

The Influence of Financial Attitude, Financial Knowledge, and Lifestyle on Financial Management Behavior Through Locus of Control as a Moderating Variable in Students in Medan City

Alya Humaira^{1*}, Ahmad Albar Tanjung²

^{1*,2} Financial Management Study Program, Sekolah Tinggi Ilmu Manajemen Sukma Medan, Medan City, North Sumatra Province, Indonesia

Email: alyahumaira1808@gmail.com^{1*}, alb4rt4njung@gmail.com²

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Abstract

The rapid diffusion of digital financial services, e-wallets, and buy-now-pay-later (BNPL) schemes has reshaped how Indonesian university students manage money, yet many still exhibit weak financial management behavior. This study examines the effects of financial attitude, financial knowledge, and lifestyle on financial management behavior, and tests locus of control as a moderator of these relationships among university students in Medan City. Locus of control is positioned as a moderator on theoretical grounds: it reflects individuals' beliefs about the extent to which outcomes depend on their own actions rather than external forces, and it is therefore expected to influence the strength with which financial attitudes, financial knowledge, and lifestyle translate into actual financial behavior. A quantitative approach was employed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS 4. Data were collected from 150 university students in Medan City through purposive sampling, with the criteria of being active students who use digital financial services such as e-wallets or PayLater. The results show that financial attitude ($\beta = 0.292$; $p < 0.001$) and financial knowledge ($\beta = 0.282$; $p < 0.001$) have a positive and significant effect on financial management behavior, whereas lifestyle exerts a negative and significant effect ($\beta = -0.291$; $p < 0.001$). However, locus of control does not significantly moderate the effects of financial attitude ($p = 0.796$), financial knowledge ($p = 0.926$), or lifestyle ($p = 0.703$) on financial management behavior. The model explains 62.3% of the variance in financial management behavior ($R^2 = 0.623$). These findings imply that universities and policymakers should design financial education programs that jointly strengthen financial attitudes, financial knowledge, digital financial literacy, and self-regulation against consumptive lifestyles, while recognizing that psychological traits such as locus of control may operate through direct rather than moderating pathways in this population.

Keywords:

Financial Attitude; Financial Knowledge; Lifestyle; Locus of Control; Financial Management Behavior; PLS-SEM.

1. INTRODUCTION

The accelerating diffusion of digital financial services has profoundly reshaped how young Indonesians consume, save, and borrow. E-wallets, mobile banking, and Buy Now Pay Later (BNPL) platforms have lowered the cost and effort of transacting, and university students as digital natives entering financial independence have become one of the most active user segments (Sari, 2022; Anggraini et al., 2022). Against this backdrop, financial management behavior among Indonesian students remains a persistent concern. Preliminary observations by the researchers of 30 students in Medan City indicated that approximately 70% displayed weak financial management behavior difficulty budgeting, undisciplined saving, and limited control

over monthly expenses while only around 30% exhibited relatively sound practices such as planning, expense limitation, and setting aside savings. This mirrors broader national patterns (Kurnianti et al., 2022; Parwati & Suci, 2024).

The BNPL phenomenon further intensifies this concern. Data from the Financial Services Authority (OJK, 2024) show that total BNPL financing in Indonesia reached IDR 26.37 trillion as of August 2024, dominated by younger users, and that most usage is consumptive rather than productive with some users' installments approaching 95% of monthly income. Such conditions signal a growing need to understand what shapes students' day-to-day financial behavior in an increasingly digitalized environment. The first factor examined in this study is financial attitude. Financial attitude captures how individuals think and feel about money, budgeting, and financial planning. A positive financial attitude has been linked to better expense control, saving habits, and financial prioritization (Asaff et al., 2019; Humaira & Sagoro, 2022; Anggraini et al., 2022). The second factor is financial knowledge. Financial knowledge understanding budgeting, saving, credit use, and financial planning enables individuals to evaluate decisions rationally and avoid impulsive consumption. Students with stronger financial knowledge are typically better equipped to manage cash flow and use digital financial products responsibly (Nisa & Haryono, 2022; Yuniawati et al., 2024). The third factor is lifestyle. Lifestyle reflects patterns of allocating time and money to activities, interests, and opinions. The rise of social media, digital promotions, and frictionless e-commerce has amplified consumptive lifestyles among students, potentially eroding financial discipline (Karamaha et al., 2023; Sari, 2022).

