THE EFFECT OF PERCEIVED SECURITY, PERCEIVED EASE OF USE, AND PERCEIVED USEFULNESS ON INTEREST IN USING LINKAJA E-WALLET IN MATARAM CITY

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Abstract

This study aims to determine the influence of Perceived Security, Perceived Ease of Use, and Perceived Usefulness on the Interest in Using LinkAja E-wallet in Mataram City. The sample in this study amounted to 112 respondents taken using probability sampling with purposive sampling technique. Data collection used a questionnaire with a Likert scale of 1-5. The analytical tool used is multiple linear regression analysis using SPSS Software Version 27, Classical assumption testing, partial testing (t-test), simultaneous testing (f-test) and coefficient of determination (R2). The results of this study indicate that the variable Perceived Security (X1) has a negative and significant effect on Interest in Using (Y). Meanwhile, the variables Perceived Ease of Use (X2) and Perceived Usefulness (X3) have a positive and significant effect on Interest in Using (Y).

Keywords: Perceived Security, Perceived Ease of Use, Perceived Usefulness, Interest to Use, E-wallet

INTRODUCTION

The development of digital technology has brought about significant changes in the global financial system. One rapidly growing innovation is digital financial services, or financial technology (fintech), particularly in the form of digital wallets (e-wallets). Through these services, people can conduct cashless transactions more quickly, easily, and securely. In Indonesia, digital transaction growth is increasing significantly every year. Data from Bank Indonesia shows that e-money transactions in 2024 increased by 35.76% compared to the previous year (Kusnandar, 2024). A survey conducted by Jakpat (2024) also showed that e-wallets are the most widely used payment method among Indonesians, surpassing mobile banking, cash on delivery (COD), and ATM transfers (Yonatan, 2024).

As digital payment adoption increases, various e-wallet service providers have emerged in Indonesia, both from the private sector and state-owned enterprises. One e-wallet product developed by a state-owned enterprise (BUMN) is LinkAja, managed by PT Fintek Karya Nusantara (Finarya) and officially licensed by Bank Indonesia (Khoir & Soebiantoro, 2022). Despite having government support and an extensive network, LinkAja usage rate still lags behind its competitors.

Based on a survey conducted by Databoks (2024) on the popularity of e-wallets in Indonesia, LinkAja ranks lowest in terms of user numbers. These findings indicate that LinkAja's market penetration remains limited, especially compared to the dominance of Gopay and Ovo, which occupy the top positions (Rania, 2025). This phenomenon demonstrates that certain factors still influence public interest in using LinkAja, particularly in urban areas like Mataram City, where competition among e-wallet providers is increasingly fierce.

Furthermore, to understand technology adoption behavior such as e-wallets, this study refers to the Technology Acceptance Model (TAM) theory developed by Fred D. Davis (1989). The TAM model is an extension of the Theory of Reasons for Action (TRA) developed by Fishbein and Ajzen (1975), which explains that a person's intention to behave is influenced by attitudes and subjective norms. Furthermore, Davis adapted this theory to the context of technology by introducing two main concepts: perceived usefulness and perceived ease of use (Davis, 1989).

Several previous studies have explored the factors influencing e-wallet usage, but most have focused on popular platforms like Gopay, Ovo, and Dana. Research on the LinkAja platform, particularly in Mataram City, remains scarce, making it an interesting topic for further investigation. The low usage of LinkAja is evident in various regions, including Mataram City, where digital service adoption continues to increase, but people still prefer other e-wallet brands.

Based on this description, this study aims to analyze the influence of perceived security, perceived ease of use, and perceived usefulness on interest in using the LinkAja e-wallet in Mataram City. These findings are expected to contribute to fintech service developers, particularly LinkAja, in increasing user trust and competitiveness in the digital wallet market.

REVIEW OF LITERATURE

Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) theory was developed by Davis (1989) as one of the most influential theories in explaining user acceptance of technology. TAM explains that a person's intention to use a system is determined by two main beliefs: perceived usefulness and perceived ease of use. These two factors influence an individual's attitude and interest in using new technology (Widanengsih, 2021).

This study adopts a modified TAM model by adding the perceived security variable as an additional independent variable to explain people's interest in using the LinkAja e-wallet in Mataram City.

Perceived Security

Perceived security describes the extent to which users feel confident that the e-wallet system is capable of protecting their personal information and financial transactions from the risk of misuse (Kumala et al., 2020). Using e-wallet services continuously Perceived Security indicators adapted from previous research (Bakhtiar et al., 2020).

