

How Financial Literacy Influences Budgeting, Investment, and Savings Behaviors

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ARTICLE INFO	ABSTRACT
<p>Keywords: Financial Literacy, Budgeting Behavior, Investment Behavior, Savings Behavior, Financial Confidence, Structural Equation Modeling (SEM).</p> <p>Kata Kunci: <i>Literasi Keuangan, Perilaku Penyusunan Anggaran, Perilaku Investasi, Perilaku Menabung, Kepercayaan Diri Keuangan, Structural Equation Modeling (SEM).</i></p>	<p>This research plans to analyze the interrelationships among financial literacy, budgeting behavior, investment behavior, savings behavior, and financial confidence. It seeks to understand how financial literacy influences individuals' financial behaviors and to assess the potential impacts on their overall financial well-being. A quantitative research methodology was implied, using a cross-sectional study method to collect data from 100 respondents. The connection between the constructs was evaluated through data analysis using Structural Equation Modeling (SEM) with Smart PLS. The results indicated a direct and positive connection between financial literacy and both budgeting behavior and investment behavior and, a negative and a connection that is statistically insignificant between budgeting behavior and savings behavior. This paper highlights the value of financial literacy in enhancing budgeting and investment behaviors. They suggest that financial education programs should address both the practical and emotional aspects of financial management, particularly focusing on fostering financial confidence.</p>
<p>Corresponding author: dheepiga19@gmail.com</p>	<p>SARI PATI</p> <p><i>Penelitian ini bertujuan untuk menganalisis hubungan timbal balik antara literasi keuangan, perilaku penyusunan anggaran, perilaku investasi, perilaku menabung, dan kepercayaan diri dalam hal keuangan. Dengan kata lain, untuk memahami bagaimana literasi keuangan memengaruhi perilaku keuangan individu serta menilai dampak potensialnya terhadap kesejahteraan keuangan secara keseluruhan. Metodologi penelitian kuantitatif digunakan dengan metode studi potong lintang untuk mengumpulkan data dari 100 responden. Hubungan antar konstruk dianalisis melalui pengolahan data menggunakan Structural Equation Modeling (SEM) dengan bantuan Smart PLS. Hasil penelitian menunjukkan adanya hubungan langsung dan positif antara literasi keuangan dengan perilaku penyusunan anggaran serta perilaku investasi. Sementara itu, hubungan antara perilaku penyusunan anggaran dan perilaku menabung bersifat negatif dan tidak signifikan secara statistik. Artikel ini menekankan pentingnya literasi keuangan dalam meningkatkan perilaku penyusunan anggaran dan investasi. Penulis menyarankan agar program edukasi keuangan mencakup aspek praktis sekaligus emosional dalam pengelolaan keuangan, terutama dengan fokus pada peningkatan kepercayaan diri dalam hal keuangan.</i></p>

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INTRODUCTION

In the current increasing complex financial landscape, the value of financial literacy is more critical than ever. Financial literacy empowers persons with the knowledge and qualities wanted to make well-planned decisions regarding budgeting, saving, and investing—key components of personal financial health and economic stability. Conveyed as the ability to manage money effectively, financial literacy is a force behind financial development and economic growth. Given these advancements, it is essential to assess whether the current generation, particularly college students who are the future investors and economic leaders, possess adequate financial knowledge (Kumari, D. A. T. 2020).

Budgeting involves creating a financial plan that balances income and expenses to meet financial obligations and prepare for future needs. A thorough understanding of income, expenses, and financial planning principles is essential for effective budgeting. Financial literacy empowers individuals to form realistic financial goals, examine their spending, and make needed measures to control the deviations. Research indicates that parents of some students are mainly responsible for household financial decisions often demonstrate greater levels of financial literacy and are more likely to budget regularly (Phung, T. M. 2023).

Saving involves reserving a part of income to meet future needs, whether for emergencies, short-term goals, or long-term objectives. Grasping key saving principles, such as the necessity of emergency funds and the benefits of compound interest, is vital for achieving financial security. Financial literacy provides the tools to make planned decisions about saving strategies, interest rates, and resource allocation. In an emerging market, factors such as regularity in saving, gender, income, and education level positively influence saving behavior. Policymakers and financial institutions are encouraged to enhance financial literacy as a strategy to promote saving habits and intentions (Jonubi, A. et al., 2021).

