



## The role of financial literacy in moderating the effect of self-control and hedonic lifestyle on students' financial decision-making

Ahmad Yudhira, Uswatun Hasanah\*

Universitas Tjut Nyak Dhien, Medan, Indonesia

### Article info

#### Article history:

Submitted [04-04-2026]

Revised [06-05-2026]

Accepted [11-05-2026]

#### Keywords:

Financial decision-making

Financial literacy

Hedonic lifestyle

Self-control

Students

### Abstract

This study examines the effect of self-control and hedonic lifestyle on students' financial decision-making, with financial literacy as a moderating variable. Using a quantitative approach, data were collected from 122 students and analyzed through moderation analysis using Andrew F. Hayes's PROCESS Macro Model 1. The findings indicate that self-control does not have a significant direct effect on financial decision-making. However, when moderated by financial literacy, self-control shows a significant positive effect, suggesting that students with higher financial literacy are better able to translate self-control into sound financial decisions. In contrast, hedonic lifestyle has a significant negative effect on financial decision-making, while financial literacy does not significantly moderate this relationship. These results imply that financial literacy strengthens the positive role of self-control but may not be sufficient to reduce the adverse influence of a strong hedonic lifestyle. Practically, the study highlights the importance of integrating financial literacy education with behavioral strategies, such as budgeting practices, spending limits, and delayed purchasing decisions. Future studies are recommended to use longitudinal or experimental designs, involve larger and more diverse samples, and examine additional variables such as financial stress, impulsive buying, budgeting adherence, and exposure to buy-now-pay-later services.

## Introduction

The financial behavior of college students, particularly in Indonesia, is influenced by a combination of factors, including psychological factors such as self-control, consumption habits such as a hedonistic lifestyle, and cognitive abilities such as financial literacy (Sari & Widodoatmodjo, 2023). In the context of PayLater service usage and digital shopping activities, self-control and financial attitudes have been shown to have a significant relationship with financial management behavior, including among Shopee PayLater users (Feralda et al., 2023). In parallel, financial literacy, lifestyle, and self-control have been shown to be interrelated in shaping college students' consumptive behavior (Anatasya et al., 2024) and their behavior in managing their finances in general (Nurjannah & Yusrialis, 2025). Several studies also show that implementing self-control strategies can reduce excessive spending and encourage savings habits, with moderate effects. Several studies also show that implementing self-control strategies can reduce excessive spending and encourage savings habits, with moderate effects. This suggests that it's crucial for individuals to have a well-developed self-control strategy—rather than simply relying on impulse or whims (Davydenko et al., 2021). Psychologically, when individuals become aware of their tendency to overspend, they tend to be more motivated to voluntarily set limits, such as establishing personal rules beforehand, to enable them to make wiser financial decisions (Soutschek & Tobler, 2020). In the context of financial behavior, financial competence, which includes skills in financial planning and understanding money as a source of security, has also been shown to predict levels of wealth accumulation. This shows that people who are able to control themselves well are usually also more skilled at managing their finances (Fenton-O'Creevy & Furnham, 2022).

Research shows that a hedonistic lifestyle tends to weaken students' ability to plan and manage their finances wisely (Nurjannah & Yusrialis, 2025; Wahyuni & Habibburahman, 2024). However, from the perspective of motivational literature, certain hedonistic traits can actually increase the frequency of

\*Corresponding author

Email address: Uswatun Hasanah ([uswatun.hasanah@utnd.ac.id](mailto:uswatun.hasanah@utnd.ac.id))

pleasurable experiences without necessarily harming overall performance (Bernecker et al., 2023). This suggests that the influence of hedonism on financial decisions is contextual and not always consistent across different situations. Among college students, various studies have found that a hedonistic lifestyle is often linked to wasteful spending and a tendency to prioritize immediate gratification over long-term planning (Susilowati et al., 2023). On the other hand, financial literacy has consistently been associated with better financial behavior (Anatasya et al., 2024; Azmi et al., 2025; Sri Darmawati et al., 2023). Still, the role of financial literacy as an interactive factor shows mixed results. In certain cases, self-control may actually reduce the impact of financial literacy on saving behavior—a phenomenon known as a negative moderating effect. These findings highlight a dynamic interaction between cognitive capacity (knowing how to manage finances effectively) and self-regulatory capacity (the ability to actually follow through with that knowledge) (Alshebami & Aldhyani, 2022).

College students often show a tendency to favor instant gratification in their decision-making—both financially and in other consumption patterns. This tendency is referred to as present bias, meaning people often go for immediate rewards rather than considering the advantages that come with waiting (Cheung et al., 2022). This bias tends to worsen when students experience self-control fatigue, making them more vulnerable to impulsive purchases, especially when under psychological pressure or stress (Ikeda & Ojima, 2021). In situations involving financial constraints, research has shown that offering incentives or prompt payments can help reduce impatience, enabling individuals to make more rational financial decisions (van der Heijden et al., 2022). For international students and other vulnerable populations, financial insecurity tends to drive their attention toward meeting only their most immediate, fundamental needs. Broader concerns often have to take a back seat, as the urgency of day-to-day survival becomes the primary focus. As a result, financial decisions related to long-term health or well-being are frequently neglected (Backman et al., 2024). According to recent findings by Soutschek and Tobler (2020), self-control plays a crucial role in shaping financial decision-making and supporting long-term financial well-being. Individuals who consistently exercise greater self-control tend to avoid impulsive spending and demonstrate more effective resource management. As a result, they are more likely to achieve and maintain stronger overall financial health. Conversely, a hedonistic lifestyle tends to promote consumptive behavior and undermine long-term financial goals (Wahyuni & Habibburahman, 2024). Within this context, financial literacy is considered essential in helping individuals understand the long-term consequences of their financial choices and encouraging more prudent financial behavior (Anatasya et al., 2024).

