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### EASE TRANSACTIONS AND PRIVACY SECURITY ON THE DECISION TO REUSE QRIS AS A TOOL OF PAYMENT THROUGH USER EXPERIENCE IN MADIUN CITY

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#### ABSTRACT

*This research aims to analyze the use of e-wallets by involving 384 sample respondents. Quantitative methods were used in this research with purposive sampling techniques. Analysis uses Structural Equation Model (SEM) via SmartPLS software version 4.0.0. The research results show that ease of transactions and partial privacy security have a positive and significant influence on user experience. Furthermore, user experience has a strong, positive, and significant influence on reuse decisions. In addition, ease of transaction and privacy security also have a positive and significant influence on reuse decisions through user experience as an intervening variable. This research provides important insight into the factors that influence the decision to reuse the QRIS Mobile Banking feature in Madiun City, as well as observing the importance of user experience in mediating the relationship between ease of transaction and privacy security with the decision to reuse e-wallets.*

**Keywords:** Ease of Transactions, Transaction Security, Reuse Decisions, User Experience Words, Qris.

#### ABSTRAK

*Penelitian ini bertujuan untuk menganalisis penggunaan e-wallet dengan melibatkan 384 responden sampel. Metode kuantitatif digunakan dalam penelitian ini dengan teknik purposive sampling. Analisis menggunakan Structural Equation Model (SEM) melalui perangkat lunak SmartPLS versi 4.0.0. Hasil penelitian menunjukkan bahwa kemudahan transaksi dan keamanan privasi secara parsial memiliki pengaruh yang positif dan signifikan terhadap pengalaman pengguna. Selanjutnya, pengalaman pengguna memiliki pengaruh yang kuat, positif, dan signifikan terhadap keputusan penggunaan kembali. Selain itu, kemudahan transaksi dan keamanan privasi juga memiliki pengaruh yang positif dan signifikan terhadap keputusan penggunaan kembali melalui pengalaman pengguna sebagai variabel intervening. Penelitian ini memberikan wawasan penting mengenai faktor-faktor yang mempengaruhi keputusan penggunaan kembali Fitur QRIS Mobile Banking di Kota Madiun, serta mengamati pentingnya pengalaman pengguna dalam memediasi hubungan antara kemudahan transaksi dan keamanan privasi dengan keputusan penggunaan kembali e-wallet*

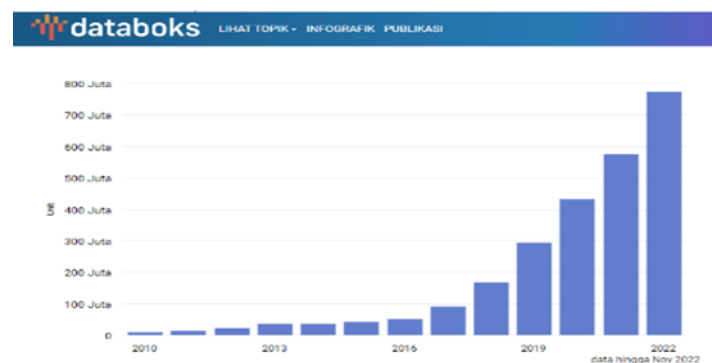
**Kata Kunci:** Kemudahan Transaksi, Keamanan Transaksi, Keputusan Penggunaan Kembali, Kata Pengalaman Pengguna, Qris.



## INTRODUCTION

Electronic payment systems are mobile money transfer applications that use the Internet as an intermediary. A digital wallet is a type of payment mechanism that can be used for online purchases, bill payments, credit purchases, internet data bundles, cable TV, and investments. The circulation of electronic money in Indonesia has increased drastically since 2010, as can be seen in the graph below. More than 7.9 million new electronic banknotes were issued in 2010. This statistic is expected to increase by more than 9,000% by November 2022 (Rizaty, 2022).