Investment decisions are among the most complex financial choices, involving the allocation of resources to assets like stocks, bonds, or real estate with the expectation of returns. Making informed investment decisions requires an understanding of risk, market trends, and knowledge of various financial instruments grounded in financial literacy. Sound investment choices can lead to wealth accumulation, while poor decisions can result in losses. Financial literacy significantly influences individual investment decisions, with factors such as financial knowledge, communication skills, and confidence playing key roles. Additionally, financial attitudes, including self-confidence and security, impact investment behavior (Hasanuh, N. et al., 2020).

This analysis examines the connection with financial literacy, budgeting behavior, and investment confidence. By examining these interrelated constructs, the study seeks to check the level to which financial literacy drives budgeting practices and how these practices, in turn, influence investment confidence. In doing so, this research enhances understanding the function of financial education plays in shaping sound financial behaviors and enhancing overall financial health.

Theoretical Background

Jappelli, T ; Padula, M. (2013), in their study “Investment in Financial Literacy and Saving Decisions”, finalized that the financial literacy and wealth are key factors that directly impact the life cycle, with microeconomic data offering strong predictions for decision-making.

Awais, M., Laber, M. F., Rasheed, N., & Khursheed, A. (2016) in their study “Impact of Financial Literacy and Investment Experience on Risk Tolerance and Investment Decisions”, and Jonubi, A ; Abad, S. (2013) in their research «The Impact of Financial Literacy on Individual Saving,» conducted in Malaysia, emphasizes that investment related decisions are shaped by multiple factors, with financial literacy being a main variable. In 2016,

Mugo, E. done a study on the influence of financial literacy on the decisions related to investment within savings and credit cooperative societies' memnbers in Nairobi. The findings revealed that, compared to financial behavior and awareness, factors such as financial attitude, investment-related decisions, and financial knowledge have a direct and notable relationship with investment decisions. On the other hand, Arianti, B. F. (2018), in her study "The Influence of Financial Literacy, Financial Behavior, and Income on Investment Decision", analysed that financial literacy does not directly affect investment decisions, whereas financial behavior and income do have a significant impact. Potrich, A. C. G, et al., (2018) find out a model that investigates the combined influence of financial literacy on key behavior forces such as materialism, compulsive purchasing, and a propensity for debt accumulation. It reveals that financial literacy has the strongest direct influence on compulsive buying behavior among the proposed relationships. Additionally, the total influence of financial literacy on these behavioral aspects is significant, underscoring its critical role in shaping financial behaviors. Furthermore, Riyadi, S., & Pritami, D. A. (2018), in their study "The Impact of Financial Literacy, Consumptive Behavior, and M-Banking Services on Savings Management", revealed that financial literacy, consumer behavior, and mobile banking collectively affect individuals' savings plan.

Kalwij, A., et al., (2019) & Van der Werf, M. (2019), in their study "The Effects of Financial Education on Financial Literacy and Savings Behavior", shows that financial literacy education significantly enhances the knowledge of girls more than boys. However, they also concluded that a uniform approach to financial education is necessary for improving savings behavior, regardless of gender. Fonseca, R et al., (2019) conducted an analysis on the title "Canadian gender gap in financial literacy: Confidence matters" seeks to check the outcome of confidence in financial literacy on gender disparities. It also found a major difference in financial confidence between genders within the

selected sample. The study under Andarsari et,al., (2019) on the title "the role of financial literacy on financial behaviour" shows that the higher an individuals' knowledge level and understanding to financial terms leads to proper financial behaviour in their daily life. Additionally, the outcome indicates that financial literacy directly influences financial behavior. Similarly, Ramalho, T. B., et al., (2019) studied "financial literacy in Brazil-do knowledge and self-confidence relate with behavior", with an aim to check the value of financial literacy and its concept. Furthermore, the paper concludes that financial literacy positively impacts self-confidence and demonstrates that savings behavior is dependent on self-control in financial activities.

