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How Financial and Digital Literacy Shape E-Wallet Adoption Decisions

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ABSTRACT

The rapid development of digital financial technology has significantly changed transaction patterns among university students, particularly through the use of e-wallets. The level of adoption of this technology is strongly influenced by individuals' financial literacy and digital literacy. This study aims to analyze the influence of financial literacy and digital literacy on students' decisions to use e-wallets at the Faculty of Economics and Business, Padang State University. This research employed a quantitative approach with an associative design. The sample consisted of 98 students selected using purposive sampling. Data were collected through questionnaires and analyzed using multiple linear regression. The results show that financial literacy and digital literacy simultaneously have a positive and significant effect on the decision to use e-wallets. Partially, both financial literacy and digital literacy also have a significant influence, with digital literacy showing a more dominant effect. These findings highlight the importance of enhancing both digital and financial literacy as a foundation for shaping intelligent and adaptive financial decisions in response to technological developments.

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INTRODUCTION

The development of digital technology has changed the way humans carry out activities in various aspects of life, including in the financial sector. This transformation presents various conveniences, efficiencies, and innovations in accessing financial services, one of which is through the presence of financial technology (fintech). Among the various forms of fintech, e-wallets are the main choice for making non-cash transactions because they are fast, practical, and safe. According to Nur (2024), the use of e-wallets in Indonesia continues to increase and outperforms banking applications and pay-later services. This shows that people are starting to switch to digital payment systems. However, the adoption of financial technology such as e-wallets still requires special understanding and

skills, especially in terms of financial and digital literacy (Gusfei & Pradana, 2022; Mulyono et al., 2024; Purwidianti et al., 2024). Therefore, this research is important to do because it concerns the readiness of the community to utilize financial technology optimally and responsibly, so that it not only becomes a trend, but also supports sustainable financial literacy.

Although e-wallets offer various conveniences, their adoption is not yet fully spread among the public. Many users have e-wallet applications, but have not used them optimally or do not even understand the available features (Devi Prasad Kotni, 2024; Hadi Raharjo, 2023; Samonte et al., 2024). The main problem faced by the public in using e-wallets is the low level of financial literacy and digital literacy. Financial literacy is needed so that users can manage their finances wisely and understand the risks and benefits of each transaction. Meanwhile, digital literacy is important so that users are able to operate technology safely and effectively (Basmantra et al., 2024; Suryono et al., 2020; Tian et al., 2023). The lack of these two literacies can lead to errors in use, the risk of data leakage, and distrust of digital systems. Thus, efforts are needed to identify the extent to which financial and digital literacy influences people's decisions in using e-wallets. This is an important basis for policy making in the education, technology, and digital economy sectors.

The use of e-wallets among students has shown a significant increase, especially among students who are accustomed to interacting with technology. Based on initial data from students of the Faculty of Economics and Business, Padang State University (UNP), as many as 96.9% of students stated that they were interested in using e-wallets, and 90.6% already had e-wallet applications. However, only 25% of them admit to frequently using them in daily transactions. This disparity between ownership and frequency of use indicates a mismatch between access to technology and its maximum utilization. This phenomenon shows that even though students are classified as the digital generation, they still face obstacles in understanding and maximizing the benefits of e-wallets. Factors such as ignorance of features, doubts about security, and lack of digital and financial literacy are the main causes. Therefore, further research is needed to determine the relationship between financial and digital literacy and the decision to use e-wallets.

Several previous studies have shown that financial and digital literacy have a significant effect on digital financial behavior. Alam et al. (2021), and Jiao et al. (2021), showed that individuals with high financial literacy tend to be more active in using e-wallets. In addition, Li (2021) and Sable et al. (2022) found that good digital literacy encourages increased interest in digital payment services. These studies provide important insights into the relationship between financial literacy and financial technology usage behavior. However, most of them still

focus on variables separately, without considering the synergy between financial and digital literacy as factors that influence each other in decision-making. In addition, most studies do not specifically examine the behavior of students as the largest potential users of digital technology.

Most previous studies are also still general and have not identified how e-wallet usage behavior is influenced by more complex decision-making processes, such as motivation, risk perception, and user experience. Several studies tend to be limited to measuring the frequency of use, without examining more deeply the stages of consumer decisions before, during, and after use (Akanfe et al., 2020; Jakhiya et al., 2020). Understanding this decision process is important for producing more targeted literacy improvement strategies. This study contributes by examining the relationship between two forms of literacy, financial and digital, simultaneously on e-wallet usage decisions among college students. With this approach, the study is expected to be able to answer the gaps in the existing literature and provide a more comprehensive understanding of the factors that influence e-wallet adoption in the digital era, especially in the context of higher education.

