

Does Income Matter? Moderating Effect on Financial Literacy and Financial Behavior

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ABSTRACT

Keywords:

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control; Financial
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behaviour; Income;

Background: Financial management behavior is essential for individual well-being, particularly among private school teachers in Indonesia with fixed incomes who still face financial challenges. This study is based on the Theory of Planned Behavior, which explains behavior through cognitive, social, and psychological factors. Financial literacy, financial socialization, and self-control are proposed as key determinants, while income is examined as a moderating variable to capture the role of economic capacity.

Method: Participants in this study were private teachers with fixed incomes in Indonesia. A total of 150 valid questionnaires were collected and analyzed using a Structural Equation Modeling (SEM) approach based on Partial Least Squares (PLS) using Smart PLS.

Results: These findings indicate that the effectiveness of financial knowledge, social environmental influences, and self-control in shaping financial behavior is highly dependent on an individual's economic capacity.

Conclusion: This study has two main implications. First, the results provide important insights for educational institutions and policymakers in designing programs to improve financial literacy and well-being, particularly for educators. These two studies contribute to the development of the financial behavior literature by expanding the application of the Theory of Planned Behavior through the integration of the moderating variable of income as a contextual factor in explaining individual financial management behavior.

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INTRODUCTION

Financial management behavior plays an important role in achieving financial stability and long-term well-being. Individuals who are able to manage their finances effectively tend to be more capable of meeting daily needs, avoiding excessive debt, building emergency savings, and maintaining financial security. Conversely, weak financial management behavior may increase financial stress, overconsumption, economic vulnerability, and reduce overall financial well-being (Brüggen et al., 2017). In developing countries such as Indonesia, these challenges have become increasingly important due to

rising living costs, inflationary pressures, economic uncertainty, and limited household financial resilience.

Previous studies indicate that financial problems are influenced not only by income levels but also by individuals' ability to understand and manage financial resources effectively. In this regard, financial literacy has been recognized as one of the key determinants because it affects individuals' capability to understand financial concepts, evaluate alternatives, and make rational financial decisions (Lusardi & Messy, 2023). Higher levels of financial literacy have also been associated with improved financial well-being and financial resilience (Anghel & Pochea, 2025; Orozco-Orozco, 2024). However, empirical evidence remains inconsistent, as improvements in financial literacy do not always lead directly to better financial behavior, suggesting that social and psychological factors should also be considered.

Beyond cognitive capability, financial socialization contributes to the formation of financial values, norms, and behavioral patterns through interactions with family members, peers, educational institutions, and the broader social environment. This process influences how individuals manage spending, saving, borrowing, and financial responsibilities. At the same time, psychological factors, particularly self-control, also play an important role because they enable individuals to regulate consumption impulses, delay immediate gratification, and prioritize long-term financial goals. Individuals with stronger self-control tend to demonstrate better saving behavior, stronger budgeting discipline, and more effective expenditure management (Brüggen et al., 2017).

This study is grounded in the Theory of Planned Behavior (TPB), which explains that behavior is influenced by behavioral beliefs, subjective norms, and perceived behavioral control. Within this framework, financial literacy represents behavioral beliefs because it reflects individuals' understanding and evaluation of financial decisions. Financial socialization represents subjective norms because financial behavior is shaped by social influence and environmental interactions. Meanwhile, self-control reflects perceived behavioral control because it represents individuals' ability to regulate financial actions and resist impulsive behavior.

Although financial behavior research has expanded considerably, studies specifically focusing on private school teachers in Indonesia remain limited. This group possesses socioeconomic characteristics that differ from other fixed-income workers such as civil servants and industrial employees. Public school teachers generally receive standardized salaries, government allowances, and pension protection, whereas many private school teachers continue to face relatively lower and less stable income conditions because their compensation often depends on school financial capacity, student enrollment levels, and institutional policies. In addition, private school teachers frequently have limited access to formal financial planning programs, welfare protection, and long-term investment opportunities.

Teacher welfare remains a significant issue in Indonesia, particularly among private school teachers who often experience lower income levels and greater financial vulnerability. National evidence indicates that many private and honorary teachers receive salaries below regional minimum wage standards. A survey by the Institute for Demographic and Poverty Studies (IDEAS) involving 403 teachers across 25 provinces reported that approximately 74% of respondents earned less than IDR 2 million per month in 2024. Such conditions may constrain saving and investment capacity while increasing financial insecurity. Therefore, private school teachers represent an important context for examining financial management behavior and financial well-being.

However, studies on financial management behavior among private school teachers in Indonesia remain limited. Previous research has mainly focused on general populations, students, entrepreneurs, and formal-sector employees, with limited attention given to teachers facing income constraints and economic uncertainty. In addition, the roles of financial literacy, financial attitude, and financial self-efficacy in influencing financial management behavior and financial well-being within this group remain underexplored. Accordingly, this study seeks to address this gap by investigating financial behavior among private school teachers in Indonesia.