Beyond these three antecedents, locus of control is examined as a psychological moderator. Drawing on Rotter (1966), locus of control refers to individuals' generalized belief about whether life outcomes are shaped mainly by their own actions (internal) or by external forces such as luck, environment, or others (external). Locus of control is conceptually distinct from mere self-control: it is a belief about causal agency, not a behavioral capacity. Theoretically, individuals with a stronger internal locus of control may be more responsive to their financial attitudes and knowledge because they perceive financial outcomes as controllable, and they may better resist social pressure, trends, digital promotions, and impulsive consumption embedded in a consumptive lifestyle. Locus of control is therefore a theoretically plausible moderator whose actual moderating role remains an empirical question (Silviana et al., 2023; Turnip, 2023). Prior studies report inconsistent findings on these relationships. Financial attitude has been found significant in some studies (Nisa & Haryono, 2022; Griffin et al., 2022; Wijaya, 2024) yet insignificant in others (Rosdiana, 2024). Findings on lifestyle also diverge: Sari (2022) reports a significant effect while Wijaya (2024) and Manihuruk et al. (2022) do not. Moreover, the moderating role of locus of control remains insufficiently examined among university students in Medan City, and existing evidence is heavily concentrated on Java-based samples or on specific behavioral segments such as PayLater users. Limited evidence exists on how these mechanisms operate in a rapidly digitalizing but under-studied context such as Medan.

Accordingly, this study contributes by (i) jointly modeling three key antecedents of financial management behavior financial attitude, financial knowledge, and lifestyle—within one integrated framework; (ii) testing locus of control as a moderator rather than treating it as an antecedent; (iii) focusing on university students in Medan City who use digital financial services; and (iv) situating the analysis in the context of BNPL and e-wallet adoption. The study therefore aims to analyze the effects of financial attitude, financial knowledge, and lifestyle on financial management behavior, and to test whether locus of control moderates these relationships.

1.1. Financial Attitude and Financial Management Behavior

Financial attitude refers to an individual's disposition toward money and financial management, reflected in decisions about spending, saving, and planning (Parwati & Suci, 2024). Theoretically, the link between attitude and behavior can be framed through the Theory of Planned Behavior (Ajzen, 1991): favorable attitudes toward a behavior increase the intention—and, subsequently, the likelihood—of performing it. Applied to student finance, students who view budgeting, saving, and expense control as valuable are more likely to enact those behaviors in daily life.

Empirically, financial attitude has been positively linked to financial management behavior among Generation Z in Surabaya (Nisa & Haryono, 2022), among Generation Z more broadly (Griffin et al., 2022), and among student car modification enthusiasts (Wijaya, 2024). Nonetheless, Rosdiana (2024) finds no significant partial effect, suggesting that contextual factors—such as sample composition and exposure to digital financial services—may condition the relationship. In Medan, students routinely use digital financial products where attitudinal orientation is likely to matter, motivating the following hypothesis:

H1: Financial attitude has a positive and significant effect on financial management behavior.

1.2. Financial Knowledge and Financial Management Behavior

Financial knowledge captures an individual's understanding of core financial concepts—budgeting, saving, credit, investment, and financial planning (Nisa & Haryono, 2022). It is theorized to shape behavior through a knowledge → understanding → evaluation → decision → action mechanism: students who understand cash-flow and credit dynamics are better able to evaluate options, resist impulsive digital-consumption cues, and prioritize needs over wants (OECD, 2020; Tanjung & Triyani, 2023).

