

**DETERMINANTS OF FINANCIAL STRESS IN INDONESIA:
THE MODERATING ROLE OF DIGITAL KNOWLEDGE**



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INTERNATIONAL UNDERGRADUATE PROGRAM IN MANAGEMENT

FACULTY OF BUSINESS AND ECONOMICS

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THESIS

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I hereby declare that this thesis does not contain any work that has previously been submitted by another person to obtain an academic degree at any higher education institution. To the best of my knowledge, this thesis also does not contain any work or opinions that have been written or published by others, except those that are properly cited in the text and listed in the references. Should this statement be proven incorrect in the future, I am willing to accept any penalties or sanctions in accordance with the applicable regulations.

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DIGITAL KNOWLEDGE**

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PREFACE

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The author realizes that this thesis is far from perfect. The process of completing this research was not without challenges and obstacles. However, with prayers, support, guidance, and assistance from many parties, this thesis has been successfully completed. Therefore, on this occasion, the author would like to express sincere gratitude to:

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Yogyakarta, February 2025

Jihan Aulia Syahida

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ABSTRACT

This study aims to examine the effects of Current Money Management Stress (CMMS), Expected Future Financial Security (EFFS), and Digital Knowledge (DK) on Financial Stress (FS) and Financial Behavior (FB), as well as to test the mediating role of FS and the moderating role of DK within the proposed research model. This research adopts a quantitative approach using survey data collected from respondents in Indonesia and analyzes the data using Partial Least Squares Structural Equation Modeling (PLS-SEM).

The findings indicate that CMMS is the most dominant factor in increasing FS, suggesting that short-term financial management pressure significantly raises individuals' levels of financial stress. EFFS has a negative effect on FS, although its influence is relatively weaker compared to short-term financial pressure. DK does not have a significant effect on FS. In the context of Financial Behavior, CMMS negatively affects FB, while EFFS and DK has positive and significant effects. Interestingly, FS has a positive and significant effect on FB, indicating that under certain conditions, financial stress may encourage individuals to demonstrate more active or controlled financial behavior.

Furthermore, FS partially mediates the relationship between CMMS and FB, but does not mediate the relationship between EFFS and FB. The moderating role of DK in the relationship between FS and FB is not supported. Overall, the results highlight the dominant role of short-term financial pressure in shaping Financial Stress and Financial Behavior, while cognitive factors and future-oriented perceptions function as supporting elements in financial decision-making.

Keywords: Current Money Management Stress, Expected Future Financial Security, Digital Knowledge, Financial Stress, Financial Behavior

CHAPTER I

INTRODUCTION

1.1. Background

Digital transformation has become a major driving force in reshaping the global economic system, including in Indonesia. Digital finance has rapidly reshaped the financial ecosystem by expanding financial inclusion, improving efficiency, and reducing information asymmetry through data-driven technologies (Song *et al.*, 2025; Yao & Yang, 2022). This rapid progress has accelerated the development of digital financial services that are increasingly embedded in individuals' daily lives, fundamentally transforming the way people conduct transactions, save, invest, and manage financial risks (Yadaf *et al.*, 2025; Cai *et al.*, 2025; Hamid *et al.*, 2025).

According to Bank Indonesia's Monetary Policy Report Quarter IV (2024), the value of digital payment transactions reached 34.5 billion transactions. This number is 36% higher than the previous year. This increase was triggered by the increased use of mobile banking and a 175% surge in Quick Response Indonesian Standard (QRIS) usage, confirming that digitalization is now a crucial element in the economic behavior of modern society.

Despite this rapid digital expansion, the growth of the digital economy has not been accompanied by adequate financial readiness among the population. According to the report by the Financial Services Authority (OJK) and the Central Statistics Agency (BPS) (2025), the national financial literacy index is only at 66%, while the financial inclusion index has reached 80%. This disparity indicates that increased access to financial services is not necessarily matched by individuals' ability to understand and manage financial products effectively. Prior empirical studies consistently demonstrate that low financial literacy is associated with poorer financial behaviors, including limited participation in capital markets, suboptimal

investment choices, weak portfolio diversification, and ineffective saving and borrowing decisions (Fong *et al.*, 2021).

The rapid expansion of online lending (*pinjol*) in Indonesia constitutes a tangible manifestation of the imbalance between the widespread availability of digital financial services and individuals' limited capability to manage digital credit responsibly. According to the Indonesian Internet Profile 2025 report published by the Indonesian Internet Service Providers Association (2025), the proportion of online lending users increased from 5% in 2024 to 8% in 2025, with Millennials (45%) and Generation Z (41%) accounting for the majority of users. Although online loans are commonly utilized to address urgent financial needs, support consumption, and finance lifestyle-related expenditures, emerging evidence indicates that a substantial rise in loan default rates has accompanied this rapid growth.

Statistics from the Financial Services Authority (OJK), as reported by Kompas (2025), reveal a pronounced increase in non-performing online loans among borrowers. In the first half of 2025, non-performing online loans among borrowers aged 19 to 34 increased by 54% year-on-year, reaching a total of 438.707 accounts. The high number of non-performing online loans, especially among young people, reflects limited financial capabilities in making responsible credit decisions. This pattern is consistent with the argument proposed by Chen *et al.* (2018), who contend that rapid financial innovation and frictionless access to credit can intensify information asymmetry and behavioral biases when individuals lack sufficient financial capability. Under such conditions, borrowers are more likely to underestimate repayment risks, overestimate their repayment capacity, and engage in suboptimal borrowing decisions.

Limited individual financial capability not only affects online borrowing decisions but also increases vulnerability to a wide range of risks within the digital economic ecosystem. In an increasingly digitalized economic environment, individuals face more complex financial risks,

including financial fraud, cybercrime, and the misuse of personal data. According to reports from the Cyber Directorate of the Jakarta Metropolitan Police reported by Noviansah (2025), a total of 4,272 cybercrime cases were recorded throughout 2025, with online scams constituting the most prevalent category, accounting for 1,951 reported cases. The financial losses associated with online scams amounted to approximately IDR 929 billion, indicating that digital economic risks extend beyond digital credit and pose serious threats to individuals' financial security and stability.

Digital transformation offers substantial opportunities to stimulate economic growth, particularly through increased digital investment and improved efficiency in economic transaction management (Liu & Xian, 2025). However, when expanded access to digital financial services is not accompanied by individuals' capacity to understand and manage digital financial information, the likelihood of suboptimal financial decision-making increases. This condition is further exacerbated by prevailing economic challenges, such as inflationary pressures, economic uncertainty, and rising individual financial burdens. Under such circumstances, limited financial literacy and digital knowledge can intensify daily money management pressures while simultaneously increasing concerns regarding future financial stability. Therefore, financial literacy and digital knowledge have become critical requirements for maintaining individual financial well-being in the digital economy (Bahrudin *et al.*, 2025).

Beyond financial literacy and digital knowledge, financial stress (FS) has emerged as a critical factor influencing individuals' financial well-being. Financial stress should not be understood merely as a consequence of individuals' limitations in managing their finances, but rather as the outcome of interactions between individual characteristics and the broader economic environment. Economic pressures, income instability, rising debt burdens, and the increasing complexity of modern financial systems contribute significantly to heightened financial stress and declining financial well-being (Friedline *et al.*, 2020).

Financial well-being is multidimensional and shaped by two primary components, namely current money management stress (CMMS) and expected future financial stress (EFFS). CMMS reflects short-term financial pressure related to individuals' ability to manage their current financial conditions, including limited resources, difficulty in meeting daily expenses, and pressure to fulfill ongoing financial obligations. In contrast, EFFS captures individuals' perceptions and expectations regarding the security and stability of their future financial conditions, including concerns about income sustainability, exposure to economic risks, and the ability to meet long-term financial commitments (Van Raaij & Riitsalu, 2022).

The interaction between CMMS and EFFS shapes the overall level of financial stress experienced by individuals, which may ultimately undermine financial well-being and influence financial behavior (Friedline *et al.*, 2020; Van Raaij & Riitsalu, 2022). In the context of the digital economy, individuals' ability to effectively utilize financial technologies is highly dependent on their level of digital knowledge. Consequently, limited digital knowledge may intensify both CMMS and EFFS, thereby increasing individuals' vulnerability to financial stress.

In addition, differences in demographic characteristics, particularly gender, have been shown to play a significant role in shaping individuals' financial experiences and behaviors in the digital era. Gender-based disparities in financial capability affect individuals' ability to manage digital financial services effectively. Bahrudin *et al.* (2025) argue that women tend to exhibit relatively lower levels of digital financial literacy and digital financial service management capabilities, resulting in suboptimal utilization of digital financial services. Such conditions increase vulnerability to financial decision-making errors and heighten the risk of financial stress. Consistent with this view, Chen *et al.* (2018) demonstrate that gender-based differences in financial literacy have direct implications for loan decision quality, whereby individuals with lower financial literacy

are more likely to underestimate risks and experience poorer loan performance.

Gender differences are also evident in psychological traits and financial behavior. Women tend to exhibit higher risk perceptions, lower levels of optimism, and more cautious financial decision-making tendencies than men, which in turn influence their responses to financial pressure (Jacobsen *et al.*, 2014; Berlinger *et al.*, 2025). Beyond gender, age also plays a crucial role in the digital economic context. Younger generations display higher levels of financial technology adoption but are more susceptible to impulsive financial decisions and digital risks, whereas older age groups often face constraints in utilizing financial technologies due to differences in experience and digital knowledge (Potrich *et al.*, 2024). These differences suggest that both CMMS and EDFS are not experienced uniformly across demographic groups.

This condition highlights an important issue in the digital financial ecosystem, where the rapid growth of financial access is not always matched by individuals' financial readiness. As a result, many individuals become more vulnerable to financial pressure, make less optimal financial decisions, and experience higher levels of financial stress. This situation shows that it is important to understand not only financial behavior, but also the process through which financial stress develops and affects individuals' financial decisions in the digital era.

Although previous studies have examined financial literacy, financial behavior, and financial stress, most of them focus on these variables separately. There is still limited research that explains how short-term financial pressure and future financial perceptions work together in influencing financial stress and financial behavior, especially in the context of digital financial development. In addition, digital knowledge is mostly studied as a direct factor affecting financial behavior, while its role as a moderating factor under financial stress conditions has not been widely explored.

Therefore, this study aims to fill this gap by examining CMMS and EFFS together as key factors of financial pressure and analyzing how they influence financial stress and financial behavior within one framework. This study also adds to previous research by including digital knowledge not only as a direct factor but also as a moderating variable, along with demographic factors such as gender and age. Through this approach, this study is expected to provide a more complete understanding of financial behavior in the context of increasing financial pressure and digital transformation.

1.2. Problem Formulation

In the digital finance era, individuals are increasingly exposed to financial pressures resulting from the widespread use of digital financial services, changes in consumption patterns, and growing economic uncertainty. These conditions have contributed to rising levels of financial stress, particularly among individuals who are actively involved in personal financial management. However, it remains unclear which factors contribute most significantly to the emergence of financial stress and how this condition subsequently influences individuals' financial behavior. Therefore, further empirical research is needed to explore this phenomenon and to provide a deeper understanding of the mechanisms underlying financial stress and financial behavior in the digital context.

1.3. Research Questions

Based on the problem formulation above, the research questions can be formulated as follows:

1. To what extent does Current Money Management Stress (CMMS) influence Financial Stress (FS)?
2. To what extent does Expected Future Financial Security (EFFS) influence Financial Stress (FS)?
3. How does Financial Stress (FS) affect Financial Behavior (FB)?

4. Does Digital Knowledge (DK) moderate the relationship between Financial Stress (FS) and Financial Behavior (FB)?

1.4. Research Objectives

Based on the research questions above, the objectives of this study are to:

1. Identify the relative contribution of current money management stress (CMMS) in shaping individuals' overall financial stress.
2. Assess how expectations regarding future financial security (EFFS) contribute to the formation of financial stress beyond current financial pressures.
3. Examine the role of financial stress (FS) as a key mechanism linking financial pressures to individuals' financial behavior.
4. Evaluate whether digital knowledge (DK) moderates the impact of financial stress on financial behavior, thereby altering individuals' responses to financial stress in a digital financial environment.

1.5. Research Contributions

The results of this study are expected to contribute as follows:

1. Theoretical Contribution

This study is expected to contribute to the development of literature in the field of behavioral finance by expanding the understanding of the relationship between financial stress, money management, and future financial security in the context of Indonesia's digital economy. In addition, this study also provides empirical evidence regarding the relevance of the CMMS and EFFS concepts in explaining the dynamics of financial behavior in a digital era that is fraught with social and emotional pressures.

2. Practical Contributions

Practically, the results of this study are expected to provide useful insights for:

- a. Financial institutions and digital service providers, such as banks and fintech companies, in designing financial products that are more adaptive to the needs and financial capabilities of the community.
- b. The government and financial regulators such as the OJK and Bank Indonesia, in formulating policies to improve digital financial literacy and inclusion that are more targeted.
- c. Financial education and training institutions, as a basis for developing financial literacy programs that focus on controlling financial stress and consumptive behavior in the digital era.

CHAPTER II

LITERATURE REVIEW

2.1. Theoretical Framework

2.1.1. Conservation of Resources (COR) Theory

The Conservation of Resources (COR) Theory is based on an individual's response when facing psychological pressure experienced when losing, feeling threatened with loss, or failing to obtain resources that are considered important (Hobfoll, 1989). This theory explains how pressure arising from the threat of losing resources or failure to obtain expected resources, motivates humans to act, build, maintain, and protect those resources. In the financial context, resources are not limited to physical assets but also include non-physical assets such as financial knowledge, financial management skills, and a sense of security regarding future economic conditions. When these resources are threatened, for example, due to difficulties in meeting daily needs, debt burdens, expenses exceeding income, or income uncertainty, individuals are more likely to experience psychological pressure that directly affects their financial behavior (Friedline *et al.*, 2020). Therefore, COR theory is relevant for explaining the emergence of financial stress as a consequence of limited or threatened financial resources.

Financial pressure on individuals' resources has become increasingly complex within the rapidly expanding digital economy. The widespread availability of digital credit, intensive engagement with technology-based financial platforms, and social pressures to project financial stability have increased the demands of short-term financial management faced by individuals. These conditions heighten cognitive burden and perceived financial vulnerability, particularly when individuals are required to meet immediate financial obligations with limited financial resources (Van Raaij *et al.*, 2023; Chhillar *et al.*, 2025).

In such circumstances, COR Theory provides a useful framework for explaining how individuals respond to financial pressure through resource-protection strategies, which may take the form of cautious financial behavior, impulsive decision-making, or avoidance of certain financial activities when individuals perceive a loss of control over their financial situation.

Bahrudin *et al.* (2025) apply COR Theory to explain financial stress as a multidimensional phenomenon consisting of two main components: Current Money Management Stress (CMMS) and Expected Future Financial Security (EFFS). CMMS represents stress arising from difficulties in managing short-term finances, while EFFS reflects individuals' perceptions of the security of their future financial condition. The loss or depletion of financial resources, whether in the short-term or in the form of future uncertainty, can trigger financial stress, which subsequently influences individuals' financial decision-making patterns.

Within the COR Theory framework, financial stress is understood as a psychological condition that arises when individuals perceive their financial resources to be insufficient or their ability to control their financial situation to be threatened, either in the present or in the future. Empirical evidence supports this view, as Simonse *et al.* (2024) conceptualize financial stress as emerging when financial demands exceed perceived available resources, accompanied by perceptions of insufficient resources and a lack of financial control. These perceptions lead to affective and cognitive responses, including financial worry, rumination, and a heightened focus on short-term concerns, which constrain individuals' capacity for planning and self-regulation. As a result, and consistent with COR Theory, such resource depletion processes may lead individuals to engage in more impulsive, defensive, or less planned financial behaviors when financial stability is perceived to be at risk.

Therefore, in this study, COR Theory is employed as the theoretical foundation to explain how short-term financial management pressure and perceptions of future financial security contribute to the emergence of financial stress, which subsequently influences individuals' financial behavior. Within this framework, financial stress is viewed as a consequence of limited or threatened financial resources, whether experienced in the present or anticipated in the future. Such pressure not only increases psychological strain but also constrains individuals' cognitive capacity for planning and self-regulation in financial decision-making. As a result, COR Theory provides a useful lens for understanding the link between financial stress, underlying psychological processes, and the financial behaviors that individuals adopt in response to perceived resource constraints.