The role of financial literacy—especially when interacting with other psychological factors—is not entirely consistent across different contexts. A study explored the link between financial literacy and saving behavior among Saudi youth and uncovered an interesting nuance—those with higher self-control were actually less affected by how much financial knowledge they had when it came to saving. It turns out that when someone already has strong self-regulation, they don't rely as much on what they know about finances to make good saving decisions (Alshebami & Aldhyani, 2022). This finding points to a possible substitution function between cognitive ability (financial knowledge) and self-regulation ability (self-control) in shaping financial behavior. In the context of Indonesian university students, most studies still focus on direct relationships between variables or apply frameworks such as the Theory of Planned Behavior (TPB) (Feralda et al., 2023; Hermawan et al., 2025). Therefore, there is an opportunity to make a meaningful scientific contribution by developing a model that examines the role of financial literacy as a moderator in the relationship between self-control and hedonism in students' financial decision-making. Such an approach could deepen our understanding of the interactive effects of psychological and cognitive factors within the digital finance behavior of students.

Most previous research still focuses on the direct relationship between psychological variables and financial behavior—such as the direct links between self-control or a hedonic lifestyle with consumptive behavior or financial management practices (Anatasya et al., 2024; Azmi et al., 2025; Feralda et al., 2023; Nurjannah & Yusrialis, 2025). These studies generally do not position financial decision-making as the main outcome and rarely explore the role of financial literacy as a moderating variable in the relationship between self-control and a hedonic lifestyle on financial decisions. While it is well-documented that a hedonic lifestyle tends to encourage consumptive behavior (Nurjannah & Yusrialis, 2025; Wahyuni & Habibburahman, 2024), some evidence also suggests that hedonic preferences can have varying impacts depending on the context and individual circumstances (Sharmila Devi & Perumandla, 2023). These inconsistent findings highlight the importance of developing interaction models—rather than relying solely on direct effect models—to better understand under what conditions, and at what levels of financial literacy, the influence of hedonism may be amplified or diminished. The literature on self-control (Davydenko et al., 2021; Soutschek & Tobler, 2020), as well as on present bias and self-control fatigue

(Cheung et al., 2022; Ikeda & Ojima, 2021), offers a solid theoretical foundation for understanding the psychological mechanisms that shape financial behavior.

Studies that integrate these findings into interaction models—particularly moderation models with financial literacy as a moderating variable—remain very limited in the context of Indonesian students, especially in the digital era and the growing use of paylater services. Moreover, most existing research still focuses on financial behavior indicators such as spending and saving as the primary variables (Anatasya et al., 2024; Azmi et al., 2025; Feralda et al., 2023; Sri Darmawati et al., 2023). In contrast, financial decision-making as a self-assessed psychological construct—which includes aspects like decision quality, alignment with long-term goals, and resistance to temptation—has rarely been the central focus in local studies. Research that explores interaction models between self-control and financial literacy, or between hedonism and financial literacy, using appropriate moderation analysis techniques—such as data centering and the Johnson–Neyman test—is still relatively scarce within the Indonesian student context. As a result, the financial literacy threshold that could either strengthen or weaken the influence of self-control or hedonism on financial decisions has yet to be empirically examined in depth in local literature. While university students have frequently been the subjects of studies on consumer behavior, e-commerce, and paylater services (Feralda et al., 2023), research that explicitly investigates the role of financial literacy as a moderating variable is still limited. Specifically, little attention has been given to its potential to buffer the negative effects of a hedonistic lifestyle, while simultaneously enhancing the positive impact of self-control on the quality of financial decision-making in today’s increasingly complex digital environment.

This research offers several key novelties. Theoretically, it proposes and tests a moderating interaction model in which financial literacy functions as a conditional factor—not merely a direct predictor—that can enhance the positive influence of self-control and reduce the negative influence of a hedonistic lifestyle on financial decision-making. This approach bridges psychological perspectives (such as self-control, present bias, and regulatory fatigue) with situational cognitive capabilities.

Conceptually, this study contributes by positioning financial decision-making as the main outcome variable, rather than focusing solely on spending behavior or general financial management. It also offers contextual novelty by examining Indonesian university students in the digital and paylater era, where financial choices are increasingly shaped by digital consumption practices. The insights from this study are expected to support the development of more targeted financial literacy interventions that not only strengthen students’ self-control but also help reduce the negative influence of hedonic tendencies in everyday financial behavior.

Beyond the academic contribution, this research also informs policy development, offering a map of financial literacy thresholds that can serve as a foundation for designing evidence-based curricula and educational programs—especially those aimed at improving the quality of students’ financial decision-making. This study was conducted to address the growing risks associated with student consumer behavior in the digital ecosystem, particularly with the increasing popularity of paylater services, low levels of self-control, and underutilized financial literacy. College represents a critical period in the formation of long-term financial habits. However, empirical findings on how self-control and a hedonistic lifestyle influence financial decisions have so far been mixed and inconsistent. Therefore, this research seeks to analyze the impact of self-control and a hedonistic lifestyle on students’ financial decision-making, while also investigating the role of financial literacy as a moderating variable in both relationships. The findings are expected to provide a solid evidence base for designing more precise campus-based interventions and policies aimed at enhancing students’ financial literacy and decision-making capabilities.

### **Hypothesis development**

Individuals with strong self-control typically exhibit more prudent financial behaviors. Rather than giving in to impulsive purchases, individuals with strong self-control are more likely to make thoughtful financial decisions that align with their long-term goals. In contrast, those with lower self-control tend to be more susceptible to impulsive spending and often find it difficult to maintain consistent and stable financial habits (Soutschek & Tobler, 2020). In a meta-analysis, (Davydenko et al., 2021) found that self-control strategies moderately reduce spending and increase savings ( $d \approx 0.57$ ). Moreover, numerous empirical studies have linked self-control with better financial well-being (Rey-Ares et al., 2021; Strömbäck et al., 2017) and with the development of financial skills that contribute to wealth accumulation (Fenton-O’Creevy & Furnham, 2022). Based on this explanation, the following hypothesis is proposed:

H1: Self-Control Positively Influences Financial Decision-Making

A hedonic lifestyle is expected to negatively impact financial decision-making. Individuals with strong hedonic tendencies are more vulnerable to consumption biases and temptations, particularly when their self-control is compromised by stress or fatigue (Cheung et al., 2022; Ikeda & Ojima, 2021). Among students, such a lifestyle is commonly associated with consumptive behavior and poor financial management (Anatasya et al., 2024; Nurjannah & Yusrialis, 2025; Surwanti et al., 2024; Wahyuni & Habibburahman, 2024). Although hedonic preferences may have neutral or even positive effects in other contexts, in financial decision-making they often encourage short-term choices that may jeopardize long-term financial stability. Based on this explanation, the following hypothesis is proposed:

H2: Hedonic Lifestyle Negatively Influences Financial Decision-Making

When individuals have a strong understanding of personal finance, such as basic budgeting, interest rates, and financial risk evaluation, they are better prepared to apply self-control effectively. Self-control is valuable, but its effect may become stronger when supported by financial literacy because students are not only able to restrain themselves but also understand the financial consequences of their choices. Previous studies show that financial literacy is consistently linked to prudent financial behavior among students (Anatasya et al., 2024; Azmi et al., 2025). In addition, (Alshebami & Aldhyani, 2022) found an interactive relationship between self-control and financial literacy in influencing saving behavior, supporting the view that these two factors complement each other in promoting better financial decisions. Based on this explanation, the following hypothesis is proposed:

H3: Financial literacy strengthens the positive relationship between self-control and students' financial decision-making

Financial literacy can function as a safeguard that reduces the risks associated with impulsive and pleasure-seeking spending habits. A hedonic lifestyle tends to encourage students to prioritize immediate pleasure, social image, and short-term consumption over long-term financial stability. When individuals understand financial realities, such as the true cost of buy-now-pay-later services, accumulated interest, late payment penalties, and opportunity costs, they are more likely to pause and reconsider before making impulsive purchases. This awareness encourages more deliberate and responsible financial decision-making and may act as a buffer against the negative effects of a hedonic lifestyle. Empirical evidence shows that financial literacy plays a role in reducing consumerism and improving financial management (Anatasya et al., 2024; Nurjannah & Yusrialis, 2025). It also serves as an informational filter that makes short-term temptations less appealing when individuals understand the consequences of their financial actions (Cheung et al., 2022; Ikeda & Ojima, 2021). Therefore, students with higher financial literacy are expected to be less affected by hedonic tendencies when making financial decisions. Based on this explanation, the following hypothesis is proposed:

H4: Financial literacy weakens the negative relationship between hedonic lifestyle and students' financial decision-making

Based on the theoretical and empirical findings discussed earlier, the relationship between self-control, a hedonic lifestyle, and financial literacy in shaping students' financial decision-making needs to be tested systematically. The model proposed in this study goes beyond examining direct effects—it also incorporates financial literacy as a moderating variable that may either strengthen or weaken the psychological influences on the quality of financial decisions. To support a more focused and structured empirical investigation, the conceptual framework of this study is presented below, along with five corresponding research hypotheses.

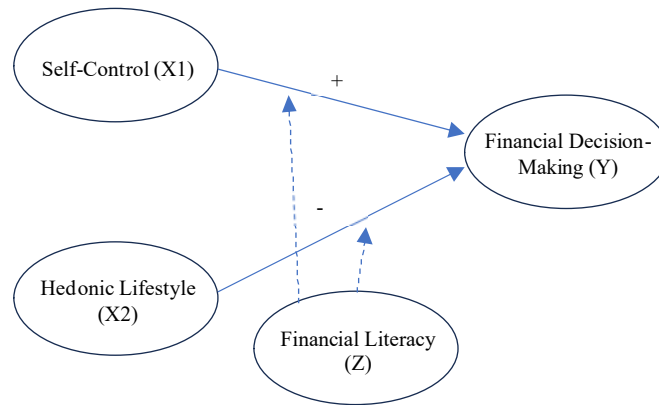


Figure 1. The Conceptual Framework

Referring to Figure 1, the framework presented in this study positions self-control and a hedonic lifestyle as primary factors that directly shape financial behavior. Financial literacy is introduced as a moderating variable—one that can either enhance or reduce the impact of these two psychological factors. By focusing on the interaction between all three, this model aims to provide a clearer understanding of what truly drives financial behavior among students, especially in an era where digital finance and pay-later services are becoming increasingly common. The following is an explanation of the hypotheses.

**Research Methods**

This study uses a quantitative approach with an explanatory design, as its main objective is to explain the influence of self-control and hedonic lifestyle on students’ financial decision-making, with financial literacy as a moderating variable. The research was conducted in September 2025. Data were collected using a structured questionnaire distributed online through Google Forms to active students of the Management Study Program, Faculty of Business and Humanities, Tjut Nyak Dhien University. Respondents completed the questionnaire voluntarily based on the inclusion criteria, namely active students who had experience managing personal finances. The study population comprises all active students of Tjut Nyak Dhien University (UTND), Faculty of Business and Humanities, Management Study Program in the current semester, which, based on the KRS recap, totals 431 students (cohorts—year of entry 2021= 78; 2022= 224; 2023= 63; 2024= 66). From this population, 122 students expressed their willingness to complete the questionnaire and met the inclusion criteria (active students with experience managing personal finances). The sample size of 122 was used because this study accommodates all willing respondents (a census of volunteers) and is methodologically adequate for moderated regression: with five predictors in the model (X1, X2, Z, X1×Z, X2×Z), the rule of thumb  $N \geq 50 + 8m$  yields a minimum of around 90 respondents (Green S B, 1991); therefore,  $N= 122$  exceeds this threshold and is generally sufficient to detect a moderate effect with adequate power. The population response rate was approximately 28.3% (122 out of 431) (Pielsticker & Hiebl, 2020).

This study consists of two independent variables, namely self-control and hedonic lifestyle; one moderating variable, namely financial literacy; and one dependent variable, namely financial decision-making. The indicators of each variable are presented in Table 1.

Table 1. Operational Definition of Variables and Indicators

Variable	Role	Indicators
Self-control	Independent variable	Ability to control impulsive spending; ability to delay gratification; financial discipline; consistency in following financial plans
Hedonic lifestyle	Independent variable	Pleasure-oriented spending; tendency to follow trends; impulsive consumption; spending for social image
Financial literacy	Moderating variable	Understanding of budgeting; understanding of interest and instalments; financial risk awareness; savings knowledge; cash-flow management
Financial decision-making	Dependent variable	Alignment with long-term financial goals; consistency in financial choices; ability to resist impulsive consumption; consideration of financial consequences

The sampling technique used was non-probability sampling (convenience/accidental), as data collection was based on the availability and willingness of actively enrolled students in the Management Study Program (based on KRS data) and the researcher's accessibility during the data collection period. This approach is common in studies of student behavior where population lists are accessible but participation is voluntary, and it is used while maintaining inclusion–exclusion criteria and data quality checks (Andrade, 2021).

