

Determinants of Financial Management Behavior: Financial Literacy, E-wallet Use, and Lifestyle

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Abstract

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E-Wallet, Financial Literacy,
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This study examines the influence of financial literacy, e-wallet usage, and lifestyle on financial management among undergraduate students of Management Program at Dian Nuswantoro University, based on the knowledge-behavior gap among Gen Z who actively use fintech but have low savings practices. The objective of the study is to analyze the causal relationship between these three variables using a quantitative explanatory approach with the PLS-SEM method. The population includes 1,378 active students in semesters 3-7 who have taken financial management courses and e-wallet users, with a sample of 178 respondents through purposive sampling. The instrument in the form of a Likert 1-5 questionnaire (15 indicators) was analyzed with SmartPLS 4 through validity tests (loading factor >0.7, AVE >0.5), reliability (CR >0.7), and bootstrapping hypothesis of 5000 subsamples. The results showed a significant positive influence on: financial literacy ($\beta=0.377$, $p=0.000$), lifestyle ($\beta=0.286$, $p=0.006$), e-wallet ($\beta=0.204$, $p=0.010$), with $R^2=0.584$. The conclusion recommends the integration of e-wallet literacy into the curriculum to improve students' financial discipline.

INTRODUCTION

Personal financial management is an essential component of modern life because it encompasses the ability to plan, organize, implement, and monitor financial conditions to achieve sustainable economic well-being (Artha Wibowo, 2023). In Indonesia, the financial literacy index shows an increasing trend from 49.68 percent in 2022 to 66.46 percent in 2025, driven by advances in financial technology such as e-wallets that facilitate fast and efficient cashless transactions (Financial Services Authority [OJK], 2024). However, the 18-25 age group, dominated by students, still lags behind with a literacy rate of around 60-65 percent, lower than the 26-35 age group, which reached 74.82 percent, indicating a financial knowledge gap among the younger generation (Jazuli & Setiyani, 2021).

The development of fintech, particularly e-wallets like DANA, OVO, and ShopeePay, has transformed student transaction patterns into more practical ones, but has also fueled a potentially consumptive digital lifestyle through promotions and discounts (Riofita, 2025). Students often allocate funds for wants rather than educational needs, with few practices for recording daily expenses or establishing an emergency fund, even though the majority have basic knowledge of money management (Somsom et al., 2024).

A pre-survey of 35 Management students at Dian Nuswantoro University revealed a significant knowledge-behavior gap. 85.7 percent of respondents stated they knew how to manage money well, and 94.3 percent were able to manage their income and expenses. However, only 51.4 percent regularly saved money, and 45.7 percent recorded their monthly finances (Hariyani, 2021). This phenomenon is exacerbated by a reliance on parents as the primary source of funds, leading to ballooning expenses due to a lack of adequate literacy. Students struggle to develop savings or micro-investment habits, even after taking finance courses (Iswariyadi et al., 2023).

Previous research has shown inconsistent results, such as the significant positive influence of financial literacy and lifestyle on financial management (Irawati & Kasemetan, 2023), while e-wallet use is sometimes insignificant (Sari et al., 2023) or even supports discipline through automatic recording features (Chatrine et al., 2025). This gap reflects contextual variations, where Gen Z students' consumer behavior is increasingly complex due to high living costs and economic uncertainty, with a hedonistic lifestyle exacerbating uncontrolled spending (Rizkynanda, 2025).

This study aims to examine the influence of financial literacy, e-wallet usage, and lifestyle on financial management among undergraduate students of Management at Dian Nuswantoro University using the PLS-SEM model on 178 respondents. The urgency lies in the need to provide a foundation for a program to improve literacy and wise e-wallet usage on campus, considering that 100% of respondents have studied financial management but their practice remains low (Veriwati et al., 2021). The novelty of this study is the integration of these three variables into a context-specific causal model at Udinus, complementing previous studies by highlighting the role of e-wallets in the knowledge-behavior gap (Muhammad, 2025).