2.1.2. Theory of Planned Behavior (TPB)

The Theory of Planned Behavior (TPB) proposed by Ajzen (1991) explains that individual behavior is the result of intention, which is formed through a cognitive process. This intention is influenced by three main factors: attitude toward the behavior, perceived behavioral control, and subjective norm. TPB emphasizes that individuals do not act impulsively; rather, they consider potential consequences, risks, and their own capabilities before engaging in a particular behavior. Therefore, this theory is widely applied to understand behaviors that involve complex decision-making processes, including those related to financial matters.

The attitude component within TPB plays a crucial role in explaining how financial conditions and levels of financial stress influence individual financial behavior. Attitude reflects an individual's evaluation of a behavior, whether it is perceived as beneficial or detrimental (Ajzen, 1991). In the financial context, a positive attitude toward financial management has been shown to encourage more planned

and disciplined behaviors, such as budgeting and long-term financial planning (Tan *et al.*, 2024).

However, when individuals experience high financial pressure such as difficulties in managing daily finances or uncertainty regarding future economic conditions, their evaluation of financial behaviors may become more negative. Chhillar *et al.* (2025) demonstrate that financial stress in the digital financial context increases cognitive burden and anxiety, while simultaneously reducing individuals' ability to regulate their financial behavior. These conditions weaken evaluative processes and self-control in financial decision-making, which conceptually may shape individuals' attitudes toward long-term financial planning.

In addition to attitude, perceived behavioral control refers to the extent to which individuals perceive that they have the ability and control to perform a particular behavior. In the context of digital finance, perceived behavioral control is closely associated with individuals' levels of knowledge, skills, and confidence in using technology-based financial services. Usman *et al.* (2025) show that individuals with higher perceived behavioral control such as greater technological understanding and perceived ease of use of digital systems are more likely to adopt digital financial services and manage their finances more effectively. Accordingly, perceived behavioral control strengthens the link between individuals' psychological conditions and the financial behaviors they exhibit, particularly within a complex digital environment.

Beyond attitude and perceived behavioral control, the Theory of Planned Behavior (TPB) also incorporates subjective norms, which refers to individuals' perceptions of social pressure or expectations from significant others regarding whether a particular behavior should be performed (Ajzen, 1991). Nevertheless, several studies indicate that the role of subjective norm in explaining financial behavior tends to be weaker than that of attitude and perceived behavioral control, especially in financial decisions that are personal and individual in nature (Tan *et al.*,

2024; Usman *et al.*, 2025). Despite this, the subjective norm remains conceptually relevant, as social and environmental influences may still shape the initial framework through which individuals evaluate and respond to financial behaviors, particularly in increasingly interconnected social and digital contexts.

Theory of Planned Behavior complements Conservation of Resources Theory by providing a framework for understanding the psychological mechanisms that link financial stress and financial behavior, particularly through the formation of individual attitudes and perceived behavioral control in financial decision-making.

2.1.3. Financial Stress and Financial Behavior

Financial stress is understood as a psychological condition that arises when individuals perceive their financial resources as insufficient to meet current and future economic demands. Friedline *et al.* (2021) explain that financial stress encompasses not only objective constraints, such as income instability or debt burdens, but also subjective perceptions of financial insecurity and uncertainty. These findings underscore that financial stress represents a cognitive and emotional response to perceived threats to financial resources. Accordingly, financial stress cannot be understood merely as an objective economic condition, but rather as a psychological experience that is strongly shaped by individuals' evaluations of their financial situations.

Recent literature indicates that financial stress is multidimensional in nature, reflecting both short-term and long-term financial pressures. Van Raaij and Riitsalu (2023) distinguish between stress associated with difficulties in day-to-day financial management and stress stemming from concerns about future financial security. This distinction suggests that financial pressure may arise both from immediate financial problems and from anxiety regarding the sustainability of one's financial condition over time. Therefore, financial stress should be viewed

not as a single, uniform experience, but as a set of interrelated sources of pressure. A multidimensional perspective provides a clearer understanding of how financial stress influences individuals' behavior in everyday life.

Financial stress has significant implications for individuals' cognitive capacity in financial decision-making. Hughes *et al.* (2024) demonstrate that financial stress, whether acute or chronic, can reduce inhibitory control, defined as individuals' ability to suppress impulses and regulate automatic responses. This reduction in self-control constrains individuals' capacity to process information and evaluate alternatives in a rational manner. As a result, individuals experiencing financial stress are more likely to make less planned decisions and to be guided by emotional pressure. These findings indicate that financial stress operates through cognitive mechanisms, rather than solely through economic conditions.

Prolonged financial pressure tends to shift individuals' financial behavior away from long-term goals toward short-term needs. An *et al.* (2024) find that financial stress increases the likelihood of behaviors such as overspending and overindebtedness as attempts to obtain immediate financial relief. This shift in temporal orientation reflects a short-term adaptive response to financial pressure. However, such behaviors may further deteriorate individuals' financial conditions in the long-run. Consequently, financial stress serves as an important mechanism linking financial circumstances to unsustainable changes in financial behavior.

In the context of increasingly digitalized financial systems, financial stress is shaped not only by resource constraints but also by growing system complexity. Research suggests that ease of access, rapid transaction processes, and excessive exposure to financial information in digital financial services can intensify perceived financial pressure (Hughes *et al.*, 2024; An *et al.*, 2024). Digital environments may increase cognitive load and heighten the risk of impulsive decision-making. This condition indicates that financial stress should be analyzed with careful

consideration of the digital context in which financial decisions are made. Accordingly, financial stress in the digital era is more dynamic and complex than in traditional financial settings.

From the perspective of Conservation of Resources Theory, financial stress reflects a state of resource threat or loss that motivates individuals to engage in defensive coping strategies. Nguyen and Duong (2024) show that financial stress, at both individual and macro levels, encourages economic actors to seek alternative means of preserving remaining resources, including shifts toward informal sectors or non-conventional economic behaviors. These findings suggest that responses to financial stress represent adaptive efforts to mitigate resource loss. At the individual level, such coping strategies may be manifested in financial behaviors that are not always optimal. Thus, financial stress functions as a key trigger of behavioral change aimed at maintaining financial stability.

The Theory of Planned Behaviour provides an additional psychological framework for understanding how financial stress influences individual financial behavior. High levels of financial stress may shape less favorable attitudes toward long-term financial planning and reduce perceived behavioural control, defined as individuals' perceptions of their ability to manage financial decisions (Yadav *et al.*, 2025; Hughes *et al.*, 2024). A diminished sense of control weakens individuals' intentions to engage in planned and sustainable financial behavior. Therefore, financial stress affects not only cognitive capacity but also individuals' motivation and confidence in acting effectively. Integrating TPB helps clarify the psychological pathways through which financial pressure influences the quality of financial behavior.

2.1.4. Short-Term and Long-Term Financial Resource Pressure

Individual financial pressure can be understood as a condition that arises from an imbalance between financial demands and the availability of resources, both in the short-term and the long-term. Van

Raaij *et al.* (2023) explain that short-term pressure is associated with individuals' ability to manage daily financial needs, whereas long-term pressure is associated with perceptions of future financial security. This distinction indicates that financial pressure may change over time, depending on individuals' current financial conditions and their expectations regarding the future. Accordingly, financial pressure should be understood as a dynamic experience that encompasses present financial challenges as well as concerns about the sustainability of future financial conditions.

Short-term and long-term financial pressures do not operate independently, but rather interact to shape individuals' overall financial experiences. Netemeyer *et al.* (2018) demonstrate that difficulties in current financial management (Current Money Management Stress) and perceptions of future financial security (Expected Future Financial Security) represent two distinct dimensions that simultaneously influence individuals' psychological conditions. When individuals face daily financial difficulties while also feeling uncertain about their future financial situation, the pressure they experience tends to become more severe and persistent. Therefore, financial stress can be understood as pressure that arises from the combined and ongoing presence of multiple financial problems.

Within the financial literature, financial pressure is often conceptualized through two main components, namely Current Money Management Stress (CMMS) and Expected Future Financial Security (EFFS). Netemeyer *et al.* (2018) explain that CMMS reflects stress arising from difficulties in managing day-to-day finances, whereas EFFS reflects individuals' confidence or concerns regarding the sustainability of their future financial conditions. CMMS captures the pressure individuals experience in meeting their current financial needs, while EFFS represents the degree of financial security or anxiety they perceive about the future. Accordingly, financial stress can be understood as the result of present

financial pressure that is intensified by uncertainty about future financial outcomes.

Sustained financial stress can affect individuals' psychological conditions as well as their cognitive capacity in financial decision-making. De Bruijn and Antonides (2020) find that financial stress triggers financial worry and rumination, which are defined as repetitive thought patterns focused on financial threats or risk. This finding suggests that financial stress tends to direct individuals toward anxiety-oriented cognitive processes, thereby depleting cognitive resources that should otherwise be allocated to rational evaluation. As a result, financial stress not only generates emotional strain but also reduces individuals' ability to make prudent and effective financial decisions. Thus, financial stress does not merely affect individuals' economic conditions but also shapes their patterns of thinking, causing them to remain trapped in persistent financial worry and recurrent negative financial thoughts.

Financial pressure has a direct impact on changes in individuals' financial behavior. An *et al.* (2024) and Ponchio *et al.* (2018) show that short-term financial pressure tends to encourage reactive behaviors, such as impulsive spending and increased indebtedness, whereas pressure related to long-term financial insecurity may promote defensive behaviors or avoidance of long-term financial planning. Fan and Henager (2022) further find that financial stress functions as a mediating mechanism linking financial pressure to declines in the quality of financial behavior. These findings indicate that financial pressure affects not only the intensity of behavior but also its direction and sustainability. Consequently, financial pressure represents an important factor in explaining why individuals frequently engage in suboptimal financial decision-making.

Individuals' responses to financial pressure are shaped not only by objective conditions but also by perceptions and beliefs regarding their financial capabilities. Lind *et al.* (2020) demonstrate that subjective

financial knowledge and confidence in managing finances play an important role in mitigating the negative effects of financial pressure on well-being. Individuals who perceive themselves as more financially competent tend to experience lower psychological pressure even when facing challenging financial circumstances. This finding suggests that financial pressure is perceived and processed differently across individuals. Therefore, psychological factors serve as important buffers in the relationship between financial pressure and financial stress.

In the context of an increasingly digitalized financial environment, financial pressure is driven not only by resource constraints but also by the growing complexity of financial systems. Research indicates that ease of access, rapid transaction processes, and excessive exposure to information in digital financial services can intensify individuals' perceived financial pressure (An *et al.*, 2024; Chhillar *et al.*, 2025). Such conditions increase cognitive load and heighten the risk of impulsive decision-making, particularly when individuals are experiencing short-term financial pressure. Accordingly, financial pressure in the digital era is more dynamic and demands greater adaptive capacity compared to traditional financial contexts.

2.1.5. Financial Literacy to Digital Knowledge

Financial literacy has long been regarded as a fundamental foundation of individual financial decision-making. Previous studies indicate that individuals with higher levels of financial literacy tend to make more rational financial decisions, including in debt management, investment, and long-term financial planning (Fong *et al.*, 2021; Panos & Wilson, 2020). These findings underscore the importance of understanding basic financial concepts in improving the quality of financial decisions. In this context, financial literacy functions as a form of cognitive capital that enables individuals to assess the financial consequences of the choices they make. However, developments in

modern financial systems suggest that traditional financial literacy alone is no longer sufficient to cope with the growing complexity of technology-based financial services.

Along with the rapid digitalization of financial services, the concept of financial literacy has expanded into digital financial literacy. Prior studies explain that digital financial literacy integrates financial knowledge with the ability to use digital technologies, thereby enabling individuals to access, evaluate, and utilize digital financial services effectively and safely (Tiwari *et al.*, 2020; Bhat *et al.*, 2025). This transformation reflects new demands in financial management, as financial decisions are increasingly conducted through digital platforms. Consequently, digital financial literacy not only emphasizes an understanding of financial concepts but also individuals' preparedness to face the risks and dynamics inherent in digital environments. This positions digital financial literacy as a key competency in maintaining the quality of financial decision-making in the digital era.

Empirical literature further demonstrates that digital financial literacy is significantly associated with various positive financial outcomes, including healthier financial behavior and improved financial well-being. Yadav *et al.* (2025) and Bhat *et al.* (2025) reveal that individuals with higher levels of digital financial literacy tend to exhibit stronger self-control and more planned financial behavior, which ultimately contributes positively to their financial well-being. These findings indicate that digital financial literacy operates as a mechanism that enables individuals to manage financial pressure and demands more adaptively. Accordingly, digital financial literacy may be viewed as a protective factor that strengthens individuals' capacity to cope with financial uncertainty.

Within the framework of digital financial literacy, digital knowledge represents a core dimension that plays a crucial role in financial decision-making. Digital knowledge refers to individuals' ability

to understand, evaluate, and use digital financial services, including awareness of their features, risks, and implications (Yadav *et al.*, 2025). This form of knowledge extends beyond technical proficiency and encompasses cognitive capabilities to critically process digital financial information. As such, digital knowledge can be understood as a non-financial resource that assists individuals in navigating the complexity of digital financial systems and reduces reliance on impulsive decision-making.

Digital knowledge also plays an important role in shaping individuals' responses to financial pressure and financial stress. Evidence suggests that individuals with higher levels of digital knowledge have broader access to financial information, a wider range of financial product options, and a greater ability to compare alternatives prior to making financial decisions (Bhat *et al.*, 2025; Wu *et al.*, 2026). These conditions enable individuals to maintain more deliberate and planned financial behavior even under conditions of financial pressure. In contrast, limited digital knowledge may restrict available choices and increase the likelihood of reactive or unplanned financial decisions.

From the perspective of Conservation of Resources Theory, digital knowledge can be conceptualized as a personal resource that protects individuals from the loss of financial resources. This theory posits that individuals strive to retain and accumulate resources to minimize stress, while resource loss intensifies psychological strain (Van Raaij *et al.*, 2023). In the context of digital finance, digital knowledge enhances individuals' perceived control over financial decision-making, thereby mitigating the negative effects of financial stress. Accordingly, digital knowledge strengthens individuals' ability to manage financial pressure and sustain the quality of financial behavior within complex and uncertain digital environments.

As a complementary theoretical perspective, the Theory of Planned Behaviour (TPB) provides an additional framework for

explaining how digital knowledge influences financial behavior through the formation of behavioral intentions. In digital financial contexts, Yadav *et al.* (2025) demonstrate that digital financial literacy fosters positive attitudes toward the use of digital financial services, enhances individuals' confidence in their ability to manage financial technologies, and encourages intentions to engage in planned financial behavior. These findings highlight that digital knowledge and skills are not merely passive forms of information but actively shape financial intentions and behaviors. Thus, TPB offers a relevant framework for understanding how digital knowledge is translated into concrete financial actions.

Within the TPB framework, digital knowledge is closely related to perceived behavioural control, which reflects individuals' perceptions of their ability to perform a given behavior. Yadav *et al.* (2025) argue that individuals with higher levels of digital financial literacy feel more capable of using digital platforms for saving and investing, thereby exhibiting greater confidence in managing long-term financial decisions. This condition suggests that digital knowledge enhances individuals' sense of control over financial decision-making processes. Increased perceived behavioural control enables individuals to act more rationally and systematically, even when facing financial pressure or uncertainty.

TPB further emphasizes that behavioral intention is a direct predictor of actual behavior. Yadav *et al.* (2025) find that digital financial literacy encourages individuals to form stronger intentions to engage in digital financial behaviors, such as saving and investing consistently through digital platforms, which ultimately supports long-term financial goals. This finding indicates that digital knowledge not only influences immediate decisions but also shapes sustained behavioral orientations. In this study, intentions formed through digital knowledge serve as a key mechanism linking financial pressure to individuals' ability to maintain stable financial behavior.

When integrated with the Conservation of Resources Theory, TPB reinforces the explanation of how digital knowledge functions as both a psychological and cognitive resource. Yadav *et al.* (2025) show that the ability to manage digital financial services enhances behavioral control and self-confidence, which in turn supports adaptive financial behavior over the long-term. The integration of TPB and COR Theory suggests that digital knowledge not only prevents financial resource loss but also shapes intentions and behaviors oriented toward resource protection and accumulation. Therefore, digital knowledge can be regarded as a critical factor in explaining how individuals respond to financial pressure more deliberately and sustainably.

