

The Influence of Financial Literacy, Financial Inclusion, Internal Control, and Financial Performance on the Decision to Use QRIS among MSMEs in Medan City

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ABSTRACT

This study aims to analyze the influence of financial literacy, financial inclusion, internal control, and financial performance on the decision to use QRIS among MSMEs in Medan City. This research is associative in nature with a quantitative approach. The sampling technique applied is purposive sampling, with a sample size of 95 respondents. Data collection was conducted through the distribution of questionnaires, which were then analyzed using multiple linear regression analysis techniques with SPSS version 25. Based on the research results, the partial analysis shows that: 1) Financial literacy has a significant influence on the decision to use QRIS; 2) Financial inclusion has a significant influence on the decision to use QRIS; 3) Internal control has a significant influence on the decision to use QRIS; 4) Financial performance has a significant influence on the decision to use QRIS. Simultaneously, financial literacy, financial inclusion, internal control, and financial performance collectively influence the decision to use QRIS among MSMEs in Medan City.

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Introduction

The development of digital technology in recent years has brought significant changes to various aspects of life, including payment systems. In Indonesia, one of the rapidly growing innovations in digital payments is QRIS (Quick Response Code Indonesian Standard). QRIS is a QR code standard developed by Bank Indonesia to facilitate digital payment transactions, particularly for micro, small, and medium enterprises (MSMEs). According to Bank Indonesia (BI) data in 2023, the number of QRIS transactions throughout 2022 reached 1.03 billion, marking an 86% increase from the previous year. The high adoption rate of QRIS is driven by the proliferation of electronic money products, such as e-wallet applications (Bank Indonesia, 2020). In Indonesia, MSMEs dominate the business sector, with 93.4% being micro-enterprises, 5.1% small enterprises, and 1% large enterprises. MSMEs have proven to be the backbone of the economy, especially during economic crises. In Medan, one of Indonesia's major cities, MSMEs play a crucial role in the local economy. However, the adoption of QRIS by MSMEs in the city still faces various challenges, one of which is the level of financial literacy among MSME actors. Good financial literacy enables MSME actors to understand the benefits and risks of financial products, including QRIS, allowing them to make more informed decisions in adopting new technologies.

According to the 2022 National Survey on Financial Literacy and Inclusion (SNLIK) by the Financial Services Authority (OJK), the financial literacy rate in Indonesia reached 49.86%, while financial inclusion reached 85.10%. These figures show a significant increase compared to 2019, when financial literacy was 38.0% and financial inclusion was 76.19%. However, there remains a considerable gap between financial literacy and inclusion. This indicates that while financial services in Indonesia have become more accessible, knowledge about financial management or financial institutions is still not balanced. According to David H. Austern, internal audits play a crucial role in ensuring the effectiveness of internal controls. Regular audits of QRIS transactions can help identify potential deviations or weaknesses in the process. Internal control over the decision to use QRIS is an essential aspect of ensuring that transactions are secure, transparent, and compliant with organizational policies.

Previous research has shown mixed results regarding the influence of financial literacy on QRIS usage. According to Palupi et al. (2022), financial literacy and ease of use have a positive and significant influence on QRIS adoption. This suggests that the higher the level of financial literacy, the more likely individuals are to use QRIS for transactions. However, research by Seputri & Yafiz (2022) states that financial literacy does not influence the decision to use QRIS. On the other hand, research by Lasmini & Zulvia (2021) shows that financial inclusion has a positive and significant relationship with financial technology. Similar findings were reported by Azzahra S (2022), who stated that financial inclusion influences the use of financial technology payments. Additionally, research by Afandi & Rukmana (2022) reveals that the effective use of QRIS can enhance financial inclusion.

Internal control consists of five components that must be implemented to function effectively: control environment, risk assessment, control activities, information and communication, and monitoring. These five components are essential for improving the effectiveness of internal controls in an organization or business. Without proper implementation of internal controls, a business risks failure. Therefore, every organization or business needs to manage its operations through internal controls to ensure sustainability and competitiveness. The use of QRIS as a payment method is expected to enhance the effectiveness of internal controls in MSMEs. This effectiveness can be assessed based on the five components of internal control. However, this research has not explicitly revealed whether QRIS is a factor that improves the effectiveness of internal controls in MSMEs in Medan.

