

# The Role of Financial Behaviour in Improving Financial Literacy: A Study of Indonesian Students Abroad

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**Abstract:** Financial literacy is a crucial competence in navigating the increasing complexity of the modern global economy, particularly for students studying abroad who must manage their finances independently. This study aims to analyze the influence of financial knowledge, financial attitude, and financial behavior on the financial literacy of Indonesian students studying overseas. A quantitative approach was employed using a survey method involving 50 respondents selected through purposive sampling. Data were collected using a structured questionnaire based on a five-point Likert scale and analyzed using SEM-PLS. The results indicate that financial behavior has a positive and significant effect on financial literacy, whereas financial knowledge and financial attitude do not show significant effects. The coefficient of determination ( $R^2 = 0.818$ ) suggests that the model has strong explanatory power. These findings highlight the importance of practical financial behavior over theoretical knowledge and attitudes in improving financial literacy. This study contributes to the literature by emphasizing the existence of a knowledge–behavior gap and underlining the need for practice-oriented financial education to enhance sustainable financial literacy among students.

**Keywords:** financial literacy, financial behavior, financial knowledge, financial attitude.

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## Introduction

Financial literacy has become an essential competence in responding to the increasing complexity of the global economic system. Individuals are required not only to understand financial concepts but also to apply them effectively in daily decision-making. According to OECD (2015), financial literacy encompasses a combination of knowledge, skills, attitudes, and behaviors necessary to achieve sustainable financial well-being ([Koske et al., 2015](#)). Individuals with higher levels of financial literacy are generally more capable of managing financial risks, planning for the future, and making informed economic decisions ([Nguyen et al., 2022](#)).

University students represent a particularly vulnerable group in terms of financial management, especially when they begin living independently. This condition becomes more challenging for students studying abroad, who must cope with higher living and education costs, limited financial support from families, and unfamiliar financial systems. These challenges require students to develop not only financial knowledge but also effective financial management practices in real-life situations ([Entezami et al., 2025](#); [Tighnavard Balasbaneh et al., 2025](#)).

In the Indonesian context, students studying overseas face additional pressures related to currency differences, cost of living disparities, and adaptation to new financial environments ([Hall et al., 2025](#); [Urmila et al., 2025](#)). Despite these challenges, empirical studies focusing specifically on Indonesian students abroad remain limited, indicating a need for further investigation. Moreover, previous studies on financial literacy have produced inconsistent findings regarding the roles of financial knowledge and financial attitude, with some studies reporting significant effects, while others find no substantial relationship ([Mittal et al., 2025](#)). From a theoretical perspective, financial literacy is commonly influenced by three key factors: financial knowledge, financial attitude, and financial behavior. Financial knowledge refers to an individual's understanding of financial concepts and principles, while financial attitude reflects personal values and perceptions toward money management. In contrast, financial behavior represents the actual implementation of financial decisions in everyday life, such as budgeting, saving, and controlling expenditures ([Devender et al., 2025](#); [Idris et al., 2025](#)).

However, a critical issue that remains underexplored is the gap between financial knowledge and actual financial behavior (the knowledge–behavior gap). Individuals may possess adequate financial knowledge and positive attitudes but still fail to translate them into effective financial practices. This gap suggests that financial behavior may play a more dominant role in shaping financial literacy than previously assumed ([Nogueira et al., 2025](#);

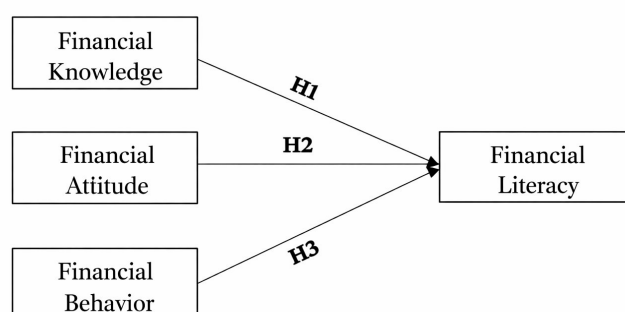
[Shi et al., 2025](#)). Based on these gaps, this study aims to examine the relative influence of financial knowledge, financial attitude, and financial behavior on the financial literacy of Indonesian students studying abroad. This study contributes to the literature by emphasizing the dominant role of financial behavior and highlighting the existence of the knowledge–behavior gap within the context of international students.