**Figure 1. Electronic Payment Systems**



Credit cards, E-Wallets or Digital Wallets, QRIS, Mobile Banking, Micro ATMs and PoS Terminals are six digital payment methods that have been officially registered by the Financial Services Authority in Indonesia. The object of this research is QRIS on the mobile banking feature. Quick Response Indonesian Code Standard, abbreviated as QRIS (pronounced KRIS), is a collection of QR Code-based digital transmitters from various QR versions of payment system providers. QRIS was present and developed by the payment system industry together with Bank Indonesia so that the transaction process is easy and fast. For consumers, the existence of QRIS allows them to make payments using any application with the same QR. All Payment System Operators (SPSP) that will use QR Code-based transactions are required to use QRIS. QRIS is here to help the Indonesian people, especially business people, in payment transactions. QRIS frees company owners from the need to use an EDC (Electronic Data Capture) system to carry out transactions. They only scan the QR code provided by QRIS. The data presented above shows that the number of QRIS users continues to increase. This is supported by DATABOKS website data which shows an increase in the number of QRIS user transactions (Ahdiat, 2022).

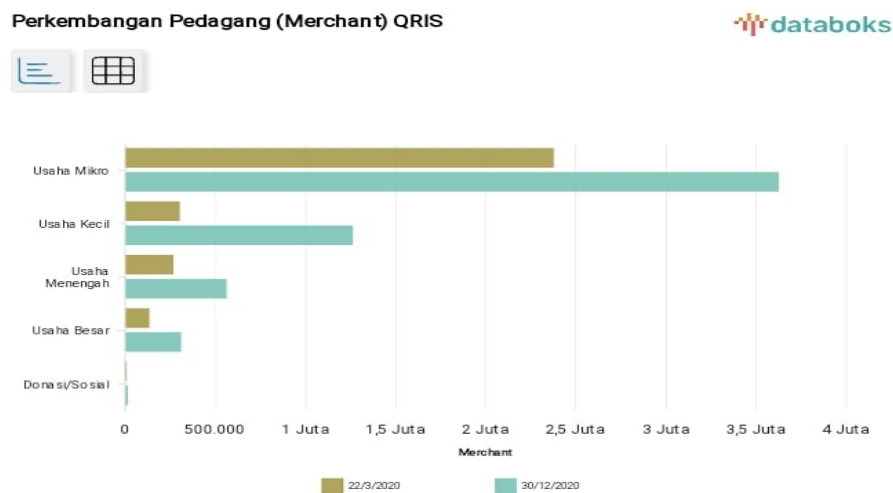
**Table 1 Volume and Value of QRIS Transactions in Indonesia**

Date	Transaction Volume (Times)	Transaction Value (Rp)
2020-01	5.000.000	Rp 365.000.000.000,00
2020-02	10.000.000	Rp 604.000.000.000,00
2020-03	12.000.000	Rp 581.000.000.000,00
2020-04	7.000.000	Rp 397.000.000.000,00
2020-05	9.000.000	Rp 434.000.000.000,00
2020-06	8.000.000	Rp 450.000.000.000,00
2020-07	10.000.000	Rp 719.000.000.000,00
2020-08	11.000.000	Rp 809.000.000.000,00
2020-09	11.000.000	Rp 838.000.000.000,00
2020-10	12.000.000	Rp 926.000.000.000,00
2020-11	13.000.000	Rp 883.000.000.000,00
2020-12	17.000.000	Rp 1.201.000.000.000,00
2021-01	14.000.000	Rp 1.037.000.000.000,00
2021-02	15.000.000	Rp 1.113.000.000.000,00
2021-03	18.000.000	Rp 1.266.000.000.000,00
2021-04	21.000.000	Rp 1.582.000.000.000,00
2021-05	27.000.000	Rp 1.771.000.000.000,00
2021-06	35.000.000	Rp 2.145.000.000.000,00
2021-07	43.000.000	Rp 2.557.000.000.000,00
2021-08	51.000.000	Rp 2.131.000.000.000,00
2021-09	59.000.000	Rp 2.916.000.000.000,00
2021-10	59.000.000	Rp 3.021.000.000.000,00
2021-11	59.000.000	Rp 3.362.000.000.000,00
2021-12	59.000.000	Rp 4.732.000.000.000,00
2022-01	54.000.000	Rp 4.469.000.000.000,00
2022-02	55.000.000	Rp 4.515.000.000.000,00
2022-03	66.000.000	Rp 5.812.000.000.000,00
2022-04	68.000.000	Rp 7.517.000.000.000,00
2022-05	67.000.000	Rp 7.171.000.000.000,00
2022-06	80.000.000	Rp 9.571.000.000.000,00
2022-07	81.460.000	Rp 9.750.000.000.000,00
2022-08	91.730.000	Rp 9.660.000.000.000,00