In addition to conventional financial perspectives, this study is also positioned within the context of Islamic economics and Islamic financial behavior. As the country with the largest Muslim population in the world, Indonesia provides a unique setting in which financial decisions are frequently influenced by religious values and Islamic financial principles. In this context, Islamic financial literacy extends beyond conventional financial knowledge by incorporating understanding of Sharia-compliant products

and instruments such as wadiah savings, mudarabah investment schemes, murabaha financing, and takaful insurance. Individuals with stronger Islamic financial literacy may therefore demonstrate different financial attitudes and decision-making patterns compared with individuals relying solely on conventional financial knowledge.

Moreover, financial socialization within Indonesian Muslim communities is often shaped by family values and Islamic principles, including the prohibition of *riba*, ethical consumption, and financial responsibility. These social and religious influences may affect not only financial habits but also the moral dimensions underlying financial decisions. Therefore, incorporating Islamic financial perspectives may provide a more contextual understanding of financial management behavior in Indonesia.

Based on this context, this study examines the effects of financial literacy, financial socialization, and self-control on financial management behavior among private school teachers in Indonesia, while investigating the moderating role of income. By integrating the Theory of Planned Behavior, behavioral finance perspectives, and Islamic financial values, this study seeks to enrich the literature on financial behavior among educators in Indonesia.

LITERATURE REVIEW

Theory of Planned Behavior

To identify factors influencing financial management behavior, this study adopted the Theory of Planned Behavior framework as the primary theoretical foundation. This theory is a widely used social psychology model to explain and predict individual behavior based on intentions and behavioral determinants (Ajzen, 1985; Ajzen, 1991). In the financial context, this theory has been widely used to understand how individuals make decisions related to financial management (Xiao & Porto, 2022).

This theory states that individual behavior is influenced by three main components: behavioral beliefs, subjective norms, and perceived behavioral control. Behavioral beliefs relate to an individual's beliefs about the consequences of a behavior, which then shape attitudes. In this study, this component is represented by financial literacy, which reflects an individual's ability to understand and evaluate financial decisions (Widjayanti et al., 2025). Individuals with good financial literacy tend to have more rational beliefs about managing their finances.

Furthermore, subjective norms refer to the social pressure an individual feels to perform or not perform a behavior (Ajzen, 1991). In this study, subjective norms are represented by financial socialization, which encompasses the influence of family, friends, and the social environment in shaping financial behavior (Shim et al., 2023; Kim & Chatterjee, 2021). A supportive social environment will encourage individuals to adopt better financial management practices.

The third component, perceived behavioral control, describes an individual's perception of the ease or difficulty of performing a behavior (Ajzen, 1985). In this study, self-control is used as a proxy for perceived behavioral control because it reflects an individual's ability to control impulses and regulate financial behavior (Strömbäck et al., 2022). Individuals with high levels of self-control tend to be more disciplined in managing their finances.

Furthermore, this study includes income as a moderating variable to test the strength of the relationship between the independent variables and financial management behavior. Income is viewed as a contextual factor that reflects an individual's economic capacity to implement financial decisions (Lusardi et al., 2021). Thus, this study expands the Theory of Planned Behavior framework by adding an economic dimension as a factor that can influence financial decisions, strengthen or weaken the relationship between behavioral determinants and financial management practices.

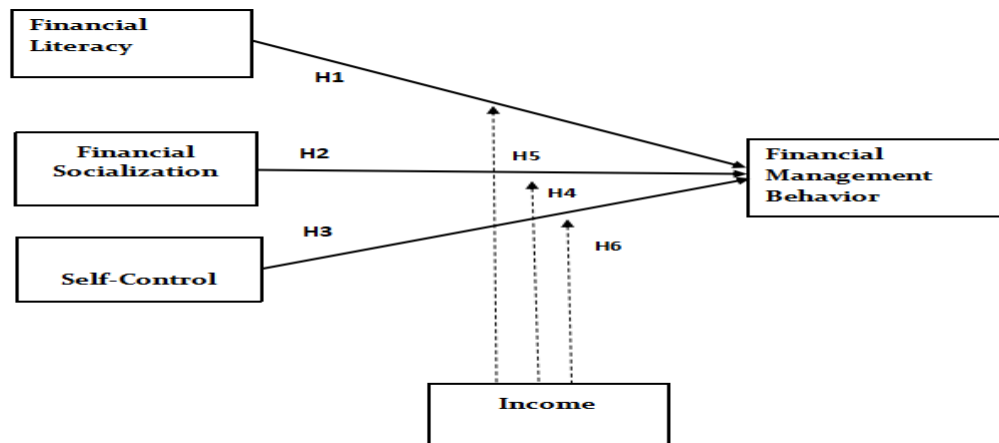


Figure 1. Research model

The conceptual framework proposed in this study is shown in Figure 1, which illustrates the relationships between variables and their influence on financial management behavior. Adopting the Theory of Planned Behavior framework, this study integrates cognitive, social, and psychological factors to explain individual financial management behavior.