In the context of financial performance, the use of QRIS does not always lead to improvements. Research by Ferita (2023) and Nehanka & Prayitno (2024) states that the implementation of fintech, including QRIS, does not significantly impact profitability, as measured by ROA, ROE, BOPO, and NIM ratios, either before or after its implementation. However, other studies, such as those conducted by Idfilandu & Saripudin (2021), Sudaryanti et al. (2022), and Urba et al. (2019), show different results. They found significant differences in financial performance before and after the implementation of fintech, of which QRIS is a part. To verify the validity of these claims, further research is needed under the title, "The Influence of Financial Literacy, Financial Inclusion, Internal Control, and Financial Performance on the Decision to Use QRIS in MSMEs in Medan."

Literature Review

The Influence of Financial Literacy on the Decision to Use QRIS

Financial literacy plays a crucial role in driving the adoption and use of QRIS. The higher a person's level of financial literacy, the greater their likelihood of understanding the benefits, security, and functionality of QRIS. According to Kristanti & Marta (2021), a QR Code itself is a series of codes containing data or information such as merchant/user identity, payment amount, and/or currency, which can be read using specific tools for payment transactions. The Quick Response Code Indonesian Standard, commonly known as QRIS, is one of the latest payment methods that can facilitate merchants and consumers in conducting transactions (Zaborovskaya et al., 2021).

The Influence of Financial Inclusion on the Decision to Use QRIS

According to Kusumaningtuti S Soetiono (2018), financial inclusion refers to all efforts aimed at eliminating barriers to public access to affordable financial services. Based on the definition by the Financial Services Authority (OJK), financial inclusion is the availability of access to financial institution products, taking into account aspects such as quality, availability, and usage of financial services.

The Influence of Internal Control on the Decision to Use QRIS

According to COSO (Committee of Sponsoring Organizations of the Treadway Commission), internal control is a process that runs throughout the organization and is considered one of the core functions of management. There are five aspects of internal control according to COSO, as cited in Winarno's book (2006: 11.7) and referenced in the journal by Ratiani & Masdiantini (2022). Effective internal control can increase business actors' trust in digital payment systems like QRIS, as clear and efficient procedures can minimize the risk of fraud (Kusumawati & Hidayati, 2020). Thus, strong internal control plays a vital role in encouraging MSMEs to adopt QRIS as a secure and efficient payment method.

The Influence of Financial Performance on the Decision to Use QRIS

Financial performance is an assessment of productivity and efficiency by examining financial reports (Candy et al., 2022). An improvement in financial performance indicates that the financial condition is in good health (Fadhilah & Darmawati, 2023). According to Irham Fahmi (2018), financial performance is an analysis

conducted to evaluate and determine the extent to which a company has implemented financial practices properly and correctly.

Conceptual Framework

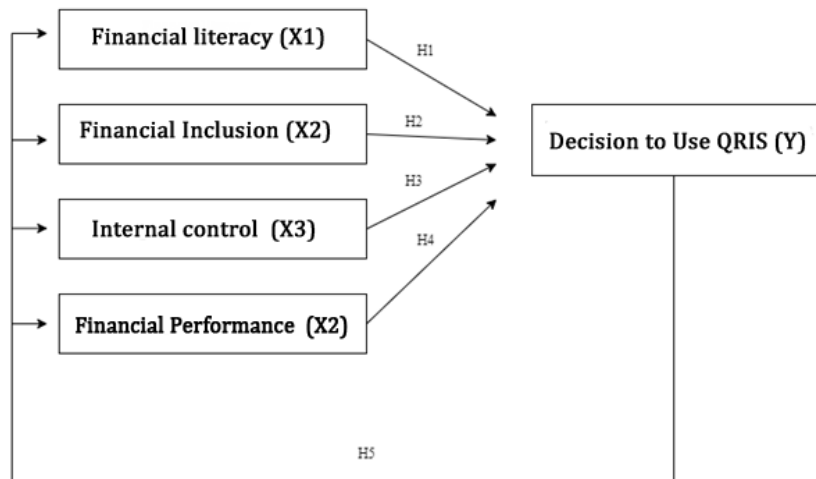


Figure 1 Conceptual Framework

Research Hypotheses

The hypotheses in this undergraduate thesis report, titled "The Influence of Financial Literacy, Financial Inclusion, Internal Control, and Financial Performance on the Decision to Use QRIS among MSMEs in Medan City," focus on testing the influence of these factors on the decision to adopt QRIS among MSMEs.

