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THE EFFECT OF FINANCIAL LITERACY ON FINANCIAL BEHAVIOR WITH FINTECH USE AS A MODERATING VARIABLE (A STUDY OF STUDENTS ON LOMBOK ISLAND)

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Abstract

This research investigates how financial literacy affects the financial behaviors of students on Lombok Island. Utilizing a quantitative methodology, the study surveyed 110 students to gather relevant data. The findings reveal that a higher level of financial literacy has a substantial positive impact on students' financial habits and decision-making processes. Conversely, the role of financial technology (fintech) was found to be substantial in influencing or moderating these behaviors within the studied population. The conclusion emphasizes the importance of enhancing financial literacy programs to foster more responsible and informed financial practices among students. Developing such initiatives can contribute to better financial stability and decision-making skills in the future.

Keywords: *Financial Literacy, Financial Behavior, Financial Technology.*

1. INTRODUCTION

The development of digital technology has transformed the way students manage their finances, particularly through the use of e-wallets, QRIS, mobile banking, paylater, and investment apps, which are now increasingly accessible in everyday life. In various contexts, digital financial services simplify transactions, accelerate payments, and expand access to financial services, thus encouraging the formation of practical consumption patterns among the younger generation (Ozili, 2022; Chen et al., 2024). On Lombok Island, this phenomenon is increasingly evident with increasing internet access, smartphone ownership, and the intensity of digital transactions conducted by students for both academic and non-academic activities (Dwivedi et al., 2021; Nugroho et al., 2025).

In their daily lives, students use fintech to pay for college expenses, purchase teaching materials, shop online, order food, use online transportation, and even try investment services with small amounts. This pattern shows that fintech is no longer just a means of payment but has become part of students' digital lifestyle, emphasizing convenience, speed, and efficiency (Curry et al., 2023; Setiawan & Novitasari, 2025). However, this convenience can also lead to behavioral consequences, such as impulsive purchases, dependence on

paylater, and weak savings habits and financial planning (Kholid & Soemarno, 2024; Rahmawati et al., 2025).

This situation makes student financial behavior an important issue to further examine. Students are in the early stages of financial independence, but not all have the same ability to manage expenses, prioritize, and make rational financial decisions (Lusardi et al., 2023; Mandiri & Pratama, 2024). At this stage, easy access to fintech can facilitate transactions, but it can also encourage consumptive behavior if not balanced with adequate financial management skills (Ozili, 2022; Setiawan & Novitasari, 2025).

One factor thought to play a significant role in shaping financial behavior is financial literacy. Students with good financial literacy are generally better able to budget, control spending, understand debt risks, and make wiser financial decisions (Lusardi et al., 2023; Chen et al., 2024). Conversely, low financial literacy can make students susceptible to uncontrolled use of digital services, especially when fintech offers instant and attractive features (Kholid & Soemarno, 2024; Rahmawati et al., 2025).

In addition to financial literacy, fintech itself can also be understood as a factor influencing financial behavior, both directly and through increased access to digital services. Several studies have shown that fintech can improve transaction efficiency and financial inclusion, but it also has the potential to expand consumer behavior if not accompanied by a strong financial understanding (Ozili, 2022; Dwivedi et al., 2021). However, empirical evidence on the relationship between fintech, financial literacy, and student financial behavior still shows mixed results, including the limited number of studies that identify fintech as a relevant variable in the context of students on Lombok Island (Nugroho et al., 2025; Setiawan & Novitasari, 2025).

Based on these conditions, this study aims to analyze the influence of financial literacy and financial technology on the financial behavior of students on Lombok Island, while also clarifying how financial knowledge and the use of digital services shape students' financial habits in the digital era. This research is important because it provides an empirical basis for universities in designing financial education that is more relevant to the characteristics of digital students, thereby encouraging more responsible financial management (Lusardi et al., 2023; Nugroho et al., 2025). The novelty of this study lies in its focus on the local context of Lombok Island and its attempt to explain the relationship between financial literacy and fintech in students' financial behavior in digital social situations, which has rarely been specifically discussed in previous studies (Chen et al., 2024; Rahmawati et al., 2025).