In this model, financial literacy represents behavioral beliefs that reflect an individual's ability to understand and evaluate financial decisions. Financial socialization describes subjective norms, reflecting the influence of social environments such as family and friends on shaping financial behavior. Meanwhile, self-control represents perceived behavioral control, indicating an individual's ability to control impulses and discipline financial behavior.

In addition to the direct relationship between these three independent variables and financial management behavior, this study also includes income as a moderating variable. Income acts as a contextual factor that influences the strength of the relationship between financial literacy, financial socialization, and self-control on financial management behavior. Thus, this study aims to provide a more comprehensive understanding of the factors influencing financial management behavior, particularly in the context of individuals with different income characteristics.

Financial Management Behavior

Financial management behavior refers to an individual's actions in managing finances, including planning, budgeting, saving, investing, and debt management. This behavior is an important indicator of an individual's financial well-being. To identify factors influencing financial management behavior, this study adopted the Theory of Planned Behavior framework as its primary theoretical foundation. This theory is a widely used social psychology model to explain and predict individual behavior based on

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Financial Literacy

Financial literacy is an individual's ability to understand financial concepts and use them in effective decision-making. Financial literacy encompasses knowledge about savings, investments, interest rates, risk, and debt management. Several studies have shown that financial literacy has a positive influence on financial behavior (Widjayanti et al., 2025; Rehman & Mia, 2024). Individuals with high levels of financial literacy tend to be better able to plan their finances and avoid detrimental financial decisions. However, financial literacy is not always sufficient to explain overall financial behavior. Several studies suggest that other factors, such as social environment and psychological characteristics, also play a significant role (Frisancho et al., 2023). Based on these findings, the following hypothesis is proposed:

H1: Financial literacy has a positive effect on financial management behavior.

Financial Socialization

Financial socialization is a learning process that occurs through interactions with social environments, such as family, friends, and educational institutions. This process shapes an individual's financial values, norms, and habits. Research shows that individuals who receive financial education from their families tend to have better financial behaviors (Shim et al., 2023). Furthermore, peer influence also plays a role in shaping consumption patterns and savings habits (Kim & Chatterjee, 2021).

Therefore, financial socialization serves as an important mechanism in transferring financial knowledge and values between individuals. Based on these findings, it is hypothesized that:

H2: Financial socialization has a positive effect on financial management behavior.

Self-Control

Self-control is an individual's ability to control impulses and delay short-term gratification in order to achieve long-term goals. In a financial context, self-control plays a crucial role in avoiding consumer behavior and improving financial discipline. Research shows that self-control has a significant influence on financial behavior (Strömbäck et al., 2022). Individuals with high self-control tend to be better able to manage expenses, save consistently, and avoid unproductive debt (Tangney et al., 2021). Based on these findings, it is hypothesized that:

H3: Self-control has a positive effect on financial management behavior.

Income as a Moderating Variable

Income is an indicator of an individual's economic capacity that influences financial behavior. In this study, income is positioned as a moderating variable influencing the relationship between financial literacy, financial socialization, self-control, and financial management behavior. Previous research shows that individuals with higher income levels have greater ability to implement financial decisions (Lusardi et al., 2021). Furthermore, income also influences an individual's level of satisfaction and financial well-being (Xiao & Porto, 2022).

Thus, income acts as a contextual factor that can strengthen or weaken the relationship between behavioral determinants and financial management practices. Therefore, this study establishes the following hypotheses:

H4: Income moderates the relationship between financial literacy and financial management behavior.

H5: Income moderates the relationship between financial socialization and financial management behavior.

H6: Income moderates the relationship between self-control and financial management behavior.

METHOD

Research Design and Sample

This study uses a quantitative approach with a cross-sectoral survey design to examine the influence of financial literacy, financial socialization, and self-control on financial management behavior among private school teachers in Indonesia, with income as a moderating variable. The quantitative approach was chosen because this study aims to empirically test the causal relationship between variables using a structural model.

The study population consisted of active teachers working in private schools in Indonesia. The sampling technique used was non-probability convenience sampling. To mitigate the potential for selection bias commonly associated with convenience sampling, several control procedures were implemented. First, questionnaires were distributed across various geographic areas, including Wonogiri and Klaten Regencies in Central Java, East Lampung Regency, Pringsewu Regency, and Metro City in Lampung Province. Second, respondents were recruited from various educational levels, including elementary schools, junior high schools, and senior high/vocational schools. Third, this study considered variations in school characteristics by including both public and religious-based private schools to achieve a broader representation of respondents.

Respondents were screened before completing the questionnaire to ensure compliance with the study criteria, namely: (1) currently working as active teachers in private schools in Indonesia and (2) having teaching responsibilities during the data collection period. The final sample consisted of 150 respondents. Sampling adequacy was evaluated using PLS-SEM requirements. In addition to following the 10-fold rule, sample size was also assessed using a minimum sample size estimate based on the number of predictors and the expected medium effect size. The structural model includes three exogenous variables and one moderating variable; therefore, a minimum sample size exceeding 100 respondents was deemed sufficient to achieve sufficient statistical power. Therefore, a sample size of 150 respondents was deemed appropriate for testing the proposed model.

