

The Effect of Digital Payment Technology Adoption, Digital Literacy, and Transaction Security on The QRIS Usage Decision Among Culinary MSME Operators in Kubu Raya Regency

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ABSTRACT

This study aims to analyze the effects of Digital Payment Technology Adoption, Digital Literacy, and Transaction Security on QRIS Usage Decisions among culinary MSME actors in Kubu Raya Regency. The study employed a quantitative approach using a descriptive-associative method. The sample was selected through purposive sampling and consisted of 150 respondents who met the research criteria. Primary data were collected using a Likert-scale questionnaire, while secondary data were obtained from documents, government publications, and relevant literature. Data were analyzed using multiple linear regression, correlation coefficient analysis, coefficient of determination, F-test, and t-test with the assistance of SPSS. The results show that Digital Payment Technology Adoption, Digital Literacy, and Transaction Security each have a positive and significant partial effect on QRIS Usage Decisions. Based on the standardized Beta coefficients (β), Digital Payment Technology Adoption emerged as the predictor with the strongest relative contribution ($\beta = 0.407$), followed by Transaction Security ($\beta = 0.255$) and Digital Literacy ($\beta = 0.217$). Simultaneously, the three variables significantly affect QRIS Usage Decisions and explain 53.7% of the variation in QRIS usage decisions. These findings indicate that culinary MSME actors' decisions to use QRIS are primarily shaped by their readiness to adopt and operate digital payment technology, further reinforced by confidence in transaction security and digital literacy capabilities.

INTRODUCTION

The development of digital payments in Indonesia reflects a shift in the transaction patterns of the public and business operators toward cashless systems. By the first half of 2025, the number of QRIS users had reached approximately 57 million, with 39.3 million merchants, 93.16% of whom were MSME operators. During the same period, QRIS transaction volume reached 6.05 billion transactions, with a value of approximately IDR 579 trillion (Bank Indonesia, 2025). This change has occurred alongside the transformation of public behavior in using digital-based services for daily activities, including payment transactions (Nasution, 2020). QRIS was developed as the national standard for QR code-based payments to improve payment-system efficiency, expand financial inclusion, and support transaction digitalization (Bank Indonesia, 2024).

The growth of QRIS usage is also evident in West Kalimantan. In 2024, the number of QRIS merchants in the province reached 391,912, with Kubu Raya Regency ranking second after Pontianak City, with 36,278 merchants (West Kalimantan Provincial Government, 2024). In 2025, Kubu Raya Regency recorded 25,079 MSMEs, consisting of 24,787 microenterprises, 264 small enterprises, and 28 medium-sized enterprises (West Kalimantan Provincial Office of Cooperatives and MSMEs, 2025). Based on business-sector classifications, accommodation and food and beverage service activities account for a substantial proportion; therefore, the number of culinary businesses in Kubu Raya Regency is estimated at approximately 3,318 units (West Kalimantan Provincial Office of Cooperatives and MSMEs, 2025). These businesses fall within the MSME classification stipulated in Government Regulation Number 7 of 2021 based on business capital and annual sales revenue.

The increase in the number of QRIS merchants does not fully reflect uniformity in business operators' ability to use digital payments. Kubu Raya Regency recorded a Community Literacy Development Index score of 46.01 in 2024, indicating that limitations remain in the public's ability to access and use information effectively (Ketapang Regency Government, 2025). At the same time, digital transaction risks remain an inherent aspect of electronic payment-system use. The Financial Services Authority reported that digital fraud, social engineering, QR code misuse, phishing, and data breaches continue to occur in digital financial service activities (Financial Services Authority, 2024). Barriers to QRIS adoption have also been identified in relation to digital literacy, infrastructure, and concerns about transaction security (Ekaputra et al., 2024).

The use of QRIS by MSME operators is associated with their ability to accept technology, understand digital information, and assess transaction security. Digital literacy encompasses the ability to access, manage, evaluate, and use digital resources in technology-based activities (Tamyiz et al., 2025). Ikwanto and Indriani (2024) showed that digital literacy plays a role in QRIS adoption because the ability to understand and manage technology affects users' readiness to use digital payments. Regarding security, Pratama and Wibowo (2023) found that transaction security had a positive and significant effect on MSMEs' QRIS Usage Decision. This relationship positions technological capability, digital competence, and perceived security as aspects directly associated with business operators' decision to use QRIS.

Previous studies have focused on different factors affecting QRIS usage. Sholihah and Nurhapsari (2023) found that perceived usefulness and perceived ease of use had positive and significant effects on the intention to use QRIS based on the Technology Acceptance Model. Syamsul, Rayyani, and Amin (2024) showed that financial literacy and ease of use had positive

and significant effects on the decision to use QRIS among MSMEs in Pinrang Regency. Archie et al. (2025) positioned digital literacy as a capability that can be strengthened through education on e-commerce, e-wallets, and digital payment services. Other studies have also reported that ease of use, benefits, and risk are associated with QRIS usage among MSMEs (Kamilah et al., 2024). These differences in research variables and locations indicate that the relationships among Digital Payment Technology Adoption, Digital Literacy, Transaction Security, and QRIS Usage Decision have rarely been examined simultaneously among culinary MSME operators in Kubu Raya Regency.

This study conceptualizes Digital Payment Technology Adoption as business operators' ability to accept, understand, learn, and operate QRIS, which is consistent with the innovation-acceptance process in technology adoption theory (Rogers, 2003). Digital Literacy is conceptualized as the ability to access, understand, evaluate, and manage digital information to support the use of payment technology (Martin, 2008). Transaction Security relates to users' confidence in the protection of data and financial information and against the risk of misuse during digital transactions (Featherman & Pavlou, 2003). This study contributes by simultaneously examining these three variables among culinary MSMEs in Kubu Raya Regency.