2.2. Previous Research

Previous studies indicate that financial stress cannot be understood as an isolated phenomenon, but rather as the result of interactions between individuals' financial conditions, psychological perceptions, and the broader context in which financial decisions are made. Bahrudin *et al.* (2025) argues that financial stress arises from two main sources: short-term financial management pressure and expectations regarding future financial well-being. These two sources jointly shape a sustained experience of financial stress, which ultimately influences how individuals manage and utilize their financial resources. In this sense, financial stress functions as a mechanism that links objective financial conditions to observable financial behavior.

These findings are reinforced by Chhillar (2025), who demonstrates that financial stress directly affects individuals' psychological processes, particularly emotional regulation and cognitive functioning. When individuals experience financial pressure, their capacity to evaluate risks and benefits in financial decision-making tends to decline, leading to decisions that are more impulsive or defensive in nature. This helps explain why individuals with high levels of financial stress often exhibit less

structured financial behavior, such as impulsive spending or delayed financial obligations. Accordingly, the literature suggests that financial stress systematically undermines the quality of financial behavior rather than merely reflecting a temporary emotional response.

In the digital era, the relationship between financial stress and financial behavior becomes more complex due to the influence of technological and social dynamics. Easy access to digital financial services and continuous exposure to social media have reshaped social norms related to lifestyle and financial success. Dinh and Lee (2023) and Mason *et al.* (2022) show that digital social pressures, such as fear of missing out (FOMO) and materialism, intensify psychological pressure in financial decision-making. These pressures not only exacerbate financial stress but also encourage consumptive and short-term oriented behavior. Thus, the digital environment acts as an external factor that amplifies the relationship between financial stress and financial behavior.

However, prior research also suggests that individuals do not respond to financial stress uniformly. Digital knowledge has emerged as a critical factor influencing how individuals cope with and manage financial pressure. Sajid *et al.* (2025) and Yadav *et al.* (2025) find that individuals with higher levels of digital knowledge are better able to access financial information, compare decision alternatives, and utilize technology to manage financial challenges. These capabilities enable individuals to maintain more rational financial behavior even under stressful conditions. Therefore, digital knowledge can be understood as a factor that modifies the relationship between financial stress and financial behavior, rather than merely serving as a direct predictor of financial outcomes.

Beyond cognitive and technological factors, previous studies also highlight the role of demographic characteristics in shaping individuals' responses to financial stress. Age and gender influence how individuals perceive financial risk, uncertainty, and financial management strategies. Prior research indicates that differences in life experience, optimism, and

risk tolerance lead to variations in financial behavior across age and gender groups (Basar *et al.*, 2025; Jacobsen *et al.*, 2014; Liu *et al.*, 2025). These findings suggest that the relationship between financial stress and financial behavior is context-dependent and should be examined by considering individual heterogeneity.

Overall, prior research demonstrates that financial stress results from both short-term and long-term financial pressures is intensified by the digital environment, and is shaped by individuals' capabilities and demographic characteristics. Nevertheless, much of the existing literature examines these factors in isolation. Consequently, there is a need for an integrative approach that simultaneously considers financial pressure, psychological mechanisms, digital knowledge, and demographic characteristics to provide a more comprehensive understanding of financial behavior dynamics.

2.3. Hypothesis Development

Individual financial management is influenced by the interaction between short-term financial pressures and long-term financial expectations. Previous studies indicate that difficulties in managing daily finances, such as imbalances between income and expenditure, constitute a primary source of financial stress (Bahrudin *et al.*, 2025; Chhillar *et al.*, 2025). Persistent financial pressure increases individuals' psychological burden and intensifies perceptions of financial uncertainty. Under such conditions, individuals tend to experience heightened anxiety regarding their ability to meet financial obligations. Therefore, greater pressure in current money management is expected to increase financial stress.

H1: Current Money Management Stress (CMMS) has a positive effect on Financial Stress (FS).

Conversely, individuals' perceptions of future financial security serve as a psychological factor that may reduce financial stress. Prior research suggests that individuals with positive expectations about long-

term financial stability tend to experience lower levels of financial stress (Chhillar *et al.*, 2025). Such perceptions provide a sense of control and confidence that financial conditions can be managed sustainably. As a result, individuals are less likely to focus solely on present financial difficulties and are better able to view their financial situation optimistically. Accordingly, expected future financial security is anticipated to reduce financial stress.

H2: Expected Future Financial Security (EFFS) has a negative effect on Financial Stress (FS).

In the digital economy, digital knowledge has become an important factor shaping individuals' financial experiences. Empirical evidence indicates that individuals with higher levels of digital knowledge have broader access to financial information and are more capable of utilizing digital financial services effectively (Sajid *et al.*, 2024; Yadav *et al.*, 2025). These capabilities reduce uncertainty and enhance efficiency in financial decision-making. With adequate digital understanding, individuals tend to feel more confident when facing financial challenges. Therefore, digital knowledge is expected to play a role in reducing financial stress.

H3: Digital Knowledge (DK) has a negative effect on Financial Stress (FS).

Financial stress has direct implications for individual financial behavior. Existing literature suggests that high levels of financial stress weaken self-control and impair rational decision-making processes (Bahrudin *et al.*, 2023). Under stressful conditions, individuals tend to prioritize short-term gratification over long-term financial planning. This tendency is reflected in behaviors such as impulsive spending, delayed bill payments, and weak budgeting discipline. Accordingly, higher financial stress is expected to negatively affect financial behavior.

H4: Financial Stress (FS) has a negative effect on Financial Behavior (FB).

In addition to its indirect effect through financial stress, current money management pressure may also directly influence financial behavior. Prior studies show that short-term financial pressure often compels

individuals to sacrifice long-term planning in order to satisfy immediate needs (Basar *et al.*, 2025). Continuous pressure makes it difficult for individuals to maintain consistency in managing their finances. This condition may lead to maladaptive and unsustainable financial behaviors. Therefore, current money management stress is expected to have a negative effect on financial behavior.

H5: Current Money Management Stress (CMMS) has a negative effect on Financial Behavior (FB).

In contrast, expectations of future financial security may encourage more adaptive financial behavior. Previous studies indicate that individuals with a long-term financial orientation tend to be more disciplined in saving, budgeting, and making rational financial decisions (Chhillar *et al.*, 2025). Positive perceptions of future financial conditions motivate individuals to maintain financial stability in the present. Such individuals are more capable of delaying consumption and focusing on long-term financial goals. Accordingly, expected future financial security is expected to positively influence financial behavior.

H6: Expected Future Financial Security (EFFF) has a positive effect on Financial Behavior (FB).

Beyond its influence on financial stress, digital knowledge is also expected to have a direct impact on financial behavior. Research suggests that individuals with strong digital literacy are better able to utilize technology for financial planning, monitoring expenditures, and making information-based financial decisions (Sajid *et al.*, 2024; Yadav *et al.*, 2025). These capabilities foster more structured and rational financial management practices. Individuals with higher levels of digital knowledge also tend to be more adaptive to changing financial conditions. Therefore, digital knowledge is expected to positively contribute to financial behavior.

H7: Digital Knowledge (DK) has a positive effect on Financial Behavior (FB).

Furthermore, financial stress may function as a psychological mechanism that mediates the relationship between financial conditions and financial behavior. Previous research indicates that financial pressure increases stress, which subsequently affects individuals' financial decision-making processes (Bahrudin *et al.*, 2023). In this context, current money management stress increases financial stress, which in turn reduces the quality of financial behavior. Conversely, expected future financial security may reduce financial stress and promote more adaptive financial behavior. Thus, financial stress is expected to serve as a mediating variable.

H8: Financial Stress (FS) mediates the relationship between Current Money Management Stress (CMMS) and Financial Behavior (FB).

H9: Financial Stress (FS) mediates the relationship between Expected Future Financial Security (EFFS) and Financial Behavior (FB).

Finally, digital knowledge is expected to moderate the relationship between financial stress and financial behavior. Prior studies indicate that individuals with higher digital capabilities are better able to seek financial solutions, compare alternatives, and efficiently utilize digital financial services (Yadav *et al.*, 2025). These abilities enable individuals to maintain relatively rational financial behavior even under conditions of financial stress. Consequently, the negative impact of financial stress on financial behavior may be weaker among individuals with higher levels of digital knowledge. Therefore, digital knowledge is expected to moderate the relationship between financial stress and financial behavior.

H10: Digital Knowledge (DK) moderates the relationship between Financial Stress (FS) and Financial Behavior (FB).

2.4. Research Framework

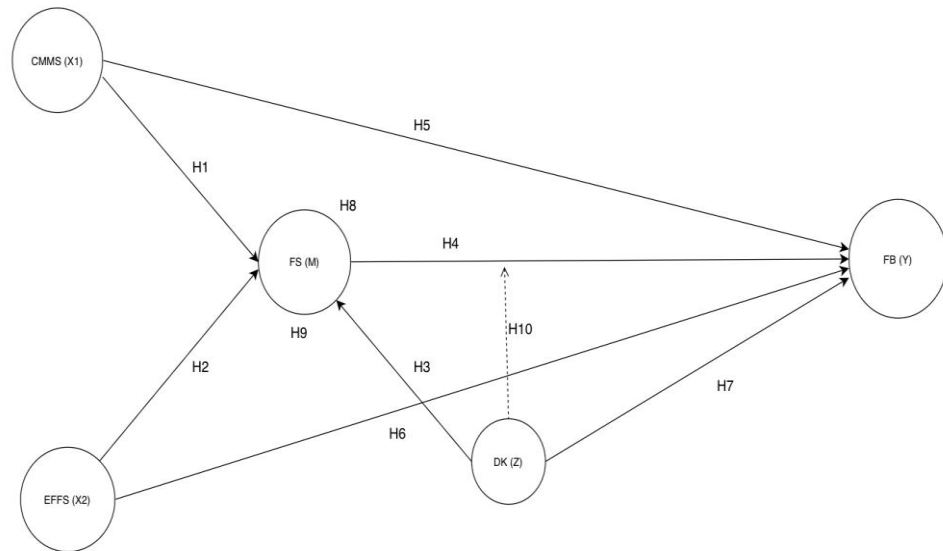


Figure 2.1 Research Framework

CHAPTER III METHODOLOGY

3.1. Research Design

This study adopts a quantitative research approach by utilizing primary data collected through a survey method. A quantitative approach is selected because the objective of this study is to empirically test the

relationships among variables. Through this approach, the relationships between financial pressure, financial stress, and financial behavior can be analyzed in an objective and measurable manner. This study is classified as explanatory research that aims to explain causal relationships among variables within a research model. This research design is appropriate since the study focuses on testing the relationships among variables that have been formulated based on established theoretical frameworks and prior empirical findings.

Data collection in this study was conducted using an online questionnaire as the primary research instrument. The questionnaire was distributed via Google Forms to reach respondents more widely and efficiently across various regions in Indonesia. The use of an online questionnaire also allows respondents to complete the survey flexibly according to their own time and circumstances. The data collection process was carried out over a two-month period, from November to December 2025.

All questionnaire items were measured using a seven-point Likert scale, ranging from 1 (strongly disagree) to 7 (strongly agree). This scale was chosen because it is able to capture variations in respondents' attitudes and perceptions more precisely compared to scales with fewer response categories. In addition, the seven-point Likert scale is considered more sensitive in reflecting the intensity of respondents' responses to the statements presented. To enhance clarity in interpreting respondents' answers, this study adopts a seven-point Likert scale description adapted from the agreement scale framework proposed by Saunders *et al.* (2019), as can be seen in Table 3.1.

Table 3.1 Description of Likert scales

Scale	Description
1	Strongly Disagree

2	Disagree/Moderately Disagree/Mostly Disagree
3	Slightly Disagree
4	Neither Agree Nor Disagree/Not Sure/Uncertain
5	Slightly Agree
6	Agree/Moderately Agree/Mostly Agree
7	Strongly Agree

3.2. Population and Sample

The population of this study consists of individuals in Indonesia who are actively involved in personal financial decision-making and have experience using digital financial services. This population is relevant to the research objective, which is to examine financial stress and financial behavior within a rapidly digitalizing financial environment. To ensure the suitability of respondents, the population is limited to individuals aged 18 years and above, as this age group is generally assumed to have sufficient responsibility and autonomy in managing personal finances.

This study employs a purposive sampling technique, a non-probability sampling method that selects respondents based on specific criteria aligned with the research objectives. Respondents were included in the sample if they met the following criteria: (1) being at least 18 years old, (2) directly involved in managing or making personal financial decisions, and (3) having prior experience with digital financial services. The use of purposive sampling is appropriate given the absence of a comprehensive sampling frame and the need to ensure that participants possess adequate exposure to the financial conditions examined in this study. Although this technique may limit the generalizability of the findings, it is considered suitable for addressing the research objectives.

The determination of sample size follows the guidelines associated with Partial Least Squares–Structural Equation Modeling (PLS-SEM). PLS-SEM is widely recognized as an appropriate analytical technique for studies

involving complex models and explanatory objectives, even when the available sample size is relatively modest (Hair *et al.*, 2022). One commonly accepted guideline in PLS-SEM is the 10-times rule, which suggests that the minimum sample size should be ten times the largest number of structural paths directed at any single construct within the model. In the present study, the construct financial behavior receives a maximum of five structural paths, resulting in a minimum sample requirement of 50 respondents. To enhance the stability and reliability of the statistical estimates, this study employs a total of 100 respondents, which exceeds the minimum threshold recommended for PLS-SEM analysis.

3.3. Definition and Measurement of Research

This section outlines the operational definitions and measurement of the research variables employed in this study. Each variable is defined based on established theoretical and empirical literature and operationalized using questionnaire instruments adapted from Bahrudin *et al.* (2025). The measurement items are assessed using a seven-point Likert scale, as described in the research design section, to ensure consistency and comparability across variables.

3.3.1. Independent Variable

3.3.1.1. Current Money Management Stress (CMMS)

Current Money Management Stress (CMMS) refers to the level of pressure or stress experienced by individuals in managing their current financial condition, particularly in relation to their ability to meet routine needs and short-term financial obligations. CMMS reflects psychological pressure arising from limited cash flow, difficulties in controlling expenditures, and concerns about the ability to pay bills and cope with unexpected expenses. Accordingly, CMMS focuses on the temporal component of financial well-being that is directly associated with individuals' present financial circumstances. Individuals with high

levels of CMMS tend to experience feelings of being overwhelmed, anxious, and financially insecure in their daily lives. Such conditions may impair the quality of financial decision-making and increase individuals' vulnerability to overall financial stress (Bahrudin *et al.*, 2025). Table 3.2 below describes the measurement indicators for CMMS:

Table 3.2 Measurement Indicators of CMMS

Construct	Code	Measurement
Current Money Management Stress	CMMS1	I find it difficult to manage my monthly expenses.
	CMMS2	I struggle with keeping track of my financial obligations.
	CMMS3	I frequently run out of money before my next paycheck.
	CMMS4	I rely on credit or loans to cover daily expenses.
	CMMS5	I feel stressed about meeting my financial commitments.

3.3.1.2. Expected Future Financial Security (EFFS)

Expected Future Financial Security (EFFS) refers to individuals' perceptions and beliefs regarding the security of their financial condition in the future. This variable reflects the extent to which individuals feel optimistic and confident about their ability to maintain long-term financial stability, including their capacity to cope with future needs, economic uncertainty, and long-term financial commitments. FFS emphasizes the prospective dimension of financial well-being, which is oriented toward individuals' expectations and outlook for the future. Individuals with high levels of EFFS generally hold more positive views of their future financial condition, feel secure regarding income continuity, and express confidence in their ability to

plan and manage long-term finances effectively (Bahrudin *et al.*, 2025).

The measurement indicators of EFFT can be seen in Table 3.3 below:

Table 3.3 Measurement Indicators of EFFT

Construct	Code	Measurement
Expected Future Financial Security	EFFS1	I am confident that my financial future is secure.
	EFFS2	I believe I will have enough financial resources for retirement.
	EFFS3	I feel prepared to handle future financial challenges.
	EFFS4	I actively plan for long-term financial security.
	EFFS5	I am optimistic about my ability to achieve financial independence.

3.3.2. Dependent Variable

3.3.2.1. Financial Behavior

Financial behavior (FB) is discussed as the observable actions and practices through which individuals manage their personal finances in everyday life. Financial behavior is not treated as a stand-alone construct in the empirical model; instead, it is explained as a behavioral outcome that reflects individuals' psychological financial condition, particularly their perceived financial well-being and level of financial stress. Financial behaviors are closely shaped by how secure, stable, and in control they feel about their financial situation. When individuals perceive their financial condition as unstable or experience heightened financial stress, their financial behavior tends to become more reactive, less structured, and driven by short-term concerns. Such behaviors may include difficulty in planning expenses, reduced ability to manage financial commitments effectively, and increased sensitivity to

unexpected financial demands (Chhillar *et al.*, 2025). Table 3.4 below shows the measurement indicators of financial behavior:

Table 3.4 Measurement Indicators of Financial Behavior

Construct	Code	Measurement
Financial Behavior	FB1	I plan and track my expenses regularly.
	FB2	I prioritize saving and investing over unnecessary spending.
	FB3	I seek financial information before making major financial decisions.