Measurement Instrument

Primary data were collected using a structured questionnaire consisting of two sections. Section A contained respondent demographic information, including age, gender, educational background, teaching experience, school level, and monthly income. Unlike subjective income perception measures, income in this study was operationalized using objective monthly salary categories in Indonesian Rupiah (IDR) to minimize perception bias. The income categories were developed based on common salary distributions among private school teachers in Indonesia.

Section B measured the research constructs: Financial Literacy (FL), Financial Socialization (FS), Self-Control (SC), and Financial Management Behavior (FMB). All items were adapted from previously validated empirical studies and measured using a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree. Financial Literacy was measured using indicators related to knowledge of savings, investment, debt management, financial planning, and understanding of conventional and Islamic financial products. Islamic financial indicators included knowledge related to wadiah, mudharabah, and takaful principles.

Financial Socialization was measured through indicators reflecting financial influence from family, peers, educational institutions, and workplace environments, including exposure to Islamic financial values such as halal transactions and avoidance of riba. Self-Control was measured through indicators assessing individuals' ability to regulate spending, avoid impulsive consumption, and prioritize long-term financial goals. Financial Management Behavior was measured using indicators related to budgeting, saving practices, expenditure management, financial planning, and management of financial obligations.

Before the main survey was conducted, a pilot test involving 30 private school teachers was undertaken to evaluate item clarity, cultural suitability, wording consistency, and questionnaire readability. Several minor revisions were subsequently made to improve language clarity before administering the final survey.

Data Collection Procedure

Data collection was conducted using an online survey distributed through school networks, teacher associations, and educational social media groups. Respondents received information regarding the objectives of the study before completing the questionnaire. Participation was voluntary, and no monetary incentives were provided. Only fully completed questionnaires that met the screening criteria were included in the final dataset.

To ensure data quality, responses were examined for incomplete entries, inconsistent answers, and potential careless responses, including straight-lining patterns.

Data Analysis Technique

The data were analyzed using Structural Equation Modeling–Partial Least Squares (SEM-PLS) with the assistance of SmartPLS software. SEM-PLS was selected because it is capable of analyzing complex relationships among latent variables, including moderating effects, and is appropriate for studies with moderate sample sizes.

The analysis was conducted in two stages: evaluation of the measurement model (outer model) and evaluation of the structural model (inner model). The outer model evaluation included tests of convergent validity, discriminant validity, and construct reliability using factor loading values, Average Variance Extracted (AVE), Composite Reliability (CR), and Cronbach's Alpha. The inner model evaluation involved examining path coefficients, R-square values, effect sizes (f-square), and the significance of relationships among variables using the bootstrapping procedure.

Since all data were collected using self-reported questionnaires, this study also assessed the potential for common method bias using Harman's Single Factor Test. The results indicated that the variance explained by a single dominant factor was below the threshold of 50%, suggesting that common method bias was not a serious concern in this study.

Ethical Considerations

This study adhered to the ethical principles of social science research. Prior to data collection, respondents were informed about the purpose of the study, data confidentiality, and their right to withdraw from participation at any time. Respondents' consent was obtained through an informed consent statement provided at the beginning of the questionnaire.

All respondent data were treated confidentially and used solely for academic purposes. Respondents' identities were not disclosed in the analysis or publication of the findings. In addition, this study received approval from the researchers' academic institution prior to the data collection process.

RESULTS AND DISCUSSION

Respondent Profile

Demographic data obtained through a questionnaire provides a general overview of the characteristics of the respondents in this study. Of the 150 participating private school teachers in Indonesia, the majority were male (54.3%), while the remaining 45.7% were female. Based on educational level, the majority of respondents held a bachelor's degree (S1), at 47.7%. Furthermore, 28.3% of respondents held a diploma, 15.2% held a master's degree, 7.8% were high school graduates, and the remaining 1% held a doctorate.

Data analysis in this study was conducted using Structural Equation Modeling–Partial Least Squares (SEM-PLS) with the assistance of SmartPLS 4.0 software. This method was chosen because of its ability to estimate complex relationships between latent constructs and maximize explained variance in the dependent variable (Ringle, Wiendie, & Will, 2005). The PLS-SEM approach is also well suited for

exploratory and predictive research involving latent variables and moderating effects (Hair, Sarstedt, Ringle, & Mena, 2012).

Model Evaluation Using PLS-SEM

The model evaluation in this study was conducted using the Partial Least Squares Structural Equation Modeling (PLS-SEM) approach. This study followed a two-stage procedure as recommended by Anderson and Gerbing (1988), consisting of measurement model evaluation and structural model evaluation.

The first stage focused on testing the measurement model to ensure that the indicators used were valid and reliable in representing the research constructs: Financial Literacy, Financial Socialization, Self-Control, Income, and Financial Management Behavior. The second stage was a structural model evaluation, which aimed to examine the relationships between the constructs and the moderating role of Income in strengthening or weakening the influence of the independent variables on Financial Management Behavior. This approach allows for simultaneous hypothesis testing within a single comprehensive model (Hair, Hult, Ringle, & Sarstedt, 2014).

