

Determinants of Use of the Indonesian Standard Quick Response Code (QRIS) on MSMEs in Ternate City

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Abstract

This research aims to analyze the effect of perceived risk and ease of use on the decision to transact using QRIS on MSME actors in Ternate City, either partially or simultaneously. This research is a hypothesis testing research (Hypothesis testing) which aims to test the hypothesis proposed by the Research Team. The analytical model used in this study is a multiple linear regression equation model to analyze the effect of risk perception and user convenience on the decision to make payments with QRIS. Collecting data using a questionnaire with a purposive sampling technique as many as 60 respondents. Risk Perception and User Convenience contributed 72.2% to the decision to transact using QRIS in Ternate City MSME actors, the remaining 27.8% was explained by other variables outside the research model. The results of the t-test concluded that Risk Perception had no significant effect on the decision to transact using QRIS on MSME actors in Ternate City, while User Ease had a positive and significant effect on the decision to transact using QRIS on MSME actors in Ternate City. Based on the Anova Test, f-count value of $52.133 > t\text{-table} (2.766)$, it can be concluded that the variables of Risk Perception and Ease of Use together can influence the decision to transact using QRIS.

Keywords

QRIS; risk perception; user ease and transaction decisions



I. Introduction

Developments in information and technology innovation will help the development of monetary digitization and accelerate a country's monetary considerations. One form of execution between data innovation and the development of financial digitization is non-cash. From the data obtained from Bank Indonesia 48 providers payment system services that have obtained approval to carry out non-cash transaction activities. There are 14 from the banking sector and 34 from the non-bank sector. Innovation motive in the system non-cash payment is card_debit, credit card, money order, check, bank account and_electronic money. Based on data from Bank Indonesia in 2020, the holder of the trend of non-cash payments is money_electronics as much as 95.753trillion8which has increased from the previous year (2019) with transactions of 60.00 trillion. The high number of electronic money usage for non-cash payments is due to the large number of electronic money products issued in the form of; card9e-moneychip-based and server-based, such as: e-wallet applications, banks_account (Sihaloho et al, 2020).

The increase in digital money is always accompanied by the development of MSMEs at the same speed, this issue will create efficiency for business people in conducting transactions, including for consumers (the community). The advantage of Digital Money is that it makes it easier for business people (MSMEs) to have no difficulty in technical matters, namely finding money back to consumers and consumers or customers do not need to carry cash when shopping. However, this digital money product can only be used

by consumers when the electronic money is available at the merchant. For users of -based digital money chip, merchants must provide a machine or QR code to be able to make non-cash transactions and use server-based digital money. This is done by installing payment application software available on smartphones. With the digitalization of payments, it can speed up transactions, but it is still less efficient and effective if the socialization and education of its use is not optimal. Education and skills are the main keys in gaining social status in community life (Lubis *et al*, 2019).

Based on the data that is survey by Service Provider Association Internet Indonesia (APJII) for 2019 until the second quarter of 2020 found the number of internet users reached 196.9 million or 173% of the 270.2 million population Indonesian society. Data collected by BI in the first quarter of 2020, there are around 40 companies that have issued digital/electronic money via smartphones to more customers and business people or merchants have also provided many QR Codes. which can be implemented for QR Code payment systems, among others, Link Aja, Ovo, Gopay and other providers. Previously, every payment application could only make payments at stores or merchants who already had accounts from providers such as OVO and so on. And on August 17, 2019 BI launched a QR Code that has Indonesian standards, namely the Quick Response Code Indonesian Standard (QRIS). The following image is an illustration before and after the launch of QRIS:



Figure 1. Illustration of QRIS Implementation

Source: qris.id, 2022

Quick Response Indonesia Standard (QRIS) is a program from Bank Indonesia as a form of national standardization system payment using QR method. Code to process Payment transactions with QR Codes are made easier, faster and more secure. With the QRIS standard, all payment applications from any PJSP can make payments using a QR Code at all merchants even though the PJSP used is different. QRIS also makes it easier for stores or merchants to accept payments from the application anything just by opening an account at one of the PJSP providers of QRIS.

Based on data from Bank Indonesia North Maluku Representative, The number of MSMEs in North Maluku that have registered QRIS accounts has increased in 2021, reaching 25,761 merchants who have registered. That means that the people of North Maluku have made many transactions on non_cash. For MSMEs in the city of Ternate has

also used QRIS as a non-cash payment instrument, which is 70 merchants with active users (Bank Indonesia North Maluku Representative Data).