3.3.3. Mediating Variable

3.3.3.1. Financial Stress

Financial stress (FS) refers to a psychological condition that arises when individuals perceive a loss of control over their finances, experience persistent concerns about meeting financial obligations, or feel uncertain about their financial stability. Individuals with high levels of financial stress tend to feel overwhelmed by financial responsibilities, anxious about their future financial situation, and worried about coping with unexpected expenses, which may ultimately reduce their overall level of well-being (Chhillar *et al.*, 2025). The measurement indicators of financial stress can be seen in Table 3.5 below:

Table 3.5 Measurement Indicators of Financial Stress

Construct	Code	Measurement
Financial Stress	FS1	I often feel overwhelmed by my financial obligations.

	FS2	I feel anxious when thinking about my financial future.
	FS3	I frequently worry about running out of money.
	FS4	My financial situation negatively affects my well-being.
	FS5	I experience stress due to unexpected financial expenses.

3.3.4. Moderating Variable

3.3.4.1. Digital Knowledge

Digital Knowledge (DK) refers to digital financial knowledge, namely the level of individuals' understanding and ability to use digital-based financial services effectively, safely, and responsibly. Based on Bahrudin *et al.* (2025), digital knowledge reflects individuals' capability to operate digital financial services, understand the risks inherent in digital transactions, and evaluate and compare various available digital financial products and services. Digital knowledge is not limited to technical proficiency in using digital financial applications; it also encompasses conceptual understanding related to data security, potential online fraud, and the financial consequences of decisions made within the digital financial environment. Table 3.6 below shows the measurement indicators of digital knowledge:

Table 3.6 Measurement Indicators of Digital Knowledge

Construct	Code	Measurement
Digital Knowledge	DK1	I am confident in using digital financial services.

	DK2	I frequently use mobile banking applications for financial transactions.
	DK3	I have sufficient knowledge to detect online financial fraud.
	DK4	I understand the risks associated with digital financial transactions.
	DK5	I can compare and evaluate different online financial services.

3.4. Analysis Method

3.4.1. Convergent Validity

Convergent validity is used to assess the extent to which the indicators within a construct are closely related and consistently represent the same underlying construct. Convergent validity is evaluated using the Average Variance Extracted (AVE), which reflects the average amount of variance in the indicators that is explained by the construct. The AVE is calculated as the mean of the squared outer loadings of all indicators associated with the construct. A construct is considered to demonstrate adequate convergent validity when its AVE value is ≥ 0.50 , indicating that the construct explains at least 50 percent of the variance of its indicators. Conversely, an AVE value below this threshold suggests that the construct does not sufficiently

represent the indicators used in its measurement (Hair et al., 2022).

3.4.2. Discriminant Validity

Discriminant validity aims to evaluate the extent to which a construct exhibits clear differences and can be empirically distinguished from other constructs within the structural model. A measurement model is considered to demonstrate adequate discriminant validity when a construct shows stronger relationships with its own indicators than with indicators of other constructs. Discriminant validity issues are indicated by relatively high values of the heterotrait–monotrait ratio (HTMT). In assessing discriminant validity, a construct is considered to meet the required criterion when the HTMT value is < 0.90 , indicating that the construct maintains a sufficient level of distinctiveness from other constructs in the model (Hair *et al.*, 2022).

3.4.3. Reliability Test

Reliability refers to the extent to which a measurement instrument produces consistent results when repeated measurements are conducted on the similar conditions. An instrument is considered reliable when it yields stable and dependable measurement outcomes, reflecting consistency across observations over time (Sekaran & Bougie, 2016). A construct is regarded as having adequate reliability when the values of Cronbach's Alpha and Composite Reliability meet or exceed the recommended minimum threshold of ≥ 0.70 , indicating satisfactory internal consistency among its indicators (Hair et al., 2022).

3.4.4. Model Fit Evaluation

The evaluation of structural model fit assesses the extent to which the proposed research model adequately represents the relationships among constructs based on the observed empirical data. In the PLS-SEM approach, model fit assessment is not used as the primary criterion for hypothesis testing. Instead, it serves as a supporting diagnostic tool to ensure that no substantial misspecification exists between the estimated model and the data (Hair *et al.*, 2021). Accordingly, the assessment of model fit in PLS-SEM is descriptive in nature and complements the overall evaluation of the structural model.

Several approximate model fit indices may be reported in PLS-SEM, including the Standardized Root Mean Square Residual (SRMR), d_ULS (Squared Euclidean Distance), and d_G (Geodesic Distance). The SRMR index measures the average discrepancy between the observed correlation matrix and the model-implied correlation matrix, where an SRMR value below 0.08 indicates an acceptable level of model fit. Meanwhile, the d_ULS and d_G indices assess the distance between the empirical and model-implied matrices, with smaller values reflecting a better-fitting model, although no strict cut-off values are established for these measures.

3.4.5. Coefficient of Determination

The coefficient of determination (R^2) is a measure used to indicate the extent to which the independent variables in a model are able to explain the variation in the dependent variable. The R^2 value represents the proportion of variance in the endogenous construct that is explained by the exogenous constructs in the structural model, thereby reflecting the model's explanatory power. As a general guideline, R^2 values of 0.75, 0.50, and 0.25 indicate substantial, moderate, and weak explanatory power, respectively (Hair *et al.*, 2022).

3.4.6. Significance Test

The significance of relationships among variables is evaluated through path coefficients estimated using the bootstrapping procedure in the SmartPLS software. The bootstrapping procedure is conducted using a resampling technique to obtain standard error values, thereby enabling statistical significance testing without assuming any specific data distribution. According to Hair *et al.* (2022), the criteria for testing the significance of relationships among variables in this study are determined as follows:

- a. A relationship is considered statistically significant if the t-statistic exceeds 1.96 at a 5% significance level ($\alpha = 0.05$).
- b. A relationship is also regarded as significant if the p-value is less than 0.05.

3.4.7. Moderation Effect Test

A moderation effect test was conducted for the purpose of ascertaining whether demographic variables exert an influence on the strength of the relationship between independent variables and dependent variables in the research model. The moderation test was conducted by forming an interaction variable (interaction term) between the independent variable and the moderator variable, which was then analysed in a structural model using the Partial Least Squares–Structural Equation Modeling (PLS-SEM) approach.

Parameter estimation was performed through a bootstrapping procedure in SmartPLS software to obtain path coefficients, t-statistics, and p-values. In accordance with the testing criteria stipulated by Hair *et al.* (2022), the moderating effect is deemed to be significant if it fulfils one of the following criteria:

- a. The T-statistic value must exceed 1.96 at a significance level of 5% ($\alpha = 0.05$).
- b. The p-value is less than 0.05.

CHAPTER IV

RESULTS AND DISCUSSIONS

This chapter presents the results of data processing and analysis, which include an overview of the respondents, evaluation of the measurement model (outer model), evaluation of the structural model (inner model), hypothesis testing, and discussions of the research findings. Data analysis was conducted using the Partial Least Squares–Structural Equation Modeling (PLS-SEM) approach with the assistance of SmartPLS software.

4.1. Data Collection Result

The data used in this study are primary data obtained through the distribution of an online questionnaire using Google Forms. The

questionnaire was distributed to respondents who met the research criteria, namely individuals aged at least 18 years, actively involved in personal financial management, and users of digital financial services. The data collection process was carried out from November to December 2025. A total of 175 respondents were obtained, all of whom met the sample criteria specified in Chapter III, exceeding the minimum required sample size of 100 respondents.

4.2. Respondent Characteristics

Respondent characteristics are presented to provide a general overview of the individuals' profiles who constitute the object of the study. Information on respondent characteristics is essential for understanding the general condition of the research sample, which serves as the basis for the data analysis process. Respondent characteristics were classified based on gender, age, highest level of education, and average monthly income. A summary of respondent characteristics is presented below:

Table 4.1 Profile of Respondents

Category	Attribute	Frequency	Percentage
Gender	Male	35	20%
	Female	140	80%
Age	17-26 years (Generation Z)	130	74%
	27-42 years (Generation Y)	32	18%
	43-58 years (Generation X)	13	7%
	59 + years (Baby Boomers)	0	0 %
Educational Level	Senior High School or Equivalent	78	44%
	Diploma (D1-D3)	23	13%
	Bachelor's Degree (S1)	65	37%
	Postgraduate Degree (S2/S3)	9	5%
Employment Status	Student	89	50%
	Employee (Full-time/Part-time)	57	32%
	Entrepreneur	12	6%
	Housewife	15	8%

	Others	2	1%
Monthly Income	Below IDR 3,000,000	95	54 %
	IDR 3,000,000-5,000,000	47	26%
	IDR 5,000,000-10,000,000	24	13%
	IDR 10,000,000-20,000,000	7	4%
	Above IDR 20,000,000	2	1%

Based on the results presented in Table 4.1, a total of 175 respondents completed the questionnaire. The majority of respondents were female, accounting for 80%, while male respondents represented 20% of the sample. In terms of age, the respondents were predominantly from Generation Z, comprising 74% of the sample, indicating that most respondents belonged to the early adulthood age group. Generation Y accounted for 18% of the respondents, while Generation X represented 7%. This age composition indicates that the research sample was dominated by younger generations who are at an early stage of financial independence and are highly exposed to digitalization. This condition is relevant to the focus of the study, which examines individual financial behavior and financial stress.

With regard to the highest level of education, most respondents had completed senior high school or its equivalent (44%), followed by those holding a bachelor's degree (37%). This suggests that the respondents possessed an adequate educational background to comprehend the statements included in the research questionnaire. In terms of income, the majority of respondents reported an average monthly income below IDR 3,000,000 (54%), while respondents earning between IDR 3,000,000 and

IDR 5,000,000 accounted for 26%. This income distribution reflects the relatively limited financial conditions of the respondents, which may potentially influence their levels of financial stress and financial behavior.

4.3. Data Analysis

4.3.1. Descriptive Statistics

Descriptive statistics were employed to provide an initial overview of respondents' response tendencies for each research indicator. This analysis aimed to identify the mean values, the degree of variability in responses (standard deviation), and the distribution patterns of the data as indicated by skewness and kurtosis values. Therefore, descriptive statistics assist in understanding the characteristics of the data before conducting the measurement model and structural model evaluations.

Table 4.2 Descriptive statistics

Items	Mean	Standard Deviation	Excess Kurtosis	Skewness
DK1	5.834	1.132	2.024	-1.291
DK2	6.000	1.322	2.799	-1.765
DK3	5.543	1.295	1.862	-1.314
DK4	5.863	1.071	3.399	-1.525
DK5	5.417	1.332	323	-801
FB1	4.709	1.701	-1.092	-246
FB2	5.337	1.487	-120	-805
FB3	5.663	1.303	1.704	-1.323
FS1	3.600	1.918	-1.135	274
FS2	5.011	1.817	-660	-657
FS3	4.789	1.881	-958	-501
FS4	4.320	1.885	-1.072	-228

FS5	4.731	1.754	-910	-359
EFFS1	5.240	1.305	-794	-283
EFFS2	4.994	1.598	-397	-575
EFFS3	4.869	1.489	-335	-516
EFFS4	4.949	1.486	-346	-575
EFFS5	5.297	1.395	677	-913
CMMS1	3.994	1.745	-1.026	-17
CMMS2	3.789	1.788	-950	165
CMMS3	3.514	1.953	-1.072	359
CMMS4	1.846	1.540	2.510	1.901
CMMS5	3.269	1.777	-967	352

Based on the descriptive statistics presented in Table 4.2, it shows that the respondents generally exhibit response tendencies at moderate to high levels across most research variables. The mean values of the Digital Knowledge and Expected Future Financial Security indicators are relatively high, indicating that respondents possess a good level of digital understanding and hold fairly optimistic perceptions regarding their future financial conditions. Meanwhile, the mean values of Financial Behavior fall within a moderate range, suggesting that respondents' financial behavior has not yet reached an optimal level but is also not categorized as poor. In contrast, Financial Stress and Current Money Management Stress display more varied mean values, reflecting differing levels of financial pressure experienced by respondents.

When comparing across variables, Digital Knowledge emerges as the most prominent variable, as indicated by its relatively higher mean values compared to the other constructs. This finding suggests that most respondents perceive themselves as capable of understanding and utilizing digital financial services in their daily financial activities. Conversely,

Current Money Management Stress shows relatively lower mean values, indicating that short-term financial management pressure is not uniformly experienced by all respondents. This contrast highlights a gap between respondents' cognitive capacity in managing digital financial tools and the actual financial pressures they face in day-to-day money management.

In terms of data variability, the standard deviation values for most indicators indicate moderate to relatively high dispersion in responses. Greater variability is observed in the Financial Stress and Financial Behavior indicators, suggesting differences in financial conditions and financial behavior among respondents. This variation is understandable given the diverse backgrounds of respondents, particularly with respect to income levels and employment status. In contrast, the variability of Digital Knowledge indicators appears more controlled, indicating a more homogeneous level of digital understanding among respondents.

Furthermore, the skewness and kurtosis values for most indicators suggest relatively balanced and non-extreme distribution patterns. This indicates that respondents' answers are generally distributed around the central values, without a strong concentration at very low or very high response levels. Such distribution patterns suggest that the range of responses adequately represents the respondents' conditions proportionally. Overall, the descriptive data provide a consistent initial overview of the response characteristics across the research constructs.

4.3.2. Convergent Validity

Convergent validity testing in this study was conducted by examining the outer loading values of each indicator on its respective construct, supported by Composite Reliability (CR) and Average Variance Extracted (AVE) values. The results of the convergent validity assessment are presented in the following table.

Table 4.3 Outer Model

Items	Outer Loading	CR	AVE
CMMS1	0.887	0.903	0.655
CMMS2	0.822		
CMMS3	0.869		
CMMS4	0.607		
CMMS5	0.830		
DK1	0.779	0.879	0.594
DK2	0.659		
DK3	0.782		
DK4	0.783		
DK5	0.840		
EFFS1	0.837	0.922	0.705
EFFS2	0.871		
EFFS3	0.875		
EFFS4	0.756		
EFFS5	0.854		
FB1	0.742	0.849	0.653
FB2	0.823		
FB3	0.854		
FS1	0.704	0.909	0.667
FS2	0.866		
FS3	0.881		
FS4	0.850		
FS5	0.770		

Based on Table 4.3, most indicators across all constructs exhibit outer loading values above 0.7, indicating a strong contribution to representing their respective latent constructs. For the EFFS construct, all indicators demonstrate relatively high outer loading values, ranging from 0.8 to 0.9. These findings indicate a strong relationship between the

indicators and the construct being measured and reflect a satisfactory level of convergent validity for this construct.

Nevertheless, several indicators show outer loading values below the recommended threshold of 0.7, namely CMMS4 with a value of 0.6 and DK2 with a value of 0.7. Methodologically, indicators with outer loading values below 0.7 may be considered for elimination. However, in this study, these indicators were retained because AVE and CR values for each construct met the recommended criteria, namely $AVE \geq 0.5$ and $CR \geq 0.7$.

With all constructs meeting the AVE and CR thresholds, the measurement model in this study demonstrates adequate internal consistency and convergent validity. Therefore, indicators with outer loading values in the range of 0.6–0.7 are still considered acceptable, particularly to preserve the representation of the underlying theoretical concepts. Overall, the results of this assessment indicate that the measurement model satisfies the criteria for convergent validity and is suitable for subsequent structural model analysis.

4.3.3. Discriminant Validity

According to Hair *et al.* (2022), discriminant validity testing aims to ensure that each construct in the research model possesses distinct characteristics and does not conceptually overlap with other constructs. In this study, discriminant validity was evaluated using the Heterotrait–Monotrait Ratio (HTMT). The HTMT values between constructs obtained from the data analysis are presented in Table 4.4 below:

Table 4.4 Heterotrait–Monotrait Ratio

Constructs	CMMS	DK	EFFS	FB	FS
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CMMS					
DK	0.110				
EFFS	0.252	0.305			
FB	0.265	0.585	0.557		
FS	0.800	0.096	0.298	0.192	

Based on Table 4.4, the HTMT values among construct pairs range from relatively low to moderate levels. Overall, the HTMT values fall below the recommended maximum threshold, providing initial evidence that each construct in the research model demonstrates an adequate level of discriminant validity. The highest HTMT value is observed in the relationship between CMMS and FS, with a value of 0.8. This value approaches the recommended threshold, indicating a relatively strong conceptual association between the two constructs. Nevertheless, the value remains within the acceptable range, suggesting that CMMS and FS can still be treated as empirically distinct constructs.