METHODS

This study applies a quantitative approach with a positivist paradigm through a causality design to empirically test the relationship between variables using structured instruments and inferential statistical analysis (Sugiyono, 2021). This explanatory research aims to explain the influence of financial literacy, e-wallet use, and lifestyle on student financial management. Partial Least Squares Structural Equation Modeling (PLS-SEM) is used as the primary analysis technique because it is suitable for small to medium samples and complex models with latent variables (Hair et al., 2014). This approach is supported by a non-experimental design that relies on primary data from questionnaires, ensuring the objectivity and generalizability of the findings in the context of management students (Creswell & Creswell, 2023).

The data collection instrument was a 1-5 Likert scale questionnaire with 15 indicators adapted from previous literature, including five indicators of financial literacy (knowledge, skills, beliefs, attitudes, financial management behavior), three indicators of e-wallet use (ease, benefits, promotions), three indicators of lifestyle (activities, interests, views), and four indicators of financial management (consumption, cash flow management, saving and investing activities, and personal financial management), which were validated through loading factor tests, AVE, and Cronbach Alpha reliability (Napitupulu et al., 2021). Data analysis techniques included evaluation of the outer model (convergent validity, Fornell-Larcker and HTMT discriminants, composite reliability), inner model (R-square, f-square effect size), and hypothesis testing via bootstrapping 5000 subsamples using SmartPLS 4 software to generate path coefficients, t-statistics, and p-values (Sudaryono, 2022). This process complies with flexible PLS-SEM standards for non-normal data and predictive modeling in social sciences (Emzir, 2021).

The study population consisted of 1,378 active undergraduate students of the Management Study Program at Dian Nuswantoro University, in semesters 3-7 and above, who had taken financial management courses and were active e-wallet users (aged 18-24 years). A sample of 178 respondents was determined through purposive sampling based on the inclusion criteria to ensure representativeness and contextual relevance (Sugiyono, 2021). The sample size met Hair et al.'s (2014) guidelines of 5-10 times the number of indicators (minimum 75-150), thus supporting the statistical power of the PLS-SEM analysis with 80 percent power and a 5 percent margin of error (Creswell & Creswell, 2023). This technique avoids bias by focusing on subjects who represent the knowledge-behavior gap phenomenon among Gen Z students (Emzir, 2021).

The research procedure began with a pre-survey pilot testing on 35 respondents for instrument validation, followed by The online questionnaire was distributed via Google Forms for two weeks to the target sample through class WhatsApp groups and official emails, with follow-up for a 100 percent response rate from 178 eligible respondents (Sudaryono, 2022). The data were then cleaned, coded, and analyzed in stages: descriptive, classical assumption testing (multicollinearity, VIF <5, non-normality), outer-inner model analysis, and interpretation of the hypothesis results with the criteria of p-value <0.05 and t-statistic >1.96 (Hair et al., 2014). All stages adhered to research ethics, including informed consent and respondent anonymity, ensuring the reliability and validity of the findings (Sugiyono, 2021).

RESULTS

Respondent Description

The respondents were students currently enrolled in the Management Study Program at Dian Nuswantoro University who met the research criteria, namely aged between 18 and 24 years, in semesters 3-7 and above, who had taken financial management courses, and were active users of e-wallet applications such as DANA, OVO, ShopeePay, GoPay, LinkAja, etc. The number of respondents who participated and met the criteria was 178 students. Respondent characteristics data were classified into several categories, namely:

Table 1. Respondent Characteristics

Respondent Characteristics	Frequency	Presentation
Gender		
Man	70	39.3%
Woman	108	60.7%
Age		
18-20 Years	21	11.8%
21-23 Years	156	87.6%
≥ 24 Years	1	0.6%
Udinus Management Students	178	100%
Semester		
3-4	12	6.7%
5-6	28	15.7%
7 and above	138	77.5%

Taking Financial Management courses		
Already	178	100%
Using e-wallet application		
	178	100%

