

The Influence Of Security Perceptions And Digital Payment Usage On The Decision To Use The Brimo Application In Bandar Lampung

Aria Najwa Devana¹, Maulana Agung P², M Iqbal Harori³

^{1, 2, 3} Faculty of Social and Political Science, Lampung University

Email: najwadevana11@gmail.com, maulana.agung@fisip.unila.ac.id,
miqbalharori@fisip.unila.ac.id

Abstract

This scientific study aims to examine the influence of security perceptions and digital payment usage on the decisions of Bandar Lampung residents in using the BRImo application. The development of digital banking services has encouraged people to rely more on mobile banking applications for financial transactions. Therefore, the security and convenience of online payments are important factors in the user decision-making process. This study uses a quantitative approach with data collection methods through the distribution of online questionnaires to BRImo app users in Bandar Lampung. The data obtained was analyzed using multiple linear regression techniques to determine the extent of the influence of independent variables on usage decisions. The results of the study show that perceptions of security and the use of digital payments have a positive and significant impact on the decision to use the BRImo application. These findings indicate that the higher the sense of security felt by users and the more often they use digital payments, the more likely they are to choose the BRImo application.

Keywords: Security perception, digital payment, usage decisions, BRImo.

INTRODUCTION

The development of financial technology (fintech) in Indonesia has driven the transformation of banking services from traditional models to online-based models, particularly through the use of mobile banking applications and digital payments. This

218

IJEBIR, Volume 05 Issue 02, 2026



Copyright at authors some right reserved this work is licensed under a [Creative Commons Attribution-ShareAlike 4.0 International License](https://creativecommons.org/licenses/by-sa/4.0/).

development has increased the public's ability to conduct various financial transactions quickly, effectively, and efficiently, and can be adapted to various situations, times, or places (Bank Indonesia, 2024). One of the most popular digital banking services is the BRImo application, developed by PT Bank Rakyat Indonesia (Persero) Tbk as a mobile banking solution. This application provides digital payment features, fund transfers, and various other banking services (BRI, 2024).

The sense of security felt by users greatly influences their interest and choice in using digital services, such as mobile banking and electronic payment systems like QRIS and digital wallets. This is because the higher the level of security they feel, the greater their trust in relying on digital banking applications in their daily routines (Aderia, 2025). On the other hand, the use of digital payments provides convenience and comfort for users when conducting daily transactions. As a result, the positive experience they get from these payment services can encourage their decision to remain loyal to using the BRImo application as their main tool for transactions (Adelia & Hargyatni, 2025).

The influence of security perceptions and digital payment usage on the decisions of Bandar Lampung residents to use the BRImo app. The financial and social conditions, as well as behavioral patterns in utilizing technology in this region, differ from other regions, making it very important to conduct empirical research that simultaneously tests the impact of these variables.

This study aims to analyze the extent to which security perceptions and frequency of digital payment usage influence the choices of Bandar Lampung residents in adopting the BRImo application. Thus, we can understand how an increase in user security and their intensity in utilizing electronic payment services can encourage their decision to rely on digital banking applications as a means of daily transactions.

LITERATURE REVIEW

Security Perception

A person's perception of security is a psychological factor that greatly influences their decision to use digital services, especially mobile banking. This perception is related to users' belief that the system they are using is capable of protecting their personal data, maintaining the confidentiality of information, and ensuring that financial transactions are carried out correctly and accurately. More specifically, security perception can be defined as the level of user confidence that digital transactions are protected from threats or risks such as data theft, fraud, and cyber attacks (Suh and Han, 2002).



This emphasizes that the better the perception of security, the more loyal users are to mobile banking services. This is because applications that successfully build high trust will make users more open to using them, not only for basic functions, but also for additional features such as QRIS, e-commerce payments, and digital account opening (Ramadhani, 2023).

Use of digital payments

Digital payments are defined as payment systems that utilize digital technology, such as electronic money, mobile banking, internet banking, and QRIS-based payments (Bank Indonesia, 2022).

People who are accustomed to using digital wallets or other digital payment applications are usually reluctant to switch to mobile banking platforms. They are only willing to switch if there is a compelling reason, such as attractive new features, enticing promotions, or stronger security guarantees. This shows that digital transactions are no longer just an option, but have become an integral part of the modern lifestyle (Putri & Rahmawati, 2023).