Source: Indonesian Economic and Business Data Center

According to a Dailysocial survey in August 2021, there are several reasons why QRIS is still having problems in its use. As many as 65.5% of respondents said that most merchants or MSMEs still had not implemented QRIS as a payment method (Wahyudi, 2023). In collaboration with Bank Indonesia, the payment system industry presents and updates QRIS to simplify and speed up the transaction process. QRIS can be used to make payments with any application that uses the same QR code. According to Andi Haswidi, Head of ASEAN Research Deal Street Asia, 48% of MSMEs have utilized digital wallet-based payment solutions. Furthermore, QRIS will be placed strategically under the cash register to assist consumers or customers in completing payments. QR codes are now used by 63% of MSMEs in Tier 1 cities. Only 6% of merchants are not familiar with QR codes or their benefits (Wicaksono, 2023).

Figure 2. Development of Merchant Users of QRIS



Source: Indonesian Economic and Business Data Center

Based on previous research by Akmal Nashren Abd Malik and Sharifah Nurafizah Syed Annuar entitled "The Influence of Perceived Usefulness, Perceived Ease of Use, Trust and Perceived Risk on E-Wallet Use" contains these findings. Perceived risk and intention to use e-wallet have a negative relationship. ((Nashren Abd Malik, Akmal; Nurafizah Syed Annuar, 2019). And in previous research from Dewi Pertiwi and Widjojo Suprpto in their research entitled "Perceptions of E-Wallet Use Among Generation Y in Surabaya Based on the Technology Acceptance Model". Perceived benefits has a negative and small impact on perceived use (Pertiwi et al., 2021) In the latest research by Galang Prasetyatama "E-Wallet: Determining Interest in Use During the Covid-19 Pandemic with Experience as a Moderating Variable" In this research, the results of perception risk, reputation, service features, and promotions do not influence intentions to use e-wallets. And experience does not strengthen the impact of perceived risk, reputation, service features, and promotions on intentions to use e-wallets (Prasetyatama, 2021). Researchers conducted research on the research object of the QRIS digital payment feature with the independent variables ease of transaction (X1) and privacy security (X2) which are thought to influence the dependent variable of reuse decisions (Y) in society through user experience (Z) as an intervening variable.

## METHOD

This study uses a quantitative approach. The data used are primary and secondary data obtained from the field. The population and sample of this research are users of the QRIS Mobile banking feature in Madiun City. Samples are taken if the population to be studied is very large and it is impractical to research the entire population due to time, budget and energy constraints. Lemeshow's (1990) formula determines the possible samples obtained

if the population is unknown. Purposive sampling was used to collect data for this research. Purposive sampling is a sampling approach that takes into account certain factors (Sugiyono, 2016). Component or variant-based Structural Equation Model (SEM) techniques were used in this research. Structural Equation Model (SEM) is an effective statistical study for testing a series of correlations between variables that are assessed simultaneously. Data analysis is used to determine the influence of ease of transaction and privacy security on reuse decisions through user experience as an intervening variable.

SmartPLS (Partial Least Squares) software was used to analyze the data in this research. SmartPLS is more suitable for processing or analyzing data and can also analyze constructs formed through reflective and formulative indicators because it is not based on many assumptions, the analysis method is quite strong, the data used does not have to have a multivariate normal distribution, and the sample used does not have to be large. This research uses four latent variables: ease of transaction (X1), privacy security (X2), decision to use (Y), and user experience (Z). This latent variable is then generated using indicators that reflect and measure the variables using reflective second order factors, so the PLS (Partial Least Squares) method is used in this research.