Source: Processed data, 2025

Aplikasi e-wallet yang Anda gunakan (boleh pilih lebih dari satu)
178 jawaban

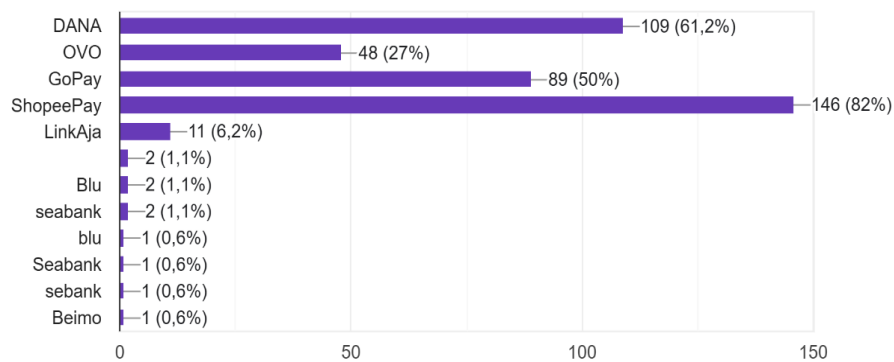


Figure 1. E-wallet application used

Source: Processed data, 2025

Students constituted the largest group of respondents in this study, women aged 21–23, who had taken finance courses and actively used e-wallets. The most commonly used e-wallet applications were ShopeePay and DANA, indicating students' preference for platforms that are easily accessible and commonly used for daily financial transactions.

Testing the Validity and Reliability of Constructs

1. Convergent Validity Test

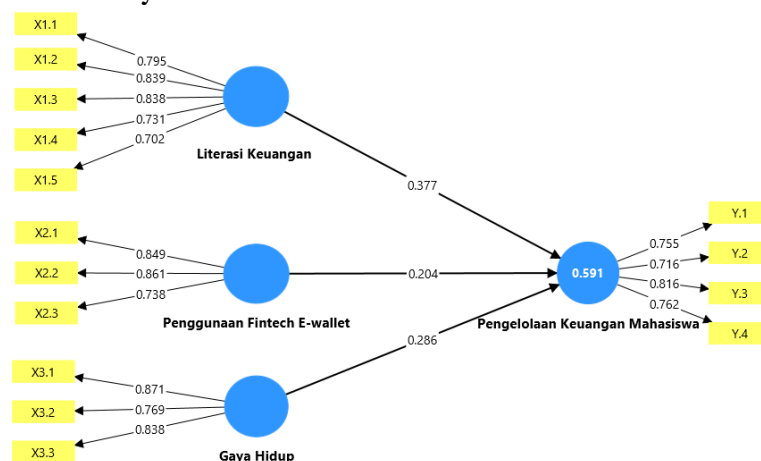


Figure 2. PLS structural model

Source: Processed data, 2025

An indicator can be categorized as valid if the loading factor value shows a positive

number and is > 0.7 , and the Average Variance Extracted (AVE) has a value of > 0.50 . (Hair et al., 2014). The loading factor score describes the magnitude of the contribution or weight each indicator in contributing to the measurement of the related variable. Indicators that show high loading factor values indicate a greater influence in explaining the research variables. The values for each loading factor are listed in the table below.

Table 3. Loading Factor Test Results

Variables	Item	Loading Factor	AVE	Information
Financial Literacy	X1.1	0.795	0.613	Valid
	X1.2	0.839		Valid
	X1.3	0.838		Valid
	X1.4	0.731		Valid
	X1.5	0.702		Valid
Use E-Wallet	X2.1	0.849	0.669	Valid
	X2.2	0.861		Valid
	X2.3	0.738		Valid
Lifestyle	X3.1	0.871	0.684	Valid
	X3.2	0.769		Valid
	X3.3	0.838		Valid
Student Financial Management	Y1.1	0.755	0.582	Valid
	Y1.2	0.716		Valid
	Y1.3	0.816		Valid
	Y1.4	0.762		Valid

Source: Processed data, 2025

According to the results presented above, each indicator's loading factor value is > 0.7 , and its AVE is > 0.5 . Therefore, all indicators are valid in reflecting the latent variables they measure.

