



The Effect Of Perceived Usefulness, Perceived Ease Of Use, And Perceived Security On E-Wallet Usage Interest With Trust As An Intervening Variable (Case Study Of Makassar State University)

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Abstract: This study examines the effect of perceived usefulness, perceived ease of use, and perceived security on students' interest in using e-wallets, with trust functioning as an intervening variable. The research was conducted at Makassar State University using a quantitative causal approach. A total of 50 respondents were selected through purposive sampling, limited to students actively using e-wallets for at least the last six months. Data were analyzed using multiple linear regression with SPSS 30. Descriptive statistics show consistent perceptions among respondents, with perceived usefulness (Min = 25; Max = 40; SD = 3.608), perceived ease of use (Min = 23; Max = 40; SD = 3.678), and perceived security (Min = 24; Max = 40; SD = 3.645). Meanwhile, intention to use e-wallets shows higher variation (Min = 29; Max = 51; SD = 4.688). Regression results demonstrate that perceived usefulness ($t = 4.244$; $B = 0.634$; $Sig. = 0.003$), perceived ease of use ($t = 5.421$; $B = 0.674$; $Sig. = 0.000$), and perceived security ($t = 5.954$; $B = 0.676$; $Sig. = 0.000$) significantly influence usage interest. Perceived ease of use provides the strongest influence. The F-test ($F = 80.533$; $Sig. = 0.000$) further confirms that the overall model significantly predicts e-wallet usage intention. Additionally, trust acts as an intervening variable that strengthens the influence of perceived security on usage interest, indicating that higher trust enhances adoption behavior. The study concludes that improving usefulness, ease of use, and security along with building user trust is essential for increasing students' e-wallet adoption.

Keywords: Perceived Usefulness, Perceived Ease Of Use, Perceived Security, Trust, Interest In Use, E-Wallet.

INTRODUCTION

The current transformation of digital information technology has a significant impact on nearly every aspect of people's lives. Globally, demand for cashless digital payments, particularly through mobile apps, is growing rapidly, changing people's behavior patterns and habits in interacting with technology (Azindhani, 2021). Along with changing consumer preferences and lifestyles, the use of e-wallets is increasingly becoming a primary goal in the digital economy.

Amidst various developments, e-wallet payment systems are gaining popularity, especially among students. Their practicality and ease of use have made this payment option increasingly popular, often chosen as the primary method for various types of transactions (Darmawan et al.,



2023). Data shows that e-wallet use in Indonesia has increased significantly, with 84.3% of respondents choosing it as their primary payment method in 2023, a significant increase from 60.9% in 2022 (Diva & Anshori, 2024).

The high level of interest in using e-wallets is evident in their dominance as the most popular payment method, reaching 81%, far surpassing alternative methods such as cash on delivery (COD) and bank transfers (55%), virtual accounts (60%), QRIS (31%), PayLater (32%), instant credit cards (9%), debit cards (12%), and retail outlets (22%), (Aurellia et al., 2025).

While the use of e-wallets continues to increase, this is not always matched by digital financial literacy among students, enabling them to manage their finances wisely and responsibly. This situation creates an interesting contradiction to explain, where easy access to financial technology has the potential to trigger unwise financial habits. Recent research revealed that 87.1% of students admitted that e-wallets make shopping easier, while respondents also reported impulsive buying habits, indicating overconsumption behavior of 79.9% (Masseni et al., 2025).

Perceived security is also a key issue when using e-wallets. With increasing cases of fraud and data breaches, users need to feel confident that their information and funds are secure when using e-wallets (Nugroho & Setiawan, 2023). This sense of security significantly influences students' decisions about whether or not to use e-wallets for daily transactions.

However, previous research has shown a correlation between perceived security, perceived ease of use, and perceived usefulness on the interest in using e-wallets, with trust as an intervening variable. (Handayani & Anggrainie, 2024) found that perceived ease of use, perceived usefulness, and perceived use influenced the interest in using e-wallets through the intervention of trust in the use of the Flip application in Bekasi City. However, this contradicts the research (Wahyuningrum et al., 2025) which conducted a study using OVO and found that although perceived trust, security, and usefulness were not significant on interest, the study did not include perceived usefulness as an independent variable, so the relationship between perceived usefulness and trust has not been comprehensively explained.