1. System security
2. Information protection guarantee
3. Do not misuse personal data

Perceived Ease of Use

Perceived ease of use refers to the belief that using a technology does not require a great deal of effort to learn or operate (Davis, 1989).

Indicators of perceived ease of use include:

1. Easy to learn.
2. Easy to use
3. Easy to operate.
4. Controllable

Perceived Usefulness

Perceived usefulness is a person's level of belief that using a particular system can improve their job performance. Perceived usefulness plays a major role in a person's intention to use a technology (Venkatesh & Davis, 2000).

Perceived Usability indicators include:

1. Improve performance
2. Increase productivity
3. Increase effectiveness

Interest in Using

Interest in using can be defined as something that arises after receiving a stimulus or encouragement from a product that is seen, which then gives rise to an interest in trying the product (Kesuma & Nurbaiti, 2023).

The interest indicators used were adapted from previous research (Bakhtiar et al., 2020).

1. Intention to use
2. The desire to use
3. Transaction
4. Recommendation

RESEARCH METHOD

Research Design

This research uses a quantitative method with an associative approach. Associative research is research used to measure the relationship between two or more variables (Sugiyono, 2022). The quantitative research was conducted using a survey method. The survey involved distributing a questionnaire on a Likert scale of 1-5 to respondents, namely residents of Mataram City who had or were currently using the LinkAja e-wallet.

Research Time and Location

The research was conducted in Mataram City, West Nusa Tenggara, an area with a relatively high penetration rate of digital financial services. The study was conducted from September to December 2025.

Population and Sampling

The population in this study included all residents of Mataram City who were aware of and had used the LinkAja app as a digital transaction tool. Mataram City was chosen because it has urban characteristics with a high penetration rate of digital financial services, and represents a group of active users in non-cash transactions such as transportation payments, online shopping, and routine bills.

The research sample was determined using purposive sampling, a sampling method based on specific criteria relevant to the research objectives. The respondent criteria used included:

1. Domiciled in Mataram City.
2. Aged between 18–35 years, which is the productive age group with the highest level of e-wallet usage.
3. Know and have used the LinkAja application for at least one transaction.

The number of samples in this study was 112 people who met the research criteria and were assessed as being able to provide data relevant to the research objectives regarding the LinkAja e-wallet in Mataram City (Hair et al., 2014).

RESULTS AND DISCUSSION

Respondent Overview

The respondents who were sampled in this study numbered 112 people who were residents of Mataram City who knew, had or were currently using the LinkAja e-wallet.

Table 1.
Respondent Characteristics

No.	Category	Description	Number of People	Percentage (%)
1.	Gender	Man	54	48.2%
		Woman	58	52.8%
2.	Age	18-23 years old	87	77.7%
		24-29 years old	21	18.8%
		30-35 years	4	3.6%
3.	Income/month	<Rp1 million	36	32.1%
		1 - 2 million	52	46.4%
		3 -4 million	23	20.5%
		>5 million	1	0.9%

4.	Status/occupation	Student	61	54.5%
		Employees	30	26.8%
		Businessman	19	17%
		Etc	2	1.8%

Source: Processed Data (2025)

Based on the research results, the respondents in this study were predominantly female compared to male. There were 58 female respondents (52.8%) and 54 male respondents (48.2%). The majority of respondents in this study were aged 18-23, totaling 87 (77.7%). This indicates that the respondents were predominantly young adults who actively use technology and digital financial services, including e-wallets.

Research Instrument Test

Validity And Reliability Test

After testing the validity of the calculated r-value for each instrument of Perceived Security, Perceived Ease of Use, Perceived Usefulness, and Interest in Using, it was greater than the r-table, so all statement items in the questionnaire were declared valid. Therefore, all questionnaire items can be used in the study. Furthermore, the results of the reliability test showed that all variables had a Cronbach's Alpha value ≥ 0.70. This indicates that all items in the questionnaire were declared reliable, so the instrument is suitable for use for further analysis.

Classical Assumption Test

Normality Test

Table 2.
Normality Test Results

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		112
Normal Parametersa,b	Mean	,0000000
	Standard Deviation	2.91194833
Most Extreme Differences	Absolute	,047
	Positive	,047
	Negative	-,047
Test Statistics		,047
Asymp. Sig. (2-tailed) c		,200d
a. Test distribution is Normal.		
b. Calculated from data.		

Source: Processed Data (2025)

Based on the results of normality using the Kolmogorov-Smirnov test, a sig. value of 0.200 was obtained, which is greater than 0.05. This indicates that the data is varied and normally distributed.