2. Cross Loading Test

Table 4. Cross Loading Test Results

	Lifestyle	Financial Literacy	Student Financial Management	Use E-wallet
X1.1	0.605	0.795	0.534	0.622
X1.2	0.574	0.839	0.609	0.563
X1.3	0.629	0.838	0.599	0.569
X1.4	0.48	0.731	0.543	0.462
X1.5	0.391	0.702	0.505	0.491
X2.1	0.585	0.63	0.553	0.849
X2.2	0.487	0.591	0.569	0.861
X2.3	0.388	0.462	0.426	0.738
X3.1	0.871	0.621	0.591	0.549
X3.2	0.769	0.457	0.472	0.417
X3.3	0.838	0.614	0.585	0.516

Y.1	0.584	0.537	0.755	0.503
Y.2	0.392	0.543	0.716	0.525
Y.3	0.498	0.553	0.816	0.477
Y.4	0.554	0.548	0.762	0.441

Source: Processed data, 2025

The test above shows that the highest loading value is found in each indicator in the construct it represents, when compared with other constructs. For example, indicator $X_{1,1}$ to $X_{2,5}$ produces the highest loading value on the Financial Literacy construct; indicator $X_{2,1}$ to $X_{2,3}$ obtained the highest loading value on the e-wallet usage construct; indicator $X_{3,1}$ to $X_{3,3}$ obtained the highest loading value on the lifestyle construct; and the Y indicator Y_1 up to Y_4 recorded the highest loading value in the student financial management construct.

3. Discriminant Validity Test

This test uses the Fornell Larcker and HTMT methods. Referring to Fornell Larcker's results, it is known that the square root of the AVE for each construct is greater than its correlation with other constructs, thus meeting the requirements for discriminant validity. Furthermore, all HTMT values must be below the threshold value of 0.90. (Hair et al., 2014) so that it indicates that each construct has sufficient discrimination, which then allows us to draw conclusions that all variables comply with the requirements for discriminant validity.

4. Fornell-Larcker test

Table 5. Test Results Fornell-Larcker

	Lifestyle	Financial Literacy	Student Financial Management	E-wallet Usage
Lifestyle	0.827			
Financial Literacy	0.689	0.783		
Student Financial Management	0.668	0.715	0.763	
E-wallet Use	0.602	0.692	0.637	0.818

Source: Processed data, 2025

From the Fornell-Larcker test above, the square root of the AVE (shown in bold) is greater than the correlation between constructs. For example, the square root of the AVE related to the lifestyle variable (0.827) is greater than its correlation with other variables. This also occurs for the constructs of financial literacy (0.783), student financial management (0.763), and e-wallet use (0.818). The comparison of these results illustrates that each construct can be well distinguished from the others because its diagonal value is greater than the correlation value below it. Therefore, all variables are declared to meet the Fornell-Larcker criteria in the discriminant validity test.

5. Heterotrait-monotrait ratio test (HTMT)

Table 6. Results of the Heterotrait-monotrait ratio (HTMT) test

Variables	Lifestyle	Financial Literacy	Student Financial Management	Use e-wallet
Lifestyle				
Financial Literacy	0.845			
Student Financial Management	0.865	0.895		
Use of e-wallet	0.778	0.865	0.837	

Source: Processed data, 2025

From the test above, the Heterotrait-Monotrait Ratio (HTMT) shows a value below 0.9. This indicates that the research model with the four variables above is valid and meets the validity criteria.