Measurement Model Assessment

The measurement model evaluation in this study was conducted to ensure that each construct used in the research model had an adequate level of reliability and validity. The constructs tested in this study included Financial Literacy, Financial Socialization, Self-Control, Income, and Financial Management Behavior.

In this study, measurement validity was analyzed through convergent and discriminant validity tests. Convergent validity was assessed by evaluating the indicator's outer loading value, Average Variance Extracted (AVE), and Composite Reliability (CR), as recommended by Joseph F. Hair Jr., Christian M. Ringle, and Marko Sarstedt (2011). A construct is considered to have convergent validity if its outer loading value is >0.70 , $AVE >0.50$, and $CR >0.70$.

Table 1. Convergent Validity of the Measurement Model and Indicator Descriptions

Variable	Item	Indicator Description	Outer Loading	AVE	CR
Financial Literacy	FL1	Understanding of personal budgeting, expense allocation, and household financial planning	0.812	0.654	0.882
	FL2	Understanding of financial products and services, including savings, credit, investment, and basic Islamic financial products (<i>wadiah, mudarabah, takaful</i>)	0.835		
	FL3	Ability to make rational financial decisions, manage debt, prepare emergency funds, and plan long-term finances	0.789		
Financial Socialization	FS1	Influence of family in shaping saving habits, spending discipline, and financial responsibility	0.801	0.638	0.869
	FS2	Influence of peers and social environment on consumption patterns, borrowing behavior, and financial lifestyle	0.824		

	FS3	Influence of workplace and institutional environment, such as school cooperatives and financial discussions among teachers	0.775		
Self-Control	SC1	Ability to resist impulsive purchases and unnecessary spending	0.845	0.667	0.889
	SC2	Ability to prioritize needs over wants under limited income conditions	0.828		
	SC3	Financial discipline in budgeting, saving regularly, and controlling routine expenditures	0.79	0.701	0.903
Income	INC1	Monthly income level based on objective salary categories in Indonesian Rupiah	0.876		
	INC2	Stability and adequacy of income to meet daily living needs	0.802		
Financial Management Behavior	FMB1	Financial planning behavior, including budgeting and expense recording	0.833	0.659	0.885
	FMB2	Saving behavior and allocation of income for future needs or emergency funds	0.847		
	FMB3	Ability to control spending, pay obligations on time, and avoid excessive consumer debt	0.781		

Note: FL = Financial Literacy; FS = financial Sosialization; SC = Self-Control; INC = Income; FMB = Financial Management Behavior

Table 1 presents the results of the convergent validity assessment of the measurement model together with the indicator descriptions for the five research constructs: Financial Literacy, Financial Socialization, Self-Control, Income, and Financial Management Behavior. Convergent validity was evaluated using outer loading, Average Variance Extracted (AVE), and Composite Reliability (CR) to ensure that each indicator adequately reflects its respective latent construct.

Overall, the findings show that all indicators achieved outer loading values above the recommended threshold of 0.70, ranging from 0.775 to 0.876, indicating strong indicator contributions and satisfactory construct representation. Likewise, all constructs reported AVE values above 0.50 and CR values exceeding 0.70, confirming adequate convergent validity and internal reliability.

The Financial Literacy construct demonstrated outer loading values between 0.789–0.835, with AVE = 0.654 and CR = 0.882, reflecting adequate measurement quality across indicators related to budgeting, financial products and services, Islamic financial knowledge, and rational financial decision-making. Financial Socialization produced loading values of 0.775–0.824, with AVE = 0.638 and CR = 0.869, indicating that family, peers, social interactions, and workplace environments consistently contribute to financial learning processes.

For Self-Control, the outer loading values ranged from 0.790–0.845, with AVE = 0.667 and CR = 0.889, demonstrating strong consistency in measuring behavioral regulation, including impulse control, expenditure prioritization, and financial discipline. The Income construct showed the strongest measurement performance, with loading values of 0.802–0.876, AVE = 0.701, and CR = 0.903, suggesting that income level, stability, and adequacy effectively capture respondents' economic conditions. Meanwhile, Financial Management Behavior reported loading values between 0.781–0.847, with AVE = 0.659 and CR = 0.885, confirming reliable measurement of budgeting behavior, saving practices, expenditure control, and financial obligation management.

Overall, the results confirm that all constructs satisfy the requirements of convergent validity (outer loading > 0.70; AVE > 0.50; CR > 0.70). Therefore, the measurement model demonstrates adequate quality and is suitable for further analysis, including discriminant validity assessment and structural model evaluation. In the context of private school teachers in Indonesia, these findings further indicate that the selected indicators successfully capture the empirical dimensions of teachers' financial behavior and related determinants.

