

Service Quality, MDR, Ease of Use, QRIS User Satisfaction in Surakarta City Micro Businesses

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Abstract

The purpose of this research is to examine the effect of service quality, MDR, and ease of use on QRIS user satisfaction at micro businesses in Surakarta City. This research uses quantitative methods. The population in this study were micro businesses as QRIS merchants in Surakarta City. Sampling was carried out using random sampling technique, the sample size was 100 respondents. Data collection was carried out by distributing questionnaires directly to respondents. The results of this study state that: (1) service quality with t-Statistic results $2.953 > 1.984$, and a probability value of $0.004 < 0.05$, meaning that service quality has a positive and significant effect on QRIS user satisfaction in Surakarta City micro businesses. (2) MDR with a t-Statistic result of $6.093 > 1.984$, and a probability value of $0.000 < 0.05$, meaning that MDR has a positive and significant effect on QRIS user satisfaction in Surakarta City micro businesses. (3) Ease of use with t-Statistic results $2.798 > 1.984$, and a probability value of $0.006 < 0.05$, meaning that ease of use has a positive and significant effect on QRIS user satisfaction in micro business actors in Surakarta City. The coefficient of determination test shows that variable (X) can affect variable (Y) by 48.5%. Data processing stages with Eviews 12 software include validity and reliability tests, normality tests, multicollinearity tests, heteroscedasticity tests, multiple linear regression analysis, coefficient of determination (R²), T test (Partial).

Keywords: micro business, service quality, QRIS, Ease of Use

Introduction

The digital technology advancements has caused financial and non-financial services sector to face new challenges in facing the transformation of business procedures, namely from conventional to digital models (Hady et al., 2022). Technological advances also have an impact on payment systems that offer various practicalities in transactions (Silalahi et al., 2022). In line with technological developments in the payment system, Bank Indonesia (Central Bank of the Republic of Indonesia) launched a technological breakthrough, namely the QRIS payment method on 17 August 2019 and requires all payment system providers and MSMEs to use QRIS on 1 January 2020 (Aziz et al., 2024). The launch of QRIS is the initial step in implementing the Five Visions of the Indonesian Payment System (SPI) in 2025 (www.bi.go.id, 2019a). To encourage the acceleration of payment system digitalisation, Bank Indonesia continues to expand the implementation of QRIS becomes a national QR standard, in this case the development of QRIS adoption from the user side is still being optimised (Zahra et al., 2023).

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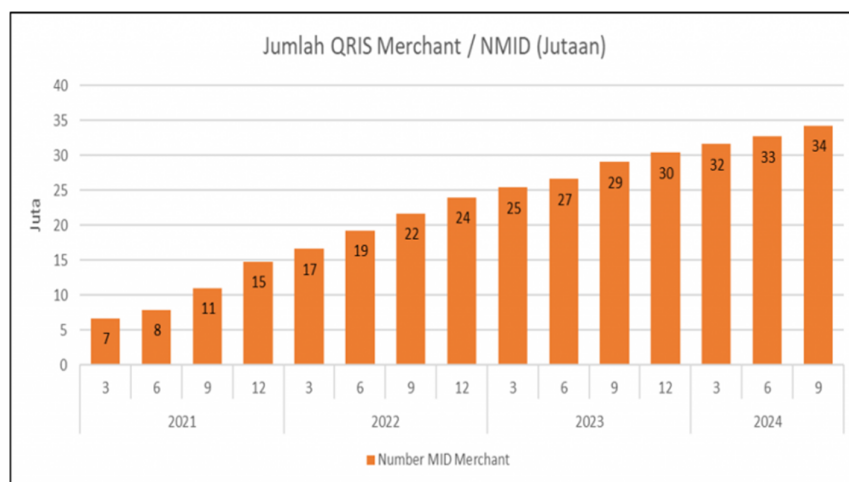


Figure 1. QRIS merchants from 2021 to September 2024

Source:(aspi-indonesia.or.id, 2024)

Based on the QRIS statistics of the ASPI in figure 1, the number of QRIS merchants from 2021 to September 2024 is 34 million QRIS merchants with 53 million QRIS users, this proves that from year to year the number of merchants and QRIS users continues to improve. The era of digitalisation demands application of technology in various aspects of life, so that it has an impact on the activities of MSMEs actors in their daily lives, thus MSMEs actors need to be technologically literate in order to improve service quality so that they can compete and not be left behind by other business products (Popang et al., 2023). MSMEs players also implement digital payment systems due to consumer demand, the high use of digital payments in society makes them have to apply them to business businesses (Handayani & Soeparan, 2022).