Hasanuh, N., & Putra, R. A. K. (2020) explored the effect of financial literacy and its attitude on everyone's decisions on investment, concluding that both factors significantly affect investors' choices. In the study titled "The Impact of Financial Literacy on Investment Decision: A Focus on Undergraduates in the Western Province, Sri Lanka" and through Kumari, D.A.T. (2020), it was finalized that the financial literacy directly affects investment decisions among undergraduates. And also, the research highlighted that students lack sufficient awareness of financial products related to investment decisions. Similarly, Hc, R., et al., (2020), in that paper "The Impact of Financial Literacy on Investment Decision between Savings and Credit: A Study on Sharia Bank Customers in the Special Region of Yogyakarta", showed that financial attitude, financial behavior, financial awareness, and knowledge all positively affects investment decisions. In the paper "The Impact of Financial Literacy on Individual Savings" by Uddin, M.A. (2020), it was finalized that financial literacy positively affects individual savings. Similarly, Pangestu, S., & Karnadi, E. B. (2020) the study analyzed the financial literacy and materialism on savings decisions among Generation Z, finalizing that financial literacy direct effects on savings behavior, with demographic factors also influencing financial literacy.

Similarly, Peiris, T. U. I. (2021), in the study “The Effect of Financial Literacy on Individual Savings Behavior: The Mediation Role of Intention to Save”, found that financial literacy gives a significantly direct effect on savings behavior, with the effect of mediation of intention further reinforcing this positive relationship.

Morris, T et al., (2022) studied “financial knowledge, financial confidence and learning capacity on financial behavior: a Canadian study”, with an aim of understanding the relation between financial knowledge, confidence, and different socio-demographic forces and financial behaviors. The study results into that financial education needs enhancement, with a greater emphasis on fostering financial confidence and knowledge. Al Rahahleh, N. (2022) study offers a comprehensive overview of financial literacy. The findings suggest that current initiatives by government agencies, financial and educational institutions in areas like budgeting, debt, and saving should be maintained. However, it highlights the need for increased focus on educating Saudi citizens about investment and insurance.

Similarly, Bai, R. (2023), in his study “Impact of Financial Literacy, Mental Budgeting, and Self-

Control on Financial Wellbeing: The Mediating Role of Investment Decision-Makin”, found that various factors, like financial literacy levels, mental budgeting skills, and self-regulation abilities, contribute to improved investment decisions. Phung, T. M. (2023), in the study “Parental Roles, Financial Literacy, and Budgeting Behavior: A Survey during the COVID-19 Pandemic”, found a direct link between the roles of parents and financial literacy, both of which play a vital role in supporting effective budgeting decisions.

Model Specification

The model put forward in this study examines the relationships among five key constructs: Financial Literacy (FL), Budgeting Behavior (BB), Investment Behavior (IB), Savings Behavior (SB), and Financial Confidence (FC). Each construct is measured through multiple indicators, allowing for a comprehensive analysis of their interdependencies. In order to complete the study objectives and examine the structural connections between the constructs, the Smart PLS-SEM version 4.0, a multivariate statistical technique is used. The present research shows a theoretical framework, specifically a structural equation model. This model is shown in the following Figure 1.

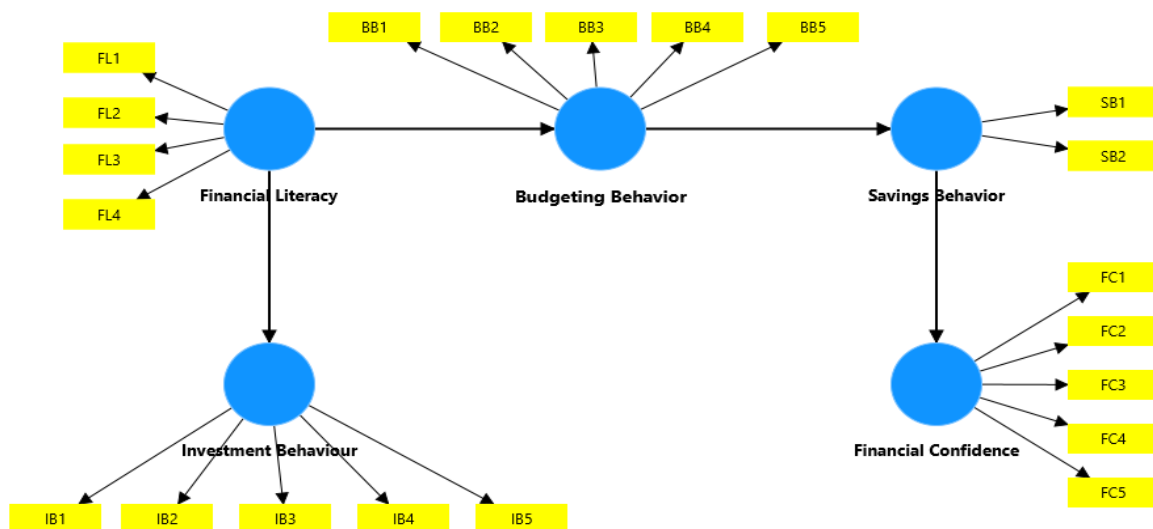


Figure 1. Proposed Structural Equation Model for analyzing the interrelationships among financial literacy, budgeting behavior, investment behavior, savings behavior, and financial confidence