2. RESEARCH METHOD

This study used purposive sampling, with 110 active university students who had used fintech services in the past month as respondents. Participants were selected intentionally based on specific criteria: students currently pursuing higher education and willing to complete a research questionnaire. This technique is considered appropriate because it

allows researchers to obtain data from respondents who are truly relevant to the research focus, allowing the collected information to more accurately represent the behavior and attitudes of the target population (Etikan et al., 2016; Sekaran & Bougie, 2016). Through this approach, the study is expected to deepen understanding of how financial literacy and fintech use influence students' decision-making and financial habits.

This study used primary and secondary data to produce a more comprehensive analysis. Primary data were obtained through an online questionnaire designed to measure financial literacy, financial behavior, and fintech usage. The questionnaire used a Likert scale ranging from 1 to 5, allowing respondents to rate their level of agreement or frequency with each statement. Financial literacy was measured through indicators of personal financial knowledge, planning, management, and decision-making, while financial behavior focused on budgeting, saving, debt management, and investing habits. Furthermore, the questionnaire assessed aspects of fintech, such as ease of use, frequency of use, security, and available digital features. Secondary data were obtained from relevant books, scientific journals, and financial reports as a theoretical basis and to strengthen the research analysis (Arikunto, 2013; Hair et al., 2022). Within this research framework, financial literacy is positioned as the independent variable, financial behavior as the dependent variable, and fintech as a moderating variable influencing the relationship between the two (Ajzen, 1991; Baron & Kenny, 1986).

The research instrument was first tested through a pilot testing phase to ensure its validity and reliability before being used in primary data collection. This initial stage is crucial to ensure the instrument is truly capable of accurately measuring the intended construct and producing consistent data (Arikunto, 2013; Hair et al., 2022). Data analysis was conducted using the PLS-SEM method using SmartPLS 4 software. This approach consists of two main parts: an outer model and an inner model. The outer model is used to assess the validity and reliability of the measurement construct, while the inner model is used to examine the relationships between variables, including the moderating effect of fintech on the relationship between financial literacy and financial behavior. This method is suitable for complex models because it can test multiple latent variables as well as interaction effects more comprehensively (Hair et al., 2022; Cahyani et al., 2024).

3. RESULTS AND DISCUSSION

This study analyzed the data using the PLS-SEM approach processed through SmartPLS 4 software. This method was chosen because it is capable of simultaneously testing connections among latent variables, including a research model involving a moderating effect. In addition, PLS-SEM is considered appropriate because it does not require normally distributed data and can still be used in studies with relatively limited sample sizes. In this study, three main variables were analyzed: Financial Literacy (X) as the

independent variable, Financial Behavior (Y) as the dependent variable, and Financial Technology/Fintech (Z) as the moderating variable, all of which were measured through questionnaire indicators.

The analysis process consists of two main phases. The first phase focuses on examining the measurement model to ensure its validity and reliability, confirming that the tools used accurately measured the intended constructs. The second phase involved evaluating the structural model to analyze the connections amid variables, including direct effects and moderating effects, to understand how these factors interact within the framework.