The following hypotheses are proposed:

- H1 : Financial literacy has a significant influence on the decision to use QRIS among MSMEs in Medan City.
- H2 : Financial inclusion has a significant influence on the decision to use QRIS among MSMEs in Medan City.
- H3 : Internal control has a significant influence on the decision to use QRIS among MSMEs in Medan City.
- H4 : Financial performance has a significant influence on the decision to use QRIS among MSMEs in Medan City.
- H5 : Financial literacy (X1), financial inclusion (X2), internal control (X3), and financial performance (X4) simultaneously have a significant influence on the decision to use QRIS (Y) among MSMEs in Medan City.

Method

This research is descriptive quantitative in nature, where quantitative research is a systematic investigation involving statistical analysis (Amelia et al., 2023). The study will be conducted in Medan City, North Sumatra, with the research period starting from October 2024 to May 2025. According to Notoadmojo (2018), a population is the entire object of research, and in this study, the population used is MSMEs in Medan City, totaling 1,875 MSMEs registered under the guidance of the Department of Cooperatives, Small and Medium Enterprises, Industry, and Trade (Koperasi UKM Perindag) of Medan City. The sample was selected using purposive sampling with the Slovin formula, resulting in 95 samples. Data collection was carried out through closed questionnaires, where respondents were provided with a set of written questions to answer (Sujarweni, 2019). Data analysis was performed using SPSS software with the multiple linear regression test method to determine the direction and significance of the relationship between dependent and independent variables (Poetri, 2022).

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4M + \beta_5(X_1 \times M) + \beta_6(X_2 \times M) + \beta_7(X_3 \times M) + \epsilon$$

Y	: Decision to Use QRIS
β_0	: Constant
$\beta_1, \beta_2, \beta_3$: Regression coefficients of each independent variable
M	: Use of QRIS
β_4	: Regression coefficient of the moderating variable
$\beta_5, \beta_6, \beta_7$: Interaction coefficients between independent variables and the moderating variable
ϵ	: Error term

Results and Discussion

Descriptive Statistical Analysis

Descriptive statistical analysis needs to be done to see the general picture of the data such as the average value (mean), the highest value (maximum), the lowest value (minimum) and the standard deviation of each variable. Regarding the results of the descriptive statistical test, they can be seen in the following table.

Table 1 Results of Descriptive Statistical Tests

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Financial Literacy	95	12,00	30,00	24,6421	3,88098
Financial Inclusion	95	22,00	45,00	38,0421	4,38788
Internal Control	95	32,00	60,00	48,4632	5,63766
Financial Performance	95	18,00	40,00	30,2737	5,42736
Qris Usage Decision	95	21,00	45,00	37,8947	4,79244
Valid N (listwise)	95				

Source: SPSS 25 Output

Based on the results of the descriptive statistical test above, we can describe the distribution of data obtained by the researcher.

1. Based on the results of descriptive statistical testing, the financial literacy variable has the lowest (minimum) value of 12.00 and the highest (maximum) value of 30.00. The average value (mean) for this variable is 24.6421 with a standard deviation of 3.88098. This shows that the level of financial literacy of respondents tends to vary, but is generally in the middle range.
2. The financial inclusion variable has the lowest (minimum) value of 22.00 and the highest (maximum) value of 45.00. The average value (mean) for this variable is 38.0421 with a standard deviation of 4.38788. These results indicate that the level of financial inclusion of respondents is relatively high, with variations that are not too significant.
3. In the internal control variable, the lowest (minimum) value is 32.00 and the highest (maximum) value is 60.00. The average value (mean) for this variable is 48.4632 with a standard deviation of 5.63766. This shows that internal control practices among respondents are quite diverse, but in general are at a fairly good level.
4. The financial performance variable has the lowest (minimum) value of 18.00 and the highest (maximum) value of 40.00. The average value (mean) for this variable is 30.2737 with a standard deviation of 5.42736. These results indicate that the financial performance of respondents is in the middle range with quite significant variations.
5. The QRIS usage decision variable has the lowest (minimum) value of 21.00 and the highest (maximum) value of 45.00. The average value (mean) for this variable is 37.8947 with a standard deviation of 4.9244. This indicates that the respondents' decision to use QRIS tends to be high, with relatively small variations.