Empirical evidence generally supports a positive knowledge–behavior link (Kurnianti et al., 2022; Nisa & Haryono, 2022; Gunawan et al., 2023). However, Manihuruk et al. (2022) find no significant effect, indicating heterogeneity across contexts. Given the intensifying use of e-wallets and BNPL among Medan students, financial knowledge is expected to play a decisive role:

H2: Financial knowledge has a positive and significant effect on financial management behavior.

1.3. Lifestyle and Financial Management Behavior

Lifestyle is a pattern of using time and money reflected through activities, interests, and opinions (Kotler & Keller, 2016). A consumptive lifestyle—driven by trends, social prestige, and social media—can undermine budgeting, saving, and expense control. This is particularly salient in a digital environment where e-commerce discounts, influencer marketing, and PayLater services lower the barrier to impulsive consumption.

Evidence indicates a negative lifestyle–behavior link (Hidayah & Iramani, 2023; Karamaha et al., 2023), though Manihuruk et al. (2022) report no significant effect. In digitally exposed samples such as Medan students, lifestyle is expected to depress financial management behavior:

H3: Lifestyle has a negative and significant effect on financial management behavior.

1.4. Locus of Control as a Moderating Variable

Locus of control (Rotter, 1966) refers to individuals' generalized belief about whether outcomes depend on their own behavior (internal) or on external forces (external). Importantly, locus of control is not equivalent to self-control: it is a belief about causal agency over outcomes, not a behavioral capability. Individuals with a more internal locus of control tend to interpret financial results as consequences of their own decisions, and are therefore expected to translate positive financial attitudes and knowledge into behavior more consistently. Conversely, those with a more external locus of control may see financial outcomes as driven by luck, environment, or others, weakening the attitude–behavior and knowledge–behavior linkages. In relation to lifestyle, locus of control is theoretically expected to buffer the influence of external stimuli digital promotions, social media trends, peer consumption, and BNPL prompts on consumptive behavior, so that individuals with a stronger internal locus of control may better regulate lifestyle-driven spending. Empirically, however, evidence on locus of control as a moderator is mixed. Gunawan et al. (2023) find significant moderation among PayLater users, while Turnip (2023) reports non-significant moderation in a broader millennial sample. Whether locus of control actually operates as a moderator in a university-student, digital-services context is therefore an empirical question. This study formulates the moderation hypotheses as testable propositions not as pre-stated results:

H4: Locus of control moderates the relationship between financial attitude and financial management behavior.

H5: Locus of control moderates the relationship between financial knowledge and financial management behavior.

H6: Locus of control moderates the relationship between lifestyle and financial management behavior.

1.5. Conceptual Framework

Financial attitude, financial knowledge, and lifestyle serve as antecedents of financial management behavior, and locus of control is proposed to moderate each of these three relationships (H1–H6).

2. RESEARCH METHOD

2.1. Research Design

This study adopts a quantitative, cross-sectional design and applies Partial Least Squares Structural Equation Modeling (PLS-SEM) using SmartPLS 4. PLS-SEM was chosen for its capacity to test complex models with multiple latent variables and moderation effects at modest sample sizes (Hair et al., 2022).

2.2. Population and Sample

The population comprises active university students in Medan City. According to the Central Statistics Agency (BPS) of North Sumatra Province, students in Medan City number approximately 317,700. Since the population is too large to enumerate, a sample of 150 students was drawn. Following Hair et al. (2022), a sample of 100–200 respondents are generally sufficient for PLS-SEM analysis.

2.3. Sampling Technique

Purposive sampling was used with the following inclusion criteria: (i) active university student in Medan City; and (ii) user of at least one digital financial service such as e-wallets or PayLater. Purposive sampling is appropriate given the theoretical focus on digitally exposed students, but it is non-probabilistic. This has implications for generalizability, discussed in the limitations.

2.4. Data Collection Procedure

Data were collected via a structured questionnaire measuring financial attitude, financial knowledge, lifestyle, locus of control, and financial management behavior on Likert-type scales. Participation was voluntary, respondents' identities were kept confidential, and the data were used solely for academic purposes.