This study is novel because it combines two important variables, financial literacy and digital literacy, in analyzing e-wallet usage decisions, which were previously more often studied separately. This approach is carried out in the context of students as a digital native population that has great potential in adopting financial technology. In addition, this study emphasizes the importance of understanding the decision-making process as a whole, not only in terms of frequency or intensity of use, but also through the stages before, during, and after using an e-wallet. This provides a deeper perspective on the factors that encourage or inhibit effective e-wallet utilization. In addition, the use of the Technology Acceptance Model (TAM) in the thinking framework strengthens the theoretical analysis in examining user technology behavior. Thus, the results of this study are expected to be able to provide theoretical and practical contributions to the development of an inclusive digital payment system.

Based on the description, the main problem to be answered in this study is: Do financial literacy and digital literacy have a significant effect on students' decisions in using e-wallets? The initial answer or temporary argument of this study is that both forms of literacy contribute positively to the decision to use e-wallets. Individuals with a good understanding of financial management and digital skills are better able to assess the benefits, risks, and ease of using financial technology. Therefore, improving financial and digital literacy not only has an impact on increasing the use of technology but also on making wiser financial decisions. The main contribution of this study is to provide a clear mapping of the influence of these two variables, while providing strategic recommendations

for the development of financial and digital literacy policies in higher education environments.

To answer these problems, this study aims to: (1) Analyze the influence of financial literacy and digital literacy simultaneously on the decision to use e-wallets; (2) Examine the influence of financial literacy partially on the decision to use e-wallets; and (3) Assess the influence of digital literacy partially on the decision to use e-wallets. The focus of this study is on students of the Faculty of Economics and Business, Padang State University, as subjects who have a high level of access to technology, but do not necessarily have an adequate level of literacy. The results of this study are expected to be a reference for educational institutions in designing more contextual and applicable financial and digital literacy programs. In addition, this study can also be a reference for developers of digital financial applications in designing systems and services that are in accordance with the needs and literacy levels of young users.

RESEARCH METHOD

This study uses a quantitative approach with an associative research type, which aims to determine the relationship between financial literacy and digital literacy variables on the decision to use e-wallets (Ratna Wijayanti Daniar Paramita, 2021). The population in this study was all students of the Faculty of Economics and Business, Padang State University. Sampling was carried out using a purposive sampling technique with the criteria of students who have or have used an e-wallet account. The number of samples was determined using the Slovin formula, with the calculated results of 98 respondents.

Data collection was carried out by distributing questionnaires. The financial literacy variable was measured using a test instrument analyzed with the Guttman scale, then categorized into three classifications, namely high (80-100%), moderate (60-79%), and low (<60%), referring to the indicators from Chen and Volpe (1998). Meanwhile, the digital literacy variable and the decision to use e-wallets were measured using a Likert scale with a value range of 1 to 5, which describes the level of respondent agreement with the statements submitted.

The data analysis techniques used include descriptive analysis to describe the characteristics of the data, analysis prerequisite tests (classical assumption tests), and multiple linear regression analysis to test the relationship between variables (Abigail Soesana, 2023; Yadav et al., 2024). In addition, a hypothesis test was also conducted to determine the significance of the influence of each independent variable on the dependent variable. All analyses were conducted with the help of statistical software to ensure the validity and reliability of the research results.

RESULT AND DISCUSSION

Result

Respondent Characteristics

Respondents in this study were 98 students from the Faculty of Economics and Business, Padang State University. Respondents were described based on gender, year of entry, and study program.

Table 1. Demographic Characteristics of Respondents

	Characteristics	Percentage
Gender	Male	5.10%
	Female	94.90%
Year of Entry	2018	1.02%
	2019	2.04%
	2020	9.18%
	2021	45.92%
	2022	16.33%
	2023	10.20%
	2024	15.31%
Study program	Accountancy (D3)	2.04%
	Economic Education (S1)	29.59%
	Economic development (S1)	21.43%
	Management (S1)	26.53%
	Accountancy (S1)	17.35%
	Digital Business (S1)	2.04%
	Economics (S2)	1.02%

Descriptive Analysis

This study uses descriptive analysis to see the characteristics of independent variables and dependent variables, consisting of e-wallet usage decisions, financial literacy, and digital literacy.