Validity Test

Validity testing aims to show the extent to which an instrument is able to measure what it should measure. The results of the validity test for the variables of financial literacy, financial inclusion, internal control, financial performance and ease of use of qris are presented in the following table:

Table 2 Validity Test Results

Table 2. Validity Test Results				
No	Variables	Rcount	Rtable	Information
Financial Literacy				
1	X1.1	0.610	0.361	Valid
2	X1.2	0.622		
3	X1.3	0.623		
4	X1.4	0.662		
5	X1.5	0.750		
6	X1.6	0.831		
Financial Inclusion				
7	X2.1	0.597	0.361	Valid
8	X2.2	0.568		

9	X2.3	0.577		
10	X2.4	0.513		
11	X2.5	0.755		
12	X2.6	0.633		
13	X2.7	0.554		
14	X2.8	0.606		
15	X2.9	0.567		
Internal Control				
16	X3.1	0.541	0.361	Valid
17	X3.2	0.389		
18	X3.3	0.390		
19	X3.4	0.606		
20	X3.5	0.634		
21	X3.6	0.724		
22	X3.7	0.506		
23	X3.8	0.549		
24	X3.9	0.562		
25	X3.10	0.509		
26	X3.11	0.409		
27	X3.12	0.729		
Financial performance				
28	X4.1	0.683	0.361	Valid
29	X4.2	0.621		
30	X4.3	0.765		
31	X4.4	0.641		
32	X4.5	0.392		
33	X4.6	0.562		
34	X4.7	0.718		
35	X4.8	0.594		
Qris Usage Decision				
36	Y1	0.515	0.361	Valid
37	Y2	0.653		
38	Y3	0.725		
39	Y4	0.505		
40	Y5	0.612		
41	Y6	0.606		
42	Y7	0.671		
43	Y8	526		
44	Y9	0.570		

Based on Table 2, the results of the validity test for the variables Financial Literacy, Financial Inclusion, Internal Control, Financial Performance, and QRIS Usage Decisions show that the calculated r value is greater than r table. Thus, all indicators in these variables are declared valid.

Reliability Test

Reliability testing aims to evaluate the ability of the questionnaire to predict a variable. The questionnaire is considered reliable if the responses given by the respondents are generally consistent. By using the Cronbach's Alpha statistical test processed through SPSS, a variable is declared reliable if the Cronbach's Alpha value is > 0.700 . The following are the results of the reliability test:

Table 3 Reliability Test Results

Variables	Cronbach's Alpha	N of Items	Information
Financial Literacy (X1)	0.768	6	Reliable
Financial Inclusion (X2)	0.766	9	
Internal Control (X3)	0.779	12	
Financial Performance (X4)	0.756	8	
Qris Usage Decision (Y)	0.754	9	

Based on table 3 of the reliability test, the Cronbach's Alpha value of all variables is at > 0.700 . Thus, the five variables are declared reliable and can be used for data collection in this study.

Normality Test

Normality Test is a test of the normality of data distribution. The normality test uses graphical analysis and statistical analysis. The graphical analysis is in the form of a histogram graph. The histogram graph in the following image:

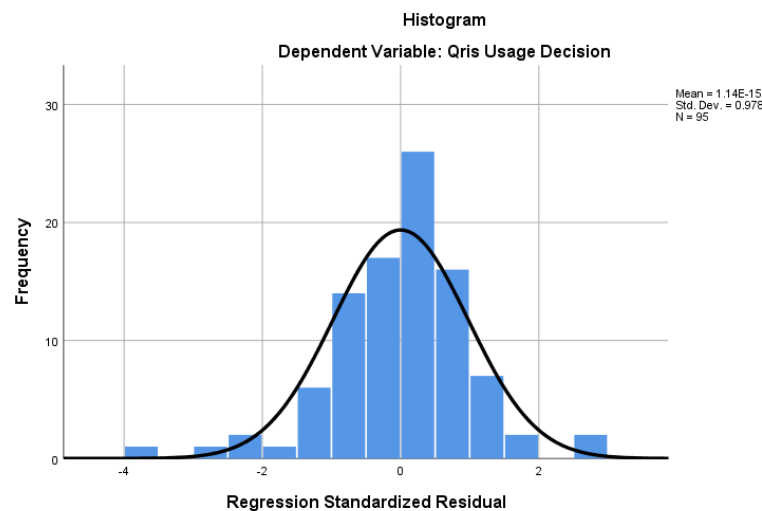


Figure 2 Histogram Normality Test

The histogram graph is said to be normal if the data distribution forms a bell. The image above does not lean to the right or left so that the histogram graph is declared normal.