The rationale for using Andrew F. Hayes's PROCESS (Model 1) is that this conditional process/moderation analysis framework is specifically designed to test interactions between predictors and moderators and to present easily interpretable conditional effects (Hayes & Andrew, 2013). PROCESS provides (1) estimates of interaction coefficients that directly test whether financial literacy modifies the effects of self-control and hedonic lifestyle; (2) simple-slope analyses at moderator values (mean,  $\pm 1$  SD) so readers can see how the strength of the influence changes at different literacy levels; and (3) the Johnson–Neyman procedure to map the region of significance—i.e., the range of financial literacy values at which the predictor effect becomes significant or insignificant. This capability aligns with the research objective of assessing not only direct relationships but also the conditions under which financial literacy strengthens or neutralizes psychological influences on the quality of financial decisions.

The data analysis was carried out in stages. First, data screening ensured the completeness of responses and eliminated duplicate entries; then, item validity (item–total correlation) and reliability (Cronbach's  $\alpha \geq 0.70$ ) were tested for each construct. Second, descriptive statistics (mean, standard deviation, range) and correlations between variables were presented. Third, IBM SPSS with the PROCESS Macro v4.2 (Model 1) was used to test the moderation hypothesis. Continuous variables were mean-centered before forming interaction terms ( $X1 \times Z$  and  $X2 \times Z$ ) to reduce multicollinearity. Assumptions of residual normality, homoscedasticity, and multicollinearity ( $VIF < 10$ ; Tolerance  $> 0.10$ ) were checked. Results reporting includes coefficients, SE, t, p,  $R^2$ , and  $\Delta R^2$  when the interaction block is added. Conditional effects are reported at the mean and  $\pm 1$  SD of the moderator along with 95% confidence intervals, and the Johnson–Neyman region of significance. The significance level was set at  $\alpha = 0.05$ . Ethical aspects of the study were satisfied through informed consent, data confidentiality, and voluntary participation for academic purposes (Hayes & Montoya, 2017).

## Results and Discussion

### Results

#### Characteristics Respondents

This subsection summarizes the characteristics of the final analytic sample after data screening ( $N = 122$ ).

Table 2. Gender of Respondents

Gender	N	%
Male	44	36.1
Female	78	63.9
Total	122	100.0

As shown in table 2, the sample is predominantly female (63.9%;  $n = 78$ ), with males accounting for 36.1% ( $n = 44$ ) of respondents. This split indicates broad participation from both groups while reflecting a modest overrepresentation of female students. These figures are reported to contextualize the sample frame; any interpretation of the results should consider this composition, even though gender is not a focal variable in the analyses.

Table 3. Cohort (Year of Entry) of Respondents

Cohort (Year of Entry)	N	%
2021	20	16.4
2022	46	37.7
2023	39	32.0
2024	17	13.9
Total	122	100.0

Table 3 indicates that most respondents come from the 2022 cohort (37.7%), followed by 2023 (32.0%), while 2021 (16.4%) and 2024 (13.9%) contribute smaller shares. This distribution suggests that

a large portion of the sample has at least one to two years of study experience, which is relevant for assessing personal financial decision-making.

### Reliability of Measures

Internal consistency checks indicate that all constructs meet reporting standards for subsequent moderation analysis. Self-Control (X1) shows adequate reliability for an exploratory setting, with *corrected item–total correlations* (CITC)  $\geq 0.30$  (0.323–0.478) and alpha if item deleted ranging 0.526–0.612; therefore, all items were retained. Hedonic Lifestyle (X2) ( $\alpha = 0.847$ ) and Financial Literacy (Z) ( $\alpha = 0.823$ ) exhibit good reliability, while Financial Decision-Making (Y) is acceptable ( $\alpha = 0.792$ ). Taken together, these coefficients support the use of the instrument in the planned moderation tests (PROCESS Model 1, N= 122).

Table 4. Reliability Summary of Study Constructs

Code & Construct	Items	Cronbach's $\alpha$	Brief Note
X1- Self-Control	5	0.631	Adequate for exploratory work; CITC 0.323–0.478; $\alpha$ if deleted 0.526–0.612
X2- Hedonic Lifestyle	5	0.847	Good; all CITC $\geq 0.61$
Z- Financial Literacy	5	0.823	Good; CITC 0.535–0.682
Y- Financial Decision-Making	5	0.792	Acceptable; CITC 0.487–0.672

### Descriptive Statistics & Assumption Checks

The Kolmogorov–Smirnov test on the unstandardized residuals yielded  $p = 0.058$ , indicating that residual normality is acceptable at the 5% level. The baseline (no-interaction) model showed Tolerance values of 0.670–0.989 and VIF values of 1.011–1.493, well within common thresholds (Tolerance  $> 0.10$ ; VIF  $< 10$ ), suggesting no problematic multicollinearity. Visual inspection of the ZRESID vs. ZPRED scatterplot displayed a random cloud without systematic fan or curvature patterns, supporting homoscedasticity and linearity assumptions.

Table 5. Assumption Checks for Moderated Regression

Assumption	Indicator/ Metric	Result	Decision
Residual normality	Kolmogorov–Smirnov test (unstandardized residuals)	$p = 0.058$	Residual normality acceptable ( $\alpha = 0.05$ ).
Multicollinearity	Tolerance; VIF	Tolerance 0.670–0.989; VIF 1.011–1.493	No problematic multicollinearity.
Homoscedasticity & linearity	ZRESID vs. ZPRED scatterplot	Random pattern (no fan/curvature)	Assumptions practically satisfied.

As a prelude to the moderation analysis, the baseline multiple regression with three predictors (Self-Control, Hedonic Lifestyle, Financial Literacy) produced  $R = 0.777$ ;  $R^2 = 0.604$ ; Adjusted  $R^2 = 0.594$ ; SE = 2.23668;  $F(3,118) = 59.993$ ;  $p < 0.001$ , indicating that the predictors jointly explain approximately 60.4% of the variance in Financial Decision-Making.