Table 2. Descriptive Statistics

Variables	Average	Classification
E-Wallet Usage Decision	81.94%	High
Financial Literacy	59.06%	Low
Digital Literacy	87.44%	High

Classical Assumption Test

The classical assumption tests used in this study are the normality, multicollinearity, and heteroscedasticity tests. Based on the results of the normality test data processing using SPSS-25, a significant value of 0.200> 0.05 was obtained, which means that the data is normally distributed. Furthermore, the multicollinearity test obtained the tolerance value of each independent variable of 0.975> 0.01 while the VIF was 1.025 <10, so it can be concluded that the model is not affected by multicollinearity symptoms. Furthermore, the

heteroscedasticity test obtained a significant value of the financial literacy variable of 0.212> 0.05 and the digital literacy variable of 0.649> 0.05, so it can be concluded that there are no symptoms of heteroscedasticity in the regression model.

Multiple Linear Regression Analysis

This study uses two independent variables, namely financial literacy (X1) and digital literacy (X2), and one dependent variable, namely the decision to use e-wallet (Y).

Table 3. Multiple Linear Regression Test Results

Coefficientsa						
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
Model		B	Std. Error	Beta		
1	(Constant)	1.416	.372		3,808	.000
	Financial Literacy	.153	.065	.193	2,343	.021
	Digital Literacy	.558	.084	.546	6.615	.000
a. Dependent Variable: Decision to Use E-Wallet						

Based on the table above, the multiple linear regression equation can be obtained as follows:

Y = a + b1 X1 + b2 X2

Y = 1.416 + 0.153 X1 + 0.558 X2

The above equation can be explained as follows:

1. Every unit increase in financial literacy will result in an increase in the decision to use e-wallets by 0.153.
2. Every increase in one unit of digital literacy will result in an increase in the decision to use e-wallets by 0.558.

Correlation Analysis

Correlation analysis aims to see the strength or weakness of the relationship between the independent variable and the dependent variable.

Table 4. Correlation Test Results

Variables	Correlation	Sig.	Results
Financial Literacy E-Wallet Usage Decision	0.277	P value = 0.006 < 0.05	Weak
Digital Literacy E-Wallet Usage Decision	0.576	P value = 0.000 < 0.05	Currently

Based on the table above, the correlation coefficient value is 0.277 with a significance value/p value of 0.006 <0.05, meaning that there is a relationship between the independent variable, namely financial literacy, and the dependent variable, namely the decision to use e-wallet in the form of a positive relationship with a weak degree of correlation. Furthermore, the correlation coefficient value is 0.576 with a significance value/p p-value of 0.000 <0.05, meaning that there is a relationship between the independent variable, namely digital literacy, and the dependent variable, namely the decision to use e-wallet in the form of a positive relationship with a moderate degree of correlation.

Partial Test (t-Test)

The t-test shows how far each independent variable partially influences the dependent variable.

Table 5. t-Test Results

Coefficientsa			
Model		t	Sig.
1	(Constant)	3,808	.000
	Financial Literacy	2,343	.021
	Digital Literacy	6.615	.000

a. Dependent Variable: Decision to Use E-Wallet

Based on the table above, the financial literacy variable has a significance value of 0.021 <0.05, so it can be concluded that financial literacy has a positive and significant effect on the decision to use e-wallet partially. Likewise, the digital literacy variable has a significance value of 0.000 <0.05, so it can be concluded that digital literacy has a positive and significant effect on the decision to use e-wallet partially.

Simultaneous Test (F Test)

The F test aims to see whether all independent variables have a simultaneous influence on the dependent variable.

Table 6. F Test Results

ANOVA					
Model		Sum of Squares	df	F	Sig.
1	Regression	8,863	2	27,736	.000b
	Residual	15,179	95		
	Total	24,042	97		

a. Dependent Variable: Decision to Use E-Wallet

b. Predictors: (Constant), Digital Literacy, Financial Literacy

Based on the table of F test calculation results above, the calculated F value is 27.736 with a significance value of 0.000. Because the calculated F value is

greater than the F table (27.736> 3.09) and the significance value is less than 0.05 (0.000 <0.05), it can be concluded that the variables of financial literacy and digital literacy together have a positive and significant effect on the decision to use e-wallets.

Coefficient of Determination Test (R2)

The coefficient of determination (R2) shows how much variation the independent variable can explain in the dependent variable.