## **RESULT AND DISCUSSION**

In substantive theory or structural models, the concept of inner model refers to the internal relationships between unobserved or hidden variables. It includes the relationships that emerge between these variables. The concepts of R-squared, t-test, and path coefficient are used in structural analysis to understand the relationship between variables. R-squared measures how much influence the independent variable has on the dependent variable. The t-test is used to test the statistical significance of the path coefficient, which reflects the strength and direction of the relationship between variables. R-squared is a number between 0 and 1 that indicates the extent to which variation in the dependent variable can be explained by the independent variables in the model. The higher the R-squared value, the greater the proportion of variation that can be explained by the model. In the context of structural analysis, R-squared and t-tests help measure the extent to which a model represents empirical data and whether the relationships between variables have statistical significance. (Ghozali, 2020)

This research relies on primary data collected directly from users of the QRIS feature on Mobile Banking in Madiun City through a questionnaire. Bank Indonesia first introduced the QRIS feature on 17 August 2019. The QRIS feature was developed by Bank Indonesia and the Indonesian Payment System Association (ASPI) using the international standard EMV Co.1 to facilitate interoperability between operators, instruments and countries. The

population of this study consisted of 384 respondents who were all consumers of QRIS feature products in mobile banking in Madiun City.

The available questionnaire data was then processed with the help of SmartPLS (Partial Least Square) software version 4.0.0, which aims to determine the relationship between latent variables in the research. The latent variables are ease of transaction (X1) and privacy security (X2) in influencing reuse decisions (Y) with user experience (Z) as an intervening variable.

SRMR is a measure of the difference between the empirical correlation matrix and the correlation matrix generated from the model. A low SRMR value indicates that the model has a good fit with the empirical data, because it shows that the difference between the empirical data and the resulting model is low. The criterion used in the fit model is the SRMR or Standardized Root Mean Square value  $<0.10$ . (Ghozali & Latan, 2015). The following are the results of the model fit calculations in the research:

**Table 2 SRMR Value**

	<i>Saturated</i>	<i>Estimated Model</i>
SRMR	0,076	0,087

Source: Output SmartPLS

In this study, because the SRMR value is smaller than 0.10, it can be interpreted that the model fit is considered quite good or acceptable. Even though it is referred to as "low GoF" (Goodness of Fit), this actually shows that the model is quite close to the empirical data and does not have large deviations between the resulting model and the actual data.

**Table 3 Path Coefficient Result Value**

Model	Sampel Asli (O)	Mean Sampel	STDEV	T-Statistik	P-Value
(X1) → (Z)	0,527	0,515	0,107	4.949	0,000
(X2) → (Z)	0,380	0,384	0,104	3.645	0,000
(Z) → (Y)	0,915	0,907	0,023	39,16 2	0,000

Source: Output SmartPLS

**Table 4 Value of Specific Indirect Effect Results**

Model	Sampel Asli (O)	Sampel Mean	STDEV	T-Statistik	P-Value
(X1) → (Z) → (Y)	0, 482	0, 468	0,101	4, 788	0,000
(X2) → (Z) → (Y)	0,3 48	0, 348	0,095	3,6 71	0,000

Source: Output SmartPLS

In statistical analysis, the significance of the hypothesis is measured based on the t-statistic value and p value. If the p value is less than 0.05 (general significance threshold), and the t-statistic is greater than 1.96 (threshold value in the t distribution), then the research hypothesis is considered accepted. This shows that the independent variable has a significant influence on the dependent variable. Hair (2017) to explain indirect and mediator

effects. Specific indirect effects refer to the influence of an independent variable on a dependent variable through a specific mediator in the model.

## CONCLUSION

The findings in this study show that user experience has a positive and significant impact on users' choice to reuse QRIS features, indicating that providing a pleasant and efficient experience for users is key to supporting the adoption of QRIS by society. According to the study, the better the user's experience with the QRIS feature, the more likely the user will use the feature again. This emphasizes the need to provide a good and efficient experience to consumers so that they are comfortable and interested in continuing to use QRIS. The findings of this research are useful for QRIS developers in improving current privacy security measures. Efforts to improve data security and confidentiality, as well as user experience, can encourage public adoption and use of QRIS features. To create a better user experience, QRIS feature developers must ensure interactions with the service are smooth and intuitive, while also paying attention to usability issues.

Suggestions for future researchers include adding more samples or increasing the number of research variables used. So that it can prove the decision to reuse a product by the community.

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