Table 6. Baseline Model Summary (Without Interactions)

Statistic	Value
R	0.777
$R^2$	0.604
Adjusted $R^2$	0.594
SE of estimate	2.23668
$F(3,118)$	59.993

**Moderation Analysis (PROCESS Model 1)**

Table 7. Moderation of Self-Control by Financial Literacy ( $X1 \times Z \rightarrow Y$ )

Predictor	b	SE	t	p	LLCI	ULCI
Constant	9.6862	0.2134	45.3820	0.0000	9.2636	10.1089
X1- Self-Control	0.0795	0.0883	0.8999	0.3700	-0.0954	0.2544
Z- Financial Literacy	0.7044	0.0699	10.0783	0.0000	0.5660	0.8428
$X1 \times Z$	0.0253	0.0117	2.1496	0.0336	0.0020	0.0485

Model summary:  $R = 0.7791$ ;  $R^2 = 0.6070$ ;  $MSE = 4.9649$ ;  $F(3,118) = 60.7501$ ;  $p < 0.001$

Interaction block:  $\Delta R^2 = 0.0154$ ;  $F(1,118) = 4.6207$ ;  $p = 0.0336$

The Self-Control  $\times$  Financial Literacy interaction is positive and statistically significant ( $b = 0.0253$ ,  $p = 0.0336$ ), indicating that financial literacy conditions the link between self-control and financial decision-making. In practical terms, as students' financial literacy increases, the contribution of self-control to higher-quality financial decisions becomes stronger. The main effect of financial literacy is robustly positive ( $p < 0.001$ ), whereas the direct effect of self-control is not significant in the presence of the interaction—consistent with a pattern in which self-control works better when paired with sufficient literacy.

Table 8. Conditional Effects of Self-Control at Levels of Financial Literacy (mean &  $\pm 1$  SD)

Z — Financial Literacy	Effect ( $X1 \rightarrow Y$ )	SE	t	P	LLCI	ULCI
-1 SD (-3.5518)	-0.0102	0.1097	-0.0930	0.9261	-0.2273	0.2069
Mean (0.0000)	0.0795	0.0883	0.8999	0.3700	-0.0954	0.2544
+1 SD (3.5518)	0.1692	0.0840	2.0129	0.0464	0.0027	0.3356

Johnson–Neyman significance region:  $Z \geq 3.4279$  ( $\approx +0.95$  SD).

Simple-slope estimates clarify the interaction: when financial literacy is high (+1 SD), self-control shows a significant positive association with financial decision-making ( $b = 0.1692$ ,  $p = 0.0464$ ). At average and low literacy, the effect is not significant. The Johnson–Neyman analysis places the threshold for significance at approximately  $Z = 3.43$  (about +0.95 SD), suggesting that above this literacy level, self-control reliably translates into better financial decisions.

Table 9. Moderation of Hedonic Lifestyle by Financial Literacy ( $X2 \times Z \rightarrow Y$ )

Predictor	B	SE	T	p	LLCI	ULCI
Constant	9.8245	0.2020	48.6470	0.0000	9.4246	10.2245
X2- Hedonic Lifestyle	-0.1106	0.0427	-2.5873	0.0109	-0.1952	-0.0259
Z- Financial Literacy	0.6956	0.0648	10.7357	0.0000	0.5673	0.8239
$X2 \times Z$	-0.0175	0.0100	-1.7550	0.0818	-0.0372	0.0022

Model summary:  $R = 0.7788$ ;  $R^2 = 0.6065$ ;  $MSE = 4.9706$ ;  $F(3,118) = 60.6349$ ;  $p < 0.001$

Interaction block:  $\Delta R^2 = 0.0103$ ;  $F(1,118) = 3.0802$ ;  $p = 0.0818$

Hedonic lifestyle exhibits a significant negative main effect on financial decision-making ( $b = -0.1106$ ,  $p = 0.0109$ ), implying that stronger hedonic tendencies are associated with poorer financial decisions. Financial literacy again shows a strong positive main effect ( $p < 0.001$ ). The Hedonic Lifestyle  $\times$  Financial Literacy interaction, however, is not significant at  $\alpha = 0.05$  ( $p = 0.0818$ ). Thus, within this model, there is no conclusive evidence that literacy buffers the adverse association between hedonism and decision quality.

Table 10. Conditional Effects of Hedonic Lifestyle at Levels of Financial Literacy (mean &  $\pm 1$  SD)

Z — Financial Literacy	Effect ( $X2 \rightarrow Y$ )	SE	t	p	LLCI	ULCI
-1 SD (-3.5518)	-0.0485	0.0444	-1.0940	0.2762	-0.1364	0.0393
Mean (0.0000)	-0.1106	0.0427	-2.5873	0.0109	-0.1952	-0.0259
+1 SD (3.5518)	-0.1726	0.0647	-2.6690	0.0087	-0.3007	-0.0445

Johnson–Neyman reference point:  $Z = -1.8140$  ( $\approx -0.5$  SD).

Across literacy levels, the slope for Hedonic Lifestyle is negative: non-significant at low literacy, but significantly negative at average and high literacy. The Johnson–Neyman reference near  $Z = -1.81$  indicates that for most of the observed literacy range, the association remains adversely sloped. Still,

because the interaction term in Table 9 is not significant, these conditional patterns should be interpreted cautiously—as suggestive rather than definitive evidence of moderation. Overall, the results consistently point to heavier hedonic orientation aligning with poorer financial decision-making, while financial literacy is beneficial in its own right.

## Discussions

### H1: Self-control positively influences students' financial decision-making

Theoretically, self-control functions as a behavioral regulation mechanism that maintains consistency between long-term financial goals and daily decisions—for example, budget adherence, delayed gratification, and resistance to impulse buying. Empirical evidence across contexts indicates that self-control is positively correlated with financial behavior and well-being: individuals with higher self-control tend to save regularly, feel more financially secure, and report greater financial satisfaction (Adusei et al., 2023; Bai, 2023; Strömbäck et al., 2017). Thus, conceptually and empirically, the direction of the effect hypothesized in H1 is positive.