Table 7. R2 Test Results

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.607a	.369	.355	.39973

a. Predictors: (Constant), Digital Literacy, Financial Literacy

b. Dependent Variable: Decision to Use E-Wallet

Based on the Table 7, the value of the coefficient of determination is 0.369. This means that the influence of financial literacy and digital literacy variables on the decision to use e-wallets is 36.9%, while the remaining 63.1% is influenced by other variables not examined in this study.

Discussion

The results of this study indicate that financial literacy and digital literacy simultaneously have a positive and significant effect on the decision to use e-wallets among students. This finding is in line with the research of Muhtasim et al. (2022), Jali (2025), and Aziz (2025), which states that both forms of literacy encourage individuals to be more confident in utilizing digital financial services. Both studies emphasize the importance of financial understanding and digital skills as a basis for making decisions about using financial technology (Rizkiyah Hasanah, 2024; Widiasari & Zahro, 2024). The similarity of these results indicates that the combination of financial and digital literacy not only strengthens users' ability to understand the benefits of financial applications but also improves their ability to use e-wallets optimally and safely.

More specifically, this study also found that financial literacy partially has a positive and significant effect on the decision to use e-wallets. This supports the findings of Munawwaroh (2024), which states that financial literacy can help individuals manage their finances well and make financial decisions wisely. Safitri (2025), (Baharun, 2023), & Febriyanti (2024) research also shows that a good understanding of financial concepts, products, and financial risks plays an important role in shaping healthy financial behavior, including in choosing

digital payment instruments. Thus, financial literacy not only provides an understanding of spending and saving but also equips individuals with the skills to use digital financial services responsibly.

Other findings show that digital literacy also has a significant influence on the decision to use e-wallets. This is in line with the theoretical framework of the Technology Acceptance Model (TAM), where perceptions of ease of use (perceived ease of use) and benefits (perceived usefulness) are key to accepting technology. In this context, digital literacy includes the skills of operating digital devices, understanding how financial applications work, and the ability to recognize digital risks such as data security and online fraud. This finding is also supported by research by Khoiroh et al. (2024), Nisa' (2024), and Herlina (2024), which shows that the higher a person's level of digital literacy, the more likely they are to use electronic payment services actively and effectively.

Theoretically, this study contributes to broadening the understanding of the factors that influence consumer behavior in the use of financial technology. By combining two forms of literacy in one analysis model, this study enriches the literature that has so far tended to discuss both separately (Abdullah, 2024; Hina, 2024; Sain, 2025; Umar & Khaer, 2024). This finding also provides additional validation of the TAM model in the context of e-wallet use among students. Practically, the results of this study provide a basis for policymakers in the education sector to develop more integrated financial and digital literacy improvement programs, especially for the younger generation who are in a transition period towards financial and digital independence (Bali & Heru, 2024).

However, the results of this study also make it clear that although most students have e-wallets and access to digital technology, not all of them utilize them optimally. This shows the need for a more applied literacy approach, not only limited to theory, but also through direct training, usage simulations, and experience-based learning. Educational institutions and financial technology developers need to work together in developing curricula or application features that can improve users' financial and digital literacy. In the future, similar research can be developed by adding other variables such as risk perception, social influence, or hedonic motivation, in order to enrich the understanding of decisions to use financial technology more comprehensively.

CONCLUSION

Based on the results of the research and discussion that have been conducted, several important conclusions were obtained. The main findings in this study indicate that financial literacy and digital literacy simultaneously have a positive and significant effect on the decision to use e-wallets among students. Partially, both variables also show a positive and significant effect. This provides

a lesson that a good understanding of financial concepts and skills in using digital technology are important keys in supporting wise financial decision-making, especially in utilizing digital payment services such as e-wallets.

Scientifically, this study contributes by strengthening empirical evidence regarding the influence of financial and digital literacy on financial behavior in the digital era, especially in the context of the younger generation. In addition, this study fills the gap in previous literature, which generally only examines one variable separately. With an approach that combines two forms of literacy at once, as well as the use of a structured measurement model, this study enriches studies in the fields of financial management, financial technology, and digital consumer behavior.

However, this study has several limitations. First, the scope of respondents is limited to students of the Faculty of Economics and Business, Padang State University, so the results cannot be generalized to a wider population. Second, the approach used is still quantitative, so it has not explored qualitative aspects that may influence user behavior in more depth, such as risk perception or social factors. Therefore, it is recommended for further research to expand the research object, use a mixed methods approach, or test a more complex behavioral model in order to gain a more comprehensive understanding of e-wallet usage in society.

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