Decision To Use The BRImo Application

The final stage in the consumer decision-making process is when they finally decide to use the application. Here, users evaluate the benefits, risks, and experiences gained from the service, then decide whether to use it. There are three main factors that influence people's decisions to use or purchase a service. Personal factors include age, profession, lifestyle, and level of education, which can shape what a person needs and likes. Meanwhile, social factors include the influence of family, friends, and trends around them that encourage people to start using the service (Kotler & Keller, 2016).



Conseptual Framework

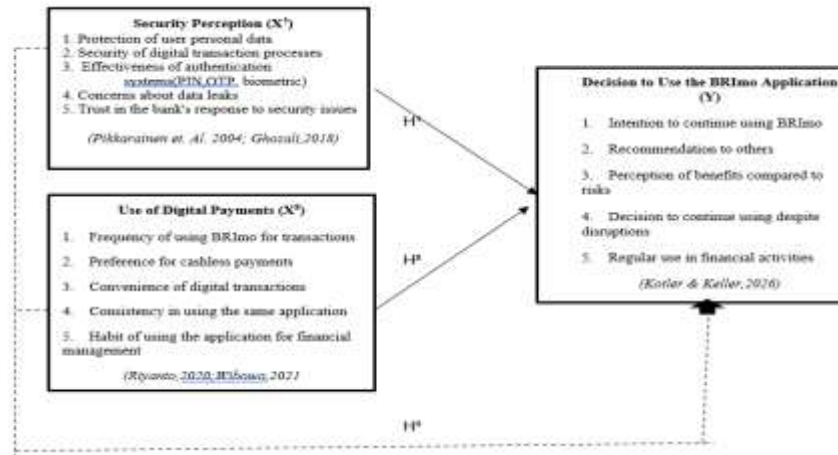


Figure 1. Conceptual Framework

H¹: The Influence Of Security Percepts On The Decision To Use The Brimo Application

H²: The influence of digital payment usage on the decision to use the BRImo application

H³: The influence of perceived security and digital payment usage on the decision to use the BRImo application

RESEARCH METHODS

This study uses a quantitative approach with associative research techniques to measure the effect of security perceptions and digital payment usage on the decisions of Bandar Lampung residents in using the BRImo application. Numerical data was obtained from primary sources through the distribution of questionnaires to respondents who were users of the BRImo application. The research sample consisted of 30 people selected using random sampling methods. The sample represents a portion of the population with characteristics that are in line with the research objectives (Sugiyono, 2017), namely BRImo app users in Bandar Lampung. The research tool was a Google Forms-based questionnaire with a 1-5 Likert scale. Data collection was carried out directly by distributing questionnaires through platforms such as WhatsApp, Instagram, and TikTok. This study was based on consumer behavior theory and previous research on the influence of security perceptions and digital payment usage on the decision to use the BRImo application. The collected data was then analyzed using SPSS software version 31.

RESULT**Validity Measurement****Table 1. Validity Measurement Outcome**

Variabel	Item Question	r _{value}	r _{tabel}	Result
Security perception (X1)	X2.1	0,906	0,361	Valid
	X2.2	0,888	0,361	Valid
	X2.3	0,848	0,361	Valid
	X2.4	0,877	0,361	Valid
Use of digital payments (X2)	X3.1	0,899	0,361	Valid
	X3.2	0,702	0,361	Valid
	X3.3	0,906	0,361	Valid
	X3.4	0,868	0,361	Valid
	X3.5	0,915	0,361	Valid
	X3.6	0,858	0,361	Valid
Decision To Use The BRLmo Application (Y)	Y1	0,864	0,361	Valid
	Y2	0,846	0,361	Valid
	Y3	0,825	0,361	Valid
	Y4	0,895	0,361	Valid
	Y5	0,816	0,361	Valid
	Y6	0,904	0,361	Valid
	Y7	0,881	0,361	Valid

Based on the validity test results, all statement items had correlation coefficients greater than r_{tabel} , therefore all research instruments were declared valid and suitable for use.

Realibility Measurement**Tabel 2. Realibilty Measurement Outcome**

Variabel	Koefisien Cronbach's Alpha	standard	Result
Security perception (X1)	0,902	0,60	Very Reliable
Use of digital payments (X2)	0,928	0,60	Very Reliable



Decision To Use The BRLmo Application (Y)	0,940	0,60	Very Reliable
---	-------	------	---------------

The reliability test results show that Cronbach's Alpha values for all variables are above 0.60. This means that the questionnaire is consistent and reliable, making it safe to use in the next stage of research.