METHODS

Research Design

A cross-sectional study method was utilized to gather information from participants, enabling the analysis of relationship between variables.

Sample Size

The study targeted individuals aged 18 and older, drawn from diverse demographic backgrounds to ensure a comprehensive understanding of financial behaviors. A total of 100 respondents involved in the study.

Sampling Technique

Non Probability sampling method was involved to collect data from participants, who were selected through social media platforms, community forums, and local organizations. This approach enabled quick access to a variety of respondents.

Data Collection

A formal questionnaire was created to measure the constructs of interest. The survey included validated scales and items to assess are Financial Literacy, Budgeting Behavior, Investment Behavior, Savings Behavior and Financial confidence. The questionnaire was distributed electronically, and respondents were requested to show their agreement level with each statement using a Likert scale, ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

Data Analysis

The collected data were assessed using Structural Equation Modeling (SEM) with Smart-PLS software. This method was selected to check the connections among the latent variables and to evaluate the overall model fit. Various statistical techniques were employed, including Reliability analysis, Validity test, path analysis and IPMA.

Hypotheses Testing

Four hypotheses were formulated to explore the relationships among the constructs:

H1: There is a direct connection between budgeting

behavior and savings behavior.

H2: Financial literacy positively impacts budgeting behavior.

H3: Financial literacy positively affects investment behavior.

H4: Savings behavior positively influences financial confidence.

Each hypothesis was tested through the path coefficients obtained from SEM analysis, with significance assessed using p-values and t-statistics.

RESULTS AND DISCUSSION

The following part presents the various analyses conducted to examine the relationships among financial literacy, budgeting behavior, investment behavior, savings behavior, and financial confidence. The results provide insights into how these constructs interact and contribute to overall financial well-being.

Descriptive Statistics

Before conducting more complex analyses, descriptive statistics were calculated to analyze the demographics of the sample and the collection of responses between different constructs. The sample consisted of 100 respondents, with demographic variables such as age, income, and education level being recorded. Summary statistics for each construct, including mean, standard deviation, and range, were calculated to provide an overview of the data. The table 1 shows the descriptive statistics of the samples' demographics and key variables.

Measurement Model Assessment

The measurement model was calculated using confirmatory factor analysis (CFA) to ensure that the constructs are valid and reliable. Figure 2 represents the reflective measurement model, illustrating the link between the constructs and indicators. Reliability is identified through the results of both convergent and discriminant validity tests. The table 2 shows the reliability and convergent validity test conducted for the constructs.

Table 1. Descriptive statistics

Name	Mean	Median	Observed min	Observed max	Standard deviation	Skewness
Age	2.600	2.000	1.000	4.000	0.980	0.104
Gender	1.520	2.000	1.000	2.000	0.500	-0.081
Education Level	2.780	2.000	1.000	5.000	1.238	0.397
Employment Status	2.910	3.000	1.000	6.000	1.674	0.352
Monthly Income	2.120	2.000	1.000	5.000	1.177	0.958
FL1	2.800	3.000	1.000	5.000	1.077	0.068
FL2	2.930	3.000	1.000	5.000	1.142	-0.474
FL3	3.300	4.000	1.000	5.000	1.118	-0.575
FL4	3.420	3.000	1.000	5.000	1.150	-0.281
BB1	1.170	1.000	1.000	2.000	0.376	1.784
BB2	3.088	3.000	1.000	5.000	1.086	0.032
BB3	2.770	3.000	1.000	5.000	0.978	0.155
BB4	3.100	3.000	1.000	5.000	1.127	-0.626
BB5	3.520	4.000	1.000	5.000	1.081	-0.389
SB1	1.070	1.000	1.000	2.000	0.255	3.422
SB2	3.140	3.000	1.000	5.000	1.123	-0.367
FC1	3.030	3.000	1.000	5.000	1.179	-0.431
FC2	3.050	3.000	1.000	5.000	1.135	-0.517
FC3	3.300	3.000	1.000	5.000	1.091	-0.202
FC4	3.240	3.000	1.000	5.000	1.050	-0.287
FC5	3.600	4.000	1.000	5.000	1.095	-0.630
IB1	1.710	2.000	1.000	2.000	0.454	-0.940
IB2	3.269	4.000	1.000	5.000	1.227	-1.087
IB3	2.870	3.000	1.000	5.000	1.180	-0.373
IB4	3.090	3.000	1.000	5.000	0.918	-0.260
IB5	3.430	3.000	1.000	5.000	1.079	-0.301

