



## BEHAVIORAL FACTORS AFFECTING PERSONAL FINANCIAL MANAGEMENT AND SAVINGS HABITS: A CASE STUDY OF GEN Z

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### Abstract

This study examines the influence of behavioral factors (self-control, financial anxiety, overconfidence, mental accounting, and future orientation) on personal financial management and saving behavior, with financial literacy as a moderating variable. Using PLS-SEM on diverse population data, the findings reveal that self-control, mental accounting, and future orientation positively impact financial management, while financial anxiety has a negative effect. Overconfidence also shows a positive influence, though it carries potential risks. Effective financial management significantly enhances saving behavior. Financial literacy strengthens the positive effects of self-control, overconfidence, mental accounting, and future orientation on financial management. These results highlight the critical role of behavioral finance and financial education in promoting sound financial decisions and saving habits.

**Keywords:** behavioral finance; financial management; savings habits; personal finance

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## INTRODUCTION

Over the past decade, personal financial management has become a central theme in the study of financial well-being (Hirvonen, 2018; Nepomuceno & Laroche, 2017). Effective personal finance management, characterized by budgeting, saving, and prudent spending plays a crucial role in ensuring individual financial stability and long-term economic security (Lusardi, 2019). However, despite its recognized importance, many individuals continue to face difficulties in consistently managing their finances. For example, an OECD survey in 2022 reported that only 38% of adults regularly maintain a documented personal budget, indicating a significant gap between awareness and implementation of sound financial practices. These challenges are frequently linked to behavioral factors that influence financial decision-making. Behavioral finance, as an interdisciplinary field combining psychology and economics, investigates how cognitive biases,

emotional responses, and personality traits shape financial behavior, often leading to deviations from the predictions of classical rational choice models (Thaler, 2015).

Studies have demonstrated that behavioral traits like self-control, future orientation, and risk tolerance are significant predictors of financial habits (Rodrigues & Gopalakrishna, 2023). For instance, individuals with high levels of self-control tend to save more and manage their expenses effectively, while those with impulsive tendencies often exhibit poor financial discipline and limited savings (Hashmi et al., 2021; Sekścińska et al., 2021). As financial planning and literacy continue to play pivotal roles in enhancing personal financial outcomes, it is increasingly vital to examine the psychological and behavioral influences on financial management and savings behaviors (Mpaata et al., 2023).

With globalization and technological advancements, financial decision-making has become increasingly complex (Anong & Fisher, 2013; Boto-García et al., 2022). The accessibility of credit, online shopping, and digital payment systems introduces new challenges and opportunities for individuals managing their finances (Lusardi & Tufano, 2015). The widespread use of these tools, however, has brought about new behavioral tendencies—such as over-spending and excessive reliance on credit—that challenge traditional savings habits. Given these emerging trends, understanding the role of behavioral factors in personal finance has become increasingly relevant for both policymakers and financial educators seeking to enhance financial literacy and promote better savings practices (Fernandes et al., 2014).

The influence of cognitive and psychological factors on personal finance has been extensively studied, revealing that behavioral tendencies often override rational financial decisions (Kahneman & Tversky, 2013). Among the most influential cognitive biases, overconfidence and mental accounting significantly shape individual financial behavior. Overconfidence can lead individuals to overestimate their financial knowledge or underestimate potential risks, often resulting in imprudent decisions such as excessive spending, risky investments, or insufficient savings (Buccioli et al., 2021; Levorin, 2021). Meanwhile, mental accounting refers to the tendency to mentally categorize money into separate “accounts” based on subjective criteria, for example, treating bonuses or tax refunds differently from regular income which can distort saving and spending priorities (Thaler, 2015). Understanding these biases is essential for developing targeted financial education programs that address the specific ways individuals deviate from normative financial behavior.

In addition to cognitive biases, emotional factors such as anxiety, stress, and optimism can significantly affect financial choices. Research suggests that financial anxiety often discourages individuals from engaging in proactive financial planning, leading to increased financial vulnerability (Kim et al., 2016; Yang et al., 2021). Conversely, optimism bias—where individuals expect positive outcomes despite evident risks—can result in inadequate savings for emergencies or retirement. The exploration of these behavioral factors provides a comprehensive understanding of how psychological dynamics influence personal finance, highlighting the need for behavioral insights in financial education (Anderson, 2016; Bai, 2023).