In contrast, several construct pairs exhibit relatively low HTMT values, such as the relationships between CMMS and DK and between DK and FS. The low HTMT values for these construct pairs indicate a strong level of discrimination, confirming that the constructs represent distinct conceptual dimensions in accordance with the measurement objectives. Meanwhile, the relationships between other constructs, such as EFFS and FB, show moderate HTMT values. Although relatively higher than those of other construct pairs, these values remain below the established threshold and reflect a close yet acceptable relationship within the context of discriminant validity. Therefore, the results of the HTMT assessment indicate that all constructs in the research model demonstrate adequate discriminant validity and can be empirically distinguished from one another.

4.3.4. Reliability Test

Reliability testing aims to ensure the internal consistency of each construct used in the research model and to assess the extent to which indicators within a construct consistently measure the same underlying concept (Sekaran & Bougie, 2016). In this study, reliability testing was conducted using Cronbach's Alpha values obtained from the data analysis, as presented in the following table.

Table 4.5 Cronbach's Alpha

Items	Cronbach's Alpha
CMMS	0.866
DK	0.830
EFFS	0.896
FB	0.732
FS	0.873

Based on Table 4.5, all constructs in this study exhibit Cronbach's Alpha values above the minimum threshold of 0.7. This result indicates that the indicators within each construct demonstrate a high level of internal consistency in measuring the same underlying concept. Adequate Cronbach's Alpha values across all constructs suggest that the research instrument is reliable and capable of producing consistent measurements. Therefore, all constructs meet the reliability criteria and are suitable for inclusion in the structural model analysis.

4.4. Model Fit

According to Hair et al. (2022), model fit testing was conducted to evaluate the extent to which the proposed research model adequately represents the empirical data as a whole. In this study, model fit was assessed using several goodness-of-fit indices commonly applied in the Partial Least Squares–Structural Equation Modeling (PLS-SEM) approach, namely the Standardized Root Mean Square Residual (SRMR), d_ULS , and d_G . The results of the model fit assessment are presented below.

Table 4.6 Model Fit

Indicators	Saturated model	Estimated model
SRMR	0.083	0.083
d_ULS	1.921	1.920
d_G	0.588	0.588

Based on Table 4.6, the SRMR values for both the saturated model and the estimated model are 0.083. This value is slightly above the ideal threshold of 0.08. However, it remains within an acceptable range for PLS-SEM-based studies, particularly for models that are relatively complex and involve multiple constructs and moderating variables. This result indicates that, overall, there is no substantial discrepancy between the observed correlation matrix and the correlation matrix estimated by the model.

Furthermore, the d_ULS and d_G values for both the saturated model and the estimated model are relatively similar, with d_ULS values ranging from 1.921 to 1.920 and a d_G value of 0.588. The similarity between the saturated and estimated models suggests that the estimated structural model is able to represent the empirical data with minimal deviation. Overall, the results of the model fit assessment indicate that the proposed research model demonstrates an adequate level of goodness of fit. Therefore, the model is considered appropriate for conducting structural analysis and hypothesis testing in the subsequent stage of the study.

4.5. Structural Model

4.5.1. Coefficient of Determination

The coefficient of determination (R^2) is used to assess the extent to which the independent variables in the research model explain the variance in the dependent variables (Hair *et al.*, 2022). The R^2 evaluation provides an overview of the explanatory power of the constructed structural model. The R^2 values obtained in this study are presented in

Table 4.7 and serve as the basis for evaluating the model's ability to explain Financial Stress and Financial Behavior.

Table 4.7 R Square

Items	R Square	R Square Adjusted
FB	0.393	0.375
FS	0.521	0.512

Based on the results of the coefficient of determination (R^2) analysis, the R^2 value for FS is 0.521. This indicates that 52% of the variance in Financial Stress can be explained by the independent variables included in the research model, while the remaining variance is influenced by other factors outside the model. This R^2 value falls within the moderate category, suggesting that the model demonstrates a reasonably strong explanatory power for Financial Stress.

Meanwhile, the R^2 value for FB is 0.393, indicating that 39% of the variance in Financial Behavior can be explained by the variables included in the research model. This value is classified as weak to moderate, which is still considered acceptable in social and behavioral research, given that Financial Behavior is influenced by a wide range of factors that are not fully captured in this study's model.

4.5.2. Path Coefficient

Path analysis in this study examines the causal relationships among constructs within the proposed structural model. This analysis aims to assess the direct effects, indirect effects through mediating variables, and moderating effects among the research variables. Parameter estimation was performed using the bootstrapping procedure in SmartPLS software, which allows for significance testing of relationships between variables without assuming a specific data distribution. The results of the relationship testing

among variables, including direct effects, indirect effects, and moderating effects, are presented below.

Table 4.8 Path Analysis

Hypothesis	Path	Original Sample (O)	T Statistics	P Values	Information
H1	CMMS -> FS	0.684	19.326	0.000	Accepted
H2	EFFS -> FS	-0.129	2.767	0.006	Accepted
H3	DK -> FS	0.032	0.608	0.544	Rejected
H4	FS -> FB	0.224	2.601	0.010	Rejected
H5	CMMS -> FB	-0.305	3.549	0.000	Accepted
H6	EFFS -> FB	0.364	5.249	0.000	Accepted
H7	DK -> FB	0.380	4.715	0.000	Accepted
H8	CMMS -> FS -> FB	0.153	2.561	0.011	Accepted
H9	EFFS -> FS -> FB	-0.029	1.687	0.092	Rejected
H10	DK x FS -> FB	0.034	0.406	0.685	Rejected

Note: CMMS (Current Money Management Stress), EFFS (Expected Future Financial Security), DK (Digital Knowledge), FS (Financial Stress), FB (Financial Behavior).

Based on the results of the path analysis presented in Table 4.8, the structural model reveals differences in both the strength and statistical significance of the relationships among variables. The relationship between CMMS and FS emerges as the most dominant within the model, indicating that short-term financial management pressure plays a central role in increasing FS. In contrast, the relationship between DK and FS is the

weakest and statistically insignificant, suggesting that the level of digital knowledge is not directly associated with individuals' financial stress.

In explaining FB, DK demonstrates the most prominent positive direct influence, followed by EFFS. This pattern indicates that cognitive factors and future-oriented financial perceptions contribute more strongly to variations in FB than financial stress itself. Conversely, CMMS exhibits a negative relationship with FB, indicating that higher levels of short-term financial pressure tend to deteriorate individuals' financial behavior. These findings highlight the differing roles of cognitive resources and immediate financial pressure in shaping financial behavior.

With regard to indirect effects, only the pathway involving FS as a mediating variable between CMMS and FB is found to be significant. This result indicates that part of the influence of CMMS on FB is transmitted through increased FS. In contrast, the mediating pathway involving EFFS through FS does not demonstrate statistical significance, suggesting that FS does not function as an intervening mechanism in this relationship. This pattern reinforces the notion that FS is more responsive to immediate financial pressure than to future-oriented financial perceptions.

Furthermore, the moderation analysis indicates that DK does not moderate the relationship between FS and FB. In other words, the impact of FS on FB remains relatively similar across individuals with different levels of DK. This finding suggests that although DK plays an important role in shaping FB directly, it is not sufficient to buffer or weaken the negative effects of FS on financial behavior. Overall, these results emphasize the dominant role of CMMS and FS in explaining financial behavior dynamics, while highlighting the limited protective function of DK under conditions of financial pressure.

4.6. Discussions

4.6.1. The Effect of Current Money Management Stress, Expected Future Financial Security, and Digital Knowledge on Financial Stress

Based on the results of the structural model analysis, CMMS is found to have a positive and statistically significant effect on Financial Stress. This finding indicates that higher levels of short-term financial management pressure are associated with higher levels of perceived financial stress. Pressure arising from difficulties in meeting routine needs, paying bills, or maintaining daily cash flow stability directly increases individuals' psychological burden. This condition demonstrates that financial stress is primarily triggered by financial problems that are immediate and directly experienced. Compared to other variables in the model, CMMS exhibits the strongest influence on Financial Stress, indicating that it is the most dominant factor in explaining respondents' financial stress levels. Accordingly, H1, which states that CMMS has a positive effect on Financial Stress, is supported.

The analysis also shows that EDFS has a negative and statistically significant effect on FS, although the strength of this effect is relatively weaker than that of CMMS. This finding indicates that individuals with a more optimistic perception of their future financial condition tend to experience lower levels of financial stress. However, the effect of EDFS is relatively small compared to short-term financial pressure, suggesting that perceived future financial security is not sufficiently dominant to substantially reduce stress arising from day-to-day financial difficulties. This indicates that perceptions of future financial security function as a supportive psychological factor rather than as a primary determinant of financial stress. Accordingly, H2, which proposes a negative effect of EDFS on FS, is supported, albeit with limited explanatory power.

In contrast to CMMS and EDFS, the results indicate that DK does not have a statistically significant effect on FS. This finding suggests

that individuals' levels of knowledge and understanding of digital financial services do not directly reduce psychological pressure related to their financial condition. Although individuals may be capable of accessing digital financial information and using various financial applications, such capabilities do not automatically alleviate anxiety stemming from income constraints or difficulties in meeting financial obligations. Therefore, H3, which hypothesizes a negative effect of DK on FS, is not supported.

These findings can be explained through the framework of the Conservation of Resources (COR) Theory, which emphasizes that psychological stress primarily emerges when individuals experience the loss of resources that are tangible and directly felt (Hobfoll, 1988). In this context, CMMS represents actual financial pressure resulting from limited financial resources, making it a primary trigger of FS. In contrast, EDFS functions as an expectation-based psychological resource that can provide a sense of security but is not sufficiently strong to offset immediate financial pressure. Meanwhile, DK represents a supportive cognitive resource that helps individuals understand digital financial systems but cannot substitute for core financial resources such as stable income. From the perspective of the Theory of Planned Behavior (TPB), financial stress is more closely related to situational and emotional constraints, which are not easily influenced by cognitive factors alone, such as digital knowledge.

The findings of this study are consistent with those of Badrudin *et al.* (2025), who identify CMMS as the most influential factor in increasing financial stress, while EDFS plays a more limited role. Van Raaij *et al.* (2023) also emphasize that actual financial conditions are more decisive in shaping stress levels than long-term expectations. Furthermore, Chhillar *et al.* (2025) report that in digital financial contexts, digital knowledge does not automatically reduce financial stress because psychological pressure is more strongly driven by constraints on tangible

financial resources. Taken together, these findings align with prior literature and reinforce the view that financial stress is primarily triggered by immediate financial pressure, while cognitive factors and future-oriented perceptions serve as secondary and supportive influences.

4.6.2. The Effect of Financial Stress on Financial Behavior

The results indicate that FS has a positive and statistically significant effect on FB. This finding suggests that higher levels of financial stress are associated with a greater tendency for individuals to exhibit certain financial behaviors. However, the direction of this relationship contradicts Hypothesis H4, which originally proposed that FS would have a negative effect on FB. Therefore, although the relationship is statistically significant, H4 is not supported because the direction of the effect does not align with the initial prediction. This result indicates that, in this study, FS does not weaken financial behavior but instead it shows a positive association.

These findings suggest that FS does not always produce negative consequences for FB. In certain situations, financial pressure may increase individuals' awareness and encourage them to manage their finances more carefully. When individuals experience financial strain, they may become more motivated to reduce expenses, save more consistently, or consider potential risks more carefully before making financial decisions. In this sense, financial stress may function as a warning signal that prompts individuals to improve their financial management practices. Accordingly, FS may act as a corrective trigger for behavioral adjustment rather than solely as a factor that undermines sound financial behavior.

From the perspective of Conservation of Resources (COR) Theory (Hobfoll, 1989), stress arises when individuals face threats to or losses of valuable resources. However, the theory also emphasizes that individuals actively attempt to protect and restore their remaining

resources. In the context of this study, when individuals experience FS due to financial pressure, they may respond by strengthening their financial management efforts as a strategy to safeguard their remaining resources. This response may be reflected in more controlled and cautious financial behavior. Therefore, the positive relationship between FS and FB can be interpreted as an adaptive response to resource-related pressure.

This finding differs from several previous studies suggesting that FS tends to reduce the quality of FB due to increased cognitive burden and emotional strain (Chhillar *et al.*, 2025). Similarly, Badrudin *et al.* (2025) reported that higher FS is associated with deteriorating FB, particularly in terms of significant economic pressure. However, the present findings are more consistent with the view of Van Raaij *et al.* (2023), who argue that financial pressure, at certain levels, may trigger behavioral adjustment as a form of adaptation. Thus, the relationship between FS and FB in this study is not entirely destructive but may reflect an adaptive mechanism when individuals confront financial challenges. These findings enrich the literature by demonstrating that FS can function not only as a barrier but also as a potential driver of behavioral change in financial decision-making.

4.6.3. The Effect of Current Money Management Stress, Expected Future Financial Security, and Digital Knowledge on Financial Behavior

Based on the empirical findings from the structural model testing, CMMS is found to have a negative and statistically significant effect on FB. This result indicates that higher levels of short-term financial management pressure are associated with a decline in the quality of individuals' financial behavior. Pressure arising from difficulties in meeting routine needs, paying bills, and maintaining daily cash flow stability encourages individuals to adopt reactive and make short-term-oriented financial decisions. Such conditions weaken individuals' ability to engage in rational and structured financial planning. Accordingly, H5,

which posits that CMMS has a negative effect on FB, is supported, reinforcing the conclusion that short-term financial pressure represents one of the most dominant factors undermining sound financial behavior.

In contrast to short-term financial pressure, the subsequent analysis indicates that EFFS has a positive and statistically significant effect on FB. This finding suggests that individuals who hold optimistic perceptions regarding their future financial security tend to exhibit more planned and responsible financial behavior. Confidence in improved future financial conditions encourages individuals to save consistently, engage in long-term financial planning, and consider potential risks before making financial decisions. Compared to short-term financial pressure, EFFS functions as a constructive and forward-looking driver of financial behavior. Therefore, H6, which states that EFFS has a positive effect on FB, is supported.

Beyond financial pressure and future-oriented perceptions, DK is also found to have a positive and statistically significant effect on FB. This finding indicates that individuals with higher levels of DK are better able to access financial information and utilize digital financial services more effectively. Such capabilities enable individuals to compare financial product alternatives and make more rational financial decisions. Among the explanatory variables, DK emerges as one of the factors with a relatively strong positive influence on FB. Thus, H7, which proposes that DK positively affects FB, is supported, indicating that cognitive capacity in understanding digital financial systems constitutes an important asset in shaping higher-quality financial behavior.

The findings further indicate that the relationships among variables reflect mechanisms of resource-related pressure as described in COR Theory. The strong and detrimental effect of CMMS on FB suggests that pressure stemming from limited short-term financial resources plays a more decisive role in shaping behavioral responses than psychological or cognitive resources. This pattern is consistent with Hobfoll's (1989)

argument that individuals are more sensitive to losses of tangible and immediately experienced resources. In contrast, EDFS and DK exhibit supportive roles but are insufficient to fully offset the impact of actual financial pressure on financial behavior. Overall, the empirical results demonstrate that respondents' FB is primarily shaped by direct and immediate resource-related pressures.

In addition to resource-related pressure, the results also highlight the role of cognitive and perceptual factors, such as EDFS and DK, in shaping FB. Individuals who possess positive beliefs about their future financial conditions and higher levels of digital understanding tend to demonstrate more planned and responsible financial behavior. This pattern aligns with the TPB, which emphasizes that behavior is influenced by individuals' attitudes and perceived behavioral control (Ajzen, 1991). However, the findings also indicate that under conditions of high Financial Stress, the influence of these cognitive factors becomes more limited. This suggests that emotional pressure may weaken individuals' ability to translate beliefs and knowledge into optimal financial behavior.