Micro, Small and Medium Enterprises (MSMEs) have a vital role in driving the growth of the country's digital economy, in 2023 increasing number of MSMEs reach 66 million with a contribution of 61% or equivalent to Rp 9,580 trillion to Indonesia's GDP (kadin.id, 2023). Currently, the government is accelerating a programme encouraging increased adoption of digital technology for MSMEs players, with a target of 30 million in 2024, which previously there were 27 million MSMEs adopting digital technology (kominfo.go.id, 2024). MSMEs has a strategic role in supporting the national economy, with a contribution of 99.9% and are able to absorb 97% of the workforce (Sianipar et al., 2024). Micro-enterprises themselves are now in the spotlight of the government, this aims to enable micro-enterprises to upgrade. The government is committed to guarding and facilitating MSMEs to upgrade, one of which is micro-enterprises so that they can access wider marketing and can be competitive.

Table 1. Number of Micro, Small, and Medium Enterprises in Surakarta City in 2023

No.	District	Business Type		
		Micro	Small	Medium
1	Banjarsari	3.531	4	
2	Jebres	3.309	4	2
3	Laweyan	2.020	4	
4	Pasar Kliwon	3.378	2	1
5	Serengan	944	4	
Number		13.182	18	3
Total		13.203		

Source:(Dinkop, 2024)

Based on Table 1 obtained directly from Office of Cooperatives, Small, Medium Enterprises, and Industry of Surakarta City, the total number of MSMEs in Surakarta City is 13,203 with the number of micro enterprises being the largest type of business. Micro businesses in Surakarta City in 2023 totalled 13,182, followed by 18 small businesses and 3 medium businesses. This proves that the growth of micro enterprises in Surakarta City is the most dominant and the largest contributor to the MSMEs structure of Surakarta City. Surakarta City has a slogan as "The Spirit of Java", and is known as a cultural city with various tourist destinations that attract domestic and foreign tourists (Anggraeni & Priyono, 2022). With the tourist visits in Surakarta City, it can be expected to be one of the drivers for the progress of MSMEs in

Surakarta City, especially for micro businesses. Surakarta City has a huge economic potential in Micro, Small, and Medium Enterprises (MSMEs), supported by its role as a cultural city and creative city as well as a large number of MSMEs players. (Prodjo, 2022).

The development of QRIS usage in Surakarta City continues to increase, namely as many as 400,000 merchants in Surakarta City make transactions using QRIS (Wibowo, 2024). While the growth of QRIS merchants reached 12.07% in Surakarta City, ranked second for the largest merchant growth in Central Java (bisnis.com, 2024). QRIS offers various conveniences and benefits for businesses or merchants in running their business, but it turns out that in its implementation QRIS still has challenges (Ihsan & Siregar, 2024). Bank Indonesia charges a fee or what is known as the Merchant Discount Rate (MDR) to merchants. Based on the Decision of Deputy of Bank Indonesia Number 25/4/KEP. DpG/2023 states that the MDR amount for QRIS CPM and MPM transaction types for the micro business category is 0.3% when the transaction is more than 100.000 IDR which is valid no later than 30 November 2023 (www.bi.go.id, 2023).

However, in line with the policy mix in the payment system sector to maintain stability and support sustainable economic growth, Bank Indonesia issued a new policy to strengthen the expansion of acceptance of payment system digitalisation through the implementation of 0% QRIS MDR for transactions up to 500.000 IDR in the Micro Business (UMI) merchant category effective as of 1 December 2024 to support the purchasing power of the lower middle class (www.bi.go.id, 2024). This policy is certainly encouraging news for micro businesses because the transaction amount for the 0% MDR category, which was originally only limited to 100.000 IDR, has now increased to 500.000 IDR.

The existence of MDR for micro businesses is a new challenge for MSMEs players, especially micro businesses, in running their businesses. Transactions using QRIS basically provide many conveniences such as receiving hygienic payments, being able to follow current trends and being free from counterfeit money (Farhan & Shifa, 2023). However, in terms of service quality, it is still not fully maximised, such as the slow process of disbursing funds in real time so that every transaction with QRIS funds do not go directly to the business owner's account, funds can be processed one day after the transaction and a maximum of three days, this of course can be an obstacle for MSMEs players, especially micro businesses in their capital turnover (Hairani et al., 2024). The above problems are again the task of Bank Indonesia to overcome the problems felt by micro business actors, especially in terms of service quality and the QRIS MDR level.