Note. FL = Financial Literacy; BB = Budgeting Behavior; SB = Savings Behavior; FC = Financial Confidence; IB = Investment confidence

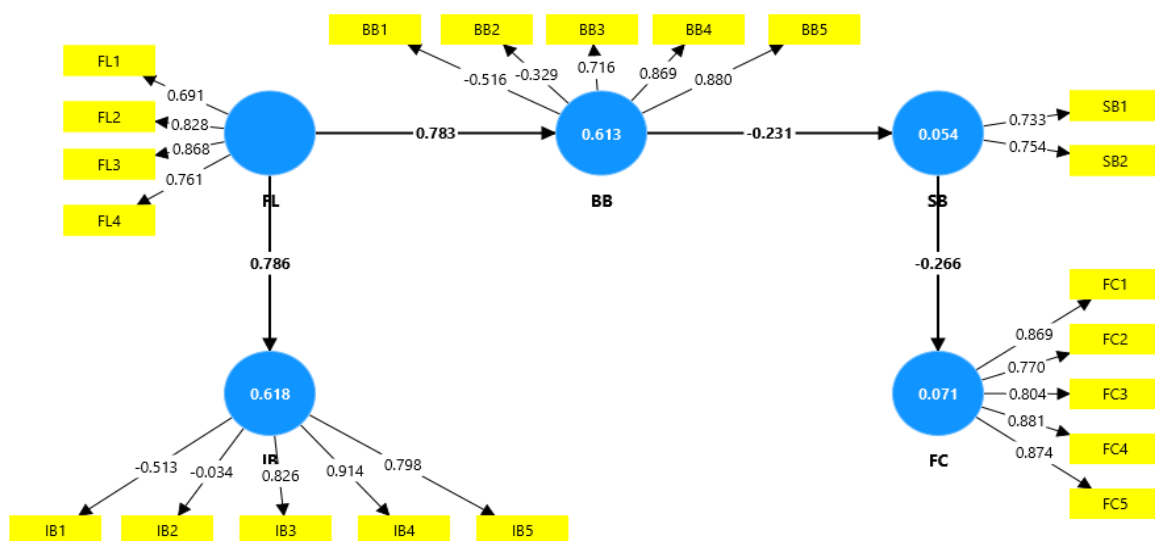


Figure 2. Reflective Measurement Model

Table 2. Assessment of Reliability and Convergent Validity for Constructs

Construct	Indicators	Factor Loadings	Cronbach's Alpha	Composite Reliability	AVE	VIF
FL	Rate your overall financial literacy	0.691	0.795	0.797	0.624	1.287
	I have a grasp of fundamental financial concepts like interest rates, changes in inflation, and diversification.	0.828				2.320
	I am capable in managing my personal finances.	0.868				2.705
	I regularly seek out financial education resources (e.g., books, courses, online tutorials).	0.761				1.529
BB	Maintaining a personal or household budget	-0.516	0.158	0.794	0.483	1.181
	Frequency of updating of your budget	-0.329				1.118
	Effectiveness do you find budgeting in managing your finances	0.716				1.467
	I find it easy to stick to my budget.	0.869				2.749
	Budgeting helps me control my spending.	0.880				2.654
SB	I maintain a savings account.	0.733	0.191	0.712	0.553	1.011
	I save money regularly.	0.754				1.011
FC	I am confident about my financial future.	0.869	0.901	0.986	0.707	3.130
	I have an emergency fund that can cover a minimum of three months worth of expenses.	0.770				2.770
	I prioritize saving for retirement.	0.804				2.757
	I believe that financial literacy greatly influences my financial decisions.	0.881				3.511
	I am open to learning more about financial management.	0.874				2.370
IB	Investment in any financial products	-0.513	0.293	0.820	0.484	1.158
	Type of investments do you hold	-0.034				1.043
	I have a good understanding of the risks associated with my investments.	0.826				2.297
	I diversify my investments to manage risk.	0.914				3.181
	I seek professional advice for my investment decisions.	0.798				1.802