The findings of this study align with this pattern but demonstrate the conditional nature of the effect of self-control. In the baseline model, the direct effect of self-control on decision quality is not yet strong; however, when considered alongside financial literacy as a cognitive context, self-control exhibits a positive slope that becomes significant at higher literacy levels (simple slopes and Johnson–Neyman threshold results). This pattern is consistent with the idea that self-control provides a “brake” on behavior, while literacy provides a “map” for accounting decision-making—for example, understanding interest/installments, late fees, and cash flow implications—so that control intentions are actually converted into more rational decisions (Bai, 2023; Strömbäck et al., 2017). On the other hand, the literature also notes mixed findings. In some contexts, students report difficulty controlling spending, so self-control appears to be negatively correlated with money management (Zulfaris et al., 2020). In fact, in certain populations, self-control has been reported to negatively moderate the relationship between financial literacy and saving behavior (Alshebami & Aldhyani, 2022). This variability underscores the importance of examining the conditions under which self-control operates effectively. The results of this study provide clarification: the positive effect of self-control appears stronger when financial literacy competencies are adequate, so H1 can be understood as a positive but context-dependent effect (i.e., literacy level).

From an accounting perspective, the implication is that interventions to improve self-control (e.g., pre-commitment budgets, spending rules, or cooling-off periods) should be integrated with strengthening personal accounting skills (time value of money, installment simulations, cash flow reconciliation). The combination of the two increases the likelihood that self-control results in decisions consistent with long-term financial goals, in line with H1 (Adusei et al., 2023; Bai, 2023; Strömbäck et al., 2017).

### H2: Hedonic lifestyle negatively influences students' financial decision-making

Theoretically, a hedonistic lifestyle prioritizes immediate pleasure and reward, which undermines budget discipline, intertemporal trade-offs, and prudent assessment of costs and risks. Consistent with this view, prior studies link hedonism to weaker financial management behaviors—often in the expected (negative) direction, even if not always statistically significant (Surwanti et al., 2024). Hedonistic values are also associated with investment choices that emphasize enjoyment and immediacy, including a tilt toward higher-risk assets (e.g., property or equities) that can compromise long-term stability when not governed by robust controls (Sharmila Devi & Perumandla, 2023; Singla & Hiray, 2019). From a time-perspective lens, a present-hedonic orientation elevates risk-taking, and situational cues can further amplify risky decisions (Chen, 2022; Sékscińska et al., 2018). In retail contexts, hedonistic motivation reliably predicts impulse buying, a pathway to over-spending and costly debt (Pratminingsih et al., 2021). More broadly, the psychological profile tied to hedonism—heightened impulsivity and reward sensitivity—has been linked to suboptimal financial choices (Goodwin et al., 2015; Leonard et al., 2019).

Aligned with this literature, our results show a significant negative main effect of hedonistic lifestyle on financial decision-making quality ( $b = -0.1106$ ,  $p = 0.0109$ ), indicating that stronger hedonic tendencies are associated with poorer decisions in this student sample. In practical terms, interventions should therefore pair literacy content with behavioral and choice-architecture tools that directly curb impulse and short-term reward seeking (e.g., spending caps, cooling-off periods, or friction in checkout flows), so that immediate gratification is less likely to override disciplined, data-informed decisions.

### **H3: Financial literacy strengthens the positive relationship between self-control and students' financial decision-making**

Conceptually, financial literacy functions as a set of foundational accounting capabilities—time value of money, interest and installment mechanics, late-fee and opportunity-cost recognition, budgeting, and basic cash-flow reconciliation—that equips students to translate self-control into data-informed choices. Prior work shows that financial literacy improves the quality of financial decisions and helps attenuate behavioral pitfalls, while self-control supports disciplined saving and prudent choice (Bai, 2023; Strömbäck et al., 2017; Yeh, 2022) see also (Sékscińska et al., 2018). Evidence that literacy and self-control jointly align with better financial behavior further supports the expectation of a reinforcing (amplifying) relationship between the two (Bai, 2023; Mpaata et al., 2025).

Our results are consistent with this mechanism. The Self-Control  $\times$  Financial Literacy interaction is positive and statistically significant ( $\Delta R^2$  significant; Table 6), and the simple-slope estimates show that at high literacy (+1 SD) the effect of self-control on decision quality becomes significantly positive (Table 7). The Johnson–Neyman analysis identifies a literacy threshold around  $Z \approx +0.95$  SD, above which the slope for Self-Control  $\rightarrow$  Financial Decision-Making is significant. Interpreted from an accounting perspective, once students reach this competence threshold (e.g., understanding cost structures, installment math, and cash-flow implications), self-control has a firm “grip” to resist temptations and execute budgets consistently. Taken together, these findings provide strong support for H3: financial literacy amplifies the beneficial impact of self-control on financial decision-making.

### **H4: Financial literacy weakens the negative relationship between hedonic lifestyle and students' financial decision-making**

Conceptually, financial literacy functions as a “cognitive shield,” enabling students to recognize the full costs of consumption decisions—interest/installments, late fees, and opportunity costs—thereby making hedonic impulses easier to regulate (Anatasya et al., 2024; Bai, 2023; Yeh, 2022). Conversely, a hedonic lifestyle is closely associated with present bias and a preference for immediate gratification, tendencies that typically undermine financial prudence and promote short-term choices (Cheung et al., 2022; Ikeda & Ojima, 2021). From this framework, H4 predicts that literacy will neutralize (weaken) the negative influence of hedonism on decision quality.

Empirical results from this study indicate that the  $X2 \times Z$  interaction is not significant at  $\alpha = 0.05$  ( $\Delta R^2 = 0.0103$ ;  $p = 0.0818$ ), although the main effect of hedonism on decision quality is negative and significant ( $b = -0.1106$ ;  $p = 0.0109$ ). In other words, within the sampled context and specified model, accounting knowledge alone is insufficient to offset the relatively stable (trait-like) influence of hedonism. Even when literacy improves understanding of costs and risks, immediate-reward tendencies can still override rational considerations in everyday practice.