2.5. Research Variables and Measurement

The research variables are Financial Attitude (X1), Financial Knowledge (X2), Lifestyle (X3), Locus of Control (Z), and Financial Management Behavior (Y). The operational definitions and indicators are presented in Table 1.

Table 1. Operationalization of Research Variables

Variable	Definition	Indicators	References
Financial Attitude (X1)	Individual's attitude toward financial management reflected in financial decision-making.	(1) Attitude toward savings; (2) Financial planning orientation; (3) Financial discipline; (4) Attitude toward financial management	Parwati & Suci (2024)
Financial Knowledge (X2)	Level of understanding of financial management in making financial decisions.	(1) Basic financial knowledge; (2) Budget management; (3) Savings and investment; (4) Credit management	Nisa & Haryono (2022)
Lifestyle (X3)	Pattern of using time and money reflected through activities, interests, and opinions.	(1) Activity; (2) Interest; (3) Opinion; (4) Consumption patterns	Nisa & Haryono (2022)
Locus of Control (Z)	Belief about one's ability to control life events, including financial matters.	(1) Self-control; (2) Responsibility; (3) Confidence in own abilities; (4) Ability to control behavior	Silviana et al. (2023)
Financial Management Behavior (Y)	Behavior in organizing, managing, and using finances effectively.	(1) Financial planning; (2) Expense control; (3) Saving behavior; (4) Cash flow management	Nisa & Haryono (2022)

2.6. Data Analysis

Analysis was conducted with PLS-SEM in SmartPLS 4 in two stages: (i) the outer model was evaluated for convergent validity (outer loadings, AVE), internal consistency reliability (Cronbach's alpha, composite reliability), and discriminant validity (HTMT); and (ii) the inner model was evaluated using R^2 , Q^2 predict, effect size (f^2), and path-coefficient significance obtained through bootstrapping. Hypotheses were tested at $\alpha = 0.05$.

3. RESULTS AND DISCUSSION

3.1. Results

3.1.1. Respondent Profile

Table 2. Respondent Profile

No	Variables	f	%
1	Gender		
	- Female	72	48.0
	- Male	78	52.0
	Total	150	100
2	Residential		
	- Living with family	79	52.7
	- Boarding house	71	47.3
	Total	150	100
3.	Payment Tools Used		
	Funds	49	32.7
	Shopee Pay Later	41	27.3
	Ovo	20	13.3
	Go Pay	20	13.3
	Shopee Pay	20	13.3
	Total	150	100
4	Study program Management	34	22.7

	Information Systems	33	22.0
	Accountancy	31	20.7
	Sharia Economics	27	18
	Electrical Engineering	25	16.7
	Total	150	100
5	University Affiliation		
	- Prima Indonesia University	22	14.7
	- Medan Area University	18	12.0
	- University of Northern Sumatra	15	10.0
	- State University of Medan	14	9.3
	- HKBP Nommensen University	12	8.0
	- Muhammadiyah University of North Sumatra	10	6.7
	- Islamic University of North Sumatra (UISU)	9	6.0
	- Al-Washliyah Muslim Nusantara University	8	5.3
	- State Islamic University of North Sumatra	7	4.7
	- Indonesian Community Development University (UPMI)	6	4.0
	- Panca Budi Development University	5	3.3
	- STIM Sukma	5	3.3
	- Budi Dharma University	3	2.0
	- Cendana Polytechnic	3	2.0
	- Sari Mutiara University of Indonesia	3	2.0
	- Beautiful Medan 7 Health College	3	2.0
	- Medan Open University	2	1.3
	- Medan State Polytechnic	2	1.3
	- Pelita Nusantara Islamic High School	2	1.3
	- Pelita Harapan University	1	0.7
	Total	150	100
6	Own Personal Income/Part-time Job		
	- Yes	46	30.7
	- No	104	69.3
	Total	150	100
7	Monthly Allowance/Financial Support		
	- < Rp. 500,000	29	19.3
	- Rp. 500,000–Rp. 1,000,000	67	44.7
	- > Rp1,000,000	54	36.0
	Total	150	100

The sample is roughly balanced by gender (52% male, 48% female), split between living with family (52.7%) and boarding (47.3%), and dominated by Management (22.7%) and Information Systems (22.0%) students. DANA and Shopee PayLater are the most common digital payment tools. The majority (69.3%) do not have a personal income and rely on family support, with monthly allowances most commonly in the IDR 500,000–1,000,000 range.