Note. FL = Financial Literacy; BB = Budgeting Behavior; SB = Savings Behavior; FC = Financial Confidence; IB = Investment confidence

The table 2 presents the validity of the constructs and also the reliability of the constructs in the measurement model. According to the rule of thumb, factor loadings above 0.70 are considered strong, while values below 0.50 may indicate issues. The loadings for Financial Literacy range

from 0.691 to 0.868, with the item «I am confident in managing my personal finances» demonstrating the strongest relationship (0.868). In the Budgeting Behavior construct, some loadings are negative, which could indicate potential issues with indicator relationships. For example, «Maintaining a personal

or household budget» has a negative loading (-0.516), possibly suggesting a reverse-coded question or a problem with the model. For both Financial Confidence and Savings Behavior, all loadings exceed 0.70, indicating strong relationships between the indicators and their respective constructs. Finally, in Investment Behavior, the item «I diversify my investments to manage risk» shows the highest loading (0.914), highlighting a particularly strong relationship between this indicator and the construct.

Cronbach's Alpha checks the internal coherence of the constructs, with values above 0.70 indicating reliability is under acceptable one, while values below 0.70 suggest weaker consistency. In this case, Financial Literacy and Financial Confidence exhibit good reliability with Cronbach's Alpha values of 0.795 and 0.901, respectively. Additionally, the values for the other three constructs are below 0.70, suggesting weaker internal consistency for those constructs.

To ensure greater reliability, Composite Reliability (CR) is used, which, like Cronbach's Alpha, considers values above 0.70 as acceptable. In this case, all constructs have CR values exceeding 0.70, indicating that each construct demonstrates good composite reliability.

The Average Variance Extracted (AVE) checks the extent of variance collected by a construct compared to variance attributed to measurement error. Values exceeding 0.50 is generally considered as acceptable. In this analysis, all constructs, apart

from Budgeting Behavior and Investment Behavior, exhibit AVE values above 0.50, suggesting that a significant portion of variance is captured by their respective indicators. However, Budgeting Behavior and Investment Behavior have AVE values of 0.483 and 0.484, respectively, suggesting that their indicators do not sufficiently represent these constructs.

Lastly, the Variance Inflation Factor (VIF) evaluates multicollinearity among indicators. A VIF value above 5 suggests problematic collinearity. In this case, all indicators have VIF values below 5, shows that there are no significant multicollinearity issues present in the model.

Table 3 shows the Fornell-Larcker Criterion is a widely used approach in structural equation modeling (SEM) for evaluating discriminant validity. It confirms that a construct is distinct from other constructs and effectively captures phenomena not explained by other variables in the model. According to this criterion, the square root of the AVE (represented by diagonal elements) should be greater than the correlations between the constructs (off-diagonal elements), confirming the uniqueness of each construct.

The bold diagonal values, such as BB (0.783), FC (0.841), FL (0.790), IB (0.695), and SB (0.743), are higher than the corresponding off-diagonal values, indicating strong discriminant validity. This confirms that each construct in the study is distinct from the others, ensuring that the constructs measure unique aspects of the research model.

Table 3. Assessment of Discriminant Validity for the constructs (Fornell-Larker Criterion)

	BB	FC	FL	IB	SB
BB	0.783				
FC	0.761	0.841			
FL	0.695	0.805	0.790		
IB	0.775	0.883	0.786	0.695	
SB	-0.231	-0.266	-0.147	-0.210	0.743

Note. FL = Financial Literacy; BB = Budgeting Behavior; SB = Savings Behavior; FC = Financial Confidence; IB = Investment confidence

Structural Model

A structural equation modeling (SEM) approach includes assessing the connection among the constructs. Figure 3 shows the path coefficient output for the hypothesized model, derived using 5,000 bootstrap samples. Table 4 presents an estimate of the path coefficient represent the connection between the various construct in the structural model.