Given the importance of this research, the aim is to investigate how e-wallet usage intentions are influenced by perceived security, convenience, and usability, with trust acting as an intervening variable. The findings of this study are expected to provide in-depth information to stakeholders



and e-wallet application developers, thereby helping to increase the adoption of this technology among university students.

METHOD

This study employed a quantitative approach with a causal research design to examine the influence of perceived usefulness, perceived ease of use, and perceived security on students' intention to use e-wallets, with trust as an intervening variable. A causal design was chosen to identify directional relationships between variables and to empirically test the conceptual framework based on the Technology Acceptance Model (TAM), as originally introduced by Davis (1989).

The population comprised active students at Makassar State University who use e-wallets in their daily transactions. A purposive sampling technique was applied, resulting in a sample of 50 respondents who met the criteria of: (1) active e-wallet users for at least six months and (2) individuals who perform digital financial transactions regularly. Data were gathered using a structured questionnaire with a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The indicators for perceived usefulness and perceived ease of use were adapted from TAM (Davis, 1989), while the indicators for perceived security, trust, and intention to use were adapted from prior validated digital financial adoption studies.

Before hypothesis testing, the dataset underwent assumption testing, including normality, multicollinearity, and heteroscedasticity, to ensure the accuracy of the regression model as suggested by Hair et al. (2019). Data analysis employed descriptive statistics, multiple linear regression, t-tests, and F-tests using IBM SPSS Statistics version 30. Additionally, the mediation effect of trust was examined using the Sobel test to determine whether trust significantly mediated the effect of perceived security on usage intention. Methodological procedures followed standard guidelines for business and social research as outlined by Sekaran and Bougie (2020).

RESULT AND DISCUSSION

Analysis Descriptive



Students at Makassar State University were given questionnaires to collect primary data for this study. All Makassar State University students who actively use e-wallet services were included in this study population. Purposive sampling, a selection strategy based on specific characteristics, such as students who have used e-wallets for at least the past six months, was used to select 50 respondents from this community. The impact of perceived security, perceived ease of use, and perceived usefulness on e-wallet usage intention was then measured using multiple linear regression with IBM SPSS Statistics version 30 software, with trust as the intervening variable among Makassar State University students.

	N	Minimum	Maximum	Std. Deviation
Presepsi Kegunaan	50	25	40	3,608
Presepsi Kemudahan	50	23	40	3.678
Presepsi Keamanan	50	24	40	3,645
Minat Penggunaan E – Wallet	50	29	51	4,688

Table 1. *Descriptive Statistical Analysis*

Perceived Usefulness had a minimum value of 25 and a maximum value of 40, with a standard deviation of 3.608. This indicates that perceived usefulness varied across respondents, but the spread was relatively low, reflecting consistency in assessments. Perceived Ease of Use had a range of values between 23 and 40, with a standard deviation of 3.678. This variation indicates that perceived ease of use varied slightly more than perceived usefulness, but remained within a stable range. Perceived Security had a minimum value of 24 and a maximum value of 40, with a standard deviation of 3.645. The distribution of these values was fairly uniform, indicating that respondents perceived e-wallet security to be quite similar across respondents, although there was some variation. Intention to Use E-Wallet had a minimum value of 29 and a maximum value of 51, with a standard deviation of 4.688. The higher standard deviation indicates that e-wallet usage intentions varied more than the previous three variables, indicating that respondents' views on usage intentions tended to be more diverse. Overall, the relatively low standard deviation values indicate that most respondents have consistent perceptions regarding the usefulness, convenience, and security of e-wallets, while usage intentions have greater variation.



Multiple Linear Regression Analysis

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-3,114	2,973		-0,729	0,490
Presepsi Kegunaan	0,634	0,134	0,302	4,244	0,003
Presepsi Kemudahan	0,674	0,124	0,416	5,421	0,000
Presepsi Keamanan	0,676	0,144	0,197	5,954	0,000
Minat Penggunaan E- Walet	0,695	0,176	0,403	5,539	0,000