Various previous studies have shown that the use of QRIS can have an influence on its use, especially satisfaction for MSMEs players. Previous research by (Sari & Raya, 2022) with the findings that service quality has a positive and significant effect on transaction satisfaction in MSMEs in the Rangkasbitung Market. Furthermore, research conducted by (Wardiana, 2024) with the results of this study stating that the application of MDR QRIS affects the satisfaction of MSMEs in Rejang Lebong Regency. Then qualitative research by (Lestari, 2023) with the research results show that micro businesses are willing to pay the MDR set by Bank Indonesia. Furthermore, research conducted by (Endayani et al., 2024) found that micro businesses are willing to pay MDR QRIS. Furthermore, research by (Rafferty & Fajar, 2022) revealed that ease of use variable no effect on the behaviour intention the merchant in wearing QRIS. Then research conducted by (Kamilah & Haryati, 2024) shows that ease of use affects QRIS usage for MSMEs, so that MSMEs players feel satisfied after using QRIS as their transaction.

Based on the problems and background that have been described as well as a review of several previous studies and phenomena related to the MDR policy from Bank Indonesia, the researcher was encouraged to research with the title "Service Quality, MDR, Ease of Use, QRIS User Satisfaction in Surakarta City Micro Businesses". Research conducted (Sari & Raya, 2022) is the main reference in this study, with the novelty of adding MDR and ease of use variables which are considered important and can affect satisfaction, and this study only focuses on micro businesses as QRIS merchants for at least one month in businesses run in Surakarta City. The purpose of this research is to determine the effect of service quality, MDR, and ease of use on QRIS user satisfaction at micro businesses in Surakarta City. The satisfaction of MSMEs actors, especially micro-business actors in using high QRIS, is expected to increase QRIS transactions in the future, besides that this research is also directed to provide input to the QRIS organiser, namely Bank Indonesia and PJSP to be able to improve the quality of QRIS services.

Literature Review

Services Quality

The definition of quality according to (Kotler & Keller, 2016) is a circuit characteristics and qualities of a product or services that can have an impact on its ability to meet the needs felt or stated by consumers. Service quality is a form of evaluation made by consumers or users of the services received compared to previously held expectations, service quality can be interpreted as a form of evaluation arising from consumers who are long-term against products or services from the company (Annisa et al., 2024). Service quality is measured by comparing customer or consumer perceptions of the services they have received with their expectations of the service provided by a service (Ekowati P, 2022). In this case, the quality of QRIS service is a form of assessment from QRIS merchants of the level of QRIS service they receive. Currently, the growth of QRIS merchants is always increasing, this can mean that many traders and MSMEs players have used QRIS, but in its implementation, the quality of QRIS services is still not fully maximised, such as the slow process of disbursing funds

that go directly to the account. This is a problem that needs to be researched in this study specifically for micro businesses, because from the scale of capital micro businesses have the least capital compared to small, medium and large businesses, therefore if micro businesses use QRIS with a slow process of disbursing funds directly into their accounts, the turnover of micro business capital will be hampered which can cause their business activities to slow down. According to (Parasuraman et al., 1988) there are five dimensions of service quality, namely: tangibles, reliability, responsiveness, assurance, empathy.

Merchant Discount Rate (MDR)

Merchant Discount Rate is a service fee charged to merchants by Payment Service System Providers (PJSP) when transacting with QRIS (www.bi.go.id, 2023). This MDR fee is only charged to merchants and not charged to consumers (Mustika et al., 2023). MDR has several levels, but this research focuses on MDR for micro businesses. Basically, MDR can be a burden for micro businesses in running their business, this is because every buyer who pays using QRIS will be subject to MDR for the merchant. This will certainly cut business income or profits, but based on Bank Indonesia policy, the MDR category is 0% for transactions up to 500,000 IDR for micro businesses. Thus, micro businesses will not be subject to MDR if the transaction is below 500,000 IDR. MDR indicators according to (Wardiana, 2024) are as follows: MDR rate, MDR rate provisions, MDR transparency, consumer protection, MDR adjustment.