This table presents the path analysis results, highlighting the strength, significance, and the direction of the connections between various constructs in the model. For Hypothesis 1, the connection between Budgeting and Savings Behavior demonstrates a slight negative association, indicating that as budgeting behavior increases, savings behavior tends to decrease ($\beta = -0.231$, t

$= 1.743$, $p = 0.081$). However, since the p-value exceeds the 0.05 threshold, this relationship is not statistically significant at the 5% level. Therefore, it finalizes that there is no significant evidence of an indirect relationship between budgeting behavior and savings behavior.

Hypothesis 2 examines the connection between Financial Literacy and Budgeting Behavior, revealing a strong direct association. As financial literacy increases, budgeting behavior also improves. The analysis shows a highly statistically significant relationship, with a β value of 0.783, a t-value of 19.965, and a p-value of 0.000, which is below the 0.05 threshold. This supports the assumptions that financial literacy directly impacts budgeting behavior.

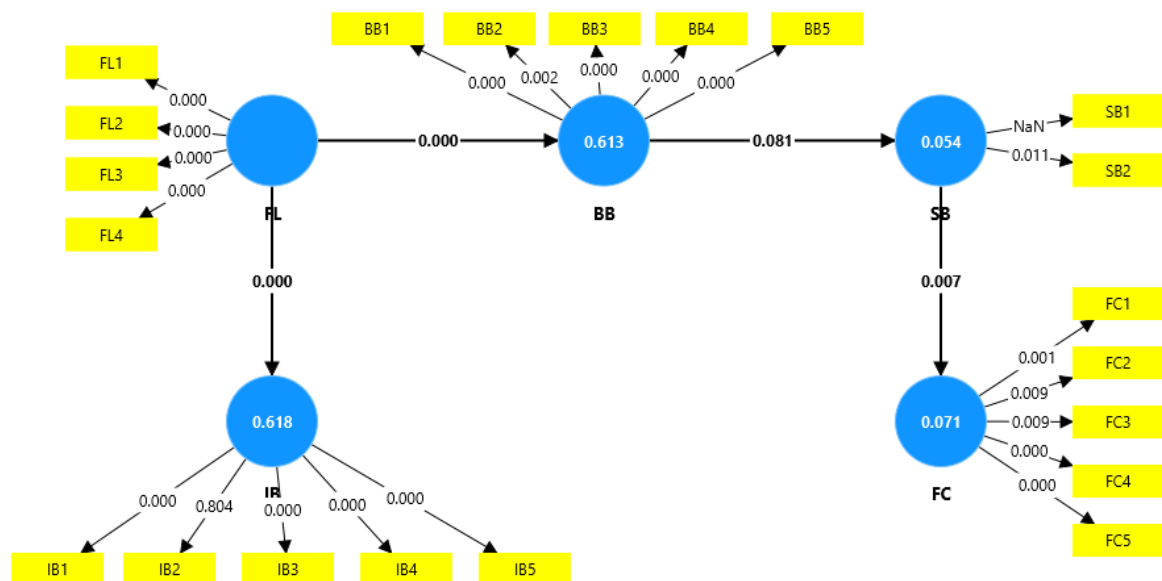


Figure 3. Structural Model

Table 4. Path Coefficients

Construct Relation	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values	Decision
BB -> SB	-0.231	-0.241	0.133	1.743	0.081	Reject
FL -> BB	0.783	0.786	0.039	19.965	0.000	Accept
FL -> IB	0.786	0.789	0.042	18.781	0.000	Accept
SB -> FC	-0.266	-0.314	0.099	2.695	0.007	Accept

Note. FL = Financial Literacy; BB = Budgeting Behavior; SB = Savings Behavior; FC = Financial Confidence; IB = Investment confidence

Hypothesis 3 investigates the connection between Financial Literacy and Investment Behavior, indicating a high direct correlation. Higher levels of financial literacy are associated with improved investment behavior. The analysis yields a β value of 0.786, a t-value of 18.781, and a p-value of 0.000, all of which are statistically significant, as the p-value is below 0.05. This data supports the hypothesis that financial literacy directly affects investment behavior.

The final hypothesis examines the connection between Savings Behavior and Financial Confidence, revealing a β value of -0.266, a t-value of 2.659, and a p-value of 0.007. Since the p-value is below 0.05, this relationship is statistically significant. Although the negative correlation suggests that higher savings behavior may lead to lower financial confidence, the data supports the hypothesis that savings behavior influences financial confidence.