Multicollinerity Test

Table 3.
Multicollinearity Test Results

Coefficients

Model	Collinearity Statistics	
	Tolerance	VIF
(Constant)		
Perceived Security	.232	4,307
Perceived Ease of Use	.241	4.157
Perceived Usefulness	.263	3,805

a. Dependent Variable: Interest in Using

Source: Processed Data (2025)

Based on the data above, it shows that all variables have a Tolerance value > 0.10 and a VIF value < 10. Thus, it can be concluded that the regression model in this study is free from multicollinearity symptoms.

Heterokedasticity Test

Table 4.
Heteroscedasticity Test Results

Coefficients			
Model		t	Sig.
1	(Constant)	2,016	,046
	Perceived Security	,535	,594
	Perceived Ease of Use	,752	,454
	Perceived Usefulness	-1,030	,305

Source: Processed Data (2025)

Based on the results of the heteroscedasticity test using the Glejser test, it was found that all independent variables had a significance value > 0.05. Thus, it can be concluded that there are no symptoms of heteroscedasticity in the regression model.

Multiple Linear Regression Analysis

Table 5.
Multiple Linear Regression Analysis

Model	Unstandardized Coefficients B		Standard Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	9,083	1,173		7,743	<,001
Perceived Security	-,886	,087	-,072	-10,203	<,001
Perceived Ease of Use					
Perceived Usefulness	,679	,069	,757	9,689	<,001
	,878	,094	,698	9,369	<,001

a. Dependent Variable: Interest in Using

Source: Processed Data (2025)

Based on the results in the table above, the Unstandardized Coefficient β value can be formulated as a multiple linear regression equation. Based on the results of the regression test, the constant coefficient value is 9.083, the coefficient of perceived security is -0.886, Perceived Ease of Use is 0.679, and Perceived Usefulness is 0.878. $Y = 9.083 - 0.886X1 + 0.679X2 + 0.878\ X3 + e$. Based on the regression test results, the constant coefficient value is 9.083, the coefficient of the perceived security is -0.886, the perceived ease of use is 0.679, and the perceived usefulness is 0.878.

T-Test

Based on the results of table 6, it can be concluded that the influence of each independent variable on the dependent variable is that the Perceived of Security variable has a t-count value of -10.203 with a sig. <0.001. Then H1 is accepted, which means that Perceived of Security has a negative and significant effect on the Interest in Using the LinkAja e-wallet in Mataram City. Furthermore, the Perceived of Ease of Use variable has a t-count value of 9.689 with a sig. <0.001, then H2 is accepted, which means that Perceived of Ease of Use has a positive and significant effect on the Interest in Using the LinkAja e-wallet in Mataram City. The Perceived of Usefulness variable has a t-count of 9.369 with a sig. <0.001. Then H3 is accepted, which means that Perceived of Usefulness has a positive and significant effect on the Interest in Using the LinkAja e-wallet in Mataram City.

F-Test

Table 6.
ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	2350,834	3	783,611	174,979	<.001b
Residual	483,657	108	4,478		
Total	2834,491	111			

a. Dependent Variable: interest in using

b. Predictors: (constant), Perceived Security, Perceived Ease of Use, Perceived Usefulness

Source: Processed Data (2025)

Based on the table above, the F-count value is 174.979 and its significance is <0.001. The F-count value is greater than the F-table (174.979 > 2.69) and sig. <0.001 < 0.05, so it can be concluded that there is an influence between the variables of Perceived Security (X1), Perceived Ease of Use (X2) and Perceived Usefulness (X3) simultaneously or together on the variable Interest in Using (Y) LinkAja E-wallet in Mataram City

Coefficient of Determination (R2)

Table 7.
Coefficient of Determination

Model Summary				
Model	R	R Square	Adjusted R Square	Standard Error of the Estimate

1	,911a	,829	,825	2,116
a. Predictors: (Constant), Perceived Security, Perceived Usefulness, Perceived Ease of Use				
b. Dependent Variable: Interest in Using				

Source: Processed Data (2025)

From the data above,The adjusted R2 value of 0.825 indicates that the variables of perceived security, perceived ease of use, and perceived usefulness together explain 82.5% of the variation in interest in using the LinkAja e-wallet in Mataram City. The remaining 17.5% is explained by other variables outside this study.

The Influence of Perceived Security on Interest in Using the LinkAja E-wallet in Mataram City

The first hypothesis assumes that perceived security significantly influences user intention. The test results support this hypothesis. A coefficient of -0.886 indicates a negative effect, while a significance value of <0.001 confirms this significant relationship. This means that increased user attention to security aspects, such as multi-layered verification processes and repeated OTP codes, makes transactions less convenient, which can actually decrease their interest in using the LinkAja e-wallet app.