Ease of Use

According to (Davis, 1989) perceived ease of use is a person's level of confidence if the use of a particular system does not require much effort, in other words, it will be free from effort. A technology can be used to relieve or help others and be free from responsibility and without effort, simply from the use of technology causes everything to be easy to use, this results in requiring little effort from users (Hafizah et al., 2023). Ease is the belief of a person or individual who is free from effort when using a particular system, where the person believes that the technology is easy to use (Putri et al., 2022). The ease of use of QRIS is where merchants when using QRIS will not require a lot of effort. Merchants in this case micro-business actors are facilitated when they transact with QRIS such as, fast transactions and do not need change, the QRIS transaction process is automatically recorded, so that it can be monitored at any time. With this convenience, micro businesses can continue to use QRIS in the future, so that it will increase the volume of transactions and the growth of QRIS in the future. According to (Davis, 1989) there are indicators of ease of use, namely easy to learn, controllable, clear and understandable, easy to use, flexible, easy to become skilled.

Satisfaction

The definition of satisfaction according to (Kotler & Keller, 2016) is a person's pleasure or disappointment arising from comparing the results or performance of a product or service with expectations. When the performance of a product or service is not in accordance with what was previously expected, a user of the product or service will feel dissatisfied, on the other hand, when a product or service with performance that matches expectations or exceeds expectations, it can provide satisfaction to users of the product (Megayani et al., 2021). In this study, QRIS user satisfaction can be interpreted as a feeling of pleasure or disappointment from merchants, namely micro-business actors who arise after they use QRIS. QRIS user satisfaction is important because if micro business actors are satisfied, it means that they have no problems using QRIS, then with this satisfaction they will also continue to use QRIS in their business and can make future use of QRIS continue to increase. The indicators of satisfaction measurement according to (Tjiptono, 2014) are as follows: fulfilment of expectations, feeling satisfied with the product or service, using the product / service repeatedly, willingness to recommend.

QRIS

Quick Response Code Indonesian Standard (QRIS) is the incorporation of various PJSP QR with QR Code. QRIS was launched by Bank Indonesia together with the payment system industry which aims to simplify, maintain security, and speed up the transaction process using QRIS (www.bi.go.id, 2019b). QRIS is a payment standard through QR codes for the purpose of providing facilities for digital payment transactions in Indonesia and increasing the reach of digital payments nationally and more effectively (Silaen et al., 2021). The way to use QRIS is quite easy, the seller or *merchant* shows the QR code then the buyer can scan and pay using digital money in the application (Gunawan et al., 2023). QRIS in its use supports two models, namely the Customer Presented Mode (CPM) model and the Merchant Presented Mode (MPM) model which has two types, namely static and dynamic MPM (Pulungan et al., 2023).

Micro Business

Based on PP UMKM Number 7 of 2021, micro businesses are productive businesses owned by individuals or business entities with a maximum capital or net worth of 1 billion except land and buildings, with annual sales results or annual turnover of a maximum of 2 billion (PP. Republik Indonesia Nomor 07, 2021).

This research variable consists of three independent variables and one dependent variable. Variables in this study were measured using a Likert scale through a score of 1-5. The conceptual framework is presented in figure 2.

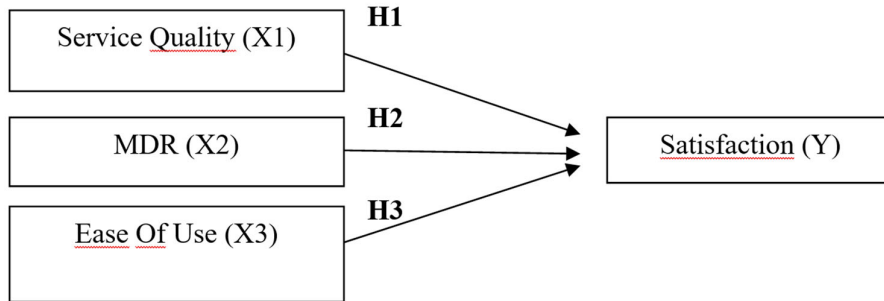


Figure 2. Thinking Framework

- H1 : Service quality affects QRIS user satisfaction at micro businesses in Surakarta City.
- H2 : MDR affects QRIS user satisfaction at micro businesses in Surakarta City.
- H3 : Ease of use affects QRIS user satisfaction at micro businesses in Surakarta City.