Table 2 Normality Test with Kolmogorov-Smirnov

		Unstandardized Residual
N		95
Normal Parameters ^{a,b}	Mean	0,0000000
	Std. Deviation	3,21347971
Most Extreme Differences	Absolute	0,073
	Positive	0,073
	Negative	-0,071
Test Statistic		0,073
Asymp. Sig. (2-tailed)		.200 ^{c,d}

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. This is a lower bound of the true significance.

The normality test must be strengthened with a statistical test using *the Kolmogorov-Smirnov test*. *The Kolmogorov-Smirnov* results in the table have a significance level of $0.200 > 0.05$ indicating that the data is normally distributed.

Multicollinearity Test

The multicollinearity test states that the independent variables must be free from multicollinearity symptoms. If the VIF value < 10 or if the tolerance value > 0.1 then there is no multicollinearity.

Table 5 Multicollinearity Test

Variable	Collinearity Tolerance	VIF
Financial Literacy	0.498	2.009
Financial Inclusion	0.670	1.493
Internal Control	0.449	2.226
Financial performance	0.823	1.216

Based on the table data above, the VIF value obtained is less than 10 and the tolerance value is more than 0.1. This indicates that there is no multicollinearity in the independent variables.

Heteroscedasticity Test

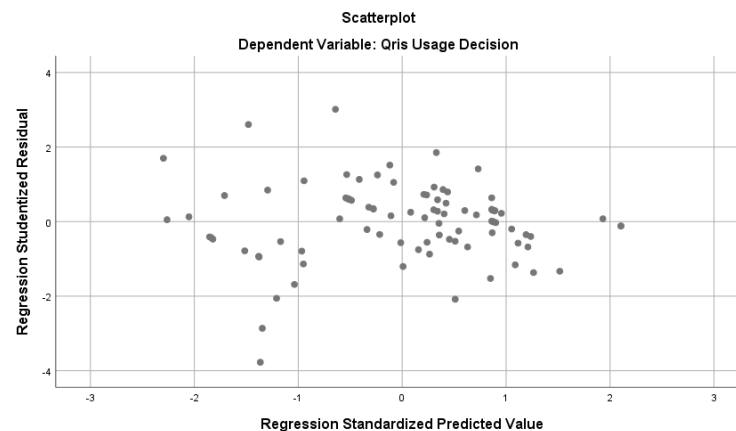


Figure 3 Heteroscedasticity Test

There are no symptoms of heteroscedasticity if there is no clear pattern, such as dots spreading above and below the number 0 on the Y axis. In the image, the dots are spread out so it is stated that there are no symptoms of heteroscedasticity.

Multiple Linear Regression

In (Ghozali, 2021) it is stated that researchers use multiple linear regression analysis to test the relationship between independent variables and dependent variables. The following are the results of the multiple linear regression test:

Table 6 Multiple Linear Regression Test Results

Model	Coefficients ^a		Standardized Coefficients Beta	t	Sig.
	Unstandardized Coefficients B	Std. Error			
1 (Constant)	11,575	3,489		3,317	0,001
Financial Literacy	-0,043	0,124	-0,035	-0,345	0,731
Financial Inclusion	0,164	0,094	0,150	1,742	0,085
Internal Control	0,055	0,090	0,064	0,609	0,544
Financial Performance	0,610	0,069	0,691	8,868	0,000

a. Dependent Variable: Qris Usage Decision

$$Y = 11.575 - 0.043X_1 + 0.164X_2 + 0.055X_3 + 0.610X_4$$

Which mean:

1. The values of Financial Literacy, Financial Inclusion, Internal Control, and Financial Performance are stated to be consistent, so the Decision to Use Qris obtained a value of 11.575.
2. The multiple regression coefficient for the Financial Literacy variable (X1) is -0.043. This means that for every one increase in the Financial Literacy variable, there will be a decrease of 0.043 in the Qris Use Decision variable.
3. A positive multiple regression coefficient of 0.164 was found for the Financial Inclusion variable (X2). This means that for every one increase in the Financial Inclusion variable, there will be an increase of 0.164 in the Qris Usage Decision variable.
4. A positive multiple regression coefficient of 0.055 was found for the Internal Control variable (X3). This means that for every one increase in the Internal Control variable, there will be an increase of 0.055 in the Qris Use Decision variable.
5. A positive multiple regression coefficient of 0.610 was found for the Financial Performance variable (X4). This means that for every one increase in the Financial Performance variable, there will be an increase of 0.610 in the Qris Usage Decision variable.