6. Reliability Test

To assess reliability, Cronbach's Alpha and Composite Reliability are considered. Reliability criteria are met if Composite Reliability is greater than 0.7, and Cronbach's Alpha is greater than 0.7, as recommended. The values of these two reliability measures are shown in the test results below:

Table 7. Reliability Test Results

	<i>Cronbach's alpha</i>	<i>Composite reliability (rho_a)</i>
Financial Literacy	0.841	0.846
E-wallet Usage	0.752	0.771
Lifestyle	0.769	0.781
Student Financial Management	0.76	0.761

Source: Processed data, 2025

This study has variables with all Composite Reliability and Cronbach's Alpha values exceeding 0.7, as shown in the table above. Therefore, each variable meets the requirements for good reliability standards. Therefore, these variables are deemed reliable, and the analysis proceeds to testing the goodness of fit for the inner model.

Structural Model Evaluation Results (Inner Model)

The next analysis is the inner model test to identify the relationship between constructs and evaluate the significance with the R-square research model.

1. R Square(R²)

Table 8. Results of the R Square (R²) Test

	<i>R-square</i>	<i>R-square adjusted</i>
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Student Financial Management	0.591	0.584
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Source: Processed data, 2025

In the student financial management variable, the R-Square value is 0.584, showing that the variable has a value of 58.4% which is explained by the independent variable, and the remaining 41.6% is included in the variables not included in this study.

2. F Test (f^2 Effect Size)

The F-square test in SmartPLS is used to determine the magnitude of the influence of independent variables on their respective dependent variables in a structural model. This test is not the same as the F-test in classical regression, but rather aims to determine the extent of a construct's contribution to explaining the dependent variable when that construct is included or removed from the model.

Table 9. F Test Results

Variables	Student Financial Management
Financial Literacy	0.14
E-wallet Usage	0.05
Lifestyle	0.099

Source: Processed data, 2025

The f-square (f^2) test obtained that the lifestyle variable had an f^2 value of 0.099, financial literacy had a value of 0.14, and e-wallet use was 0.05 on the student financial management variable.

Hypothesis Testing Results

The structural model was tested to understand and explain the relationships between the studied variables. This analysis was assisted by PLS software, with results displayed through graphical output and path coefficients. Hypothesis testing was conducted directly, with the criteria that if the p-value < 0.05 and the T-statistic > 1.960 indicate a significant influence between the exogenous and endogenous variables. A full explanation of the hypothesis testing results will be discussed below.

Table 10. Hypothesis Test Results

	<i>Original sample (O)</i>	<i>Sample mean (M)</i>	<i>Standard deviation (STDEV)</i>	<i>T statistics (O/STDEV)</i>	<i>P values</i>
Financial Literacy -> Student Financial Management	0.377	0.378	0.091	4.136	0.000
E-wallet Usage -> Student Financial Management	0.204	0.201	0.08	2,561	0.010

Lifestyle -> Student Financial Management	0.286	0.291	0.105	2,724	0.006
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Source: Processed data, 2025

In PLS (Partial Least Squares), the bootstrapping method is used to examine the relationship between variables in sample data. The bootstrapping analysis of the table yields the following results:

1. Financial Literacy as variable X_1 has a significant positive effect on student financial management, thus H_1 acceptable.
2. Use of e-wallet as variable X_2 has a significant positive influence on student financial management, so that H_2 acceptable.
3. Lifestyle as variable X_3 has a significant positive influence on student financial management, so that H_3 acceptable.

DISCUSSION

The influence of financial literacy on student financial management

The results of the analysis indicate a positive and significant influence of financial literacy on student financial management, with a coefficient value of 0.377, a t-statistic of 4.136, and a p-value of 0.000. This proves that a high level of financial literacy leads to a wiser ability to manage their finances. From a theoretical perspective, this finding is in line with the concept of the Theory of Planned Behavior (Conner, 2020), especially in the perceived behavioral control component, where individuals with good financial knowledge feel more capable of controlling their financial behavior. Understanding how to manage cash flow, save, distinguish between needs and wants, and plan expenses makes students more confident in managing their finances. This finding is also in line with research. Napitupulu et al., (2021); Dewi et al., (2021); Artha & Wibowo, (2023) which confirms that financial literacy has a positive and significant influence on financial management. Financial literacy was the variable with the strongest influence in this study, indicating that financial knowledge is the primary foundation for encouraging healthy financial behavior in students.