Research Methods

This research is included in quantitative research which aims to analyse certain populations or samples, in collecting data using predefined research instruments, and statistical data analysis which aims to test the hypothesis that has been previously set (Sugiyono, 2022). The population in this study were micro businesses as QRIS merchants in Surakarta City. The number of samples was determined using the Lemeshow formula, because the population in this research cannot be known with certainty. The sample size was 100 respondents. The sampling technique was carried out using random sampling technique, namely random sampling from a population without regard to the strata in the population (Sugiyono, 2022). This research uses primary data, namely data obtained directly from the field (Sugiyono, 2022) . Data collection is done by distributing questionnaires directly to respondents. Stages of data processing with EvIEWS 12 software include, multiple linear regression analysis, coefficient of determination (R²), T test (Partial) validity and reliability tests, normality tests, multicollinearity tests, heteroscedasticity tests.

Results and Discussion

Results

Validity Test

The validity test is carried out with the aim of determine whether an instrument is valid or not in research by comparing r count with r table. the instrument is declared valid if the value of r count > r table. Determination of r table with (df) = N-2 at a significance level of 0.05, then obtained r table (df) = 100-2 = 98 with the result of 0.1966. The validity test results can be seen in table 2 below.

Table 2. Validity Test Results

Variables	Item	r Count
Service Quality (X1)	X1.1	0,505
	X1.2	0,619
	X1.3	0,588
	X1.4	0,751

	X1.5	0,623
	X1.6	0,689
	X2.1	0,565
MDR (X2)	X2.2	0,800
	X2.3	0,777
	X2.4	0,629
	X2.5	0,754
	X3.1	0,709
Ease of Use (X3)	X3.2	0,723
	X3.3	0,785
	X3.4	0,730
	X3.5	0,709
	X3.6	0,656
		Y1
Satisfaction (Y)	Y2	0,702
	Y3	0,740
	Y4	0,822

Source: (Processed Eviews 12 output, 2025)

Based on table 2 above, which is rounded to three numbers behind the comma, it shows that all instruments from each variable produce the value of $r_{count} > r_{table}$ (0.1966), so it can be concluded that all instruments from each variable in this research are valid.

Reliability test

This test is conducted to determine the extent to which a research instrument if used multiple times to measure the same object is able to produce the same answer. The research instrument is declared reliable if the Cronbach's Alpha value is > 0.06 . The results of the reliability test can be seen in table 3 below.

Table 3. Reliability Test Results

Variables	Cronbach's Alpha
Service Quality	4,031
MDR	0,744
Ease of Use	0,811
Satisfaction	0,756

Source: (Processed Eviews 12 output, 2025)

In table 3 above, it is recognised the variables of service quality, MDR, ease of use, and satisfaction have a Cronbach's Alpha value > 0.06 , meaning that all instruments in this research variable is declared reliable.

Normality Test

This test is carried out to determine whether the variables in a regression model are normally distributed or not. In the study using the Jarque-Bera test, if the probability value > 0.05 then the data is normally distributed. The results of the normality test can be seen in Figure 3 below.

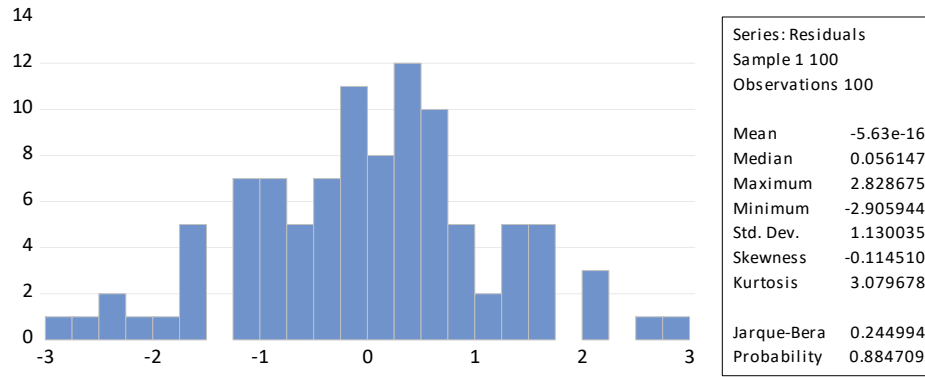


Figure 3. Normality Test Results

Source: (Processed Eviews 12 output, 2025)

From the normality test results in Figure 2, obtained a probability value of $0.884 > 0.05$, so in this study the data was declared normally distributed.