These findings indicate that while financial literacy significantly enhances budgeting and investment behavior, budgeting does not necessarily translate into improved savings behavior within this model. Moreover, the unexpected outcome that increased savings behavior might diminish financial confidence warrants further exploration.

Importance-Performance Map Analysis (IPMA)

The IPMA was utilized to evaluate the importance and performance of each construct relative to the overall model outcomes. It has shown in the table 5.

The findings indicated in the table 5 displays the results from the Importance-Performance Map

Analysis (IPMA), which assesses the significance and effectiveness of various latent variables (LV) in relation to the target construct, typically associated with different outcomes. The analysis identifies Investment Behavior as the most important construct, followed closely by Budgeting Behavior, Savings Behavior, and Financial Confidence.

It indicates that both budgeting behavior and investment behavior are crucial factors influencing the outcomes, as evidenced by their high importance scores. Although these behaviors are performing reasonably well, there is still potential for enhancement, particularly in investment decisions. Conversely, financial confidence and savings behavior exhibit lower importance and performance, suggesting that, while they are relevant, their impact is less pronounced within this model. These constructs may need additional support to bolster their effectiveness and improve overall outcomes.

Discussion

This research aimed to assess the connections among financial literacy, budgeting behavior, investment behavior, savings behavior, and financial confidence, revealing several key insights. Based on responses from 100 participants, the study finds that financial literacy has a strong and direct impact on both budgeting and investment behaviors. Individuals with greater financial knowledge are more likely to involve in effective budgeting practices and make informed investment decisions. However, the analysis shows an indirect and statistically insignificant connection between budgeting behavior and savings behavior, suggesting

Table 5. Importance and Performance Map Analysis (IPMA) of constructs

Construct	Importance	LV performance
BB	0.783	151.364
FC	0.048	57.542
IB	0.786	39.585
SB	0.181	15.863

Note. FL = Financial Literacy; BB = Budgeting Behavior; SB = Savings Behavior; FC = Financial Confidence; IB = Investment confidence

that increased budgeting efforts do not necessarily lead to improved savings habits. In contrast, the relationship between savings behavior and financial confidence, while also negative, is statistically significant. This implies that individuals who save more may paradoxically feel less confident about their financial future. Investment behavior emerged as a critical factor influencing financial outcomes, followed by budgeting behavior, both of which demonstrated high importance and good performance in the Importance-Performance Map Analysis (IPMA).

The study point outs the main role of financial literacy in positively molding financial behaviors like budgeting and investment. This aligns with previous studies showing that individuals with better financial knowledge tend to develop well-informed and confident financial decisions. However, the unexpected indirect relationship between savings behavior and financial confidence warrants further exploration. One possible explanation could be that diligent savers may still feel uncertain about their financial future due to broader economic or personal concerns.

The lack of a meaningful statistical relationship between budgeting behavior and savings behavior challenges the conventional assumption that better budgeting directly leads to increased savings. This suggests that other factors, such as income level, or financial goals, may play a more prominent role in determining savings outcomes.

In summary, out of the four hypotheses tested, three were supported: financial literacy positively impacts both budgeting and investment behaviors, and savings behavior has a significant but negative

relationship with financial confidence. The hypothesis studying the relationship between budgeting behavior and savings behavior, however, was not found to be statistically significant.

MANAGERIAL IMPLICATION

The study provides a theoretical structure for analyzing the effects of financial literacy on various financial behaviors, utilizing SMART PLS-SEM for this analysis. The results offer several practical implications, particularly for financial education programs, which should target diverse demographic groups and focus on building financial confidence. Policymakers can also benefit from these findings, using them to improve individuals to make more informed financial decisions. Additionally, the study suggests that financial advisors should not only provide investment guidance, but also consider the psychological factors that influence savings behavior and financial confidence.

CONCLUSION

This study critically examines how financial literacy influences budgeting and investment behavior, highlighting those individuals with higher financial knowledge are more effective in managing their financial practices. However, it also reveals that budgeting alone does not directly impact savings behavior, and in some cases, an increase in savings behavior can lead to a decrease in financial confidence. These findings indicate the necessity for a more nuanced approach to financial education and advisory services, one that addresses both the practical and emotional aspects of financial management. Future research could delve deeper into the factors that shape financial confidence and explore the complex relationship between savings behavior and financial welfare. ■

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