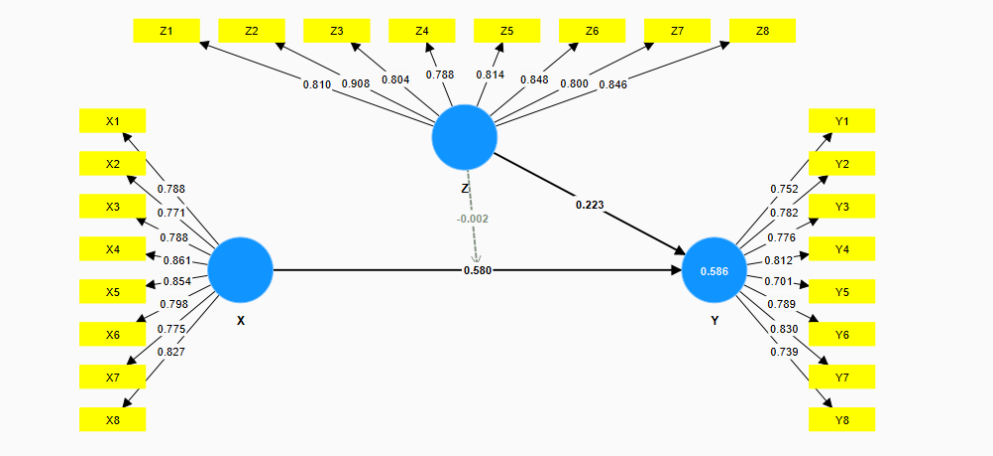

Figure 1. Measurement Model Evaluation (Outer Model)

Table 1. Outer Loadings

Indicator	Financial Literacy	Financial Behavior	Financial Technology	Description
X1	0.788			Valid
X2	0.771			Valid
X3	0.788			Valid
X4	0.861			Valid
X5	0.854			Valid
X6	0.798			Valid
X7	0.775			Valid
X8	0.827			Valid
Y1		0.752		Valid
Y2		0.782		Valid
Y3		0.776		Valid
Y4		0.812		Valid
Y5		0.701		Valid
Y6		0.789		Valid
Y7		0.830		Valid
Y8		0.739		Valid

Z1	0.810	Valid
Z2	0.908	Valid
Z3	0.804	Valid
Z4	0.788	Valid
Z5	0.814	Valid
Z6	0.848	Valid
Z7	0.800	Valid
Z8	0.846	Valid

Source: Research data processed using SmartPLS 4, 2026.

According to the outer loading table, all indicators for the Financial Literacy, Financial Behavior, and Financial Technology variables have values above 0.70, indicating that all indicators are valid and able to represent the measured latent constructs well. On the Financial Literacy variable, outer loading values range from 0.771 to 0.861, with the highest value found in indicator X4 (0.861), indicating that this indicator makes the strongest contribution to the construct.

For the Financial Behavior variable, outer loading values range from 0.701 to 0.830, with indicator Y7 (0.830) as the most dominant indicator in representing the variable. For the Financial Technology variable, outer loading values range from 0.788 to 0.908, and indicator Z2 (0.908) makes the strongest contribution to the construct. Overall, these conclusions show that all indicators in the study met the convergent validity criteria and were appropriate for use in the next stage of analysis.

Table 2. Average Variance Extracted (AVE)

Construct	AVE	Description
Financial Literacy (X)	0.653	Valid
Financial Behavior (Y)	0.598	Valid
Financial Technology (Z)	0.686	Valid

Source: Research data processed using SmartPLS 4, 2026.

According to the AVE values, all constructs in this study meet the convergent validity criterion because each variable has a value above the minimum trigger point of 0.50. Thus, all variables were considered valid and suitable for use in subsequent analyses.

Table 3. Fornell-Larcker Criterion

Construct	Financial Literacy	Financial Behavior	Financial Technology
Financial Literacy (X)	0.808		
Financial Behavior (Y)	0.751	0.774	
Financial Technology (Z)	0.748	0.661	0.828

Source: Research data processed using SmartPLS 4, 2026.

According to Table 3, all constructs in this study meet the discriminant validity criteria. The square root of AVE for each variable 0.808 for Financial Literacy (X), 0.774 for Financial Behavior (Y), and 0.828 for Financial Technology (Z)—was higher than the correlations with other variables.

Table 4. HTMT (Heterotrait-Monotrait Ratio)

Construct	Financial Literacy	Financial Behavior	Financial Technology
Financial Literacy (X)			
Financial Behavior (Y)	0.812		
Financial Technology (Z)	0.806	0.708	

Source: Research data processed using SmartPLS 4, 2026.