The results of this study are consistent with the findings by Badrudin *et al.* (2025), who report that short-term financial management pressure negatively affects financial behavior, while perceptions of future financial security serve as drivers of more responsible behavior. Van Raaij *et al.* (2023) likewise emphasize that immediate financial pressure is more likely to undermine financial behavior than long-term, cognitively oriented factors. Furthermore, Chhillar *et al.* (2025) find that financial pressure increases cognitive burden, thereby impairing the quality of financial decision-making. Conversely, Yadav *et al.* (2025) demonstrate that digital knowledge plays an important role in improving financial behavior, particularly within digital financial contexts. Taken together, these findings are consistent with prior literature and reinforce the understanding that Financial Behavior is shaped by the interaction

between actual financial pressure, future-oriented perceptions, and individuals' cognitive capacity.

4.6.4. The Mediating Role of Financial Stress in the Relationship between Current Money Management Stress, Expected Future Financial Security, and Financial Behavior

In addition to examining the direct relationships among variables, this study also investigates the mediating role of Financial Stress as a psychological mechanism linking financial pressure to individual financial behavior. The focus of this section is not merely on the magnitude of direct effects, but on understanding how financial pressure translates into financial behavior through changes in stress levels. Accordingly, the mediation analysis aims to explain the underlying process through which financial behavior is shaped, rather than solely its outcomes.

The results indicate that FS plays a significant mediating role in the relationship between CMMS and FB. This finding suggests that short-term financial management pressure not only affects financial behavior directly, but also influences it through increased levels of perceived financial stress. In other words, when individuals experience difficulties in managing their daily finances, such pressure first elevates their stress levels, which subsequently leads to a decline in the quality of their financial behavior. Importantly, because the direct effect of CMMS on FB remains statistically significant even after the inclusion of FS as a mediator, this mediation can be classified as partial mediation. This means that CMMS influences FB both directly and indirectly through FS. Therefore, H8, which proposes that FS mediates the relationship between CMMS and FB, is supported.

In contrast, the analysis shows that FS does not mediate the relationship between EFFS and FB. Although EFFS has a significant direct effect on FB, the indirect effect through FS is not statistically

significant. This indicates that no mediation effect is present in this relationship. In other words, individuals who feel optimistic about their future financial condition may engage in more planned and responsible financial behavior without experiencing changes in stress beforehand. This suggests that EFFS influences FB through different psychological pathways that are more cognitive and motivational in nature, such as expectations, beliefs, and long-term orientation, rather than through stress-related mechanisms. Accordingly, H9, which posits that FS mediates the relationship between EFFS and FB, is not supported.

These findings can be understood within the framework of COR Theory, which emphasizes that psychological stress primarily emerges when individuals face actual and immediately perceived resource loss. CMMS reflects direct financial pressure that threatens individuals' available resources, thereby triggering FS and subsequently affecting FB. In this context, FS represents a natural psychological response to short-term resource strain. By contrast, EFFS reflects expectations and beliefs about future financial conditions, which are not sufficiently strong to generate stress when actual financial pressure remains unchanged. Consequently, FS appears to be more sensitive to immediate financial strain than to long-term financial expectations.

From the perspective of TPB, the mediating role of FS can be explained through its influence on evaluative processes and behavioral control. Elevated FS resulting from CMMS increases cognitive burden and emotional pressure, which weakens perceived behavioral control and disrupts individuals' ability to make rational financial decisions. Under such conditions, the intention to engage in planned financial behavior becomes more difficult to realize. Conversely, because EFFS does not increase FS, the stress-mediated pathway does not emerge, and its effect on FB occurs mainly through the formation of positive attitudes and motivation. This finding indicates that TPB mechanisms become more salient when individuals face tangible situational pressures.

The results of this study are consistent with those of Badrudin *et al.* (2025), who found that FS mediates the effect of CMMS on FB, but does not mediate the relationship between EFFS and FB. Van Raaij *et al.* (2023) similarly emphasized that behavioral responses are more strongly driven by immediate stressors than by long-term expectations. In addition, Chhillar *et al.* (2025), reported that short-term financial pressure exerts a stronger psychological impact than future oriented expectations, particularly in digital financial environments characterized by high cognitive load. FS serves as a key explanatory mechanism in understanding how financial pressure translates into FB, whereas expectation-based factors primarily operate as motivational drivers. By incorporating these findings, the present study reinforces the view that FS represents a crucial psychological mechanism linking actual financial pressure to less adaptive FB. Overall, these results underscore that managing short-term financial pressure is a fundamental prerequisite for improving individuals' FB.

4.6.5. The Moderating Role of Digital Knowledge in the Relationship between Financial Stress and Financial Behavior

The results indicate that the interaction effect between DK and FS on FB is weak and statistically insignificant. This finding suggests that individuals' levels of digital knowledge do not substantially alter the strength of the relationship between financial stress and financial behavior. In other words, when individuals experience FS, its impact on FB tends to be relatively similar across individuals with both high and low levels of DK. This condition indicates that psychological pressure arising from financial stress continues to dominate financial decision-making processes, such that individuals' ability to understand and use digital financial services is not sufficiently strong to function as a buffering factor. Therefore, H10, which proposes that DK moderates the relationship between FS and FB, is not supported.

These findings further suggest that DK is not strong enough to function as a buffer when individuals are under financial stress. Although DK may assist individuals in accessing information and utilizing digital financial technologies, its benefits become limited under conditions of high emotional pressure. When experiencing FS, individuals tend to prioritize short-term needs and use immediate stress reduction, which restricts the extent to which their cognitive capacities can be translated into more adaptive financial behavior. This explains why DK is unable to change either the direction or the strength of the influence of FS on FB.

From the perspective of COR Theory, these findings are consistent with the view that psychological stress primarily arises from threats to, or losses of, resources that are tangible and directly experienced (Hobfoll, 1989). FS reflects pressure resulting from limitations in actual financial resources, whose behavioral impact tends to be stronger than that of supportive cognitive resources such as knowledge. Under conditions of resource loss, individuals are more likely to focus on protecting remaining resources through defensive responses, meaning that additional cognitive capacity does not necessarily lead to changes in behavioral outcomes. Consequently, DK is insufficient to mitigate or weaken the effect of FS on FB when financial pressure is immediate and intense.

From the perspective of TPB, these results indicate that the influence of cognitive factors such as DK on financial behavior may diminish when individuals face high levels of emotional pressure (Ajzen, 1991). FS increases cognitive load and anxiety, which in turn reduces individuals' ability to consistently apply their knowledge and beliefs in financial decision-making. In such situations, perceived behavioral control, normally strengthened by knowledge, becomes less effective. These findings suggest that TPB mechanisms operate more effectively under relatively stable financial conditions, whereas under high stress, emotional factors tend to dominate over cognitive influences.

The findings of this study are consistent with those of Badrudin *et al.* (2025), who reported that DK does not function as a moderating variable in the relationship between financial stress and financial behavior. Similar evidence is provided by Chhillar *et al.* (2025), who emphasize that short-term financial pressure increases cognitive burden, thereby reducing the effectiveness of digital knowledge in regulating behavior. In addition, Yadav *et al.* (2025) demonstrate that although digital knowledge plays an important role in improving financial behavior, its effectiveness is highly dependent on the stability of individuals' financial conditions. Taken together, these results reinforce the view that digital knowledge cannot substitute for actual financial stability in controlling the impact of FS on FB.

CHAPTER V

CONCLUSIONS

5.1. Conclusions

This study aims to examine the effects of Current Money Management Stress (CMMS), Expected Future Financial Security (EFFS), and Digital Knowledge (DK) on Financial Stress (FS) and Financial Behavior (FB), as well as to test the mediating role of FS and the moderating role of DK within the research model. Based on the results of the structural model testing, several key conclusions can be drawn.

1. CMMS is identified as the most dominant determinant in increasing FS. The higher the pressure individuals experience in managing their short-term finances, the higher the level of financial stress they report.
2. EFFS has a negative effect on FS, meaning that individuals with more optimistic perceptions of their future financial security tend to experience lower levels of financial stress, although the effect is relatively weaker than the impact of short-term financial pressure.
3. DK does not have a significant effect on FS. This indicates that individuals' knowledge and understanding of digital financial services do not directly reduce financial stress, particularly when they face actual financial resource constraints.
4. FS has a positive and significant effect on FB. This finding suggests that when individuals experience financial stress, they tend to exhibit certain financial behaviors that are more active or more controlled.
5. CMMS has a negative effect on FB and is the strongest factor in explaining the decline in financial behavior. High levels of short-term financial management pressure tend to reduce the quality of individuals' financial behavior.
6. EFFS and DK have positive effects on FB. Positive perceptions of future financial security and higher levels of digital knowledge encourage more planned and responsible financial behavior. Among

these factors, DK emerges as one of the most prominent positive contributors to improving Financial Behavior.

7. FS mediates the relationship between CMMS and FB, but does not mediate the relationship between EFFS and FB. This means that CMMS affects FB both directly and indirectly through increased FS. In contrast, the effect of EFFS on FB occurs directly without operating through changes in financial stress.
8. DK does not function as a moderating variable in the relationship between FS and FB. This finding indicates that the level of digital knowledge neither strengthens nor weakens the effect of financial stress on financial behavior.

5.2. Research Limitations

Based on the research that has been conducted, there are limitations in this study, namely:

1. The composition of respondents was dominated by females, Generation Z, and students or senior high school graduates; therefore, the sample characteristics may not fully represent the broader population. The dominance of specific groups may limit the generalizability of the findings, particularly to older age groups, individuals with higher levels of education, or those with different economic conditions.
2. This study included only several key variables in the model, namely CMMS, EFFS, DK, FS, and FB. It is possible that other factors, such as income level, job stability, macroeconomic conditions, or additional psychological factors such as self-control and financial resilience, may also influence Financial Stress and Financial Behavior, but were not incorporated into the present research model.

5.3. Recommendations for Future Research

Based on the limitations of this study, the following recommendations are suggested for future research:

1. Future research is encouraged to increase the number of respondents and expand the geographical coverage to ensure that the findings are more representative of the Indonesian population as a whole.
2. Subsequent studies are recommended to employ a more systematic sampling technique, such as stratified random sampling, to ensure that each key population group is proportionally represented.
3. Further investigations may also consider incorporating additional variables that potentially influence Financial Stress and Financial Behavior. Variables such as income level, job stability, financial resilience, self-control, financial literacy, and other psychological factors could enrich the research model and provide a deeper understanding of individual financial behavior dynamics.

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APPENDICES

Appendix 1 Research Questionnaire

Assalamu'alaikum warahmatullahi wabarakatuh,
Salam sejahtera untuk kita semua,

Perkenalkan, saya Jihan Aulia Syahida (NIM 22311435), mahasiswa Program Studi S1 Manajemen di Universitas Islam Indonesia. Saat ini saya sedang menyusun skripsi dengan judul:

“Determinants of Financial Stress in Indonesia: The Moderating Role of Digital Knowledge.”

Penelitian ini bertujuan untuk memahami faktor-faktor yang memengaruhi stres keuangan (financial stress) di Indonesia, serta melihat bagaimana pengetahuan digital, usia, dan gender dapat memoderasi hubungan tersebut. Melalui penelitian ini diharapkan diperoleh gambaran yang lebih komprehensif mengenai perilaku dan kondisi keuangan masyarakat, khususnya dalam konteks perkembangan layanan keuangan digital.

Partisipasi Bapak/Ibu dalam kuesioner ini bersifat sukarela. Seluruh data dan jawaban akan dijaga kerahasiaannya dan hanya digunakan untuk keperluan akademik. Tidak ada jawaban benar atau salah. Untuk itu, kami sangat berharap Bapak/Ibu dapat mengisi seluruh pernyataan dengan jujur sesuai pengalaman dan kondisi yang dialami. Waktu yang dibutuhkan untuk mengisi kuesioner ini kurang lebih 10–15 menit.

Apabila Bapak/Ibu memiliki pertanyaan lebih lanjut terkait penelitian ini, dapat menghubungi peneliti melalui email berikut: 22311435@students.uui.ac.id.

Partisipasi Bapak/Ibu sangat berarti dalam mendukung kelancaran dan keberhasilan penelitian ini. Kami sangat menghargai waktu dan perhatian yang Bapak/Ibu luangkan untuk mengisi kuesioner ini. Atas partisipasi dan kerja sama yang diberikan, kami mengucapkan terima kasih yang sebesar-besarnya.

Hormat saya,

22311435 — Jihan Aulia Syahida
 Peneliti
 Program Studi S1 Manajemen
 Universitas Islam Indonesia

I. Respondent Profile

Nama/Inisial :

Jenis Kelamin :

- ☐ Laki-Laki
- ☐ Perempuan

Usia :

- ☐ 17 - 26 Tahun
- ☐ 27 - 42 Tahun
- ☐ 43 - 58 Tahun
- ☐ 59 Tahun atau Lebih

Tingkat Pendidikan Terakhir :

- ☐ SD atau Sederajat
- ☐ SMP atau Sederajat
- ☐ SMA atau Sederajat
- ☐ Diploma (D1-D3)
- ☐ Sarjana (S1)
- ☐ Pascasarjana (S2/S3)
- ☐ Yang lain

Pekerjaan :

- ☐ Pelajar/Mahasiswa
- ☐ Pegawai/Karyawan (Full Time atau Part Time)
- ☐ Wirausaha
- ☐ Tidak Bekerja/Mencari Pekerjaan
- ☐ Ibu Rumah Tangga
- ☐ Yang lain

Rata-rata pendapatan (Take home pay/gaji) per bulan :

6.

Setuju

7. Sangat Setuju

No.	Digital Knowledge	1	2	3	4	5	6	7
1.	Saya percaya diri dalam menggunakan layanan keuangan digital.							
2.	Saya secara rutin menggunakan aplikasi m-banking untuk transaksi keuangan.							
3.	Saya memiliki pengetahuan yang cukup untuk mengenali penipuan keuangan online.							
4.	Saya memahami resiko saat melakukan transaksi keuangan digital.							
5.	Saya bisa membandingkan dan menilai berbagai layanan keuangan digital.							

No.	Financial Behavior	1	2	3	4	5	6	7
1.	Saya merencanakan dan mencatat pengeluaran saya secara rutin.							
2.	I prioritize saving and investing over unnecessary spending.							
3.	Saya mencari informasi keuangan sebelum mengambil keputusan besar.							

No.	Financial Stress	1	2	3	4	5	6	7
1.	Saya sering merasa kewalahan dengan kewajiban keuangan/tagihan saya.							
2.	Saya merasa khawatir saat memikirkan tentang kondisi keuangan saya di masa depan.							
3.	Saya sering merasa khawatir akan kehabisan uang.							
4.	kondisi keuangan saya berdampak negatif pada kesejahteraan saya .							
5.	Saya mengalami stres saat mengalami pengeluaran yang tidak terduga.							

No.	Expected Future Financial Security	1	2	3	4	5	6	7
1.	Saya merasa percaya diri kondisi keuangan saya di masa depan akan aman.							
2.	Saya percaya akan memiliki sumber daya finansial yang cukup saat pensiun.							
3.	Saya merasa siap menghadapi tantangan keuangan di masa depan.							
4.	Saya aktif merencanakan keamanan keuangan untuk jangka panjang.							

5.	Saya merasa optimis dengan kemampuan saya untuk mencapai kemandirian finansial.							
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No.	Current Money Management Stress	1	2	3	4	5	6	7
1.	Saya kesulitan dalam mengatur pengeluaran bulanan saya.							
2.	Saya kesulitan memantau pengeluaran dan dan pembayaran yang harus saya lakukan							
3.	Saya sering kehabisan uang sebelum jadwal gaji selanjutnya.							
4.	Saya sering menggunakan kredit atau pinjaman untuk memenuhi kebutuhan sehari-hari.							
5.	Saya merasa stres dalam memenuhi komitmen finansial saya.							