Although behavioral finance has attracted increasing scholarly attention, a significant gap remains in understanding how specific psychological traits shape personal financial management and saving behaviors, especially across diverse demographic and cultural contexts. This issue is particularly pressing given the alarming rise in consumer debt and persistently low savings rates in many developing countries. For instance, data from the International Monetary Fund in 2023 indicate that global household debt has increased by over 12% since 2020, while the World Bank reports that Indonesia’s gross domestic savings rate remains below 30%, significantly lagging behind regional peers such as Malaysia and Thailand. These trends underscore the urgency of identifying behavioral barriers that inhibit sound financial practices.

While previous studies have established the importance of financial literacy in promoting financial well-being (Lusardi & Mitchell, 2007), relatively few have investigated the interplay between behavioral traits and financial literacy in influencing actual financial behavior—particularly within non-Western, emerging market settings. Moreover, most existing research has treated financial literacy as a direct predictor, rather than a moderating factor that might amplify or mitigate the influence of traits such as self-control, overconfidence, or future orientation on financial outcomes. This study addresses that theoretical gap by examining the moderating role of financial literacy in the relationship between behavioral traits and both financial

management and saving behaviors, using a young, digitally active Indonesian population as the contextual focus.

The findings from this study have practical implications for multiple stakeholders. For policymakers and financial institutions, the insights generated can inform the design of behaviorally informed financial literacy programs and tailored savings interventions that align with individuals' psychological profiles. For example, strategies that strengthen self-control or promote future orientation could be integrated into financial education curricula, while interventions targeting financial anxiety might require complementary emotional or cognitive-behavioral support. This study thereby offers a novel and contextually relevant contribution to the behavioral finance literature by combining empirical testing, moderation analysis, and context-sensitive intervention potential.

## METHOD

This study employs a quantitative-cross-sectional method because it enables the examination of relationships between multiple behavioral constructs and financial behaviors using statistical models. Compared to qualitative approaches, which focus on in-depth understanding of individual experiences, a quantitative method allows for generalizing findings across a broader population through numerical data analysis. A mixed-method design was considered but deemed less efficient for this research, as the study's primary aim is to test hypotheses regarding causal relationships and moderation effects, which are best addressed using quantitative techniques like PLS-SEM.

The population for this study includes individuals aged 18 -25, with varying backgrounds in terms of income, employment, and education, to capture a wide range of personal financial management behaviors. A sample size of 400 participants is deemed appropriate for achieving sufficient statistical power and ensuring the representativeness of the findings (Hair Jr et al., 2021). A stratified random sampling technique is used to get a representative sample that takes into consideration variance across significant demographic characteristics, including age, gender, and income level. This sampling strategy enhances the generalizability of the findings by minimizing potential biases associated with disproportionate representation of specific demographic subgroups.

Data is gathered using an online survey that participants self-administer, disseminated through email and various social media channels. The digital format is selected to improve accessibility and convenience, enabling respondents to participate at a time that suits them. The survey remains open for a duration of four weeks, during which follow-up reminders are periodically issued to enhance engagement and optimize response rates. Before starting the survey, all participants are made aware of the goal of the study and the guarantee of anonymity, and informed consent is obtained electronically.

Each variable in this study is measured using established scales validated in previous research. These scales are adapted to fit the specific context of this study. All items are measured on a 5-point Likert scale ranging from 1 ("Strongly Disagree") to 5 ("Strongly Agree"), facilitating ease of response and consistency in data interpretation.

Table 1. Research Instruments

Construct	Source	Example of Items	Number of Item	Scale
Self-Control	(Baumeister, 2018)	"I can resist temptations that lead to unnecessary spending."	5 - 7 item	Likert 5 point (1-5)
Financial Anxiety	(Grable, 2016)	"I often feel anxious when thinking about my financial situation."	5 - 7 item	Likert 5 point (1-5)
Overconfidence	(Barber et al., 2020)	"I am confident in my ability to make the right financial decisions."	4 - 6 item	Likert 5 point (1-5)
Mental Accounting	(Thaler, 2015)	"I keep separate accounts in my mind for different types of expenses."	4 - 6 item	Likert 5 point (1-5)
Future Orientation	(Hastings et al., 2013)	"I save today to ensure financial stability in the future."	5 - 7 item	Likert 5 point (1-5)
Financial Literacy	(Lusardi, 2019)	Basic questions on interest rates, inflation, diversification	3 - 5 item	True/False scores, converted to Likert scores