Multicollinearity Test

In the multicollinearity test, the decision-making requirements are seen from the Variance Inflation Factor (VIF) value. If $VIF < 10.00$ then there is no multicollinearity, otherwise if the VIF value is > 10.00 then there is multicollinearity. The multicollinearity test results can be seen in table 4 below.

Table 4. Multicollinearity Test Results

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	2.043563	155.1816	NA
Service Quality	0.002287	107.3576	1.320874
MDR	0.002512	81.26849	1.108224
Ease of Use	0.002863	148.3673	1.404409

Source: (Processed Eviews 12 output, 2025)

Based on table 4 which are rounded to three numbers behind the comma, the Centered VIF value on the service quality variable (X1) is 1.321, on the MDR variable (X2) with a VIF value of 1.108, for the ease of use variable (X3) with a VIF value of 1.404. Of the three independent variables, the VIF value < 10.00 . So the independent variables in this study do not occur multicollinearity.

Heteroscedasticity Test

The heteroscedasticity test in this study uses the Glejser test, If the probability value > 0.05 then there is no heteroscedasticity, otherwise if the probability value < 0.05 then there is heteroscedasticity. The results of the heteroscedasticity test are shown in table 5 below:

Table 5. Heteroscedasticity Test Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.003097	0.053143	0.058273	0.9537
Service Quality	0.000926	0.001778	0.520604	0.6038
MDR	-0.003631	0.001863	-1.948919	0.0542
Ease of Use	0.003878	0.001989	1.949846	0.0541

Source: (Processed Eviews 12 output, 2025)

Based on table 5 using the Glejser test which is rounded off with three numbers behind the comma, it shows that the probability value on the service quality variable (X1) is $0.604 > 0.05$, the MDR variable is $0.054 > 0.05$, and the ease of use variable is $0.054 > 0.05$. So it can be concluded in this study there is no heteroscedasticity.

Multiple Linear Regression Analysis

To see the direction of the relationship between variables, this study uses multiple linear regression analysis. The following are the results of the multiple linear regression analysis test.

Table 6. Multiple Linear Regression Test Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.098090	1.429532	2.167205	0.0327
Service Quality	0.141233	0.047822	2.953305	0.0040
MDR	0.305367	0.050119	6.092884	0.0000
Ease of Use	0.149692	0.053506	2.797662	0.0062
R-squared	0.500786	Mean dependent var		16.74000
Adjusted R-squared	0.485185	S.D. dependent var		1.599369
S.E. from regression	1.147556	Akaike info criterion		3.152324
Sum of squares of resid	126.4210	Schwarz criterion		3.256531
Log likelihood	-153.6162	Hannan-Quinn criter.		3.194499
F-statistic	32.10075	Durbin-Watson stat		2.070090
Prob (F-statistic)	0.000000			

Source: (Processed Eviews 12 output, 2025)

Based on the Coefficients column in table 6, which is rounded to three numbers behind the comma, The regression equation can be formulated as follows:

$$Y = 3.098 + 0.141X1 + 0.305X2 + 0.150X3 + e \quad (1)$$

1. $a = 3.098$ is a constant value, if the independent variables (service quality, MDR, and ease of use) have a value equal to zero, then the dependent variable (Y) is 3.098.
2. The regression coefficient of the service quality variable (X1) is positive at 0.141, if there is an increase in the service quality variable (X1) by one unit, it will cause an increase in satisfaction (Y) of 0.141.
3. The regression coefficient of the MDR variable (X2) is positive, namely 0.305, if there is an increase in the MDR variable (X2) by one unit, it will cause an increase in satisfaction (Y) of 0.305.
4. The regression coefficient of the ease of use variable (X3) is positive, namely 0.150, if there is an increase in the ease of use variable (X3) by one unit, it will cause an increase in satisfaction (Y) of 0.150.