Classical Assumption measurement

Normality Measurement

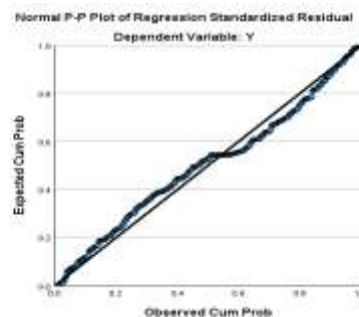


Figure 2. Normality Measurement (Probability Plots) Outcome

The results of the normality test using the normal P-P Plot graph show that the data points are normally distributed along the diagonal line. This proves that the data is normally distributed, so that the regression model has met the required normality assumption.

Heteroskedasticity Measurement

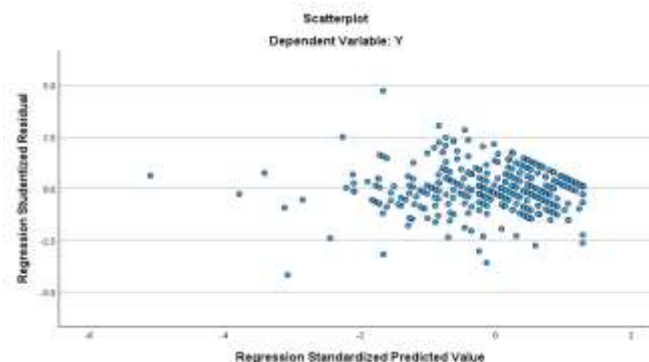


Figure 3. Heteroscedasticity Measurement (Scatterplot) Outcome

The results of the heteroscedasticity test using Scatterplot show that the data points are scattered randomly above and below zero on the Y-axis. This irregular distribution pattern indicates the absence of heteroscedasticity or the presence of homoscedasticity, meaning that the regression model meets the necessary classical assumptions.

Multicollinearity Measurement

Table 3. Multicollinearity Measurement

<i>Model</i>		<i>Colinearity Statistics</i>	
		<i>Tolerance</i>	<i>VIF</i>
1	(Constant)		
	Security perception	0,455	2,199
	Use of digital payments	0,486	2,060
a. Dependent Variable: Decision To Use The BRImo Application			

The test results in the table show that all independent variables have VIF values below 10 and Tolerance values above 0.1. Thus, it can be concluded that this regression model is free from multicollinearity issues.

Multiple Linear Regression Scrutiny

Table 4. Multiple Linear Regression Scrutiny

<i>Coefficients^a</i>					
<i>Model</i>		<i>Unstandardized Coefficients</i>		<i>Standardized Coefficients</i>	
		<i>B</i>	<i>Std. Error</i>	<i>Beta</i>	
1	(Constant)	1.295	.976		1.326
	Security perception	.426	.073	.236	5.858
	Use of digital payments	.655	.046	.562	14.386
a. Dependent Variable: Keputusan Penggunaan Aplikasi BRImo					

Based on the analysis results in the table above, a constant value of 1.295 was obtained. The regression coefficient for the security perception variable was 0.426, while for digital payment usage it was 0.655. These figures indicate that security perception



and digital payment usage have a positive effect on the decision to use the BRImo application in the city of Bandar Lampung.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \epsilon$$

$$Y = 1,295 + 0,495X_1 + 0,655 X_2 + \epsilon$$

Based on the regression analysis results, it can be explained as follows:

1. The regression equation shows a constant of 1.295, which means that if both independent elements, security perception and digital payment usage, are zero, the usage decision becomes 1.295.
2. The regression constant for security perception (X1) is 0.426, which indicates that for every 1-unit increase in security perception, the decision to use will increase by 0.426.
3. The regression constant for digital payment usage (X2) is 0.655, which means that for every 1-unit increase in digital payment usage, the usage decision will increase by 0.655. This favorable constant indicates that digital payment usage has a favorable effect on the usage decision.

Hypothesis Measurement

Partial Measurement (t-Measurement)

Table 5. Partial Measurement Outcome

Coefficients ^a					
Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.295	.976		1.326	.185
Security perception	.426	.073	.236	5.858	<.001
Use of digital payments	.655	.046	.562	14.386	<.001
a. <i>Dependent Variable:</i> Kaputusan Penggunaan Aplikasi BRImo					

1. The Security Perception measurement shows a t-score of 5.858, exceeding the t-table benchmark of 1.966. A significance level of 0.001 indicates that security perception plays an important and supportive role in usage decisions.



2. The digital payment usage measurement shows a t-score of 14.386, above the t-table benchmark of 1.966. A significance level of 0.001 indicates that digital payment usage plays a meaningful and beneficial role in shaping usage decisions.