Financial Management & Saving Behavior	(Bhabha et al., 2014)	"I regularly set aside a portion of my income for savings."	5 - 7 item	Likert 5 point
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The main analytical method used in this study is Partial Least Squares Structural Equation Modeling (PLS-SEM), which is considered appropriate for analyzing complex causal relationships involving latent variables. The use of PLS-SEM is justified by several methodological strengths, including its flexibility in handling non-normally distributed data, its suitability for small to medium sample sizes, and its robustness in testing exploratory and predictive research models. These characteristics make PLS-SEM particularly relevant for behavioral finance research, where psychological and cognitive factors often influence financial decision-making processes (Hair et al., 2017).

The evaluation of the measurement model (outer model) is conducted prior to structural model assessment. This process involves several key validity and reliability tests. Convergent validity is assessed through the Average Variance Extracted (AVE), where a value exceeding 0.50 indicates that more than half of the variance in the indicators is explained by the latent construct. To evaluate internal consistency reliability, both Composite Reliability (CR) and Cronbach's Alpha are examined, with acceptable thresholds being above 0.70 for each. Furthermore, discriminant validity is tested using two methods: the Fornell-Larcker criterion, which requires that the square root of AVE for each construct surpasses its correlation with other constructs, and the Heterotrait-Monotrait Ratio (HTMT), where values below 0.90 confirm discriminant validity among theoretically distinct constructs (Roemer et al., 2021).

Following the validation of the measurement model, the structural model (inner model) is analyzed to examine the hypothesized relationships between latent variables. This includes evaluating path coefficients ( $\beta$ ) through bootstrapping, which determines the statistical significance of direct and indirect effects. Additionally, the model's explanatory power is measured using the coefficient of determination ( $R^2$ ), while the effect size ( $f^2$ ) assesses the magnitude of individual predictor contributions to endogenous variables. To further assess the model's predictive relevance,  $Q^2$  values are obtained through a blindfolding procedure, which estimates the model's accuracy in predicting omitted data points.

A central aspect of this study is the investigation of financial literacy as a moderating variable. The product indicator approach is employed for moderation analysis, whereby interaction terms are created by multiplying the standardized indicators of the predictor variables (e.g., self-control, financial anxiety) with those of financial literacy. This approach is selected due to its methodological compatibility with reflective measurement models and its effectiveness in estimating interaction effects in PLS-SEM (Henseler et al., 2015). The significance of moderation effects is evaluated through bootstrapping, and the interpretation focuses on the significance of interaction terms and the change in the  $R^2$  value of the dependent variables. This analysis provides insights into whether financial literacy strengthens or weakens the relationship between behavioral constructs and financial management and saving behaviors.

## RESULTS

The validity and reliability of the measurement model were assessed using CA, CR, and AVE in order to guarantee convergence and discriminant validity.

Table 2. Reliability and Validity of Constructs

Construct	Cronbach's Alpha	Composite Reliability	Average Variance Extracted
Self-Control	0,821	0,887	0,612
Financial Anxiety	0,790	0,860	0,595
Overconfidence	0,763	0,841	0,572
Mental Accounting	0,811	0,879	0,600
Future Orientation	0,857	0,892	0,642
Financial Literacy	0,880	0,916	0,683
Financial Management	0,836	0,882	0,689
Savings Habits	0,847	0,891	0,655

Source: Data Analysis, 2024

Every construct in the measurement model met the internal consistency threshold values, with CA and CR scores both exceeding the recommended cutoff of 0.70.

Discriminant validity was confirmed using the Fornell-Larcker criterion and HTMT ratios.

Table 3. Fornell-Larcker Criterion

Construct	SC	FA	O	MA	FO	FL	FM	SH
Self-Control	0,784							
Financial Anxiety	0,552	0,773						
Overconfidence	0,430	0,385	0,755					
Mental Accounting	0,601	0,466	0,402	0,786				
Future Orientation	0,587	0,491	0,377	0,552	0,800			
Financial Literacy	0,522	0,411	0,392	0,472	0,523	0,821		
Financial Management	0,470	0,453	0,440	0,503	0,544	0,500	0,791	
Savings Habits	0,533	0,520	0,417	0,482	0,567	0,528	0,572	0,800

Source: Data Analysis, 2024

The Fornell-Larcker criterion is met as each construct's AVE square root (diagonal values) is greater than its correlations with other constructs, confirming discriminant validity.