Accounting implications are therefore practical and integrative: pair literacy programs with behavioral control mechanisms and choice architecture—for example, budget pre-commitments, spending caps, cooling-off periods, and added friction in impulsive checkout flows. Such an approach is more likely to reduce budget deviations and help students execute more consistent, data-informed, and long-term-oriented decisions, even when hedonic orientation remains salient (Anatasya et al., 2024; Bai, 2023; Cheung et al., 2022; Ikeda & Ojima, 2021; Yeh, 2022). Accordingly, empirical support for H4 is not established in this sample, and financial literacy should be positioned as one component within broader interventions that also target behavioral regulation.

## **Conclusion**

This study indicates that self-control is associated with higher-quality financial decision-making when it is supported by adequate financial literacy. The interaction between the two is statistically significant, implying that self-control becomes more consequential as students' literacy increases. By contrast, a hedonistic lifestyle is negatively related to decision quality, and financial literacy did not statistically weaken that adverse association in this sample. Practically, these results suggest that strengthening foundational personal accounting skills (e.g., understanding interest and installments, budgeting, and cash-flow reconciliation) is most effective when combined with behavioral safeguards such as budget pre-commitments, spending caps, short cooling-off periods, and frictions in impulsive checkout flows.

Several limitations should be acknowledged. The cross-sectional, self-reported design limits causal inference and raises the possibility of common-method bias; the single-institution, convenience sample constrains generalizability; and one construct showed reliability near the conventional threshold. Future

research would benefit from longitudinal or experimental designs across multiple campuses, larger samples, objective indicators (e.g., transaction logs and budget records), and tests of additional moderators or mediators (e.g., financial stress, exposure to buy-now-pay-later products, budgeting adherence). For accounting education and student affairs, the implication is to pursue an effective literacy threshold through hands-on simulations of instalments and cash flow, integrate literacy with choice architecture that tempers impulse, and promote budgeting tools that translate financial rules into day-to-day student practice.

## References

- Adusei, M., Atchulo, A. S., Sarpong-Danquah, B., & Anang, S. O. (2023). Personal Financial Planning and Financial Satisfaction: Self-Control as a Mediator. *Journal of Financial Counseling and Planning*, 34(3), 382–392. <https://doi.org/10.1891/JFCP-2021-0074>
- Alshebami, A. S., & Aldhyani, T. H. H. (2022). The Interplay of Social Influence, Financial Literacy, and Saving Behaviour among Saudi Youth and the Moderating Effect of Self-Control. *Sustainability (Switzerland)*, 14(14). <https://doi.org/10.3390/su14148780>
- Anatasya, P. S., Putri, A. R., Kholifah, S., Oktavia, D. T., Febriani, D. D., & Pratama, B. C. (2024). The Influence of Financial Literacy, Lifestyle, and Self-control on Student Consumptive Behavior. *Asian Journal of Economics, Business and Accounting*, 24(9), 135–145. <https://doi.org/10.9734/ajeba/2024/v24i91482>
- Andrade, C. (2021). The Inconvenient Truth About Convenience and Purposive Samples. *Indian Journal of Psychological Medicine*, 43(1), 86–88. <https://doi.org/10.1177/0253717620977000>
- Azmi, M. I., Utomo, D. P., & Ali, M. (2025). *Entrepreneurship and Tourism The Effect of Financial Literacy , Lifestyle , and Self-Control on the Consumptive Behavior of Students Journal of Management , Entrepreneurship and Tourism*. 3(1), 1–11.
- Backman, B., Dunn, M., George, N. A., Whiteside, B., & McKay, F. H. (2024). “Am I Really Living or Just Getting by?” Financial Security and Health-Related Decisions among International Students in Australia. *Journal of Studies in International Education*, 28(3), 440–457. <https://doi.org/10.1177/10283153231178135>
- Bai, R. (2023). Impact of financial literacy, mental budgeting and self control on financial wellbeing: Mediating impact of investment decision making. *PLoS ONE*, 18(11 November). <https://doi.org/10.1371/journal.pone.0294466>
- Bernecker, K., Becker, D., & Guobyte, A. (2023). If the party is good, you can stay longer—effects of trait hedonic capacity on hedonic quantity and performance. *Motivation and Emotion*, 47(5), 711–725. <https://doi.org/10.1007/s11031-023-10021-6>
- Chen, J.-Y. (2022). Influence of terror perceptions on individual investment behaviors: examining the moderating effects of present hedonic time perspective and consumer gender. *Review of Behavioral Finance*, 14(3), 317–326. <https://doi.org/10.1108/RBF-11-2020-0281>
- Cheung, S. L., Tymula, A., & Wang, X. (2022). Present bias for monetary and dietary rewards. *Experimental Economics*, 25(4), 1202–1233. <https://doi.org/10.1007/s10683-022-09749-8>
- Davydenko, M., Kolbuszewska, M., & Peetz, J. (2021). A meta-analysis of financial self-control strategies: Comparing empirical findings with online media and lay person perspectives on what helps individuals curb spending and start saving. *PLoS ONE*, 16(7 July), 1–25. <https://doi.org/10.1371/journal.pone.0253938>
- Fenton-O’Creevy, M., & Furnham, A. (2022). Money attitudes, financial capabilities, and impulsiveness as predictors of wealth accumulation. *PLOS ONE*, 17(11), e0278047. <https://doi.org/10.1371/journal.pone.0278047>
- Feralda, M., Hafidzi, A. H., & Samsuryaningrum, I. P. (2023). The influence of financial attitude, self control, and hedonism style on financial management behavior of student Shopee paylater users in Jember District. *Budapest International Research and Critics Institute-Journal*, 6(2), 1169–1182. <https://doi.org/10.33258/birci.v6i2.7606>
- Goodwin, B. C., Browne, M., Rockloff, M., & Donaldson, P. (2015). Do gamblers eat more salt? Testing a latent trait model of covariance in consumption. *Journal of Behavioral Addictions*, 4(3), 170–180. <https://doi.org/10.1556/2006.4.2015.022>
- Green S B. (1991). How Many Subjects Does It Take To Do A Regression Analysis. *Multivariate Behavioral Research*, 26(3), 499–510. <https://doi.org/10.1207/s15327906mbr2603>