Simultaneous Measurement(F-Measurement)

Table 6. Outcome of the Simultaneous Measurement (F-Measurement)

ANOVA^a					
Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	6246.732	3	2082.244	318.579	<,001b
Residual	2588.268	396	6.536		
Total	8835.000	399			
a. <i>Dependent Variable:</i> Decision To Use The BRImo Application					
b. <i>Predictors: (Constant)</i> , Security perception, Use of digital payments					

As explained above in the F measurement results, the measured F level exceeded the F table level ($78.156 > 3.09$) with a probability of 0.001, which is below 0.05. This indicates that the perception of security and the use of digital payments have a significant and simultaneous influence on the decision to use the BRImo application in Bandar Lampung. A comparison of the F value and the F-table leads to the conclusion that the alternative hypothesis (H_a) is supported in this study.

Constant Of Determination (Adjusted R²)

Table 7. Outcome of the Constant Of Determination (Adjusted R²)

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.841 ^a	0.707	0.705	2.55657
a. <i>Predictors: (Constant)</i> , Security perception, Use of digital payments				

The constant correlation results show that security perceptions and digital payment usage have a strong and favorable relationship with usage decisions, with a value of 0.841. The R² value of 0.707 indicates that 70.7% of the variation in usage decisions is



explained by these two factors, while the remaining 29.3% is influenced by other factors not considered in this study.

DISCUSSION

The Influence of Security Perception on the Decision to Use the BRImo Application

These findings are in line with the results of a study by Sari et al. (2025), which shows that perceptions of security have a positive and significant impact on the use of mobile banking services. The study explains that the main factors users consider before deciding to use digital banking services are transaction security and data protection. There is also a similar study by Aurenza et al. (2025), which found the same thing, namely that security perceptions have a positive and significant impact on the use of mobile banking. Therefore, the results of this study support the theory of technology use, especially in the field of digital financial services, where the perception of security is a key factor that influences people's decisions to use digital banking applications such as BRImo. In other words, the better the perception of security felt by users, the higher their trust and tendency to continue using the application.

The influence of using digital payments on decisions to use the BRImo application

These results are consistent with the Technology Acceptance Model (TAM) study, which states that people who have used technology before will find it easier and more useful, so users are more willing to continue using the system (Davis, 1989). Here, users prefer the BRImo application because they use digital payments more often. In addition, the results of this study are also in line with the view (Jogiyanto, 2007), which states that experience and habits in using information systems can influence people's attitudes and decisions in accepting new technologies. In other words, the more often they use digital payments, the fewer psychological and technical barriers they feel when using digital banking applications.

The influence of security perceptions on the decision to use the BRImo application

These findings are consistent with previous research in Indonesia that discusses the adoption and use of digital banking services. Perceptions of security play a crucial role in building trust and decisions to use mobile banking applications. Based on this study, the main factors considered by users before deciding to use digital banking services are personal data security, transaction security, and a reliable authentication



system. In other words, the more secure users feel about digital banking services, the more often they will use them (Rahmadhani, 2023).

CONCLUSION

Perceptions of security have a beneficial and significant influence on the decision to use the BRImo app partially. Perceptions of security play a major role in building user confidence and trust in digital banking systems, reflecting a sense of security in conducting transactions and protecting personal data. The higher the level of security perceived by users, the greater the tendency for users to decide to use the BRImo app as a means of financial transaction.

The use of digital payments has a positive and significant influence on the decision to use the BRImo application partially. The use of digital payments serves as a means of convenience and efficiency in conducting financial transactions, allowing users to complete various payment needs practically and quickly. The higher the level of payment service usage, the greater the tendency for users to decide to use the BRImo application as the main medium for conducting financial transactions.

Perceptions of security and the use of digital payments simultaneously have a positive and significant effect on the decision to use the BRImo application. Perceptions of security play a role in building a sense of security and trust in the use of digital payments, which provide convenience and efficiency in conducting financial transactions. The combination of the perceived level of security and the intensity of use of digital banking services encourages users to decide to use the BRImo application as the main means of meeting their daily financial transaction needs.

SUGGESTIONS

1. Other researchers are advised to conduct comparative studies by comparing the behavior of application users in other regions of Indonesia to identify differences in the level of security perception, use of digital payments, and other factors that influence the decision to use digital banking applications. The findings in this study can be used as a reference and basis for further research on similar topics.
2. This study is expected to provide insights for banks, particularly PT Bank Rakyat Indonesia (Persero) Tbk, in increasing the use of the BRImo application through strengthening the security system and optimizing digital payment features. Improvements in data, transaction security, and system transparency are expected to increase user trust. In addition, the development of digital payment features that

228



are easy to use, responsive, and tailored to user needs can encourage the public to use BRImo on an ongoing basis, thereby increasing customer satisfaction and loyalty to digital banking services.