## Literature Review and Development Hypothesis

Financial knowledge is ability somebody in understand concepts and knowledge finance so that become base for taking effective decisions ([Nava et al., 2025](#); [Tarnanidis et al., 2025](#)). Financial knowledge related with behavior finance as base Decision making for do loans, savings, and investments ([Khusnitdinovna Kamilova, 2021](#)). Management good finances will influence behavior Saving ([Cruz et al., 2025](#)). High financial knowledge value can indicate that individual the will Better in manage finance than other individuals ([Chen & Suwandej, 2025](#)). Financial Attitude is a group opinions, judgments, and circumstances thought related problem finance. How condition internalized thoughts This influence and shape perception as well as action somebody contribute to the level of routine activities and tendencies, one of which is is behavior finance ([Almansour et al., 2023](#)). From the question the We can define that attitude finance as view individual regarding money and its management, which is influenced by experience personal, social norms, and values culture. Financial attitude refers to views, feelings, and behavior individual towards money and its management. Norvilitis and MacLean (2010) found that that attitude good finances correlated with better debt management good and level stress more finances low. Attitude This formed through education finance and experience life.

Financial behavior is something behavior someone who is related with finance like management finance, planning finance with be careful, and control on owned finances as well as wise attitude on financial behavior. Financial behavior refers to the way individual or group manage their money, including decision related spending, savings, investments, and debt management. Financial literacy is the knowledge and skills that enable an individual to make informed and effective decisions regarding the management of their financial resources (OECD, 2015). From the statement That can We know that financial literacy is combination from awareness, knowledge, skills, attitudes and behavior required for make decision effective finance in order to achieve welfare individual and social. Remund (2010) states that literacy finance is combination from required knowledge, skills, and behaviors for manage source Power finance in a way effective

Based on study previously, financial knowledge own correlation positive with the impact to financial literacy someone. The more tall financial knowledge someone, the better level too financial literacy, which helps in taking decision effective finance. Financial attitude covers How somebody looking at money, judging importance saving, investing, and managing expenditure. Based on study previously, financial attitude own positive influence to financial literacy. Someone who has attitude positive towards money, such as understand importance manage finance with good and thoughtful term long, tend to more motivated for increase literacy finance they. They more Possible look for information and learning about planning finance, investment, or management risk. Financial behavior reflects How somebody operate decision finance in life everyday life. People with literacy good finances usually own control bigger on expenditure they and tend to invest for growth future finance. Research previously show that individual with level literacy more finances tall tend make more decisions effective, compared with those who are at the level literacy his finances lower literacy finance is ability individual in understand and use information finance in a way effective (Chien et al., 2025). Financial knowledge plays a role as base in taking decision finance, although not always implemented in practice. Financial attitude reflects attitude individual to management finance, while financial behavior is action real that reflects habit financial individual, for That hypothesis study is:



## Hypothesis

Hypothesis from the model built on is as following:

H 1: Financial Knowledge own influence positive to Financial Literacy

H 2: Financial Attitude own influence positive to Financial Literacy

H 3: Financial Behavior own influence positive to Financial Literacy

## Research Method

This study uses a quantitative approach with a survey design to analyze the influence of financial knowledge, financial attitude, and financial behavior on financial literacy among Indonesian students studying abroad. The population consists of Indonesian students enrolled in overseas universities, with respondents selected using purposive sampling based on the criteria of being active students in semesters 1 to 4. The final sample in this study consists of 50 respondents ([Andrijevskaia & Volkova, 2025](#); [Jakobo & Taifa, 2025](#)).

Data were collected through an online questionnaire distributed using Google Forms during the research period. The instrument employed a five-point Likert scale ranging from strongly disagree (1) to strongly agree (5). The measurement items were adapted from prior studies on financial literacy to ensure validity and relevance. Financial knowledge refers to the understanding of basic financial concepts, financial attitude reflects individual perspectives toward money management, and financial behavior represents actual financial practices such as saving and budgeting ([Dell'Era et al., 2025](#); [Gkevrou et al., 2025](#)). Financial literacy is defined as the ability to understand and apply financial knowledge in making decisions.