Table 2. Discriminant Validity Assessment Using HTMT with Bootstrapped Confidence Intervals

Construct Relationship	HTMT Value	95% Bootstrap Confidence Interval	Threshold (< 0.85)	Conclusion
Financial Literacy ↔ Financial Socialization	0.621	0.512 – 0.734	Supported	Discriminant validity achieved
Financial Literacy ↔ Self-Control	0.587	0.471 – 0.702	Supported	Discriminant validity achieved
Financial Literacy ↔ Income	0.552	0.438 – 0.671	Supported	Discriminant validity achieved
Financial Literacy ↔ Financial Management Behavior	0.684	0.571 – 0.798	Supported	Discriminant validity achieved
Financial Socialization ↔ Self-Control	0.633	0.518 – 0.749	Supported	Discriminant validity achieved
Financial Socialization ↔ Income	0.498	0.387 – 0.612	Supported	Discriminant validity achieved
Financial Socialization ↔ Financial Management Behavior	0.659	0.547 – 0.773	Supported	Discriminant validity achieved
Self-Control ↔ Income	0.521	0.409 – 0.637	Supported	Discriminant validity achieved
Self-Control ↔ Financial Management Behavior	0.701	0.589 – 0.814	Supported	Discriminant validity achieved
Income ↔ Financial Management Behavior	0.573	0.461 – 0.688	Supported	Discriminant validity achieved

Note: FL = Financial Literacy; FS = Financial Socialization; SC = Self-Control; INC = Income; FMB = Financial Management Behavior

The table 2. above shows the results of discriminant validity testing using the Heterotrait–Monotrait Ratio (HTMT) method to ensure that each construct in the study has adequate conceptual and empirical distinction. The analysis shows that all HTMT values fall within the range of 0.498–0.701, remaining below the recommended threshold of 0.85. All study variables, including financial literacy, financial socialization, self-control, income, and financial management behavior, meet the criteria for discriminant validity and can be empirically defined as distinct constructs.

Although all constructs meet discriminant validity, the test results indicate that the strongest relationship exists between self-control and financial management behavior (HTMT = 0.701). This finding is significant because it aligns with the results of the structural model, which indicates that self-control is the most dominant determinant of private teachers' financial management behavior. This suggests that private teachers' financial management behavior is shaped not solely by financial knowledge or income, but rather by the individual's ability to manage daily financial decisions. In the context of private teachers in Indonesia, the dominance of self-control can be explained by the relatively different socioeconomic characteristics and work environment compared to civil servant teachers. Some private teachers work in institutions with varying levels of welfare, so their income is often limited or not fully commensurate with their workload and professional demands. Furthermore, teachers continue to face various financial obligations, both personal, family, and work-related. Private teachers are also often faced with situations that require additional expenses to support the learning process, such as providing additional teaching materials, developing learning media, attending training, and other academic support

activities. These expenses are not always impulsive, but more often arise as additional professional expenses that must be met to maintain the quality of learning. This situation makes the ability to manage spending priorities a crucial factor.

Furthermore, the social environment of teachers in Indonesia also has a fairly strong collective character. Teachers not only fulfill their role as educators but are also frequently involved in social, institutional, and community activities. This involvement can increase financial pressure through various forms of social contributions, school activities, and community obligations. In such situations, self-control skills become a crucial mechanism for maintaining a balance between personal needs, family responsibilities, and professional demands. Theoretically, these findings suggest that self-control serves as a behavioral mechanism linking cognitive capacity to actual financial actions. Financial literacy provides an understanding of financial concepts, while financial socialization shapes experiences and values related to money management. However, the application of this knowledge in practice is strongly influenced by an individual's ability to control consumption, delay gratification, set priorities, and maintain financial discipline.

The dominance of self-control in the research model also suggests that among private teachers, psychological and behavioral factors play a greater role than purely economic factors. This means that increased income or financial knowledge does not necessarily automatically result in better financial management behaviors if not accompanied by adequate self-regulation skills. Therefore, the implications of this research suggest that programs to improve the financial well-being of private teachers in Indonesia should focus not only on improving financial literacy but also on strengthening self-control skills, such as training in financial planning, expense management, saving habits, consumption control, and long-term financial decision-making strategies. This approach is expected to be more effective in improving financial management behaviors and strengthening the financial well-being of private teachers in a sustainable manner.

Structural Model Assessment

According to Hair et al. (2014), the second stage in SEM-PLS analysis is the evaluation of the structural model (inner model). This stage aims to examine the relationships among latent constructs and test the proposed hypotheses. Structural model assessment was conducted using path coefficients, coefficient of determination (R^2), predictive relevance (Q^2), model fit statistics (SRMR), effect size (f^2), and significance testing obtained through the bootstrapping procedure with 5,000 resamples. Before testing the hypotheses, the structural model was evaluated to determine its explanatory power, predictive relevance, and model fit. Table 3 presents the results of the model fit and predictive relevance assessment.