According to the HTMT table, all inter-construct values were below the recommended trigger point of 0.90. Therefore, the research model meets the discriminant validity criteria according to the HTMT approach.

Table 5. Construct Reliability

Construct	Cronbach's Alpha	Composite Reliability (rho_a)	Composite Reliability (rho_c)
Financial Literacy (X)	0.924	0.926	0.938
Financial Behavior (Y)	0.904	0.907	0.922
Financial Technology (Z)	0.934	0.939	0.946

Source: Research data processed using SmartPLS 4, 2026.

According to Table 5, All variables showed strong reliability indicators, with both Cronbach's Alpha and composite reliability values exceeding the trigger point of 0.70, demonstrating consistent internal consistency across the measurement scales used in the study.

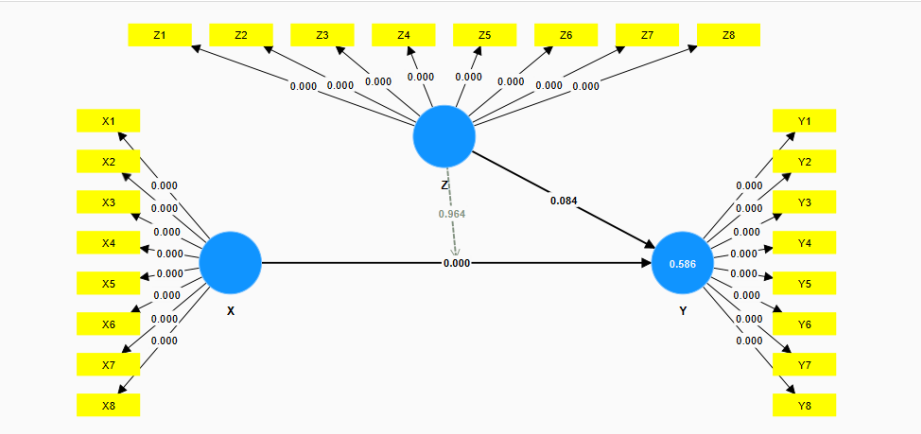

Figure 2. Structural Model Evaluation (Inner Model)

Table 6. Coefficient of Determination (R-Square)

Endogenous Variable	R-Square	Adjusted R-Square
Financial Behavior (Y)	0.586	0.575

Source: Research data processed using SmartPLS 4, 2026.

The model accounted for 58.6% of the variability in financial behavior (Y), indicating that the included independent and moderating variables explained a substantial portion of the differences observed. However, 41.4% of the variance remains unexplained, suggesting that other unknown factors also influence financial behavior beyond those considered in the model.

Table 7. Q-Square (Cross-validated Redundancy)

Construct	SSO	SSE	Q^2 (1-SSE/SSO)
Financial Literacy (X)	880,000	880,000	0.000
Financial Behavior (Y)	880,000	592,916	0.326
Financial Technology (Z)	880,000	880,000	0.000

Source: Research data processed using SmartPLS 4, 2026.

The Q-square value for Financial Behavior (Y) was 0.326, showing that the model had good predictive relevance for that variable.

Table 8. Collinearity Statistics (VIF)

Construct	Financial Literacy	Financial Behavior	Financial Technology	Z × X
Financial Literacy (X)		2,852		
Financial Behavior (Y)				
Financial Technology (Z)		2,429		
Z × X		2,201		

Source: Research data processed using SmartPLS 4, 2026.

All VIF values were below the recommended trigger point of 5.00, indicating that the model did not suffer from multicollinearity problems.

Table 9. Effect Size (f-Square)

Construct	X	Y	Z	Z × X	Category
Financial Literacy (X)		0.286			Moderate
Financial Technology (Z)		0.050			Small
Z × X		0.000			None

Source: Research data processed using SmartPLS 4, 2026.