After confirming the reliability and validity of the constructs, we evaluated the structural model to test the hypotheses. Bootstrapping (5,000 resamples) was used to assess the path coefficients' significance.

Table 4. Structural Model Path Coefficients

Path	Path Coefficient ( $\beta$ )	t-Value	p-Value	Result
Self-Control → Fin. Mgmt	0,252	4,011	0,001	Supported
Financial Anxiety → Fin. Mgmt	-0,221	3,329	0,001	Supported
Overconfidence → Fin. Mgmt	0,159	2,743	0,006	Supported
Mental Accounting → Fin. Mgmt	0,180	3,211	0,001	Supported
Future Orientation → Fin. Mgmt	0,272	4,320	0,001	Supported
Fin. Mgmt → Savings Habits	0,300	5,130	0,001	Supported

Source: Data Analysis, 2024

All path coefficients are significant, supporting each hypothesis. Specifically, self-control, financial anxiety, overconfidence, mental accounting, and future orientation significantly influence financial management. Furthermore, financial management significantly predicts savings habits, supporting the relationship hypothesized.

The moderation analysis examined whether financial literacy strengthens the relationship between each behavioral factor and financial management.

Table 5. Moderation Analysis Results

Interaction Term	Path Coefficient	t-value	p-value	Moderation Effect
Financial Literacy × Self-Control	0,122	2,881	0,004	Significant
Financial Literacy × Financial Anxiety	-0,092	1,926	0,055	Not Significant
Financial Literacy × Overconfidence	0,100	2,311	0,021	Significant
Financial Literacy × Mental Accounting	0,083	2,011	0,045	Significant
Financial Literacy × Future Orientation	0,130	3,150	0,001	Significant

Source: Data Analysis, 2024

Financial literacy significantly moderates the effect of self-control, overconfidence, mental accounting, and future orientation on financial management. This suggests that higher financial literacy strengthens these behavioral factors' influence on personal financial management.

The findings support the role of behavioral factors in shaping financial management practices, with financial literacy amplifying certain relationships. Self-control, future orientation, and mental accounting positively impact financial management, which subsequently enhances savings habits. Financial anxiety

negatively impacts financial management, but its effect is not moderated by financial literacy. These insights underscore the importance of behavioral and educational interventions in improving financial behaviors.

## DISCUSSION

The findings reveal a strong positive association between self-control and financial management. The structural model showed a path coefficient of 0.252, with a t-value of 4.011 and a p-value  $< 0.001$ , indicating that this relationship is statistically significant and robust. This supports previous research indicating that self-control is essential for avoiding impulsive spending and fostering effective budgeting behaviors (Allom et al., 2018; Manfrè, 2017; Xiao & Porto, 2019). Individuals with high self-control are more likely to prioritize long-term financial goals over immediate gratification, which is a fundamental component of sound financial management. Therefore, cultivating self-control can serve as a strategic intervention point for enhancing financial behaviors, particularly among younger adults or those with impulsive tendencies. In practical terms, financial counseling programs might benefit from incorporating self-control-building activities such as commitment devices, delay-of-reward training, and budget planning exercises to help clients gain better control over their financial decisions (Castro-González et al., 2020).

Financial anxiety showed a significant negative effect on financial management practices. The structural model indicated a path coefficient of -0.221, with a t-value of 3.329 and a p-value of 0.001, demonstrating a statistically significant inverse relationship. This finding is consistent with previous studies suggesting that individuals experiencing high levels of financial anxiety are more likely to engage in avoidance behaviors—neglecting essential financial tasks such as budgeting, saving, or monitoring expenditures due to heightened stress and worry (Razali & Wah, 2011). Financial anxiety may function as a psychological barrier that impairs rational decision-making, thereby reducing the likelihood of proactive financial behavior (Dahal, 2024; Fariana et al., 2021). These results highlight the importance of targeted interventions that not only improve financial knowledge but also address emotional triggers. Financial therapy or counseling strategies aimed at building financial confidence and reducing anxiety-related distress may help individuals better manage their finances, especially when knowledge alone is insufficient.

