Don't know
Do you think that the following statement is true or false? (Stocks/Bonds) are normally riskier than (stocks/bonds). 1 True 2 False 3 Don't know
Considering a long period (for example 10 or 20 years), what normally gives the highest return? 1 Savings accounts 2 Bonds 3 Stocks 4 I don't know
Normally, which asset described below displays the highest fluctuations over time: savings accounts, bonds or stocks? 1 Savings accounts 2 Bonds 3 Stocks 4 I don't know
When an investor spreads his or her money among different assets, does the risk of losing a lot of money increase, decrease, or stay the same? 1 Increase 2 Decrease 3 Stay the same 4 I don't know

Is the following statement true? Housing prices in the US can never go down. 1 True 2 False 3 I don't know
Source: The Understanding America Study

The Big Five Factors of Personality

The Big Five Inventory (BFI)	
Here are a number of characteristics that may or may not apply to you. For example, do you agree that you are someone who likes to spend time with others? Please write a number next to each statement to indicate the extent to which you agree or disagree with that statement. 1 Disagree strongly 2 Disagree a little 3 Neither agree nor disagree 4 Agree a little 5 Agree Strongly	
I see Myself as Someone Who...	
1. Is talkative 2. Tends to find fault with others 3. Does a thorough job 4. Is depressed, blue 5. Is original, comes up with new ideas 6. Is reserved 7. Is helpful and unselfish with others 8. Can be somewhat careless 9. Is relaxed, handles stress well 10. Is curious about many different things 11. Is full of energy 12. Starts quarrels with others 13. Is a reliable worker 14. Can be tense 15. Is ingenious, a deep thinker 16. Generates a lot of enthusiasm 17. Has a forgiving nature 18. Tends to be disorganized 19. Worries a lot 20. Has an active imagination 21. Tends to be quiet 22. Is generally trusting	23. Tends to be lazy 24. Is emotionally stable, not easily upset 25. Is inventive 26. Has an assertive personality 27. Can be cold and aloof 28. Perseveres until the task is finished 29. Can be moody 30. Values artistic, aesthetic experiences 31. Is sometimes shy, inhibited 32. Is considerate and kind to almost everyone 33. Does things efficiently 34. Remains calm in tense situations 35. Prefers work that is routine 36. Is outgoing, sociable 37. Is sometimes rude to others 38. Makes plans and follows through with them 39. Gets nervous easily 40. Likes to reflect, play with ideas 41. Has few artistic interests 42. Likes to cooperate with others 43. Is easily distracted 44. Is sophisticated in art, music, or literature

BFI scale scoring ("R" denotes reverse-scored items): Extraversion: 1, 6R, 11, 16, 21R, 26, 31R, 36 Agreeableness: 2R, 7, 12R, 17, 22, 27R, 32, 37R, 42 Conscientiousness: 3, 8R, 13, 18R, 23R, 28, 33, 38, 43R Neuroticism: 4, 9R, 14, 19, 24R, 29, 34R, 39 Openness: 5, 10, 15, 20, 25, 30, 35R, 40, 41R, 44
Source: The Understanding America Study

Appendix B

This appendix B provides the codebook for variables used in chapter 4. It includes the measurement for materialism, financial socialization, and financial capability.

Codebook for Chapter 4

Questions	Response Options
Materialism	
I admire people who own expensive homes, cars and clothes	1 Strongly disagree 2 Disagree 3 Neither agree nor disagree 4 Agree 5 Strongly agree
The things I own say a lot about how well I'm doing in life	1 Strongly disagree 2 Disagree 3 Neither agree nor disagree 4 Agree 5 Strongly agree
I like to own things that impress people	1 Strongly disagree 2 Disagree 3 Neither agree nor disagree 4 Agree 5 Strongly agree
Financial Socialization	

Discussed family financial matters with me	1 Yes 0 No
Spoke to me about the importance of saving	1 Yes 0 No
Discussed how to establish a good credit rating	1 Yes 0 No
Taught me how to be a smart shopper	1 Yes 0 No
Taught me that my actions determine my success in life	1 Yes 0 No
Provided me with a regular allowance	1 Yes 0 No
Provided me with a savings account	1 Yes 0 No
Perceived Financial Capability	
How would you assess your overall financial knowledge?	1 Very low to 7 Very high
Confidence in own ability to achieve financial goals	1 Not at all confident 2 Not very confident 3 Somewhat confident 4 Very confident
I know how to make complex financial decisions	1 Not at all 2 Very little 3 Somewhat 4 Very well 5 Completely
I am able to make good financial decisions that are new to me	1 Not at all 2 Very little 3 Somewhat 4 Very well 5 Completely

Source: The National Financial Well-Being Survey