Financial Literacy (X) had a moderate effect on Financial Behavior (Y), fintech had a small effect, and the interaction term showed no effect.

Table 10. Bootstrapping Path Coefficients

Path	Original Sample (O)	Sample Mean (M)	STDEV	T Statistics	P Values	Decision
X → Y	0.580	0.581	0.122	4,744	0.000	Significant
Z → Y	0.223	0.230	0.129	1,728	0.084	Not Significant
Z × X → Y	-0.002	-0.002	0.043	0.045	0.964	Not Significant

Source: Research data processed using SmartPLS 4, 2026.

According to the bootstrapping conclusion, only Financial Literacy had a positive and substantial effect on Financial Behavior. Fintech had no substantial direct effect and did not moderate the connection amid Financial Literacy and Financial Behavior. Therefore, the first hypothesis was accepted, while the second and third hypotheses were rejected.

DISCUSSION

Effect of Financial Literacy on Students' Financial Behavior

The research revealed a strong positive correlation amid X and Y, indicating that individuals with greater financial knowledge tend to demonstrate more responsible financial practices. The study's findings showed a sample value of 0.580, which reflects a moderate to strong connection, supported by a t-statistic of 4.744, confirming the statistical significance of the conclusion. Additionally, the p-value was recorded at 0.000, demonstrating that these findings are highly unlikely to be due to chance. These conclusions support the hypothesis (H1) that increased financial literacy is associated with improved financial behavior. The study underscores the importance of understanding financial concepts, suggesting that higher financial literacy among students leads to better financial management, independent of external influences such as environmental factors.

Effect of Financial Technology on Students' Financial Behavior

The conclusion of the hypothesis testing indicated a positive correlation amid fintech usage and students' financial behavior; however, this connection was not statistically substantial, as evidenced by a p-value of 0.084. This suggests that while there may be a tendency for fintech to influence financial habits, the evidence is not strong enough to confirm a definitive effect. The findings imply that fintech primarily functions as a tool to facilitate transactions rather than as a catalyst for improving financial behavior. Among students on Lombok Island, fintech's role appears to be more about ease of access and convenience in managing financial activities rather than directly enhancing financial literacy or responsible financial practices.

Role of Financial Technology as a Moderating Variable

The moderation test showed that the interaction between Financial Technology and The moderation test showed that the interaction between Financial Technology and Financial Literacy on Financial Behavior had an original sample value of -0.002, a t-statistic of 0.045, and a p-value of 0.964; therefore, H3 was rejected. The very small and insubstantial

coefficient indicates that fintech was unable to strengthen or weaken the effect of financial literacy on students' financial behavior on Lombok Island. Thus, the level of fintech use did not change the strength of the x amid financial literacy and financial behavior. This finding confirms that in this study fintech functions more as a transaction tool than as a factor capable of changing the effect of financial literacy on financial behavior.

4. CONCLUSION

Based on the analysis, this study shows that financial literacy has a positive and significant influence on the financial behavior of students on Lombok Island. This finding confirms that students with better financial understanding tend to be better able to budget, control spending, save, and make more rational financial decisions. Conversely, fintech was not proven to have a significant direct effect on financial behavior nor was it able to moderate the relationship between financial literacy and financial behavior. Thus, in the context of the students in this study, fintech plays a role more as a transaction tool that facilitates financial activities, rather than as a factor that strengthens the formation of better financial behavior.

However, the results of this study have limitations, particularly the limited sample size of 110 students from the Lombok Island context. Therefore, generalizing the findings to a broader population requires caution. Furthermore, this study focused solely on financial literacy, fintech, and financial behavior, so it's possible that other factors, such as income, self-control, social environment, and lifestyle, also influence students' financial behavior. Therefore, future research is recommended to expand the sample size and diversity, add more contextual variables, and test the model in different regions or student groups for more comprehensive results. Practically, universities and policymakers need to strengthen applicable financial literacy education programs so that students can utilize fintech wisely and maintain healthy financial behavior.

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