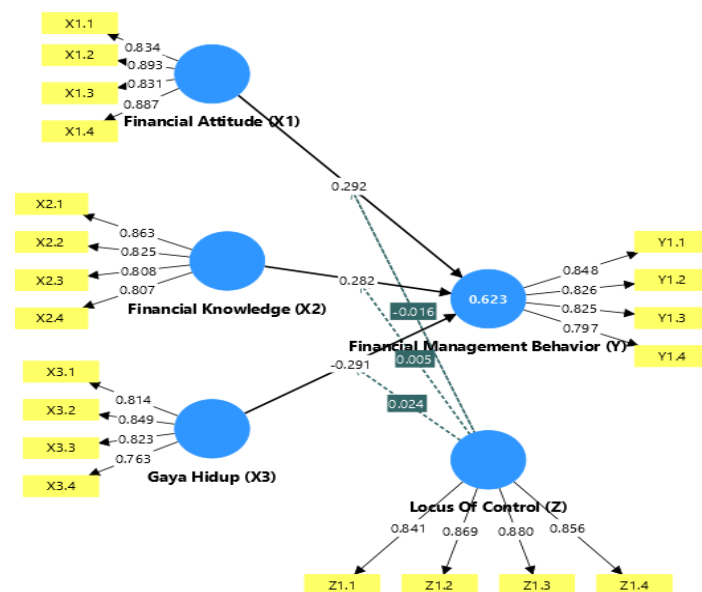


Figure 1. PLS-SEM Model Testing Results

The figure shows an R-Square value of 0.623 for the Financial Management Behavior variable. This means that Financial Attitude, Financial Knowledge, Lifestyle, and Locus of Control can explain 62.3% of the variation in Financial Management Behavior, while the remaining 37.7% is influenced by factors outside the research model.

3.1.2. Measurement Model (Outer Model)

Convergent Validity. All indicator outer loadings exceed 0.70 (Table 3), with the lowest at 0.763 (X3.4) and the highest at 0.893 (X1.2), indicating that all indicators adequately measure their respective constructs.

Table 3. Outer Loading Results

Variable	Indicator	Outer Loading	Information
Financial Attitude (X1)	X1.1	0.834	Valid
	X1.2	0.893	Valid
	X1.3	0.831	Valid
	X1.4	0.887	Valid
Financial Knowledge (X2)	X2.1	0.863	Valid
	X2.2	0.825	Valid
	X2.3	0.808	Valid
	X2.4	0.807	Valid
Lifestyle (X3)	X3.1	0.814	Valid
	X3.2	0.849	Valid
	X3.3	0.823	Valid
	X3.4	0.763	Valid
Locus of Control (Z)	Z1.1	0.841	Valid
	Z1.2	0.869	Valid
	Z1.3	0.880	Valid
	Z1.4	0.856	Valid
Financial Management Behavior (Y)	Y1.1	0.848	Valid
	Y1.2	0.826	Valid
	Y1.3	0.825	Valid
	Y1.4	0.797	Valid

Reliability and AVE. All Cronbach's alpha and composite reliability values exceed 0.70, and all AVE values exceed 0.50 (Table 4), confirming construct reliability and convergent validity.