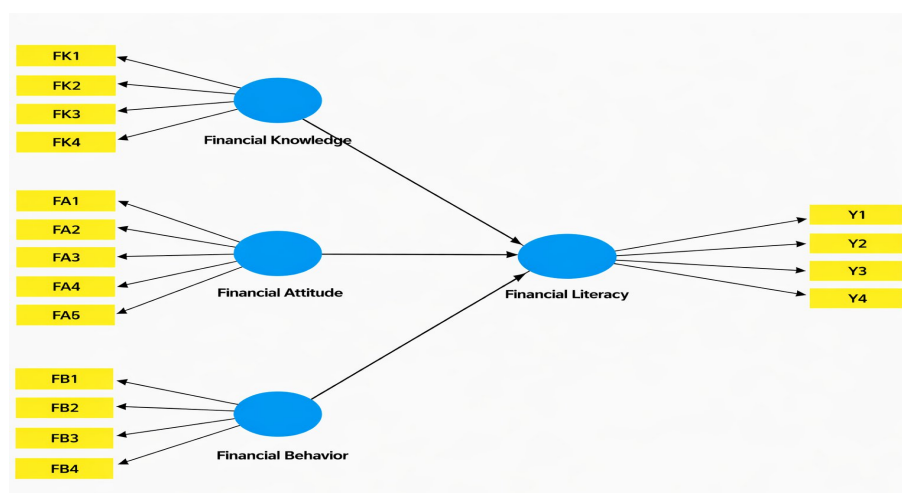
Data were analyzed using Structural Equation Modeling–Partial Least Squares (SEM-PLS) with SmartPLS 4.0. This method was chosen due to its suitability for small sample sizes and its ability to analyze complex relationships between latent variables without requiring strict normality assumptions. The analysis includes evaluation of the measurement model through validity and reliability tests, followed by structural model assessment using  $R^2$  and bootstrapping to test the hypotheses.

## Result and Discussion

Questionnaire study This given to people millennials who located in Jakarta in study this, using PLS analysis. Testing PLS construct begins with fulfillment mark loading indicator or proxy each latent variable.

### Outer Model Test

The results of the measurement model show that all indicators have outer loading values above the acceptable threshold, indicating good convergent validity.



**Figure 1 PLS-SEM Model (Outer Loadings)**

Figure 1 presents the outer model of the study, showing the relationships between latent variables and their respective indicators. All indicators are connected to their constructs, indicating that they are used to measure the variables in the model.

## Validity and Reliability Construct

The results show that the Average Variance Extracted (AVE) values for all variables exceed 0.5, indicating that all constructs have good convergent validity.

**Table 1 AVE test values**

Variabel	AVE
Financial Attitude	0.646
Financial Behavior	0.683
Financial Knowledge	0.674
Financial Literacy	0.698

The reliability test results indicate that all constructs have composite reliability values above 0.7, demonstrating that the measurement model is reliable. Although some Cronbach's alpha values are below the recommended threshold, the composite reliability values remain acceptable, indicating adequate internal consistency.

**Table 2 Reliability Test Construct**

Variabel	Cronbach's Alpha	Composite Reliability ( $\rho_a$ )	Composite Reliability ( $\rho_c$ )
Financial Attitude	0.890	0.892	0.916
Financial Behavior	0.844	0.864	0.896
Financial Knowledge	0.878	0.879	0.912

Financial Literacy	0.856	0.871	0.902
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### Coefficient Value Results Determination

The R-square value for the financial literacy variable is 0.818. This indicates that financial knowledge, financial attitude, and financial behavior are able to explain 81.8% of the variance in financial literacy. This value reflects a strong explanatory power of the model, while the remaining 18.2% is influenced by other variables not included in this study.

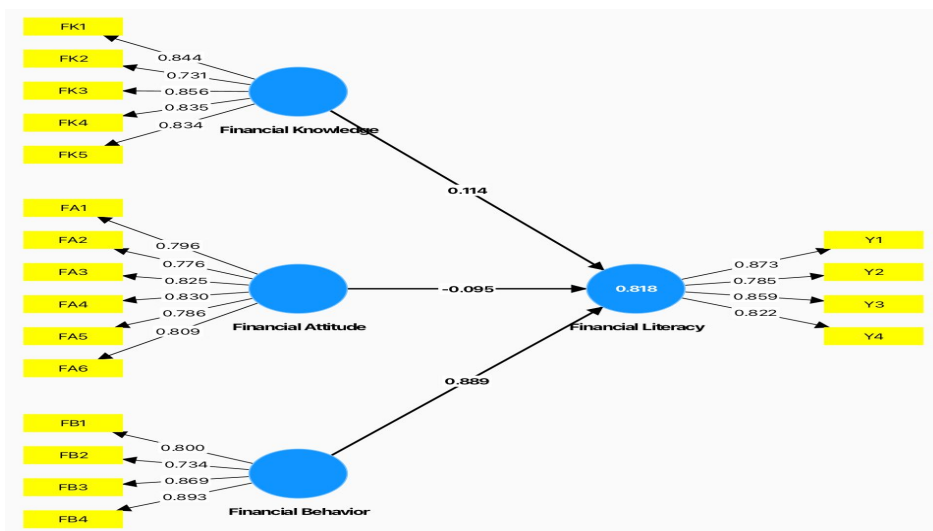
**Table 3 Test of Determination Coefficient (R<sup>2</sup>)**

Variabel	R-square	R-square adjusted
Financial Literacy	0.818	0.808

Coefficient Value Determination (R-Square) on the endogenous variable Financial Literacy is of 0.818. The R-square value for the financial literacy variable is 0.818. This indicates that financial knowledge, financial attitude, and financial behavior are able to explain 81.8% of the variance in financial literacy. This value reflects a strong explanatory power of the model, while the remaining 18.2% is influenced by other variables not included in this study. Meanwhile, the rest 18.9 % is influenced by the variable other.