REFERENCE

- Adellia & Hargyatni, *The Influence of Perceived Security, Ease of Use, Promotion, and Trust on the Intention to Use Digital Payments* menunjukkan bahwa persepsi keamanan dan variabel lain berkontribusi pada keputusan penggunaan payment system. DOI: <https://doi.org/10.51903/manajemen.v5i1.966>
- Aurenza, N. F., Pakawaru, I., & Munir, N. (2025). Pengetahuan dan literasi digital terhadap minat menggunakan mobile banking syariah. *Jariyah: Jurnal Ilmu Akuntansi dan Keuangan Syariah*, 2(2), 352–371.
- Bank Indonesia. (2022). *Laporan Ekonomi dan Keuangan Digital Indonesia 2022*
- Bank Indonesia. (2024). *Statistik Sistem Pembayaran dan Transaksi Digital Indonesia 2024*. Jakarta: Bank Indonesia.
- Bank Rakyat Indonesia (BRI). (2024). *BRI Annual Report & BRImo Digital Performance Update*. Jakarta: BRI Corporate Communication.
- Bank Indonesia. (2025). *Statistik Sistem Pembayaran Indonesia*.
- Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly*, 13(3), 319–340.
- Hanifa, A. et al., *Pengaruh Persepsi Kemudahan, Keamanan, dan Pengaruh Sosial terhadap Minat Penggunaan QRIS* menunjukkan bahwa persepsi keamanan berpengaruh terhadap minat penggunaan sistem pembayaran digital di Bandar Lampung. DOI: <https://doi.org/10.61132/jubikin.v2i3.853>
- Jogiyanto, H. M. (2007). *Sistem Informasi Keperilakuan*. Yogyakarta: Andi Offset.
- Kotler, P., & Keller, K. L. (2016). *Marketing Management* (15th ed.). Pearson Education.
- Pramesti & Damayanthi, *Penggunaan Technology Acceptance Model dan Keamanan dalam Analisis Perilaku Penggunaan Mobile Banking* menegaskan bahwa keamanan merupakan variabel penting dalam perilaku penggunaan mobile banking.
- Pramesti, Putu Deby Cahyani, and I Gusti Ayu Eka Damayanthi. 2024. "Penggunaan Technology Acceptance Model dan Keamanan dalam Analisis Perilaku Penggunaan Mobile Banking." *E-Jurnal Akuntansi* 34 (6): 1550–1565. <https://doi.org/10.24843/EJA.2024.v34.i06.p16>



- Putri, D., & Rahmawati, E. (2023). *Pengaruh Kebiasaan Menggunakan Digital Payment terhadap Niat Menggunakan Mobile Banking*. Jurnal Ekonomi dan Bisnis Digital, 5(3), 112–121.
- Rahmawati, L., & Putra, I. G. (2022). *Pengaruh Literasi Digital, Keamanan, dan Kepercayaan terhadap Keputusan Penggunaan Mobile Banking*. Jurnal Ekonomi dan Bisnis, 9(1), 112–124.
- Ramadhani, D. (2023). Persepsi Keamanan dan Dampaknya terhadap Kepercayaan Pengguna Mobile Banking. Jurnal Teknologi dan Informasi Perbankan, 4(2), 87–96.
- Riyadi, S., & Hidayat, R. (2021). Analisis Faktor yang Mempengaruhi Penggunaan Mobile Banking di Indonesia. Jurnal Ekonomi dan Bisnis Digital Indonesia, 3(1), 56–70.
- Rusdian & Kusumadewi, *Pengukuran Persepsi Pengguna Terhadap Persepsi Manfaat, Fitur Layanan Dan Keamanan Mobile Banking* menjelaskan bahwa persepsi keamanan berpengaruh pada sikap penggunaan aplikasi BRImo. DOI: <https://doi.org/10.31949/entrepreneur.v5i1.7816>
- Sari, A., & Utomo, Y. (2022). Inklusi Keuangan dan Transformasi Digital Perbankan di Indonesia. Jurnal Ekonomi dan Keuangan Kontemporer, 10(1), 65–79.
- Setyawan, Sugiyono. (2017). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Bandung: Alfabeta.
- Suh, B., & Han, I. (2002). Effect of trust on customer acceptance of Internet banking. Electronic Commerce Research and Applications, 1(3–4), 247–263.