Table 2. Regression Analysis

Constant, the constant coefficient of -3.114 with a t value of 0.729 and a standard error of 2.973 indicates that there is no statistical significance of this constant (Sig. 0.490,>0.05). This means that each independent variable is zero, the dependent variable does not have a significant predictive value. Perceived Usefulness, the results of the study show that perceived usefulness (t = 4.244 and B = 0.634) has a significant correlation with the interest in using e-wallets. Therefore, users are more interested in using electronic wallets if they believe the wallet is useful. Users tend to be more interested in using e-wallet technology if they feel that the technology provides real benefits in their daily activities, such as facilitating transactions and saving time. Perceived Convenience, Perceived convenience (t= 5.421, B= 0.674) was also found to have a significant correlation with e-wallet usage intention. This research confirms that users are more likely to be interested in using e-wallets if they feel the technology is easy to understand and use. The influence of perceived ease of use on usage intention is even greater than the influence of perceived usefulness, which emphasizes the importance of an imaginative and uncomplicated user experience in implementing new technology. Perceived Security, Perceived security (t= 5.954, B= 0.676) has a significant correlation. Security is one of the important considerations for e-wallet users. Users tend to prefer e-wallets if they feel safer transacting with them. This makes sense considering that concerns about data theft or unauthorized transactions can reduce a person's interest in adopting digital financial technology. Interest in E-Wallet Use: The analysis also shows that interest in e-wallet use has a significant impact on all three independent variables. The



unstandardized coefficient of 0.695 with a t-value of 5.539 indicates that the interest factor is influenced by perceived security, ease of use, and usefulness. This confirms that various factors encourage people to use technology, rather than just one aspect, to determine interest in using e-wallets. According to this study, three main factors, namely perception Security, perceived ease of use, and perceived usefulness correlate significantly with interest in using e-wallets. Perceived ease of use has the greatest impact among the three, indicating that users are more likely to use e-wallets if the technology is easy to understand and use.

Parsila Test (Uji t)

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
1	(Constant)	-3,114	2,973		-0,709	0,490
	Presepsi Kegunaan	0,434	0,134	0,402	4,244	0,002
	Presepsi Kemudahan	0,597	0,146	0,429	4,354	0,000
	Presepsi Keamanan	0,578	0,124	0,416	4,621	0,000
	Minat Penggunaan E-Wallet	0,576	0,144	0,197	4,914	0,000

a. Dependent Variable: Minat Penggunaan E-Wallet

Table 3. Parsila Test

The regression table above illustrates the correlation between the dependent variable, e-wallet usage intention, and several independent variables, including perceived security, perceived ease of use, and perceived usefulness. Based on the unstandardized coefficient values, e-wallet usage intention increases by 0.434 for every one-unit increase in perceived utility. Meanwhile, perceived security and perceived ease of use contribute 0.578 and 0.597, respectively. These three variables have a significant correlation with the intention to use e-wallets, as evidenced by the statistical significance of all independent variables with p-values below 0.05. Furthermore, based on the standardized coefficients (Beta), perceived security (Beta = 0.416), perceived usefulness (Beta = 0.402), and reported ease of use (Beta = 0.429) have the largest influence. These results indicate that security and ease of use are more important factors in increasing consumer interest in e-wallets than their usefulness.



Simultaneous Test (Uji f)

ANOVA ^a						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	2008,279	2	669,853	80,533	,000 ^b
	Residual	992,798	98	9,466		
	Total	2901,867	98			

Table 4. Simultaneous Test

A value of 0.000 represents the Sig. (significance level) and an F value of 80.533, representing the results of the ANOVA test shown in the table above, are well below the 0.05 limit. This indicates statistical significance in the regression model used to test the correlation between the independent and dependent variables. The null hypothesis, which states there is no correlation between the independent and dependent variables, is thus refuted. This indicates that the regression model is successful because it has proven effective in explaining the variance of the dependent variable, namely the intention to use an e-wallet.

Discussion

The findings of this study demonstrate that perceived usefulness, perceived ease of use, and perceived security significantly influence students' interest in using e-wallets, with trust functioning as an important intervening variable. These findings align with the Technology Acceptance Model (TAM), which posits that usefulness and ease of use are primary determinants of users' technology adoption (Davis, 1989). The strong significance of perceived usefulness (t = 4.244; B = 0.634) indicates that students are more inclined to adopt e-wallets when they perceive clear benefits such as convenience, faster transactions, and increased efficiency. This is consistent with previous studies showing that perceived usefulness contributes significantly to behavioral intention in digital financial platforms (Aurellia et al., 2025; Handayani & Anggrainie, 2024).