Table 3. Model Fit and Predictive Relevance Assessment

Indicator	Value	Recommended Threshold	Interpretation
R^2 (Financial Management Behavior)	0.487	0.25 = weak; 0.50 = moderate; 0.75 = substantial	Moderate explanatory power
Adjusted R^2	0.471	Close to R^2 value	Stable model estimation
Q^2 Predictive Relevance	0.318	> 0	Predictive relevance achieved
SRMR	0.071	< 0.08	Acceptable model fit

The results indicate that the structural model achieved an R^2 value of 0.487, meaning that approximately 48.7% of the variance in Financial Management Behavior can be explained by Financial Literacy, Financial Socialization, Self-Control, and the moderating effect of Income, while the remaining variance is explained by other variables outside the model. Based on Cohen's criteria, this value indicates moderate explanatory power. Furthermore, the Q^2 value of 0.318 demonstrates that the model possesses adequate predictive relevance because the value exceeds zero. The SRMR value of 0.071, which is below the recommended threshold of 0.08, also indicates that the structural model achieved an acceptable level

of fit. After confirming model adequacy, hypothesis testing was performed. Table 4 presents the summary of the structural model results.

Table 4. Summary of the structural model

Hypothesis	Connection	Beta (β)	STDEV	t-Statistic	p-Value	f ²	Decision
H1	Financial Literacy → FMB	0.312	0.081	3.845	<0.001	0.121	Supported
H2	Financial Socialization → FMB	0.274	0.085	3.221	0.001	0.097	Supported
H3	Self-Control → FMB	0.356	0.087	4.102	<0.001	0.183	Supported
H4	FL × Income → FMB	0.158	0.075	2.114	0.035	0.054	Supported
H5	FS × Income → FMB	0.072	0.06	1.201	0.23	0.018	Not supported
H6	SC × Income → FMB	0.081	0.06	1.356	0.176	0.021	Not supported
—	R ² (Financial Management Behavior)	0.487	—	—	—	—	Moderat

Note: FL = Financial Literacy; FS = Financial Sosialization ; SC = Self-Control; INC = Income; FMB = Financial Management Behavior

The findings indicate that Financial Literacy (H1), Financial Socialization (H2), and Self-Control (H3) positively and significantly influence Financial Management Behavior among private school teachers in Indonesia. Among all predictors, Self-Control demonstrated the strongest influence ($\beta = 0.356$, $p < 0.001$), followed by Financial Literacy and Financial Socialization. This suggests that financial behavior among private school teachers is shaped not only by knowledge and social learning but also by the individual's ability to manage spending, control impulsive consumption, and maintain long-term financial goals.

The dominance of Self-Control may reflect the financial conditions of private school teachers, who often face limited income and unstable financial situations. In practice, teachers often allocate personal funds for educational materials, classroom activities, and student-related needs, especially among elementary school teachers. Therefore, self-regulation is more important than financial knowledge alone in determining financial behavior. Regarding the moderating effect, the interaction between Income and Financial Literacy (H4) significantly influenced Financial Management Behavior ($\beta = 0.158$, $p = 0.029$). This finding suggests that financial knowledge is more effectively translated into financial practice when supported by adequate economic resources.

However, the interactions between Income and Financial Socialization (H5) and Income and Self-Control (H6) were not statistically significant. This suggests that financial socialization and self-control operate relatively independently of income level. Financial socialization tends to be shaped by family, community, and educational environments, while self-control reflects internal psychological mechanisms that are relatively stable across income categories. To further evaluate the contribution of each predictor, an effect size (f^2) analysis was conducted. Following Cohen's (1988) criteria, values of 0.02, 0.15, and 0.35 indicate small, medium, and large effects, respectively.