Coefficient of Determination (R2)

This test is conducted to see how much the independent variable contributes to the dependent variable. The results of this test can be seen from the adjusted R square value. Based on table 6 shows the Adjusted R Square value of 0.485 or 48.5%, this shows that the percentage of service quality variables, MDR, and ease of use on QRIS user satisfaction in Surakarta City micro businesses contributes 48.5%, while 51.5% is explained by other variables that are not included in this research model.

t Test

The purpose of this test is to test the individual (partial) effect of the independent variable on the dependent variable. The t test is seen from the t-Statistic value and the probability value, if the t-Statistic value $>$ t table and the probability

value < 0.05 then it is stated to have a significant effect. t table is obtained by the formula $a = 0.05$ $df_1 = a/2 = 0.025$ $df_2 = n-k-1 = 100-3-1 = 96$, t table = 0.025; 96 = 1.984, so that based on the t test results table in table 6 above, which is rounded to three numbers behind the comma, it shows that:

1. The service quality variable (X1) with t-Statistic results $2.953 > 1.984$, with probability value of $0.004 < 0.05$, so that H1 is accepted, Meaning the service quality variable (X1) has a significant effect on QRIS user satisfaction on micro business actors in Surakarta City.
2. The MDR variable (X2) with t-Statistic results $6.093 > 1.984$, with probability value of $0.000 < 0.05$ so that H2 is accepted, meaning the MDR variable (X2) has a significant effect on QRIS user satisfaction on micro business actors in Surakarta City.
3. The ease of use variable (X3) with t-Statistic results $2.798 > 1.984$, with probability value of $0.006 < 0.05$ so that H3 is accepted, meaning the ease of use variable (X3) has a significant effect on QRIS user satisfaction on micro business actors in Surakarta City.

Discussion

The Effect of Service Quality on QRIS User Satisfaction in Surakarta City Micro Businesses.

This study reveals that service quality has a significant influence on QRIS user satisfaction on micro businesses in Surakarta City. This is indicated by the calculated t value of 2.953 which is greater than the t table (1.984), as well as a probability value of 0.004 which is smaller than 0.05, so that hypothesis H1 is accepted. The positive regression coefficient indicates that the relationship between service quality and user satisfaction is unidirectional, that is, the better the quality of QRIS services, the level of satisfaction of micro businesses will increase. Thus, it can be concluded that service quality has a positive and significant influence on QRIS user satisfaction at micro businesses in Surakarta City. This research is in line with previous research conducted by (Sari & Raya, 2022), namely regarding the effect of QRIS service quality on MSMEs transaction satisfaction in the Rangkasbitung market, with the results of research that service quality has a positive and significant effect on transaction satisfaction.

QRIS service quality has shown a positive and significant influence on the level of user satisfaction, especially for micro businesses in Surakarta City. However, in practice there are still obstacles that reflect that the quality of QRIS services is still not optimal, this is based on the expressions of several respondents when researchers distributed questionnaires directly, several micro-business actors revealed that one of the main problems was the delay in disbursement of funds to business accounts after successful transactions. This causes difficulties for micro businesses in terms of capital turnover for daily operations. This finding shows that although the QRIS system provides efficiency and convenience benefits in payments and service quality is proven to have an effect on satisfaction, there are still aspects of the service that require improvement to achieve a higher level of user satisfaction.

The Effect of MDR on QRIS User Satisfaction in Surakarta City Micro Businesses.

The results of this study reveal that the Merchant Discount Rate (MDR) has an influence on QRIS user satisfaction on micro businesses in Surakarta City. This is evidenced by the t-Statistic value of 6.093 which is greater than 1.984, as well as a probability value of 0.000 which is less than 0.05, so hypothesis H2 is accepted. Based on the positive regression coefficient, the relationship between MDR and user satisfaction is unidirectional. Thus, this study concludes that MDR has a positive and significant influence on the level of QRIS user satisfaction at micro businesses in Surakarta City. This research is in line with qualitative research conducted by (Lestari, 2023) with research findings that businesses are willing to pay merchant discount rate (MDR) fees such as standards set by Bank Indonesia by considering the potential use of digital money in today's society which can contribute to increased sales sales in micro businesses. Furthermore, this study is also in line with qualitative research conducted by (Endayani et al., 2024) with the results of research that coffee shop micro entrepreneurs in Karawang are willing to pay settlement fees and MDR set by Bank Indonesia in general on the use of QRIS payment methods, seeing the potential for cashless use in Karawang has increased. This study is in line with research conducted (Wardiana, 2024) with the results of research that the application of MDR QRIS affects the satisfaction of MSMEs in Rejang Lebong Regency.