### Hypothesis Testing (Path Coefficients)

Moderate Effect According to Hair et al. (2011) testing hypothesis in Partial Least Square (PLS) can done with see t- statistic value or p-values that appear in the path analysis after do the bootstrapping listed in the image following.



**Figure 2 Results of the Inner Model Bootstrapping Test**

The results of hypothesis testing show that financial behavior has a positive and significant effect on financial literacy ( $\beta = 0.889, t = 5.278, p < 0.001$ ). In contrast, financial attitude ( $\beta$

= -0.095,  $t = 0.454$ ,  $p = 0.650$ ) and financial knowledge ( $\beta = 0.114$ ,  $t = 0.522$ ,  $p = 0.602$ ) do not have a significant effect on financial literacy (JO & ADOBE, 2021).

**Table 4 Path Coefficients Test Results**

Variable Relationship	Original Sample (O)	Sample Mean (M)	STDEV	T Statistics	P Values
Financial Attitude → Financial Literacy	-0.095	-0.072	0.209	0.454	0.650
Financial Behavior → Financial Literacy	0.889	0.858	0.168	5.278	0.000
Financial Knowledge → Financial Literacy	0.114	0.126	0.217	0.522	0.602

There are 2 hypotheses were rejected, namely connection variables Financial Attitude and Financial Knowledge towards Financial Literacy so required argumentation and theory supporters discussed in the section furthermore.

## Discussion

Financial behavior is found to have a positive and significant effect on financial literacy among Indonesian students studying abroad, while financial knowledge and financial attitude do not show significant effects. This indicates that financial literacy is more strongly influenced by actual financial practices than by cognitive understanding or attitudes. The non-significant effect of financial attitude suggests that a positive perspective toward financial management does not automatically translate into higher financial literacy. Attitudes reflect internal beliefs that may not be consistently followed by real actions. In the context of students studying abroad, financial pressures, adaptation challenges, and varying levels of financial independence may limit the extent to which attitudes are reflected in actual financial capability.

Financial behavior shows a significant effect on financial literacy, indicating that practices such as budgeting, saving, and controlling expenses play a critical role in shaping financial capability. Individuals who actively engage in financial management are more likely to develop better decision-making skills through direct experience. The non-significant effect of financial knowledge indicates that understanding financial concepts alone is not sufficient to improve financial literacy. The knowledge possessed by students may remain theoretical and not be fully applied in real-life situations. This finding highlights the presence of a knowledge–behavior gap, where individuals have adequate knowledge but lack the ability or habit to implement it effectively. These findings emphasize that financial literacy is more

closely linked to behavioral practice than to knowledge or attitude alone, particularly among students who are required to manage their finances independently in a foreign environment.

## Research Implications

The findings indicate that improving financial literacy cannot rely solely on increasing financial knowledge or fostering positive financial attitudes. Although these aspects are important, they are not sufficient to produce meaningful improvements without being supported by actual financial behavior. This highlights the importance of encouraging individuals to actively apply financial knowledge in real-life situations.

These results imply that financial education programs should place greater emphasis on experiential learning. Educational institutions and policymakers are encouraged to design programs that involve practical activities such as budgeting exercises, saving practices, and financial planning simulations. Such approaches can help individuals develop consistent financial habits and strengthen their ability to translate knowledge into action. By focusing on behavioral development, financial education can more effectively improve financial literacy and support long-term financial well-being.

## Conclusions

This study finds that financial behavior is the only variable that has a significant effect on financial literacy among Indonesian students studying abroad. Financial knowledge and financial attitude do not show significant effects, indicating that understanding and perception alone are not sufficient to improve financial literacy. These findings emphasize that financial literacy is more strongly influenced by actual financial practices than by cognitive or attitudinal factors. This highlights the importance of encouraging individuals to actively apply financial knowledge in their daily financial activities. Future studies are recommended to include additional variables such as financial self-efficacy or digital financial literacy to provide a more comprehensive understanding of financial literacy. Further research may also consider larger and more diverse samples to enhance the generalizability of the findings.

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