Overconfidence was found to have a positive and statistically significant impact on financial management. The structural model revealed a path coefficient of 0.159, with a t-value of 2.743 and a p-value of 0.006, indicating that individuals with higher levels of overconfidence tend to be more actively engaged in managing their finances. This finding aligns with certain perspectives in behavioral finance that suggest a confident self-perception can enhance one's willingness to make financial decisions and take control of personal financial matters (Moore, 2018). Overconfident individuals may feel more competent in handling their money, which encourages hands-on financial management. However, this trait can also present risks; excessive confidence may lead to overly optimistic assumptions, underestimation of risks, or poor judgment in complex financial decisions. Therefore, while overconfidence may stimulate financial action, it must be balanced with realistic self-assessment. Financial education programs should aim not only to build competence but also to cultivate self-awareness—helping individuals recognize the boundaries of their financial knowledge and avoid the potential pitfalls of overestimating their abilities (Davydenko et al., 2021; Kaur & Sahni, 2024).

Mental accounting demonstrated a significant positive effect on financial management, reinforcing Thaler (2015) behavioral economic theory that individuals use mental frameworks to categorize and control spending. This practice allows people to compartmentalize funds for specific purposes, such as savings or monthly expenses, which aids in effective budget allocation and expense tracking. Mental accounting can thus be beneficial in managing finances, as it allows individuals to assign funds for specific needs and adhere to financial plans. The positive impact of mental accounting on financial management highlights the value of developing budgeting strategies that align with individuals' natural tendencies to compartmentalize money. Financial literacy programs could emphasize practical budgeting techniques that take advantage of mental accounting to strengthen financial management behaviors.

The study revealed a strong and statistically significant relationship between future orientation and financial management, with a path coefficient of 0.272, a t-value of 4.320, and a p-value  $< 0.001$ . This finding

supports previous research emphasizing that a future-oriented mindset plays a key role in fostering disciplined financial behaviors, such as budgeting and saving (Hirvonen, 2018). Individuals with a strong future orientation tend to consider the long-term consequences of their financial choices, which supports more responsible money management and planning aligned with delayed gratification principles.

However, this relationship should be correlated within the context of the current study's sample which is primarily young adults aged 18–25 in Indonesia, many of whom are students or early-career workers with increasing exposure to digital financial tools. As such, the positive effect of future orientation may not generalize to older demographics, informal workers, or populations with lower financial access or education. Socioeconomic background, employment stability, and digital literacy could also mediate or moderate how future orientation translates into actual financial behavior. Therefore, while future orientation can be a useful psychological driver, its practical impact is likely to vary across different groups, suggesting the need for customized financial literacy programs that account for demographic and contextual differences in motivation and opportunity.

The study found that effective financial management significantly enhances savings habits, with a path coefficient of 0.300, a *t*-value of 5.130, and a *p*-value < 0.001. This finding reinforces earlier research indicating that disciplined practices such as budgeting, expense tracking, and income planning are essential to fostering consistent saving behavior (Velinov & Hilger, n.d.). Individuals who regularly manage their income and control their spending are more likely to build a sustainable saving routine, contributing to both financial resilience and long-term security.

Importantly, this result highlights the need for financial education that goes beyond theoretical knowledge. Rather than relying on general awareness campaigns, educational programs should offer practical and behaviorally informed tools. For example, gamified budgeting applications can help users engage with financial tasks in an interactive manner, while workshops incorporating behavior change techniques such as goal setting and habit tracking, can support the development of real-world financial discipline. In addition, incorporating financial management modules into high school or vocational curricula can introduce young individuals to structured saving strategies early on, improving their readiness to manage money in adulthood. These targeted approaches are particularly relevant for younger populations with limited financial experience and can significantly contribute to the development of long-term saving behavior.

Financial literacy was found to be a significant moderator in the relationship between several behavioral traits namely self-control, overconfidence, mental accounting, and future orientation, and financial management. Specifically, the interaction effects were statistically significant for self-control ( $\beta = 0.122$ ,  $p = 0.004$ ), overconfidence ( $\beta = 0.100$ ,  $p = 0.021$ ), mental accounting ( $\beta = 0.083$ ,  $p = 0.045$ ), and future orientation ( $\beta = 0.130$ ,  $p = 0.001$ ). These results underscore the role of financial literacy not merely as a direct predictor of financial behavior, but as a cognitive amplifier that strengthens the effect of pre-existing behavioral traits.