Merchant Discount Rate (MDR) QRIS shows a positive and significant influence on the level of satisfaction of QRIS users in Surakarta City micro businesses. This is in line with Bank Indonesia's payment system policy mix regarding 0% QRIS MDR for transactions up to 500.000 IDR for the Micro Business (UMI) merchant category which is effective starting 1 December 2024 which aims to support the purchasing power of the lower middle class (www.bi.go.id, 2024). Previously, this 0% MDR rate applied to transactions of 100.000 IDR. This policy incentivises micro businesses to be more active in using QRIS as a digital payment method. By raising the maximum transaction limit from 100.000 IDR to 500.000 IDR for the 0% MDR category, micro businesses can enjoy better cost efficiency, increase profits, and support their business

sustainability. In addition, based on the expressions of several respondents, micro merchants have directly benefited from the change in the 0% MDR rate.

The Effect of Ease of Use on QRIS User Satisfaction in Surakarta City Micro Businesses.

Based on the research results, ease of use has a t-Statistic value of 2.798 which is greater than 1.984, and a probability value of 0.006 which is smaller than 0.05. Thus, hypothesis H3 is accepted, indicating that ease of use affects QRIS user satisfaction at micro businesses in Surakarta City. The positive regression coefficient indicates a unidirectional relationship between ease of use and satisfaction. Therefore, it can be concluded that in this study, ease of use has a positive and significant effect on QRIS user satisfaction at micro businesses in Surakarta City. This research is in accordance with research conducted by (Kamilah & Haryati, 2024) with research results showing that ease of use has a positive and significant effect on the use of QRIS for transactions. However, This research is not in line with research conducted by (Rafferty & Fajar, 2022) with the research results that ease of use has no influence on behavioural intention to use QRIS.

Although in research (Rafferty & Fajar, 2022) does not discuss satisfaction, but discusses the behaviour of traders in using QRIS, behaviour shows that someone has used QRIS, meaning that the subject in the research conducted by (Rafferty & Fajar, 2022) with this research is the same, namely merchants or micro-business actors who have used QRIS. This study measures ease of use based on the experience of micro businesses in using QRIS, so that micro businesses feel the ease of using QRIS after they actually use QRIS. According to (Hafizah et al., 2023) a technology can be used to relieve or help others and be free from responsibility and without any effort, simply using technology causes everything to be easy to use, this results in requiring little effort from the user, this is in accordance with the findings of this study that micro business actors are facilitated by the existence of QRIS in running their business. As an integrated digital payment system, QRIS is designed to simplify the transaction process in various payment applications. For micro businesses in Surakarta City, the convenience of QRIS can make the payment process fast and efficient and can avoid counterfeit money.

Conclusion

The purpose of this study is to analyse the effect of service quality, MDR, and ease of use on QRIS user satisfaction at micro businesses in Surakarta City. Based on the test results and discussion above, the conclusions of this study can be summarised as follows: (1) Service quality has a positive and significant effect on QRIS user satisfaction at micro businesses in Surakarta City. (2) MDR has a positive and significant effect on QRIS user satisfaction at micro businesses in Surakarta City. (3) Ease of use has a positive and significant effect on QRIS user satisfaction at micro businesses in Surakarta City. Researchers provide suggestions for several parties such as QRIS organisers, microbusiness actors, and for further researchers. This study has proven that there is an effect of service quality, MDR, and ease of use on QRIS user satisfaction in Surakarta City micro businesses. However, in terms of the quality of QRIS services in practice, it is hoped that the QRIS organiser will pay more attention to and improve the quality of QRIS services so that funds go directly to the accounts of micro businesses without going through a long process, the QRIS organiser is also expected to continue to educate QRIS merchants so that QRIS is easy to understand and becomes an option in transactions. Micro business actors should be able to make QRIS a priority as a payment method, so it is hoped that the use of QRIS will continue to increase in the future. Furthermore, based on the coefficient of determination, the variables of service quality, MDR, and ease of use have an influence on QRIS user satisfaction of 48.5%, this shows that 51.5% is influenced by other factors. This shows that 54.5% of other factors can be utilised and become an opportunity for further researchers to be able to examine various factors that have the potential to influence the level of satisfaction of QRIS users, especially for micro-business actors. Researchers hope that in the future further researchers can research with a wider sample and area.

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