Table 4. Reliability and AVE Results

Variable	Cronbach's Alpha	rho_A	Composite Reliability	AVE	Information
Financial Attitude (X1)	0.884	0.889	0.920	0.743	Reliable and valid
Financial Knowledge (X2)	0.846	0.870	0.896	0.682	Reliable and valid
Lifestyle (X3)	0.832	0.855	0.886	0.661	Reliable and valid
Locus of Control (Z)	0.884	0.886	0.920	0.742	Reliable and valid
Financial Management Behavior (Y)	0.843	0.847	0.894	0.680	Reliable and valid

Discriminant Validity. All Heterotrait–Monotrait Ratio (HTMT) values are below 0.90, with the highest at 0.649 (Table 5), indicating that the constructs are empirically distinct.

Table 5. Heterotrait–Monotrait Ratio (HTMT) Results

Variable Relationship	HTMT Value
Financial Attitude – Financial Knowledge	0.344
Financial Attitude – Financial Management Behavior	0.649
Financial Knowledge – Financial Management Behavior	0.535
Lifestyle – Financial Management Behavior	0.525

3.1.3. Structural Model (Inner Model)

R^2 and Q^2_{predict} . The R^2 for financial management behavior is 0.623 (Table 6), indicating that the model explains 62.3% of the variance in the endogenous construct; the remaining 37.7% is attributable to factors outside the model. $Q^2_{\text{predict}} = 0.578 (> 0)$ supports the model's predictive relevance.

Table 6. R^2 and PLSpredict Results

Endogenous Variable	R^2	R^2 Adjusted	Q^2_{predict}	RMSE	MAE
Financial Management Behavior (Y)	0.623	0.604	0.578	0.659	0.549

Effect Size (f^2). As shown in Table 7, the three direct predictors show medium effect sizes (Cohen, 1988: 0.02 = small, 0.15 = medium, 0.35 = large), whereas the three moderating effects are negligible.

Table 7. Effect Size (f^2) Results

Path	f^2	Effect Size Interpretation
Financial Attitude → Financial Management Behavior	0.177	Medium
Financial Knowledge → Financial Management Behavior	0.185	Medium
Lifestyle → Financial Management Behavior	0.195	Medium
Locus of Control × Financial Attitude → FMB	0.001	Negligible
Locus of Control × Financial Knowledge → FMB	0.000	Negligible
Locus of Control × Lifestyle → FMB	0.001	Negligible

Note: The original manuscript also refers to a direct-path f^2 value of 0.271 for Locus of Control → Financial Management Behavior, which is not listed in the effect-size table. Authors are advised to verify this value against the original SmartPLS output and reconcile it with the reported table. [f^2 for direct LoC → FMB path: verification required against original SmartPLS output.]

3.1.4. Hypothesis Testing.

Table 8. Hypothesis Test Results

Hypothesis	Path	Coefficient	T-statistic	P-value	Decision
H1	Financial Attitude → Financial Management Behavior	0.292	5.035	0.000	Supported
H2	Financial Knowledge → Financial Management Behavior	0.282	5.707	0.000	Supported
H3	Lifestyle → Financial Management Behavior	-0.291	5.251	0.000	Supported
H4	Locus of Control × Financial Attitude → Financial Management Behavior	-0.016	0.258	0.796	Not supported
H5	Locus of Control × Financial Knowledge → Financial Management Behavior	0.005	0.093	0.926	Not supported
H6	Locus of Control × Lifestyle → Financial Management Behavior	0.024	0.381	0.703	Not supported

H1, H2, and H3 are supported at $p < 0.001$. H4, H5, and H6 are not supported: locus of control does not significantly moderate the effects of financial attitude, financial knowledge, or lifestyle on financial management behavior.

3.2. Discussion

3.2.1. Financial Attitude and Financial Management Behavior (H1)

Financial attitude positively and significantly affects financial management behavior ($\beta = 0.292$; $t = 5.035$; $p < 0.001$). Consistent with the Theory of Planned Behavior (Ajzen, 1991), students who evaluate saving, budgeting, and expense control as beneficial are more likely to enact those behaviors. Practically, positive financial attitudes translate into distinguishing needs from wants, prioritizing essential expenditure, budgeting monthly allowances, and setting aside funds for future needs. This is particularly relevant in a digital environment where instant payment, e-wallet balances, and PayLater limits can dampen the psychological friction of spending; students with favorable attitudes toward financial discipline can offset these cues.