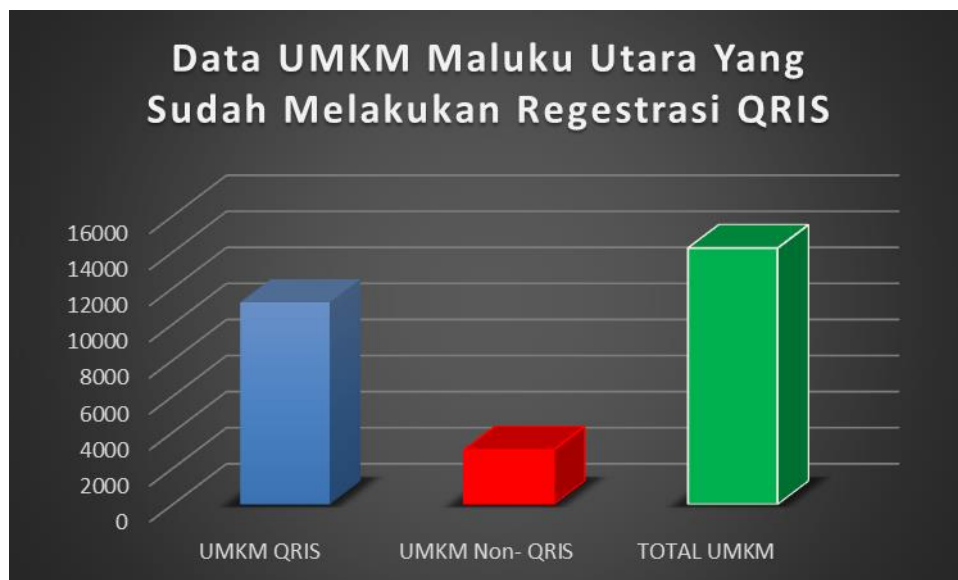


Figure 2. Bank Indonesia North Maluku Representative Data
Source: Data from Bank Indonesia North Maluku Representative, 2022

In making a decision to make a transaction using a digital financial system (QRIS), of course, there are many factors that can influence it, one of which is risk perception. According to Featherman, risk perception is a perception of uncertainty and unwanted consequences from using a product or service. Perceived risk is considered to be able to affect a person's level of trust. The smaller the risk perception of an individual, the greater the level of trust, and vice versa (Ningsih et al., 2021). The results obtained by Ningsih et al., (2021) show that the risk perception variable partially and simultaneously has a significant positive effect on the decision variable to use QRIS-based electronic money in UPI YAI Jakarta students. This shows that the possibility of a risk occurring can affect a person's decision to use QRIS-based electronic money, if the higher the risk of using QRIS, the person will think again about using the electronic money, and vice versa. While the research conducted by Aulia (2020) obtained different results from previous research because in the research conducted by Harlan (2014) the results of his research were perceptions of risk of negative effect to intention to use electronic money. The meaning of this result is the higher the uncertainty and the consequences accepted by someone, the less intention is to use a system and are more likely to avoid it.

Another factor that influences the decision to transact using QRIS is the ease of use factor. Where every individual if they want to do something related to technology they tend to see first whether what they want to do is easy or difficult to use. Perception of ease of use is an individual's assumption that by using technology they do not need to spend more effort or in other words that using technology can make their work easier (Aulia, 2020). Perception of convenience shows where someone believes that using a system can make it easier for them and does not require activity more than each individual, the easier to use a technology then the individual is getting interested in using it. Convenience means that there are no difficulties or that it does not require great effort to use technology (Nugroho, 2018).

Based on the explanation above, the number of MSMEs in Ternate City_The use of QRIS is enough so that researchers are interested in conducting research on the factors that influence a person's decision to transact using QRIS. And there are still differences in the results of previous studies regarding the effect of risk perception and ease of use on the decision to transact using QRIS. So the authors are interested in re-examining the factors that influence a person's decision to transact using the Quick Response Code Indonesia Standard (QRIS). Study this_aims to determine and analyze the effect of perceived risk and ease of use on the decision to transact using QRIS on MSME actors in Ternate City both in terms of_partial or simultaneous.

II. Review of Literature

2.1 Technology Acceptance Model (TAM)

Technology Acceptance Model (TAM) is a theory that can explain people's acceptance of the use of technology introduced by Fred D. Davis in 1989. The TAM concept proposed by Davis provides a theory as a basis for studying and understanding user behavior in accepting and using a particular technology. The expansion of the TAM concept is expected to help predict a person's attitude and acceptance of technology, and can provide the necessary basic information about the factors that drive the individual's attitude.Aulia, 2020). The TAM theory is an adaptation of the Theory of Reasoned Action (TRA) which was developed by Davis (1989) to accept the use of information systems. Previously, the TRA developed by Fishbein and Ajzen (1975) showed that behavioral intentions are determined by two factors, namely attitudes toward behavior and subjective norms. TAM explains that there are two variables that influence whether a person uses a technology, namely perceived ease of use and perceived usefulness (Aulia, 2020).