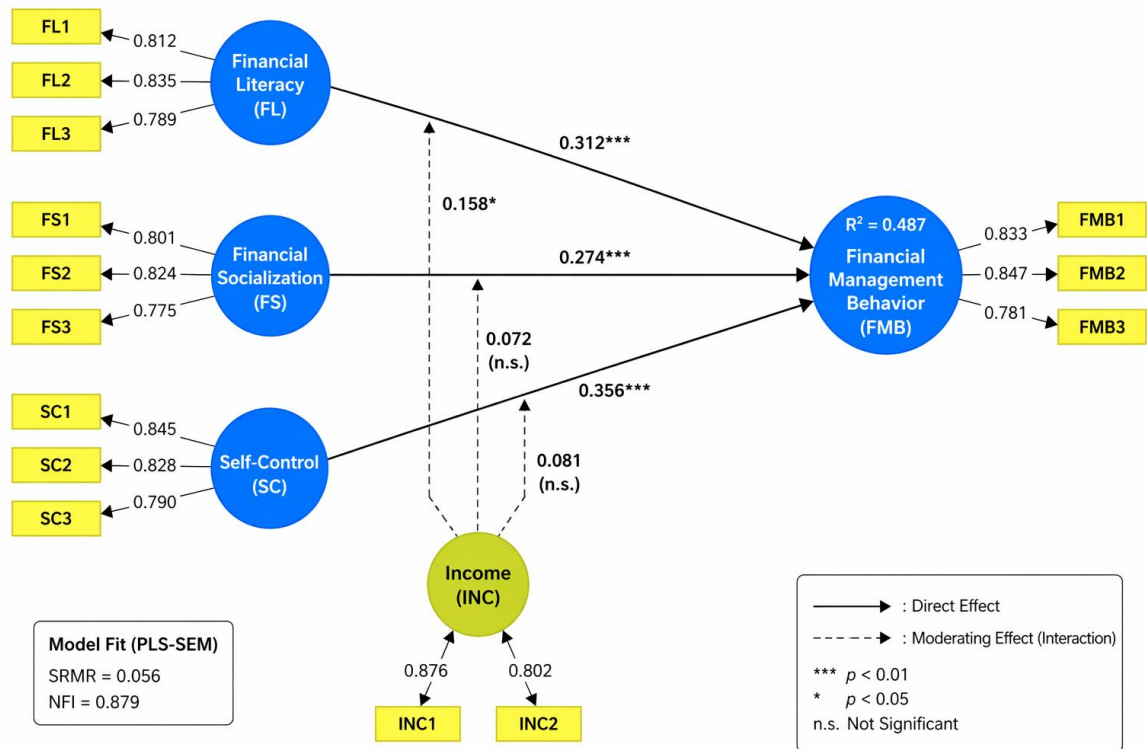


Figure 2. Structural model (SmartPLS style path diagram)

Figure 2. presents a structural model estimated using the SEM-PLS approach, depicting the relationship between financial literacy, financial socialization, and self-control on financial management behavior, with income as a moderating variable.

The figure shows the path coefficients for each relationship between constructs. The results indicate that self-control has the strongest influence on financial management behavior, followed by financial literacy and financial socialization. Furthermore, the coefficient of determination (R^2) of 0.487 for the endogenous variables indicates that the model has adequate explanatory power.

The figure also illustrates the moderating effect of income, indicated by the interaction effect. The visualization shows that income strengthens the relationship between financial literacy and financial management behavior, but does not significantly moderate the relationship between financial socialization and self-control on financial behavior. Overall, this structural model provides a comprehensive overview of the relationships between the variables in the study and reinforces the results of the statistical analysis presented in the previous table. Although the structural model shows significant relationships among Financial Literacy, Financial Socialization, Self-Control, and Financial Management Behavior, the findings should be interpreted cautiously due to the cross-sectional design, which limits the ability to establish causal relationships.

Table 5. Effect Size (f^2) Assessment

Relationship	f^2	Interpretation
Financial Literacy → FMB	0.121	Small–Medium
Financial Socialization → FMB	0.097	Small
Self-Control → FMB	0.183	Medium
Income × Financial Literacy → FMB	0.054	Small
Income × Financial Socialization → FMB	0.018	Negligible

Income × Self-Control → FMB	0.021	Small
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Table 5 above explains that the effect size analysis confirms that Self-Control makes the largest contribution to Financial Management Behavior with a medium effect size ($f^2 = 0.183$). Meanwhile, Financial Literacy and Financial Socialization show smaller effects. The moderating role of Income in the relationship between Financial Literacy and Financial Management Behavior shows only a small contribution, while other interaction effects are relatively weak.

The relationship between Financial Literacy and Financial Management Behavior may involve reverse causality. Although this study assumes that financial literacy influences financial behavior, it is also possible that individuals with better financial practices gradually develop higher financial literacy through experience. Since the study employed a cross-sectional design and self-reported data, potential endogeneity cannot be fully ruled out. Therefore, the findings should be interpreted as associative rather than strictly causal relationships. Future studies are encouraged to use longitudinal designs, experimental approaches, or endogeneity control techniques to strengthen causal inference.

CONCLUSION

This study examined the effects of financial literacy, financial socialization, and self-control on financial management behavior among private school teachers in Indonesia, with income as a moderating variable. The findings show that all three variables positively and significantly influence financial management behavior, with self-control emerging as the strongest predictor, indicating the importance of behavioral regulation in shaping financial decisions.

The results also reveal that income moderates the relationship between financial literacy and financial management behavior, suggesting that financial knowledge is more effectively applied when supported by adequate economic resources. However, income does not moderate the effects of financial socialization and self-control, implying that social influence and self-regulatory mechanisms remain relatively consistent across income levels.

This study contributes to the financial behavior literature by providing empirical evidence from private school teachers in Indonesia and highlighting the importance of behavioral dimensions alongside cognitive and economic factors. Practically, the findings suggest that financial development programs for teachers should extend beyond financial literacy and include financial planning, debt management, savings behavior, retirement preparation, Islamic financial understanding, and interventions to strengthen self-control.

Nevertheless, this study is limited by its cross-sectional design, self-reported data, and focus on private school teachers without differentiation across school types. Future studies are encouraged to incorporate Islamic financial literacy constructs, compare different educational contexts, and examine additional variables such as financial stress, religiosity, financial technology adoption, and financial well-being using longitudinal or mixed-method approaches.

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