Coefficient of Determination Test (R^2)

In (Ghozali, 2021) it is stated that the purpose of this test is to determine the extent to which the dependent variable can be explained by the model that functions as the independent variable.

Table 7 Results of the Determination Coefficient Test (R^2)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.742 ^a	0,550	0,530	3,28411

a. Predictors: (Constant), Financial Literacy, Financial Inclusion, Internal Control, Financial Performance

Based on the table above, the R Square coefficient value (R^2) is 0.550 or 55 percent, so it can be concluded that the magnitude of the influence of the variables Financial Performance, Financial Inclusion, Financial Literacy and Internal Control is 0.550 or 55 percent.

T-test

This test is conducted to test the research hypothesis regarding the influence of each independent variable partially on the dependent variable. This test is conducted with a significance level of 0.05 ($\alpha = 5\%$) and if the t-count value <t-table and the significance value obtained> 0.05. The t-table value is obtained from the formula $df = Nk-1 = 95-5-1 = 89$.

Table 8 T-Test Results

Variables	t cont	t table	Sig
Financial Literacy	3,728	1.986	0.000
Financial Inclusion	2,835	1.986	0.006
Internal Control	3,551	1.986	0.001
Financial performance	10,003	1.986	0.000

- Since the significance value is $0.000 < 0.05$, Financial Literacy is significantly influenced by the Decision to Use QRIS. This shows that the t-count is greater than the t-table, because the result is $3.728 > 1.986$.
- Since the significance value is $0.006 < 0.05$, Financial Inclusion is significantly influenced by the Decision to Use QRIS. This shows that the t-count is greater than the t-table, because the result is $2.835 > 1.986$.
- Since the significance value is $0.001 < 0.05$, Internal Control is significantly influenced by the Decision to Use QRIS. This shows that the t-count is greater than the t-table, because the result is $3.551 > 1.986$.
- Since the significance value is $0.000 < 0.05$, Financial Performance is significantly influenced by the QRIS Usage Decision. This shows that the t-count is greater than the t-table, because the result is $10.003 > 1.986$.

F Test

To test the feasibility of the research model by knowing the equation of the regression model that can be used with the aim of seeing the impact of independent variables on dependent variables (Ghozali, 2021). If the significance value is less than 0.05, then the regression model can be used.

Table 3.9 F Test Results

F	Sig.
27,543	0.000

From the table above, f-count > f-table, namely, $27,543 > 2.47$, so the decision to use QRIS is influenced by financial literacy, financial inclusion, internal control and financial performance simultaneously as shown by the significance result of $0.000 < 0.05$.

Discussion

The Influence of Financial Literacy (X1) on the Decision to Use QRIS

Based on the partial hypothesis test, the t-value is greater than the t-table ($3.728 > 1.986$) with a significance value of $0.000 < 0.05$. This indicates that financial literacy has a significant influence on the decision to use QRIS. This finding aligns with the research by Palupi et al. (2022), which states that financial literacy and ease of use have a positive and significant influence on the adoption of QRIS. Good financial

literacy enables MSME actors to understand the benefits, security, and mechanisms of using QRIS, encouraging them to transition from traditional payment methods to digital systems. With a better understanding of financial products, MSMEs can make more informed and rational decisions, ultimately increasing the adoption of QRIS. Additionally, financial literacy helps MSME actors manage financial risks more effectively, making them more confident in using digital payment technologies like QRIS.