This theory is used in this study because it relates to the research topic raised, namely the factors that influence the acceptance of a technology, namely a person's decision to transact using electronic money or QRIS. This theory is used to analyze whether the variables of risk perception and ease of use can influence a person's decision to transact using QRIS on MSME actors in Ternate City.

2.2 Quick Response Code Indonesian Standard (QRIS)

Quick Response Code Indonesia Standard (QRIS) is a non-cash payment standard that combines various QR and QR codes from PJSP (Payment System Service Provider). The QR code in question is the one with Bank Indonesia standards. To achieve the best QRIS and be able to grow rapidly, Bank Indonesia itself has a characteristic for QRIS which is abbreviated to UNGGUL. What is meant by EXCELLENT are:

- a. Universal
- b. Easy
- c. Profit
- d. Direct

2.3 Risk Perception

Perception of risk is a negative factor that can affect consumer confidence to make online transactions. Vincent-Waine Mitchel (1999:163) inAulia (2020)argues that risk is an expectation of loss, where the assessment of losses is carried out subjectively by individuals, if the greater the loss, the greater the risk is considered to exist. Perception of risk according to Yang et.al (2015) in Aulia (2020) is the extent to which consumers see losses that can occur due to uncertainty in using mobile payments. The losses that can be

felt by users later are in the form of financial losses, privacy violations, dissatisfaction with performance, psychological anxiety or uncomfortable feelings, and also a waste of time. There are several types of risk perception, including performance risk, financial risk, and security risk (Lee, 2009).

Hoyer and MacInnis (2010) explain the dimensions of perceived risk, namely:

- a. Performance risk
- b. Financial risk
- c. Physical or security
- d. Social risk
- e. Psychological
- f. Time risk

2.4 User Ease

The perception of ease of use has a definition where there are activities in the use of technology that can be free from business (Rieska, 2018). Perception of convenience is the belief that every time technology is used it can provide easy interaction with the use of electronic money provided by service providers, making it easy to understand and easy to use. This convenience means that service users do not have to bother too much and can access the use of electronic money anytime and anywhere. The definition of ease of use is a form of public trust in the decision-making process. When an information system can provide convenience in its use, users can use the information system more often.

A technology is said to have an ease of use if it has the following indicators: (Karim, 2017)

- a. Easy and skilled in using a technology.
- b. The technology can be easily learned.
- c. Very easy to operate.

III. Research Method

This research is a hypothesis testing research which aims to test the hypothesis proposed by the Research Team regarding the effect of Risk Perception and User Ease of Use on the decision to transact using QRIS on MSMEs in Ternate City. Now (2011), hypothesis testing must be able to explain the nature of certain relationships, understand differences between groups or the independence of two or more variables. The types and sources of data used in this study are primary data by distributing questionnaires. This research is located in Ternate City, the object is focused on existing Micro, Small and Medium Enterprises (MSMEs). The time specified in this study is from January to March 2022.

The population in this study is MSME actors who live in the city of Ternate. Meanwhile, for sampling using non-probability sampling method. The sampling technique used in this research is purposive sampling. The criteria for respondents to be sampled are:

- a. Ternate City MSME actors who have registered a QRIS account
- b. MSME actors Active users of QRIS for a minimum of 6 months.

Determination of the number of samples can be based on a sample size of more than 30 people and less than 500 is appropriate for most studies (Sugiyono, 2014). Based on Roscoe's opinion, the number of samples in this study is at least 30 samples consisting of 3 variables (2 dependent variables and 1 independent variable times 10). However, to avoid a low response rate, the number of questionnaires distributed was 60 questionnaires.

This study then conducted a validity test to measure the accuracy of each question used, and a reliability test to measure the questionnaire as an indicator of the variables. Furthermore, the analytical model used in this study is a multiple linear regression equation model. To analyze the effect of risk perception and user convenience on transaction decisions using QRIS.

IV. Results and Discussion

The following table provides a description of the respondent's data based on the gender classification of the research respondents:

Table 1. Characteristics of Respondents by Gender

Gender	Frequency	Percentage (%)
man	19	31.67
Woman	41	68.33
Total	60	100

Source: processed primary data, 2022

Based on table 1, it can be seen that from 60 respondents, there were 19 respondents with a percentage of 31.67% being male and 41 respondents with a percentage of 68.33% being female. A total of 60 respondents who became the research sample, so that the data is then used.

The following is a multiple linear regression analysis to determine the effect of the independent variables on the dependent variable which was carried out on 60 respondents of MSME business actors in Ternate City.