Appendix 2 Data Tabulation

A. Current Money Management Variable

	Current Money Management Stress
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Responden Number	CMMS1	CMMS2	CMMS3	CMMS4	CMMS5	Average
1	4	5	4	4	4	4
2	7	7	6	1	5	5
3	3	3	4	1	3	3
4	6	6	5	1	4	4
5	4	3	1	1	1	2
6	6	7	6	6	6	6
7	5	5	4	1	5	4
8	2	4	1	1	2	2
9	2	2	3	1	1	2
10	2	2	3	1	1	2
11	6	5	6	1	1	4

12	4	4	4	4	4	4
13	4	4	4	1	4	3
14	3	3	3	6	4	4
15	4	4	4	4	7	5
16	1	1	1	1	1	1
17	4	3	2	1	2	2
18	4	3	5	1	4	3
19	1	1	1	1	1	1
20	6	6	4	1	2	4
21	1	1	1	1	1	1
22	4	1	2	1	1	2
23	4	4	7	1	4	4

24	7	1	7	5	7	5
25	4	4	3	1	3	3
26	6	3	7	3	5	5
27	1	2	2	1	2	2
28	4	3	4	1	1	3
29	5	4	5	4	5	5
30	3	3	2	1	2	2
31	3	3	3	3	3	3
32	1	1	1	1	1	1
33	6	6	6	2	6	5
34	3	3	3	2	2	3
35	3	2	2	1	2	2

36	3	3	2	1	1	2
37	6	6	5	3	6	5
38	4	4	6	1	2	3
39	4	4	1	1	1	2
40	2	2	2	2	2	2
41	5	3	6	1	4	4
42	3	3	2	1	1	2
43	3	2	2	2	2	2
44	4	3	3	1	4	3
45	3	3	3	1	4	3
46	6	6	6	6	6	6
47	6	5	6	1	4	4

48	3	3	2	1	1	2
49	2	2	2	1	1	2
50	1	2	1	1	1	1
51	2	2	1	1	2	2
52	6	5	6	2	4	5
53	2	1	2	1	1	1
54	1	4	1	1	2	2
55	6	7	5	2	6	5
56	3	5	2	1	2	3
57	3	7	4	2	3	4
58	4	4	3	1	3	3
59	1	1	1	1	3	1

60	7	6	6	1	5	5
61	3	4	1	1	2	2
62	3	2	2	1	3	2
63	3	5	2	2	4	3
64	2	3	1	1	2	2
65	2	1	1	1	2	1
66	2	3	3	2	2	2
67	2	1	2	1	3	2
68	6	6	5	2	4	5
69	4	4	4	2	4	4
70	5	7	6	1	5	5
71	6	5	1	1	1	3

72	4	4	1	1	3	3
73	6	6	6	1	4	5
74	6	3	6	1	2	4
75	6	6	5	1	4	4
76	3	2	2	1	2	2
77	1	1	1	1	1	1
78	5	5	3	1	3	3
79	4	4	4	1	4	3
80	6	7	7	1	3	5
81	2	3	3	1	3	2
82	1	2	1	1	1	1
83	3	6	4	3	3	4

84	3	3	1	1	1	2
85	5	5	3	1	5	4
86	5	6	4	5	5	5
87	5	4	2	1	3	3
88	4	4	3	1	1	3
89	3	2	3	1	4	3
90	4	4	3	3	3	3
91	7	6	6	1	2	4
92	5	5	4	2	5	4
93	7	7	7	7	7	7
94	6	5	7	1	6	5
95	3	3	2	1	5	3

96	4	4	4	1	2	3
97	7	7	7	7	7	7
98	2	2	2	2	2	2
99	5	2	5	1	2	3
100	1	1	2	1	1	1
101	3	3	4	1	1	2
102	3	3	4	2	2	3
103	6	6	6	6	7	6
104	4	4	3	1	4	3
105	7	1	7	1	7	5
106	1	1	1	1	1	1
107	5	1	1	1	5	3

108	4	5	7	1	5	4
109	2	5	3	1	2	3
110	7	7	4	1	3	4
111	5	4	5	1	4	4
112	5	4	5	2	5	4
113	4	3	4	1	2	3
114	2	2	2	1	2	2
115	1	1	1	1	1	1
116	4	4	4	1	4	3
117	3	3	3	1	3	3
118	2	2	2	1	2	2
119	3	3	1	2	5	3

120	5	4	4	1	3	3
121	3	3	2	1	1	2
122	2	2	2	1	1	2
123	5	4	3	1	5	4
124	5	6	3	2	3	4
125	3	3	1	1	3	2
126	3	3	4	2	5	3
127	5	1	1	1	1	2
128	6	6	6	6	6	6
129	1	2	1	1	2	1
130	4	4	6	1	4	4
131	3	4	3	2	3	3

132	5	7	2	1	5	4
133	6	6	6	6	6	6
134	5	2	2	1	4	3
135	5	5	6	4	5	5
136	2	2	1	2	1	2
137	7	5	4	6	5	5
138	2	2	1	1	6	2
139	2	1	1	1	1	1
140	6	7	5	1	2	4
141	3	4	2	1	3	3
142	6	5	7	6	5	6
143	2	2	2	1	2	2

144	5	5	6	3	6	5
145	6	7	7	6	6	6
146	3	6	7	1	6	5
147	3	4	3	3	4	3
148	5	5	5	3	5	5
149	3	5	3	5	3	4
150	7	5	7	3	5	5
151	7	7	7	5	6	6
152	5	5	4	1	2	3
153	5	6	7	1	5	5
154	5	3	2	1	5	3
155	6	7	3	3	5	5

156	6	6	6	6	6	6
157	7	6	6	3	6	6
158	5	5	3	1	3	3
159	5	5	5	1	1	3
160	3	2	3	4	3	3
161	5	5	4	6	6	5
162	5	2	3	1	3	3
163	6	3	7	1	4	4
164	6	4	3	4	3	4
165	6	6	1	1	1	3
166	2	1	1	1	3	2
167	4	4	4	1	1	3

168	5	4	4	1	1	3
169	2	2	2	2	2	2
170	1	1	1	1	1	1
171	4	3	4	1	3	3
172	2	2	1	1	2	2
173	5	3	3	2	5	4
174	2	3	2	1	2	2
175	7	7	7	1	7	6

B. Expected Future Financial Stress Variable

Responden Number	Expected Future Financial Security					
	EFFS1	EFFS2	EFFS3	EFFS4	EFFS5	Average
1	5	6	6	6	5	6

2	3	1	1	1	1	1
3	6	5	4	4	4	5
4	7	7	7	6	7	7
5	7	7	7	7	7	7
6	6	7	6	6	7	6
7	5	4	4	4	4	4
8	5	5	5	5	6	5
9	7	7	5	4	6	6
10	6	6	7	7	7	7
11	3	4	4	4	4	4
12	4	4	4	5	4	4
13	6	6	6	6	6	6

14	6	7	6	6	5	6
15	7	7	7	4	4	6
16	4	4	4	6	6	5
17	7	5	4	4	4	5
18	7	4	4	6	4	5
19	6	6	6	6	6	6
20	5	6	6	4	5	5
21	7	7	7	7	7	7
22	5	5	4	5	6	5
23	5	4	4	4	4	4
24	7	7	4	4	7	6
25	3	2	2	2	5	3

26	6	4	4	6	7	5
27	4	4	4	4	6	4
28	4	4	4	3	5	4
29	6	6	6	6	6	6
30	6	3	5	5	6	5
31	5	5	5	4	5	5
32	7	7	7	7	7	7
33	4	4	4	4	4	4
34	5	5	5	4	6	5
35	4	4	3	6	4	4
36	3	2	2	6	6	4
37	4	4	4	4	5	4

38	4	4	4	6	4	4
39	7	7	7	7	7	7
40	6	6	6	6	6	6
41	6	7	6	6	6	6
42	5	5	5	4	5	5
43	5	4	4	7	6	5
44	5	6	6	6	6	6
45	4	4	4	5	4	4
46	6	6	6	6	6	6
47	4	4	4	4	4	4
48	4	4	4	3	4	4
49	6	6	6	6	6	6

50	5	5	6	7	5	6
51	7	6	6	4	6	6
52	5	5	5	3	5	5
53	5	6	5	7	5	6
54	6	7	6	4	6	6
55	4	3	3	3	3	3
56	5	6	5	5	6	5
57	5	6	6	5	5	5
58	3	3	3	3	3	3
59	5	5	2	5	4	4
60	5	5	5	4	5	5
61	6	5	6	3	6	5

62	6	7	6	4	7	6
63	6	6	6	3	6	5
64	6	7	6	7	7	7
65	7	7	5	6	6	6
66	6	5	5	4	6	5
67	7	7	6	7	7	7
68	4	3	2	2	2	3
69	6	7	6	6	6	6
70	4	4	4	2	4	4
71	4	4	3	2	3	3
72	2	3	3	3	3	3
73	3	2	2	2	2	2

74	7	7	7	5	7	7
75	4	4	4	3	3	4
76	6	6	6	6	5	6
77	7	7	7	1	7	6
78	4	4	4	5	5	4
79	6	6	5	6	6	6
80	7	4	6	5	6	6
81	5	4	4	4	6	5
82	3	3	5	2	7	4
83	5	6	6	7	7	6
84	7	6	5	5	6	6
85	5	5	5	6	5	5

86	5	5	4	4	6	5
87	4	6	6	5	7	6
88	5	5	4	3	6	5
89	3	4	4	5	4	4
90	5	5	5	6	6	5
91	6	6	5	5	6	6
92	7	7	5	5	4	6
93	7	7	7	7	7	7
94	4	1	3	3	4	3
95	4	1	2	4	5	3
96	3	2	2	7	3	3
97	7	7	7	5	7	7

98	5	5	5	5	5	5
99	7	7	6	6	6	6
100	7	7	7	6	7	7
101	7	7	7	6	7	7
102	5	2	4	4	5	4
103	7	7	1	5	7	5
104	3	5	4	5	4	4
105	4	1	1	6	1	3
106	6	6	6	7	6	6
107	7	7	5	7	5	6
108	7	5	3	2	6	5
109	6	6	5	3	6	5

110	7	7	7	7	7	7
111	6	6	6	6	6	6
112	4	2	2	4	3	3
113	4	4	5	5	5	5
114	6	6	6	6	6	6
115	5	5	5	5	5	5
116	4	3	3	4	3	3
117	4	4	5	4	5	4
118	6	6	6	7	6	6
119	4	3	3	4	4	4
120	5	5	4	1	2	3
121	4	4	4	6	5	5

122	6	6	6	6	5	6
123	4	4	1	6	5	4
124	7	7	6	6	7	7
125	4	4	4	6	5	5
126	3	3	4	4	4	4
127	7	7	7	7	7	7
128	5	5	6	7	6	6
129	7	7	6	5	7	6
130	4	4	4	4	4	4
131	4	5	3	5	5	4
132	5	6	4	3	7	5
133	6	6	6	6	6	6

134	5	2	5	6	6	5
135	6	4	5	5	6	5
136	6	6	7	6	7	6
137	6	6	7	5	7	6
138	6	6	6	7	6	6
139	6	5	5	6	6	6
140	7	6	6	6	6	6
141	4	4	3	3	4	4
142	2	1	2	2	3	2
143	7	6	6	7	7	7
144	7	6	6	6	7	6
145	6	5	6	6	6	6

146	7	6	7	6	7	7
147	3	3	5	5	5	4
148	2	2	3	3	3	3
149	5	6	7	6	5	6
150	4	3	3	2	1	3
151	4	3	3	5	3	4
152	7	7	7	7	7	7
153	4	4	4	4	4	4
154	4	2	4	5	5	4
155	5	6	5	6	5	5
156	6	6	6	6	6	6
157	5	6	6	7	6	6

158	3	4	3	5	5	4
159	6	6	6	6	6	6
160	5	5	6	5	5	5
161	6	7	7	6	5	6
162	4	3	3	3	5	4
163	6	4	6	6	6	6
164	4	2	3	2	1	2
165	4	3	4	5	5	4
166	6	5	6	6	6	6
167	4	4	4	4	4	4
168	6	6	5	5	5	5
169	5	4	4	5	4	4

170	7	7	7	7	7	7
171	5	7	6	5	6	6
172	6	6	6	5	6	6
173	6	5	5	6	6	6
174	6	6	6	6	6	6
175	5	5	5	3	6	5

C. Financial Behavior Variable

Responden Number	Financial Behavior			
	FB1	FB2	FB3	Average
1	3	6	3	4
2	2	3	1	2
3	6	4	6	5

4	5	4	5	5
5	7	7	7	7
6	6	7	7	7
7	4	6	6	5
8	2	6	3	4
9	2	2	1	2
10	7	7	7	7
11	4	4	5	4
12	7	7	7	7
13	6	6	6	6
14	6	7	6	6
15	7	4	4	5

16	5	7	7	6
17	4	7	7	6
18	2	7	7	5
19	5	6	7	6
20	3	5	4	4
21	7	7	7	7
22	4	6	7	6
23	5	3	6	5
24	5	6	7	6
25	1	6	6	4
26	7	7	7	7
27	6	6	7	6

28	4	6	6	5
29	4	6	6	5
30	6	6	5	6
31	5	6	4	5
32	7	7	7	7
33	2	4	2	3
34	4	4	4	4
35	3	7	7	6
36	2	4	3	3
37	4	6	6	5
38	5	7	7	6
39	7	7	6	7

40	6	6	6	6
41	3	5	6	5
42	4	3	7	5
43	7	6	6	6
44	6	6	6	6
45	7	7	7	7
46	6	6	6	6
47	3	6	6	5
48	2	7	7	5
49	7	4	4	5
50	5	7	5	6
51	5	7	6	6

52	4	4	6	5
53	7	6	6	6
54	2	6	6	5
55	2	3	2	2
56	3	6	6	5
57	6	5	6	6
58	3	4	4	4
59	6	5	4	5
60	3	5	6	5
61	3	6	5	5
62	4	4	5	4
63	3	5	6	5

64	3	7	5	5
65	6	7	6	6
66	3	6	6	5
67	6	7	7	7
68	4	3	6	4
69	6	7	7	7
70	2	1	3	2
71	6	7	7	7
72	4	3	4	4
73	2	4	3	3
74	5	3	5	4
75	2	3	6	4

76	5	6	6	6
77	1	7	7	5
78	4	6	6	5
79	7	6	6	6
80	5	5	5	5
81	5	6	7	6
82	7	6	6	6
83	3	7	7	6
84	5	5	6	5
85	6	6	6	6
86	5	5	3	4
87	4	6	7	6

88	4	5	4	4
89	6	6	6	6
90	5	6	5	5
91	3	5	6	5
92	2	3	3	3
93	7	7	7	7
94	4	2	6	4
95	6	3	6	5
96	7	4	4	5
97	3	6	6	5
98	4	5	5	5
99	6	4	5	5

100	4	7	6	6
101	4	7	5	5
102	2	4	4	3
103	4	4	5	4
104	4	5	4	4
105	7	7	7	7
106	2	6	6	5
107	4	7	7	6
108	3	5	6	5
109	2	5	6	4
110	4	4	5	4
111	7	5	5	6

112	2	4	6	4
113	6	2	4	4
114	6	5	6	6
115	6	7	7	7
116	7	5	6	6
117	3	5	6	5
118	7	7	7	7
119	4	4	5	4
120	3	5	4	4
121	6	6	6	6
122	5	6	6	6
123	6	5	6	6

124	5	6	6	6
125	6	3	7	5
126	7	6	5	6
127	7	7	7	7
128	5	6	5	5
129	6	4	6	5
130	4	4	6	5
131	4	4	6	5
132	3	2	6	4
133	6	6	6	6
134	5	3	6	5
135	4	7	6	6

136	4	5	5	5
137	7	6	6	6
138	6	7	7	7
139	7	7	7	7
140	7	7	7	7
141	2	3	6	4
142	2	2	5	3
143	7	6	6	6
144	6	6	7	6
145	2	5	6	4
146	7	6	7	7
147	5	6	6	6

148	6	5	6	6
149	5	6	7	6
150	3	2	3	3
151	6	7	7	7
152	4	6	5	5
153	2	2	2	2
154	6	6	7	6
155	5	6	7	6
156	6	6	6	6
157	7	6	7	7
158	7	7	7	7
159	5	7	6	6

160	6	5	5	5
161	7	5	6	6
162	3	3	5	4
163	4	7	7	6
164	4	1	2	2
165	6	6	6	6
166	7	6	6	6
167	6	4	5	5
168	4	4	5	4
169	6	6	6	6
170	7	7	7	7
171	2	3	5	3

172	2	5	5	4
173	5	5	6	5
174	5	7	7	6
175	5	6	6	6

D. Financial Stress Variable

Responden Number	Financial Stress					
	FS1	FS2	FS3	FS4	FS5	Average
1	1	7	7	5	5	5
2	7	7	7	7	5	7
3	4	6	6	4	6	5
4	4	5	5	6	5	5
5	1	7	1	7	3	4

6	4	6	6	6	6	6
7	4	5	5	5	6	5
8	1	4	5	4	5	4
9	2	5	4	4	2	3
10	1	5	5	6	6	5
11	3	6	7	5	7	6
12	2	4	7	7	7	5
13	3	4	4	4	4	4
14	5	4	3	3	7	4
15	7	7	7	7	7	7
16	4	1	1	2	2	2
17	1	5	5	5	6	4