This finding aligns with Nisa and Haryono (2022) and Griffin et al. (2022), who report significant effects of financial attitude on financial management behavior in Generation Z. It contrasts with Rosdiana (2024), who finds no significant partial effect—a divergence plausibly attributable to sample composition, the intensity of digital financial exposure, and the salience of attitudinal orientation in different contexts. Given the cross-sectional design, the finding is best interpreted as a robust association rather than a purely causal claim.

3.2.2. Financial Knowledge and Financial Management Behavior (H2)

Financial knowledge positively and significantly affects financial management behavior ($\beta = 0.282$; $t = 5.707$; $p < 0.001$). The finding is consistent with a knowledge $\rightarrow$ understanding $\rightarrow$ evaluation $\rightarrow$ decision $\rightarrow$ behavior mechanism: students who understand budgeting, saving, credit, and financial products can evaluate trade-offs (for example, between BNPL convenience and interest charges) and make more considered choices. Financial knowledge thus provides the cognitive foundation for rational financial management.

The result echoes Nisa and Haryono (2022) and Gunawan et al. (2023), reinforcing that stronger financial knowledge encourages more responsible financial behavior. It diverges from Manihuruk et al. (2022), a difference plausibly linked to varying respondent characteristics and heterogeneous exposure to digital financial products. In the Medan sample—actively using digital financial services—financial knowledge appears especially salient in shaping behavior.

3.2.3. Lifestyle and Financial Management Behavior (H3)

Lifestyle negatively and significantly affects financial management behavior ($\beta = -0.291$; $t = 5.251$; $p < 0.001$). A more consumptive lifestyle is associated with weaker financial management behavior: buying items based on trends, unplanned eating out, and impulsive online shopping fueled by discounts and social-media exposure divert resources from planned spending, savings, and emergency funds. The prevalence of e-wallets, e-commerce promotions, and PayLater services intensifies this dynamic by lowering the effort required to purchase, though the cross-sectional design precludes strong causal claims.

The finding aligns with Hidayah and Iramani (2023) and Karamaha et al. (2023), and differs from Manihuruk et al. (2022). This divergence is likely explained by differences in digital-financial exposure, socio-economic characteristics, and social-media use across samples.

3.2.4. Locus of Control as a Moderator of Financial Attitude $\rightarrow$ Financial Management Behavior (H4)

Locus of control does not significantly moderate the relationship between financial attitude and financial management behavior ($\beta = -0.016$; $t = 0.258$; $p = 0.796$). Theoretically, an internal locus of control might be expected to strengthen the attitude-behavior link because individuals who feel agency over outcomes should more consistently act on their attitudes. Empirically, however, the effect is not detected in this sample.

Several explanations are plausible. First, positive financial attitudes may translate into behavior sufficiently strongly on their own that the additional filtering effect of locus of control is small. Second, students in Medan operate in a shared digital ecosystem where external stimuli (BNPL prompts, social feeds, peer comparison) are strong enough that variation in locus of control does not substantially alter attitude-driven behavior. Third, moderation effects are typically small and require larger samples for reliable detection; a sample of 150 may be underpowered for the interaction term. The finding diverges from Griffin et al. (2022), who found significant moderation among Generation Z, and echoes Turnip (2023) in indicating that locus of control need not consistently moderate attitude-behavior links across contexts.

Importantly, the non-significant moderating effect does not imply that locus of control is unimportant. The construct may exert a direct association with financial management behavior in this model, which is a distinct pathway from moderation. Direct effect $\neq$ moderating effect.