Table 2. Multiple Linear Regression Analysis

Model	Coefficients ^a						
	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.	Collinearity Statistics	
	B	Std. error				Tolerance	VIF
1 (Constant)	-2.476	3,634		-.681	.498		
Risk Perception (X1)	-.166	.111	-.106	-1.485	.143	.922	1.085
User Ease (X2)	1,420	.137	.789	10.372	.000	.814	1,228

a. Dependent Variable: Transaction Decision Using QRIS (Y)

Source: processed primary data, 2022

4.1 Risk Perception Variables

The risk perception variable has a coefficient of -0.166 which is negative, with t_{hitung} (-1.485) < (2.003) and sig (0.143) > 0.05. Thus, the risk perception variable has no significant effect on the decision to transact using QRIS. t_{tabel}

4.2 Ease of Use Variable

The ease of use variable has a coefficient of 1.420 which is positive, with t_{hitung} (10.372) > (2.003) and sig (0.000) < 0.05. Thus, the ease of use variable has a positive and significant effect on the decision to transact using QRIS. t_{tabel}

Table 3. F Test Results

ANOVAa						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	848,992	3	282,997	52.133	.000b
	Residual	303.991	56	5.428		
	Total	1152,983	59			

Source: processed primary data, 2022

Based on the table above, it is known that the calculated F value is 52.133 > t table (2.766) and the significant value is 0.000 < 0.05. So it can be concluded that the variables of Risk Perception and Ease of Use together can influence the decision to transact using QRIS.

Table 4. Test Results R^2

Model Summaryb					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.858a	.736	.722	2.330	2.109

Source: processed primary data, 2022

Based on the table above, it is known that the adjusted R square value is 0.722 which means that 72.2 percent of the decision variables to transact using QRIS can be explained by the three independent variables (financial literacy, risk perception and ease of use), while the remaining 27.8 percent is explained by other variables not examined in this study.

a. The Effect of Risk Perception on Transaction Decisions using QRIS

Based on the results of hypothesis testing the effect of risk perception on transaction decisions using QRIS, the value of t_{hitung} for the risk perception variable of (-1.485) < (2.003) and a significant value (0.143) > 0.05, which means the risk perception variable has no significant effect on the decision to transact using QRIS. The results of this insignificant study indicate that the higher the perception of risk cannot affect a person's decision to use QRIS as an alternative payment. In this way, it can be assumed that the higher or lower the perception of risk obtained by electronic money users, the desire to use electronic money services still arises. t_{tabel}

The results of this study are in line with previous research conducted Aulia (2020) who found the result that risk perception did not have a significant effect on the intention to use e-wallet in SMEs in Makassar City. But contrary to previous research conducted Ningsih et al., (2021) who found the result that risk perception could influence the decision to use QRIS-based electronic money.

b. Effect of Ease of Use on Transaction Decisions

Based on the results of hypothesis testing the effect of ease of use on the decision to transact using QRIS, the value of t_{hitung} for the ease of use variable of $10.372 > (2.003)$ and a significant value $(0.000) < 0.05$, which means the ease of use variable has a positive and significant effect on the decision to transact using QRIS. The results of this study indicate that the higher the level of ease of using QRIS, the more likely it is that SMEs in Ternate City will decide to use QRIS as an alternative payment. Where MSME business actors will have the desire to use QRIS as an alternative payment if the payment system with QRIS does not provide difficulties but provides more convenience. t_{tabel}

The results of this study are in line with previous research conducted by Saputri (2020) which found the results that ease of use had a positive and significant effect on the decision to transact using QRIS on MSMEs in Beji and Sukmajaya Districts, Depok City. But contrary to the research conducted Aulia (2020) who found the results that perceived ease of use had no significant effect on the intention to use e-wallet in SMEs in Makassar City.

V. Conclusion

Based on the results of data analysis and discussion of the research results that have been carried out, the following conclusions can be drawn:

- a. Risk perception has no significant effect on the decision to transact using QRIS on MSME actors in Ternate City. Thus, it can be said that the higher risk perception cannot influence the decision of business actors to use QRIS as an alternative payment.
- b. Ease of Use has a positive and significant effect on the decision to transact using QRIS on MSME actors in Ternate City. That way it can be said that the higher the level of ease of using QRIS can affect the decision of business actors to use QRIS as an alternative payment.

Based on the conclusions obtained in this study, further suggestions can be proposed which are expected to be useful for MSME actors and further research related to the factors that influence the decision to transact using QRIS as follows:

1. MSME actors who still transact in cash are expected to be able to transact non-cash using QRIS as an alternative payment, because now many people prefer non-cash transactions.
2. For further researchers, it is recommended to increase the number of respondents to get better results. And it is recommended to use other variables that can influence the decision to transact using QRIS which are not used in this study.

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