The Influence of Financial Inclusion (X2) on the Decision to Use QRIS

The partial hypothesis test results show that the t-value is greater than the t-table ($2.835 > 1.986$) with a significance value of $0.006 < 0.05$. This proves that financial inclusion has a significant influence on the decision to use QRIS. This finding is reinforced by the research of Azzahra S (2022), which states that financial inclusion has a positive influence on the use of financial technology payments. Financial inclusion ensures that MSMEs have easy and affordable access to financial services, including QRIS. The higher the level of financial inclusion, the greater the likelihood of MSMEs adopting QRIS as a payment method. Furthermore, Afandi & Rukmana (2022) found that the use of QRIS can enhance financial inclusion, creating a mutually beneficial relationship. Thus, financial inclusion not only facilitates access to financial services but also encourages the adoption of more inclusive digital payment technologies.

The Influence of Internal Control (X3) on the Decision to Use QRIS

Based on the partial hypothesis test, the t-value is greater than the t-table ($3.551 > 1.986$) with a significance value of $0.001 < 0.05$. This indicates that internal control has a significant influence on the decision to use QRIS. Effective internal control ensures that financial transactions are conducted securely, transparently, and efficiently. As highlighted by Tresnasari and Zulganef (2023), traditional cash payments increase security risks and make MSMEs vulnerable to fraud. By implementing QRIS, MSMEs can reduce these risks, as digital payment systems offer higher security through automated and monitored processes. Effective internal control also helps MSMEs manage cash flow and minimize human errors, thereby increasing their trust in digital payment systems like QRIS.

The Influence of Financial Performance (X4) on the Decision to Use QRIS

The partial hypothesis test results show that the t-value is greater than the t-table ($10.003 > 1.986$) with a significance value of $0.000 < 0.05$. This proves that financial performance has a significant influence on the decision to use QRIS. This finding is supported by research from Idfilandu & Saripudin (2021), Sudaryanti et al. (2022), and Urba et al. (2019), which found significant differences in financial performance before and after the implementation of fintech, including QRIS. Good financial performance reflects the ability of MSMEs to manage financial resources effectively, encouraging them to adopt more efficient payment technologies like QRIS. By using QRIS, MSMEs can improve operational efficiency, reduce transaction costs, and speed up payment processes, ultimately contributing to enhanced financial performance. Additionally, QRIS enables MSMEs to expand their market by attracting more customers who prefer digital payments.

Conclusion

Based on the research findings regarding the influence of financial literacy, financial inclusion, internal control, and financial performance on the decision to use QRIS among MSMEs in Medan City, it can be concluded that financial literacy, financial inclusion, internal control, and financial performance, both individually and simultaneously, have a significant influence on the decision to use QRIS. Financial literacy enables MSME actors to understand the benefits and mechanisms of QRIS, encouraging the adoption of this digital payment technology. Financial inclusion facilitates easier and more affordable access to financial services, including QRIS, which ultimately increases MSMEs' interest in using it. Effective internal control provides security and transparency in transactions, reduces the risk of fraud, and increases MSMEs' trust in digital payment systems. Meanwhile, good financial performance reflects MSMEs' ability to manage resources efficiently, encouraging them to adopt modern payment technologies like QRIS to improve operational efficiency and business competitiveness.

The following recommendations can be made based on the research findings. First, for future researchers, it is recommended to add other variables such as technology adoption, trust in transaction security, consumer behavior, government support or regulations, MSMEs' digital capabilities, and the level of business competition. This aims to gain a more comprehensive understanding of the factors influencing the decision to use QRIS. By exploring these variables, future research can provide deeper and more relevant insights for the development of digital payment systems in Indonesia. Second, for MSME actors, it is

recommended to improve financial literacy and financial inclusion to better understand the benefits and efficiency of using QRIS in business transactions. Additionally, MSMEs need to actively follow technological developments and policies related to digital payments. This will enable MSMEs to enhance their competitiveness in the digital era and build consumer trust in cashless transactions. Improving understanding and adopting digital payment technologies like QRIS can also help MSMEs optimize business operations, reduce financial risks, and expand their market.