- Hayes, A. F., & Montoya, A. K. (2017). A Tutorial on Testing, Visualizing, and Probing an Interaction Involving a Multicategorical Variable in Linear Regression Analysis. *Communication Methods and Measures*, 11(1), 1–30. <https://doi.org/10.1080/19312458.2016.1271116>
- Hayes, & Andrew. (2013). Introduction to Mediation, Moderation, and Conditional Process Analysis - Model Numbers. In *the Guilford Press* (Vol. 46, Issue 3).
- Hermawan, S., Azizah, N., Mulyadi, A., & Wahyu, S. (2025). *Student Consumer Behavior Based on Financial Literacy , Lifestyle , and Self-Control : Theory of Planned Behavior Perspective*. 3(2), 1208–1229.
- Ikeda, S., & Ojima, T. (2021). Tempting goods, self-control fatigue, and time preference in consumer dynamics. *Economic Theory*, 72(4), 1171–1216. <https://doi.org/10.1007/s00199-020-01320-x>
- Leonard, S., Zhang, J. W., & Howell, R. (2019). Spending Well: How Time Perspectives Impact Consumer Values And Financial Decisions Among Middle-Aged Adults. *Research in Human Development*, 16(2), 135–155. <https://doi.org/10.1080/15427609.2019.1670568>
- Mpaata, E., Kyambade, M., Matovu, A., & Naigwe, J. (2025). Impact of social influence, financial literacy, and self-control on saving behavior among micro and small enterprise owners in Uganda. *Cogent Psychology*, 12(1). <https://doi.org/10.1080/23311908.2025.2471703>
- Nurjannah, & Yusrialis. (2025). The Influence of Financial Literacy , Parental Income , Hedonistic Lifestyle and Self-Control on Student Financial Management Behavior in Pekanbaru City. *Integrated Research Journal Of Bussiness and Management*, 2(1), 278–294.
- Pielsticker, D. I., & Hiebl, M. R. W. (2020). Survey Response Rates in Family Business Research. *European Management Review*, 17(1), 327–346. <https://doi.org/10.1111/emre.12375>
- Pratminingsih, S. A., Hayati, N., Sukandi, P., Rahmayanti, R., Sujai, R. A. D. A., & Akbar, Y. K. (2021). The Influence Of Lifestyle, Hedonic Motivation, And Sales Promotion On Impulse Buying. *Review of International Geographical Education Online*, 11(6), 705–713. <https://doi.org/10.48047/rigeo.11.06.87>
- Rey-Ares, L., Fernández-López, S., Castro-González, S., & Rodeiro-Pazos, D. (2021). Does self-control constitute a driver of millennials' financial behaviors and attitudes? *Journal of Behavioral and Experimental Economics* , 93. <https://doi.org/10.1016/j.socec.2021.101702>
- Sari, A. L. A., & Widodoatmodjo, S. (2023). Pengaruh Literasi Keuangan, Gaya Hidup, dan Locus of Control terhadap Perilaku Keuangan Mahasiswa di Jakarta. *Jurnal Manajerial Dan Kewirausahaan*, 5(2), 549–558. <https://doi.org/10.24912/jmk.v5i2.23426>
- Sékczińska, K., Rudzinska-Wojciechowska, J., & Maison, D. A. (2018). Future and Present Hedonistic Time Perspectives and the propensity to take investment risks: The interplay between induced and Chronic Time Perspectives. *Frontiers in Psychology*, 9(JUN). <https://doi.org/10.3389/fpsyg.2018.00920>
- Sharmila Devi, R., & Perumandla, S. (2023). Does hedonism influence real estate investment decisions? The moderating role of financial self-efficacy. *Cogent Economics and Finance*, 11(1). <https://doi.org/10.1080/23322039.2023.2217581>
- Singla, H. K., & Hiray, A. (2019). Evaluating the impact of hedonism on investment choices in India. *Managerial Finance*, 45(12), 1526–1541. <https://doi.org/10.1108/MF-07-2019-0324>
- Soutschek, A., & Tobler, P. N. (2020). Know your weaknesses: Sophisticated impulsiveness motivates voluntary self-restrictions. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 46, 1623. <https://doi.org/10.1037/xlm0000833>
- Sri Darmawati, L. E., Ruski, R., Jannah, R., & Jailani, A. (2023). The Effect of Financial Literacy and Self-Control on Students' Consumptive Behavior. *Muhasabatuna : Jurnal Akuntansi Syariah*, 5(1), 013–020. <https://doi.org/10.54471/muhasabatuna.v5i1.2344>
- Strömbäck, C., Lind, T., Skagerlund, K., Västfjäll, D., & Tinghög, G. (2017). Does self-control predict financial behavior and financial well-being? *Journal of Behavioral and Experimental Finance*, 14, 30–38. <https://doi.org/10.1016/j.jbef.2017.04.002>
- Surwanti, A., Maulidah, M., Kusumawati, R., & Santi, F. (2024). Financial Management Behavior Z Generation. In U. U. & S. M. (Eds.), *E3S Web of Conferences* (Vol. 571). EDP Sciences. <https://doi.org/10.1051/e3sconf/202457103003>
- Susilowati, D., Juwari, J., & Priamay Sella, E. (2023). PERILAKU KEUANGAN PADA GEN-Z. *Jurnal Ilmu Manajemen (JIMMU)*, 8(1), 1–18. <https://doi.org/10.33474/jimmu.v8i1.19047>
- van der Heijden, K., Festjens, A., Goukens, C., & Meyvis, T. (2022). A guaranteed immediate payout reduces impatience of financially constrained individuals. *Proceedings of the National Academy of Sciences*, 119(3), 1–6. <https://doi.org/10.1073/pnas.2108832119>
- Wahyuni, S., & Habibburahman. (2024). the Influence of Hedonic Lifestyle and Emotional. *International Journal of Accounting, Management, Economics and Social Sciences.*, 2(1), 98–109.

- Yeh, T.-M. (2022). An empirical study on how financial literacy contributes to preparation for retirement. *Journal of Pension Economics and Finance*, 21(2), 237–259. <https://doi.org/10.1017/S1474747220000281>
- Zulfaris, M. D., Mustafa, H., Mahussin, N., Alam, M. K., & Daud, Z. M. (2020). Students and money management behavior of a Malaysian public university. *Journal of Asian Finance, Economics and Business*, 7(3), 245–251. <https://doi.org/10.13106/jafeb.2020.vol7.no3.245>