The influence of e-wallet use on student financial management

From the test results, the use of e-wallets has a positive and significant influence on student financial management, with a coefficient value of 0.204, a t-statistic of 2.561, and a p-value of 0.010, which means that the more frequently and effectively students use e-wallets, the better their financial management skills will be. In the Theory of Planned Behavior, this relationship can be explained through the attitude toward behavior component, where students view the use of e-wallets as something that is easy, practical, and profitable. E-wallets provide automatic transaction recording features, clear payment history, and bill reminders, thus helping students monitor their personal cash flow. These results are in line with previous research, Hidayati, (2025); Chatrine et al., (2025); Nabilah et al. (2025) explained that e-wallets have an influence on student financial management. The findings of this study show that the use of e-wallets not only encourages ease of transactions, but also supports more disciplined financial management through informative and easy-to-understand digital features.

The influence of lifestyle on student financial management

The test results show a positive and significant influence of lifestyle on student financial management, as indicated by a coefficient value of 0.286, a t-statistic of 2.724, and a p-value of 0.006. These findings indicate that the more controlled and rational a student's lifestyle, the better their ability to manage their finances. Within the framework of the Theory of Planned Behavior (Conner, 2020), lifestyle plays a role in shaping students' attitudes toward spending, how they view financial needs, and how subjective norms from peers and the campus environment influence consumption patterns. Students who are able to limit their consumptive spending, prioritize their needs, and manage their time and money in a balanced way tend to have healthier financial behaviors.

This finding is in line with research Mendrofa et al., (2024); Gunawan et al., (2020) Laif & Adrie Putra (2024) confirmed that lifestyle has a positive and significant impact on students' financial behavior. Furthermore, Putri et al. (2025) also added that a controlled lifestyle can have a positive impact on personal financial management. Therefore, the results of this study confirm that students' lifestyles are not always synonymous with consumer behavior. In fact, when individuals have good self-control, lifestyle can be a significant factor in strengthening their ability to manage their finances effectively.

CONCLUSION

This study concludes that financial literacy, e-wallet usage, and lifestyle simultaneously have a positive and significant effect on financial management of undergraduate students in Management at Dian Nuswantoro University, with the PLS-SEM model explaining 58.4 percent of the variance ($R\text{-square} = 0.584$). Financial literacy is the strongest predictor ($\beta = 0.377$, $p = 0.000$, $f^2 = 0.14$), followed by lifestyle ($\beta = 0.286$, $p = 0.006$, $f^2 = 0.099$), and e-wallet usage ($\beta = 0.204$, $p = 0.010$, $f^2 = 0.05$), confirming all hypotheses through bootstrapping 5000 subsamples. These findings confirm the role of the Theory of Planned Behavior in explaining how financial knowledge, digital transaction features, and rational consumption patterns shape effective financial behavior in Gen Z students who are active on e-wallets (ShopeePay and DANA are dominant).

Although the structural model is valid and reliable ($AVE > 0.5$, $CR > 0.7$, $HTMT < 0.9$), limitations of the study include the limited population coverage of one study program at Udinus (178 respondents), the potential bias of self-report questionnaires, and the absence of moderator variables such as income or financial attitudes that could enrich the explanation of the remaining 41.6 percent of variance. Practical implications include recommendations for universities to integrate e-wallet literacy workshops and digital budgeting simulations into the financial management curriculum, while students are encouraged to utilize the automatic recording feature for consumption discipline. Suggestions for further research include expanding the multi-university sample, testing the mediation of financial self-efficacy, or conducting longitudinal studies for long-term causality to increase the generalizability of the findings (Hair et al., 2014).

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