References

- Ardila, I., Sembiring, M., & Azhar, E. (2021). Analisis literasi keuangan pelaku UMKM. In *Scenario (Seminar of Social Sciences Engineering and Humaniora)* (pp. 216–222).
- Athaya, D. (2022). Pengaruh persepsi kemudahan penggunaan, persepsi risiko penggunaan, dan persepsi manfaat penggunaan terhadap minat penggunaan Quick Response Code Indonesian Standard (QRIS). <https://Eprints.Umm.Ac.Id/92287/>, 7–15.
- Awalina, M. (2019). Pengaruh persepsi kemanfaatan, kemudahan, dan literasi keuangan terhadap minat penggunaan uang elektronik berbasis server di kalangan mahasiswa dalam perspektif Islam. *Journal of Chemical Information and Modeling*, 53(9), 2–71.
- Cahyani, D., & Wibowo, B. (2023). Pengaruh penerapan teknologi informasi terhadap efektivitas pengendalian internal perusahaan. *Jurnal Ekonomi & Bisnis*, 27(1).
- Ersaningtyas, A. P., & Susanti, E. D. (2019). Analisis pengaruh persepsi kemudahan, persepsi risiko, dan kualitas informasi terhadap minat menggunakan rekening bersama Shope. *Jurnal Bisnis Indonesia*, 185–198.
- Fadlillah, S. A., Nugroho, J. A., & Sangka, K. B. (2021). Pengaruh kemudahan dan keamanan terhadap minat menggunakan Quick Response Code Indonesian Standard (QRIS) pada pelaku UMKM binaan Bank Indonesia KPW Solo. *BISE: Jurnal Pendidikan Bisnis dan Ekonomi*, 7(1). <https://jurnal.uns.ac.id/bise>
- Ghozali, I. (2018). *Aplikasi analisis multivariate dengan program IBM SPSS 25*. Badan Penerbit Universitas Diponegoro.
- Herlambang, R. (2021). Pengaruh penggunaan sistem pembayaran Quick Response Code Indonesian Standard (QRIS) terhadap pengembangan UMKM Kota Medan. *Universitas Sumatera Utara Medan*.
- Indonesia, B. (2020). *QR Code Indonesian Standard (QRIS)*. Diperoleh pada 28 April 2021 dari <https://www.bi.go.id/QRIS/Default.aspx>
- Joan, L., & Sitinjak, T. (2019). Pengaruh persepsi kebermanfaatan dan persepsi kemudahan penggunaan terhadap minat penggunaan layanan pembayaran digital Go-Pay. *Jurnal Manajemen*, 27–39.
- Indri Setianingrum. (2023). Pengaruh persepsi kemudahan penggunaan Quick Response Code Indonesia Standar (QRIS) dan promosi cashback dompet terhadap digital fenomena cashless society dalam perspektif bisnis Islam (Studi pada masyarakat pengguna QRIS dan dompet digital Kota Bandar Lampung). *Universitas Islam Negeri Raden Intan Lampung*.
- Lestari, R. I., Santoso, D., & Indarto, I. (2021). Meningkatkan literasi keuangan digital pada pelaku UMKM melalui sosialisasi gerakan nasional non-tunai. *Jurnal Inovasi Hasil Pengabdian Masyarakat (JIPEMAS)*, 4(3), 378–390. <https://doi.org/10.33474/jipemas.v4i3.10947>
- Namira, L. (2022). Faktor-faktor yang mempengaruhi niat UMKM di Kota Padang menggunakan e-payment sebagai metode pembayaran. *Owner: Riset & Jurnal Akuntansi*, 6(1), 212–224. <https://doi.org/10.33395/owner.v6i1.553>
- Ridho Herlambang. (2021). Pengaruh penggunaan sistem pembayaran Quick Response Indonesia Standard (QRIS) terhadap pengembangan UMKM Kota Medan.
- Saputri, O. B. (2020). Preferensi konsumen dalam menggunakan Quick Response Code Indonesia Standard (QRIS) sebagai alat pembayaran digital. *KINERJA*, 17(2), 247–247. <http://journal.feb.unmul.ac.id/index.php/KINERJA>
- Setiawan, I. W. A., & Mahyuni, L. P. (2020). QRIS di mata UMKM: Eksplorasi persepsi dan intensi UMKM menggunakan QRIS. *E-Jurnal Ekonomi dan Bisnis Universitas Udayana*, 10(9), 921–946.
- Suhartono, M., Santosa, P., & Putra, H. S. (2021). Indikator literasi keuangan yang mempengaruhi penggunaan teknologi keuangan QRIS. *Jurnal Ilmu Manajemen dan Akuntansi Terapan*, 12(1), 14–22.
- Yuliati, T., & Handayani, T. (2021). Pendampingan penggunaan aplikasi digital QRIS sebagai alat pembayaran pada UMKM. *Community Development Journal*, 2(3), 811–816.