18	2	3	4	7	7	5
19	1	3	5	1	4	3
20	6	5	5	6	5	5
21	1	1	1	1	1	1
22	2	2	2	4	2	2
23	2	4	4	4	4	4
24	7	7	7	7	7	7
25	1	3	3	6	6	4
26	6	7	7	6	7	7
27	3	2	3	3	2	3
28	1	4	6	4	5	4
29	3	6	5	5	5	5

30	2	5	3	3	2	3
31	6	3	3	3	4	4
32	3	4	4	4	1	3
33	2	6	6	6	6	5
34	3	3	2	3	2	3
35	2	2	4	2	6	3
36	2	5	2	2	4	3
37	6	7	6	6	7	6
38	4	6	6	5	5	5
39	4	7	6	7	7	6
40	2	2	2	2	2	2
41	4	6	6	5	6	5

42	1	4	3	4	5	3
43	4	5	2	6	5	4
44	1	4	2	4	4	3
45	6	7	7	7	7	7
46	5	7	6	6	6	6
47	4	7	7	7	7	6
48	3	3	3	5	5	4
49	1	4	4	2	2	3
50	4	5	5	2	6	4
51	1	2	2	1	3	2
52	3	6	5	4	5	5
53	2	3	2	1	5	3

54	2	1	2	1	2	2
55	5	5	6	5	5	5
56	2	3	3	1	3	2
57	2	5	2	5	5	4
58	5	5	5	5	3	5
59	1	7	7	4	7	5
60	4	6	7	7	7	6
61	2	4	3	1	3	3
62	1	5	7	4	3	4
63	2	2	1	2	4	2
64	2	1	1	1	3	2
65	1	2	2	1	4	2

66	2	2	1	1	3	2
67	1	2	1	3	3	2
68	4	6	7	2	6	5
69	4	4	4	4	4	4
70	3	3	6	6	6	5
71	3	7	4	4	4	4
72	3	6	6	6	6	5
73	6	6	5	4	4	5
74	1	6	6	6	2	4
75	1	5	4	3	3	3
76	3	4	3	3	5	4
77	1	1	1	1	7	2

78	4	7	7	4	2	5
79	4	6	7	4	4	5
80	7	7	7	7	7	7
81	4	5	4	5	5	5
82	2	5	2	2	5	3
83	3	5	5	3	3	4
84	5	7	5	3	7	5
85	5	6	6	5	4	5
86	3	4	3	3	4	3
87	4	7	7	5	4	5
88	3	6	7	3	2	4
89	2	3	2	2	5	3

90	4	3	3	3	4	3
91	4	5	5	6	5	5
92	3	6	6	4	4	5
93	7	7	7	7	7	7
94	7	7	6	4	5	6
95	2	6	6	6	5	5
96	2	7	6	7	7	6
97	7	7	7	7	7	7
98	3	4	4	2	3	3
99	1	3	4	1	4	3
100	2	2	1	1	1	1
101	1	6	6	3	3	4

102	3	4	4	4	3	4
103	6	6	6	6	7	6
104	3	5	4	5	3	4
105	5	7	7	7	7	7
106	1	1	1	1	2	1
107	1	1	2	1	1	1
108	6	7	6	6	6	6
109	2	3	3	2	3	3
110	5	7	4	4	4	5
111	4	5	4	4	5	4
112	3	7	7	4	6	5
113	4	7	5	6	5	5

114	2	2	2	2	2	2
115	1	4	3	3	3	3
116	4	5	5	4	5	5
117	6	7	6	4	6	6
118	4	5	3	2	3	3
119	6	7	6	6	5	6
120	3	7	7	3	7	5
121	1	3	3	2	3	2
122	2	2	2	2	2	2
123	6	7	6	5	6	6
124	6	7	6	5	5	6
125	3	6	6	6	4	5

126	6	7	6	5	6	6
127	5	5	5	1	1	3
128	6	5	6	5	6	6
129	7	6	5	2	5	5
130	2	6	6	6	6	5
131	5	6	5	4	5	5
132	7	6	7	7	6	7
133	6	7	7	5	5	6
134	6	7	7	5	7	6
135	5	5	3	5	4	4
136	2	4	3	2	1	2
137	7	6	7	7	7	7

138	1	6	6	7	7	5
139	2	2	5	6	5	4
140	4	6	5	5	4	5
141	4	5	5	5	4	5
142	6	7	7	6	5	6
143	3	2	2	2	6	3
144	6	7	7	7	7	7
145	2	1	7	7	7	5
146	1	6	7	5	7	5
147	5	5	5	6	6	5
148	6	7	7	6	6	6
149	2	5	6	3	2	4

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161	7	7	6	7	7	7

162	3	6	6	3	4	4
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168	5	5	5	2	2	4
169	4	4	4	4	4	4
170	6	2	2	2	2	3
171	4	7	5	4	5	5
172	2	6	3	5	6	4
173	3	6	6	6	5	5

174	2	2	2	2	2	2
175	5	7	7	7	3	6

E. Digital Knowledge Variable

Responden Number	Digital Knowledge					
	DK1	DK2	DK3	DK4	DK5	Average
1	5	5	6	5	5	5
2	6	4	1	7	7	5
3	5	6	4	6	5	5
4	6	6	6	6	7	6
5	5	6	4	7	7	6
6	6	6	7	6	7	6
7	6	6	4	4	5	5

8	5	7	7	6	5	6
9	1	1	2	1	1	1
10	6	6	5	6	6	6
11	7	5	5	6	4	5
12	7	7	7	7	7	7
13	6	6	6	6	6	6
14	5	6	6	6	5	6
15	4	4	7	6	7	6
16	6	6	6	6	5	6
17	7	7	7	6	7	7
18	3	2	2	7	2	3
19	6	7	5	7	6	6

20	4	5	4	4	5	4
21	7	7	7	7	7	7
22	6	6	6	6	6	6
23	7	6	6	6	4	6
24	7	7	4	7	5	6
25	4	3	6	4	3	4
26	5	5	6	6	6	6
27	6	6	5	6	5	6
28	6	4	4	4	4	4
29	6	6	6	6	5	6
30	7	6	5	7	5	6
31	4	4	4	5	4	4

32	7	7	7	7	7	7
33	2	2	2	4	2	2
34	5	6	4	6	4	5
35	7	7	7	7	2	6
36	6	5	6	6	3	5
37	6	5	6	6	5	6
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39	7	5	5	5	4	5
40	6	6	6	6	6	6
41	6	6	6	6	6	6
42	7	7	7	7	7	7
43	4	2	5	6	4	4

44	6	7	5	5	5	6
45	6	4	2	6	4	4
46	6	6	6	5	6	6
47	6	7	4	6	4	5
48	6	6	4	4	4	5
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55	6	6	4	3	3	4

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58	3	5	5	5	5	5
59	4	4	2	2	2	3
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64	6	7	6	6	5	6
65	7	7	6	6	5	6
66	6	6	6	5	4	5
67	7	7	7	7	7	7

68	6	7	6	6	6	6
69	5	2	6	7	5	5
70	4	2	6	6	4	4
71	6	7	6	6	7	6
72	4	6	3	3	4	4
73	4	3	4	4	3	4
74	7	7	6	7	6	7
75	7	7	6	6	4	6
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77	7	7	7	7	7	7
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79	6	7	6	7	7	7

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81	4	6	5	6	5	5
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89	4	5	4	5	4	4
90	7	6	7	7	7	7
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92	3	7	4	4	4	4
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94	7	7	7	6	7	7
95	6	7	6	5	6	6
96	7	7	6	7	7	7
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100	6	2	7	6	6	5
101	5	2	6	5	6	5
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103	7	7	6	7	6	7

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105	7	7	7	7	7	7
106	6	6	7	7	6	6
107	7	7	5	7	7	7
108	6	7	5	6	5	6
109	3	6	3	2	2	3
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111	6	6	7	7	6	6
112	4	5	2	6	4	4
113	6	3	3	5	5	4
114	6	6	5	6	3	5
115	5	6	5	5	4	5

116	7	7	7	7	7	7
117	6	7	7	6	6	6
118	6	6	7	7	6	6
119	5	5	6	5	5	5
120	7	7	5	5	5	6
121	7	7	6	6	6	6
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125	5	7	6	7	6	6
126	6	7	5	6	4	6
127	7	7	7	7	7	7

128	5	6	5	6	5	5
129	6	7	6	6	7	6
130	6	6	6	6	6	6
131	5	6	6	5	4	5
132	6	7	7	6	5	6
133	6	7	6	5	4	6
134	5	7	6	7	5	6
135	6	6	1	6	5	5
136	7	7	5	5	6	6
137	5	6	6	7	6	6
138	6	3	7	6	6	6
139	6	7	5	6	6	6

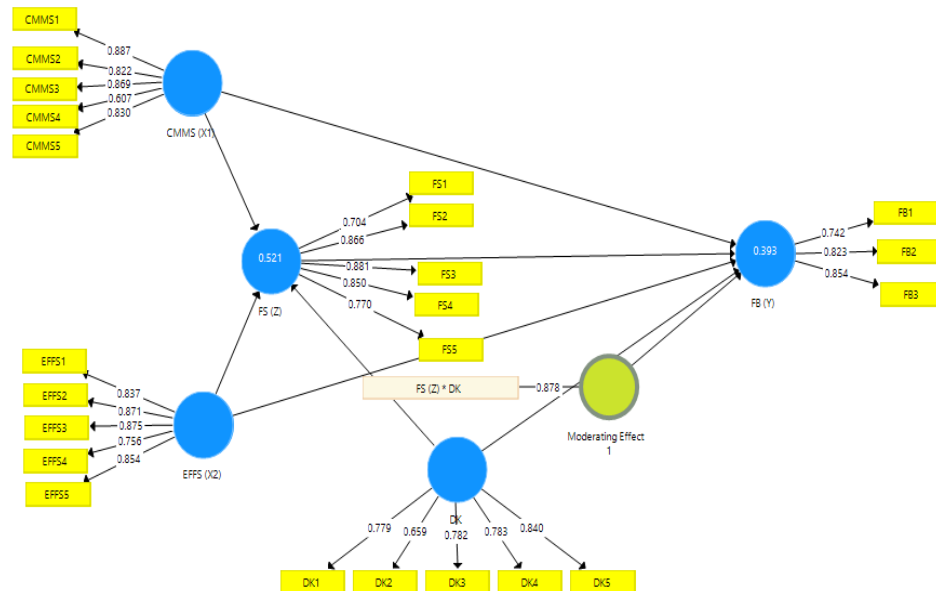
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145	6	7	6	6	7	6
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147	6	6	7	6	6	6
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149	6	7	6	6	5	6
150	7	7	6	6	6	6
151	7	7	6	6	6	6

152	6	6	5	6	4	5
153	4	7	6	7	6	6
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161	7	6	7	5	7	6
162	7	7	6	6	6	6
163	7	7	7	7	7	7

164	3	4	2	5	2	3
165	7	7	6	7	7	7
166	7	7	7	7	7	7
167	5	7	6	6	5	6
168	6	6	6	6	6	6
169	6	7	6	6	6	6
170	6	6	5	7	7	6
171	6	7	5	4	3	5
172	6	7	5	6	6	6
173	6	7	6	6	6	6
174	7	7	7	7	7	7
175	7	7	7	7	7	7

Appendix 3 Measurement Model Result (Outer Model)

A. Outer Loading



B. AVE

Average Variance Extracted (AVE)

Mean, STDEV, T-Values, P-Values	Confidence Intervals	Confidence Intervals Bias C...	Samples	Co	
	Original Sampl...	Sample Mean (...)	Standard Devia...	T Statistics (O...	P Values
CMMS (X1)	0.655	0.656	0.028	23.357	0.000
DK	0.594	0.587	0.050	11.781	0.000
EFPS (X2)	0.705	0.704	0.031	22.480	0.000
FB (Y)	0.653	0.652	0.033	19.912	0.000
FS (Z)	0.667	0.667	0.028	23.828	0.000
Moderating Effect 1	1.000	1.000	0.000		

C. Composite Reliability

Construct Reliability and Validity

Matrix	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
CMMS (X1)	0.866	0.895	0.903	0.655
DK	0.830	0.846	0.879	0.594
EFFS (X2)	0.896	0.906	0.922	0.705
FB (Y)	0.732	0.735	0.849	0.653
FS (Z)	0.873	0.881	0.909	0.667

D. Cronbach's Alpha

Cronbach's Alpha

Mean, STDEV, T-Values, P-Values...	Confidence Intervals	Confidence Intervals Bias C...	Samples	Copy to Clipboard:	Excel Format	R Format
	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values	
CMMS (X1)	0.866	0.866	0.017	50.693	0.000	
DK	0.830	0.824	0.035	23.538	0.000	
EFFS (X2)	0.896	0.896	0.015	59.053	0.000	
FB (Y)	0.732	0.729	0.039	18.643	0.000	
FS (Z)	0.873	0.872	0.017	52.840	0.000	
Moderating Eff...	1.000	1.000				

E. Heterotrait-Monotrait Ratio (HTMT)

Heterotrait-Monotrait Ratio (HTMT)

Confidence Intervals	Confidence Intervals Bias Corrected	Samples	Copy to Clipboard:	Excel Format	R Format
	Original Sample (O)	Sample Mean (M)	2.5%	97.5%	
DK -> CMMS (X1)	0.110	0.153	0.095	0.222	
EFFS (X2) -> CMMS (X1)	0.252	0.256	0.142	0.385	
EFFS (X2) -> DK	0.305	0.318	0.181	0.486	
FB (Y) -> CMMS (X1)	0.265	0.291	0.169	0.435	
FB (Y) -> DK	0.585	0.588	0.440	0.745	
FB (Y) -> EFFS (X2)	0.557	0.554	0.373	0.709	
FS (Z) -> CMMS (X1)	0.800	0.801	0.730	0.864	
FS (Z) -> DK	0.096	0.152	0.099	0.219	
FS (Z) -> EFFS (X2)	0.298	0.298	0.160	0.432	
FS (Z) -> FB (Y)	0.192	0.226	0.145	0.340	
Moderating Effect 1 -> CMMS (X1)	0.340	0.338	0.218	0.470	
Moderating Effect 1 -> DK	0.143	0.177	0.053	0.390	
Moderating Effect 1 -> EFFS (X2)	0.137	0.143	0.048	0.271	
Moderating Effect 1 -> FB (Y)	0.122	0.150	0.052	0.323	
Moderating Effect 1 -> FS (Z)	0.317	0.318	0.171	0.458	

Appendix 4 Structural Model Result (Inner Model)

A. Path Coefficient

Path Coefficients

Mean, STDEV, T-Values, P-Values...	Confidence Intervals	Confidence Intervals Bias C...	Samples	Copy to Clipboard:		
	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O /STDEV)	P Values	
CMMS (X1) -> FB (Y)	-0.305	-0.312	0.086	3.549	0.000	
CMMS (X1) -> FS (Z)	0.684	0.689	0.035	19.326	0.000	
DK -> FB (Y)	0.380	0.383	0.081	4.715	0.000	
DK -> FS (Z)	0.032	0.035	0.052	0.608	0.544	
EFFS (X2) -> FB (Y)	0.364	0.362	0.069	5.249	0.000	
EFFS (X2) -> FS (Z)	-0.129	-0.131	0.047	2.767	0.006	
FS (Z) -> FB (Y)	0.224	0.222	0.086	2.601	0.010	
Moderating Effect 1 -> FB (Y)	0.034	0.047	0.084	0.406	0.685	

B. R-Square

R Square

Matrix	R Square	R Square Adjusted	Copy to Clipboard:		
	R Square	R Square Adjusted			
FB (Y)	0.393	0.375			
FS (Z)	0.521	0.512			

C. Indirect Effects

Total Indirect Effects

Mean, STDEV, T-Values, P-Values...	Confidence Intervals	Confidence Intervals Bias C...	Samples	Copy to Clipboard:		
	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O /STDEV)	P Values	
CMMS (X1) -> FB (Y)	0.153	0.153	0.060	2.561	0.011	
CMMS (X1) -> FS (Z)						
DK -> FB (Y)	0.007	0.007	0.012	0.591	0.555	
DK -> FS (Z)						
EFFS (X2) -> FB (Y)	-0.029	-0.030	0.017	1.687	0.092	
EFFS (X2) -> FS (Z)						
FS (Z) -> FB (Y)						