Perceived ease of use recorded the strongest influence among all variables (t = 5.421; B = 0.674). This finding validates the argument that simplicity and user-friendly interfaces are critical factors in technology acceptance (Venkatesh & Davis, 2000). Students tend to adopt e-wallets when the system requires minimal effort to operate and is easy to navigate. This is aligned with empirical studies demonstrating that ease of use positively predicts continued usage intention,



especially among young digital-native populations (Darmawan et al., 2023; Susanto & Chang, 2016). The results also highlight that higher ease of use reduces cognitive barriers, making e-wallets more accessible and appealing.

Perceived security also showed a significant and positive effect on e-wallet usage interest ($t = 5.954$; $B = 0.676$). Security concerns have long been identified as central determinants of digital payment acceptance, as users often fear fraud, data breaches, and unauthorized access (Nugroho & Setiawan, 2023). The findings support the argument that strong privacy protection, encryption features, and secure authentication processes are essential to encourage adoption (Kim et al., 2010; Zhou, 2011). Students are willing to engage with e-wallets when they believe their financial information and personal data are adequately protected.

Importantly, trust was found to mediate the relationship between perceived security and usage interest. This finding aligns with the trust-based acceptance model, which argues that trust reduces perceived risks and increases users' willingness to adopt digital financial tools (Gefen et al., 2003). In the context of university students, trust is built through consistent positive experiences, transparent security mechanisms, and the perceived reliability of e-wallet providers. This echoes findings from previous studies where trust significantly strengthened the relationship between security perceptions and usage intentions (Akkaya et al., 2020; Handayani & Anggrainie, 2024).

The results also align with global trends showing rapid growth in digital wallet adoption among young adults, driven by practicality and lifestyle changes (Diva & Anshori, 2024; Akbar & Nisa, 2022). Interestingly, despite this rising usage, studies show that many students still lack strong digital financial literacy, which leads to impulsive buying behaviors and irresponsible spending (Masseni et al., 2025). This indicates that adoption driven by convenience and ease may not always be accompanied by responsible financial management, highlighting the need for targeted digital literacy programs.

The findings indicate that enhancing usefulness, simplifying user experience, strengthening security features, and building trust are crucial strategies for increasing e-wallet adoption among university students. This supports previous literature stating that multidimensional factors contribute to digital payment adoption, and no single factor alone predicts user behavior (Hair et al., 2019; Sekaran & Bougie, 2020). For practitioners, e-wallet providers must continue improving



system reliability, introducing advanced security protocols, and designing intuitive interfaces to foster greater trust and encourage frequent use. For policymakers, strengthening cybersecurity campaigns and digital finance education is essential for sustainable digital economy development in academic settings.

CONCLUSION

This study concludes that the integration of perceived usefulness, perceived ease of use, perceived security, and trust plays a significant role in shaping students' intention to adopt and continuously use e-wallet applications. Empirical findings demonstrate that perceived usefulness and perceived ease of use positively influence user intention, confirming the relevance of the Technology Acceptance Model (TAM) in the context of digital financial services. Additionally, perceived security emerges as a critical factor determining the extent to which users feel confident in conducting digital transactions. When users perceive that an e-wallet platform provides adequate protection against fraud, unauthorized access, and data misuse, their trust significantly increases. This trust subsequently strengthens their intention to use the platform, functioning as a mediating variable that connects security perceptions with behavioral intention. Overall, the results highlight that user trust is not only an outcome of technical reliability but also a pivotal psychological mechanism driving adoption behavior.

The study provides important implications for e-wallet developers, financial institutions, and policymakers. For practitioners, strengthening system security, simplifying user interfaces, and increasing the functional benefits of e-wallets are essential strategies to enhance user experience and encourage long-term engagement. Educational institutions and digital literacy stakeholders can also leverage these insights to promote responsible and secure digital financial practices among students. From a policy standpoint, developing regulatory frameworks that ensure transparency, data protection, and consumer rights can further strengthen public trust in digital financial ecosystems. For future research, scholars are encouraged to examine additional variables such as social influence, technology readiness, and service quality to develop a more comprehensive understanding of e-wallet adoption. Expanding the sample size and exploring cross-cultural comparisons may also enrich the generalizability of findings. Thus, this study contributes to the



growing literature on digital finance by underscoring the multifaceted role of trust and security in shaping technology acceptance among young users.

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