This moderating effect can be explained through several psychological mechanisms. First, financial literacy enhances individuals' evaluative capacity, enabling them to analyze and compare financial options more rationally and avoid impulsive or emotionally-driven decisions. Second, it improves the use of adaptive heuristics, allowing individuals to apply decision rules that are more aligned with financial goals. Third, it helps suppress common cognitive biases, such as overconfidence and mental accounting distortions, by equipping individuals with the conceptual tools to critically reflect on their financial choices. For instance, an overconfident individual with low financial literacy may take excessive risks, while one with high financial literacy is more likely to calibrate risk-taking behavior based on informed judgment. Similarly, individuals with strong future orientation may only translate their intentions into effective action when supported by the technical knowledge and financial planning skills provided through financial literacy.

In contrast, financial literacy did not significantly moderate the relationship between financial anxiety and financial management ( $p = 0.055$ ), suggesting that knowledge alone is insufficient to overcome anxiety-driven avoidance behaviors. This result highlights the importance of integrating emotional and psychological interventions, such as stress management, confidence-building, or financial therapy, alongside educational programs. Future research may benefit from investigating whether constructs like financial resilience or self-efficacy play a stronger moderating role in the presence of financial anxiety.

## CONCLUSION

This research emphasizes the crucial impact of behavioral factors in determining individuals' financial management and savings behaviors. Each of these factors plays a distinct role in influencing how effectively people manage their finances and engage in regular saving practices. Additionally, the study emphasizes how financial literacy acts as a moderating factor, enhancing the beneficial benefits of these behavioral traits on financial management and decision-making. Importantly, financial literacy helps balance potential drawbacks, such as overconfidence, by enhancing realistic financial decision-making. According to these results, financial behavior improvement interventions should emphasize both the development of supportive behavioral traits and the acquisition of knowledge. By addressing both psychological and educational dimensions, policymakers, educators, and financial institutions can create more comprehensive programs that encourage financial discipline, reduce financial anxiety, and promote long-term financial well-being. These findings can be expanded upon in future studies by examining the impacts of these factors across diverse populations and longitudinally, offering even deeper understanding into the behavioral dynamics of personal finance.

This study's findings suggest multiple practical applications. Financial literacy programs can be tailored to enhance specific behavioral factors, such as building self-control and fostering future orientation, as these traits were shown to directly impact financial management. Additionally, these programs should address financial anxiety as a barrier to engagement and emphasize mental accounting strategies for better budgeting practices. For financial institutions, offering resources to help clients overcome financial anxiety and manage financial overconfidence could enhance customer satisfaction and financial health. Incorporating behavioral insights into financial education can help individuals understand not only how to manage their money but also why certain psychological factors drive their financial behaviors. For instance, incorporating self-control exercises, mental accounting strategies, and visualization techniques to bolster future orientation could make financial literacy programs more effective. Moreover, as financial literacy amplified the positive effects of behavioral factors, integrating financial education into school curriculums and workplace training programs can improve financial behaviors across various demographics.

Theoretically, this study adds to the behavioral finance literature by clarifying how different behavioral traits influence personal financial management and savings behaviors. It also demonstrates that financial literacy does not function solely as a direct factor but as a moderator that enhances the effectiveness of other behavioral traits, such as self-control and future orientation. These findings support dual-process theories in behavioral finance, which suggest that both cognitive and emotional factors interact to shape financial decision-making (Kahneman, 2011).

Even though this study provides valuable insights, it is not without its limitations. One key constraint is the potential lack of representativeness of the sample across various demographic groups, which may restrict the broader applicability of the results. To improve future findings' generalizability, it would be beneficial to examine these behavioral factors across diverse age groups, cultures, and socioeconomic strata to ascertain whether the observed relationships remain consistent. Moreover the current research's cross-sectional design makes it difficult to establish clear causal relationships. Longitudinal studies would offer a more comprehensive understanding of how these behavioral factors and financial literacy evolve over time and their cumulative impact on financial decision-making and outcomes.

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