The Influence of Perceived Ease of Use on Interest in Using the LinkAja E-wallet in Mataram City

The second hypothesis assumes that perceived ease of use significantly influences intention to use. The test results support this hypothesis. A coefficient of 0.679 indicates a positive effect, while a significance value of <0.001 confirms this significant relationship. This means that the easier the LinkAja e-wallet app is to use, the more likely users are to continue using it.

The Influence of Perceived Usefulness on Interest in Using the LinkAja E-wallet in Mataram City

The third hypothesis assumes that perceived usefulness significantly influences intention to use. The test results support this hypothesis. A coefficient of 0.878 indicates a positive effect, while a significance value of <0.001 confirms this relationship is significant. This means that the greater the perceived usefulness, the greater their intention to use the LinkAja e-wallet app.

CONCLUSION

1. Perceived of security have a significant negative impact on interest in using the LinkAja e-wallet. This means that increased user concern about security can actually decrease interest in using it. This is due to the perceived complexity of the app's security system, which reduces transaction convenience.
2. Perceived ease of use has a positive and significant impact on interest in using the LinkAja e-wallet. This means that the easier an app is to use, the higher the public's interest in using it.
3. Perceived usefulness has a positive and significant impact on interest in using the LinkAja e-wallet. This means that the greater the benefits perceived by users, the greater their interest in using it.

REFERENCES

Bakhtiar, M. R., Kartika, E., & Listyawati, I. (2020). Faktor-faktor pengaruh minat nasabah pengguna internet banking Bank Syariah Mandiri. *Al Tijarah*, *6*(3), 156. https://doi.org/10.21111/tijarah.v6i3.5696

Davis, F. (1989). Perceived Usefulness Perceived Ease of Use, and User. MIA Quarterly. *MIA Quarterly*, *13*(3), 319–340.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2014). Multivariate Data Analysis. In *Neuromarketing in India: Understanding the Indian Consumer* (7th ed.).

Isbahi, M. B., Zuana, M. M. M., & Toha, M. (2024). The Multi-Social Relation of the Cattle Industry in the Plaosan Subdistrict Animal Market of Magetan Regency. *Malacca: Journal of Management and Business Development* , *1*(1), 31–46. https://doi.org/10.69965/malacca.v1i1.51

Kesuma, P., & Nurbaiti, N. (2023). Minat Menggunakan E-Wallet Dana Di Kalangan Mahasiswa Di Kota Medan. *Jesya*, *6*(1), 694–703. https://doi.org/10.36778/jesya.v6i1.979

Khoir, M. M., & Soebiantoro, U. (2022). *Pengaruh Persepsi Kemudahan Penggunaan dan Promosi terhadap Minat Penggunaan E-Wallet LinkAja di Kota Surabaya*. *7*(2), 752–756. https://doi.org/10.33087/jmas.v7i2.619

Kumala, D. C., Pranata, J. W., & Thio, S. (2020). Pengaruh Perceived Usefulness, Perceived Ease of Use, Trust, Dan Security Terhadap Minat Penggunaan Gopay Pada Generasi X Di Surabaya. *Jurnal Manajemen Perhotelan*, *6*(1), 19–29. https://doi.org/10.9744/jmp.6.1.19-29

Kusnandar, V. B. (2024). *Nilai Transaksi Uang Elektronik Capai Rp1,6 Kuadriliun pada Januari-Agustus 2024*. Databoks - Katadata.Co.Id. https://databoks.katadata.co.id/keuangan/statistik/673216a38c1bc/nilai-transaksi-uang-elektronik-capai-rp16-kuadriliun-pada-januari-agustus-2024

Rania, D. (2025). *Survei Dompet Digital Paling Favorit di Indonesia*. https://jubelio.com/hasil-survei-dompet-digital-paling-favorit-di-indonesia/

Sugiyono. (2022). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D* (2nd ed.). ALFABETA.

Venkatesh, V., & Davis, F. D. (2000). Theoretical extension of the Technology Acceptance Model: Four longitudinal field studies. *Management Science*, *46*(2), 186–204. https://doi.org/10.1287/mnsc.46.2.186.11926

Widanengsih, E. (2021). Technology Acceptance Model To Measure Customer'S Interest To Use Mobile Banking. *Journal of Industrial Engineering & Management Research*, *2*(1), 2722–8878. http://www.jiemar.org

Yonatan, A. Z. (2024). E-Wallet Jadi Metode Pembayaran E-Commerce Pilihan Indonesia. *GoodStats*. https://goodstats.id/article/e-wallet-jadi-metode-pembayaran-e-commerce-pilihan-indonesia-paaB9