3.2.5. Locus of Control as a Moderator of Financial Knowledge $\rightarrow$ Financial Management Behavior (H5)

Locus of control does not significantly moderate the effect of financial knowledge on financial management behavior ($\beta = 0.005$; $t = 0.093$; $p = 0.926$). Consistent with the concept of financial literacy (OECD, 2020), financial knowledge appears to have a fairly strong direct link with behavior, so that variation in locus of control does not perceptibly amplify or dampen the relationship. Understanding budgeting, credit, and cash-flow appears to be actionable on its own, especially when digital tools (e-wallet dashboards, spending summaries) make information visible and immediate. The finding diverges from Gunawan et al. (2023), who observed moderation among PayLater users—arguably a more credit-intensive segment where self-regulation matters more per decision. It aligns with Turnip (2023). Again, a null moderation should not be read as evidence that locus of control is irrelevant to financial management; it merely indicates that its role in this sample is not that of a moderator of the knowledge-behavior path.

3.2.6. Locus of Control as a Moderator of Lifestyle $\rightarrow$ Financial Management Behavior (H6)

Locus of control does not significantly moderate the relationship between lifestyle and financial management behavior ($\beta = 0.024$; $t = 0.381$; $p = 0.703$). Lifestyle-driven consumption among Medan students appears to be substantially shaped by external stimuli—social media, trends, e-commerce promotions, and PayLater exposure (Kotler & Keller, 2016; Karamaha et al., 2023)—which can override the buffering role that an internal locus of control might otherwise provide. In other words, individual belief about causal agency is not, by itself, sufficient to weaken the pull of a highly digitalized consumption environment.

This diverges from Gunawan et al. (2023) in the PayLater segment, and is consistent with the broader observation (Turnip, 2023) that psychological traits do not always moderate lifestyle-behavior links. As with

H4 and H5, the finding does not suggest that locus of control is unimportant, only that its influence in this sample appears direct rather than moderating.

3.2.7. Critical Reflection: Confounding Factors and Unexplained Variance

The model explains 62.3% of the variance in financial management behavior, leaving 37.7% unexplained. Several potential confounding factors may account for this residual variance, though this study does not establish them as confounders:

- a. Personal income and family financial support. The sample includes both self-financed and parent-supported students, with allowances ranging widely. Income and support may influence financial behavior independently.
- b. Digital financial literacy. Beyond general financial knowledge, familiarity with e-wallet features, BNPL terms, and interest structures is likely relevant.
- c. Financial self-efficacy. Confidence in executing financial tasks is conceptually distinct from locus of control and may drive behavior.
- d. Family environment. Parental financial socialization can shape long-run financial habits.
- e. Intensity of PayLater use. The frequency and volume of BNPL usage may be a stronger driver than psychological traits alone.
- f. Socioeconomic characteristics. Housing arrangements (living with family vs. boarding) and study program may indirectly shape spending.

Future research should incorporate these variables to explain a larger share of the variance and to test whether locus of control moderate's other pathways not modeled here.

4. CONCLUSION

This study analyzed the effects of financial attitude, financial knowledge, and lifestyle on financial management behavior, and tested locus of control as a moderator, using PLS-SEM on data from 150 university students in Medan City. Financial attitude and financial knowledge exert positive and significant effects, while lifestyle exerts a negative and significant effect on financial management behavior. Together with locus of control, these constructs explain 62.3% of the variance in financial management behavior. The moderation hypotheses are not supported: locus of control does not significantly moderate the relationships of financial attitude, financial knowledge, or lifestyle with financial management behavior. This should not be interpreted as evidence that locus of control is unimportant; rather, in this sample, its role appears to be direct rather than moderating. Direct effect and moderating effect are conceptually and empirically distinct. Practically, the findings support integrated interventions that strengthen students' financial attitudes, knowledge, and digital financial literacy while addressing consumptive lifestyle drivers rooted in digital consumption ecosystems. Universities, policymakers, and financial institutions should collaborate on financial-education curricula, digital-finance literacy, BNPL risk awareness, and confidential financial counseling. The study is limited by its cross-sectional design, purposive sample, and geographic focus. Future research should employ longitudinal designs, expand the geographic scope, incorporate digital financial literacy and PayLater usage intensity as additional predictors, and test alternative moderators.

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