Considering the development of QRIS usage, the characteristics of MSMEs in Kubu Raya Regency, and variations in previous research findings, this study examines the relationships between Digital Payment Technology Adoption, Digital Literacy, Transaction Security, and QRIS Usage Decision. Sholihah and Nurhapsari (2023) provided empirical evidence of the relationship between technology acceptance and the intention to use QRIS; Ikwanto and Indriani (2024) demonstrated the association between digital literacy and QRIS adoption; and Pratama and Wibowo (2023) demonstrated the effect of transaction security on the QRIS Usage Decision. Accordingly, this study aims to analyze the partial and simultaneous effects of Digital Payment Technology Adoption, Digital Literacy, and Transaction Security on the QRIS Usage Decision among culinary MSME operators in Kubu Raya Regency.

RESEARCH METHOD

This study employed a quantitative approach with an associative descriptive method to analyze the effects of Digital Payment Technology Adoption, Digital Literacy, and Transaction Security on the QRIS Usage Decision among culinary MSME operators in Kubu Raya Regency. The quantitative approach was used to test hypotheses based on data obtained from the research sample (Sugiyono, 2019). Primary data were collected through questionnaires, while secondary data were obtained from documents, government publications, and literature related to MSMEs and digital payments. The study population comprised 3,318 MSME operators. The sample size was calculated using the Slovin formula with a 10% margin of error and was set at 150 respondents. Purposive sampling was employed based on the following criteria: operating an MSME in the culinary sector in Kubu Raya Regency, having authority over business decision-making, and using QRIS.

The research variables comprised Digital Payment Technology Adoption (X1), Digital Literacy (X2), and Transaction Security (X3) as the independent variables and QRIS Usage Decision (Y) as the dependent variable. Digital Payment Technology Adoption was measured through the ability to use the QRIS application, ease of understanding QRIS functions and features, ease of learning to use QRIS, and comfort in operating QRIS (Purwatiningsih et al.,

2025). Digital Literacy was measured through the ability to evaluate the accuracy of digital information before use, assess and understand digital information, and manage the use of digital applications (Ikwanto & Indriani, 2024). Transaction Security was measured through the security of personal data and transaction information, protection against fraud and misuse, and the reliability of the QRIS transaction system (Kamila et al., 2026). QRIS Usage Decision was measured through the intention to use QRIS continuously, the frequency of QRIS use in business transactions, and the belief that QRIS provides benefits to the business, adapted from the concept of usage decisions proposed by Kotler and Armstrong (2023).

A five-point Likert scale, ranging from strongly disagree to strongly agree, was used to obtain respondents' assessments of each research indicator (Sugiyono, 2019). Instrument feasibility was evaluated through a validity test using Product Moment correlation by comparing the r-count with the r-table and considering the significance value (Siregar, 2017). Instrument consistency was assessed using Cronbach's Alpha, with a value above 0.60 indicating a reliable instrument (Sunyoto, 2015). Before regression analysis, the data were subjected to the Kolmogorov-Smirnov normality test and were considered to satisfy the normality assumption when the significance value exceeded 0.05 (Ghozali, 2016). Linear relationships among the variables were examined using the Test for Linearity by considering the Linearity and Deviation from Linearity values (Purnomo, 2016), while multicollinearity was assessed using the Tolerance and Variance Inflation Factor (VIF) values (Ghozali, 2016).

Multiple linear regression was used as the primary analysis to measure the direction and magnitude of the effects of the three independent variables on the QRIS Usage Decision. The regression model was specified as $Y = \alpha + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + e$. The analysis was complemented by the correlation coefficient to assess the strength of the relationships among the variables and the coefficient of determination (R^2) to determine the ability of the independent variables to explain changes in the dependent variable (Siregar, 2017). Hypotheses were tested using the F test to assess the simultaneous effects of Digital Payment Technology Adoption, Digital Literacy, and Transaction Security on the QRIS Usage Decision, while the t test was used to examine the partial effect of each variable. Decisions were based on comparisons of the F-count or t-count with the corresponding table values and a significance level of 0.05.

RESULTS

Research Instrument Testing

a. Validity Test

The validity test was applied to Digital Payment Technology Adoption (X1), Digital Literacy (X2), Transaction Security (X3), and QRIS Usage Decision (Y). An item was declared valid when its r-count exceeded the r-table. This test was conducted to ensure that all statement items accurately represented the constructs being measured. The validity test results are presented in Table 1.

Table 1. Validity Test Results

Variable	Indicator	r-count	r-table	Description
Digital Payment Technology Adoption (X1)	X1.1	0.707	0.160	Valid
	X1.2	0.381		
	X1.3	0.511		
	X1.4	0.675		

	X1.5	0.680		
	X1.6	0.622		
	X1.7	0.669		
	X1.8	0.475		
	X1.9	0.520		
	X1.10	0.540		
	X1.11	0.574		
	X1.12	0.443		
Digital Literacy (X2)	X2.1	0.707	0.160	Valid
	X2.2	0.674		
	X2.3	0.577		
	X2.4	0.622		
	X2.5	0.610		
	X2.6	0.689		
	X2.7	0.516		
	X2.8	0.519		
	X2.9	0.568		
Transaction Security (X3)	X3.1	0.566	0.160	Valid
	X3.2	0.520		
	X3.3	0.592		
	X3.4	0.736		
	X3.5	0.718		
	X3.6	0.671		
	X3.7	0.640		
	X3.8	0.507		
	X3.9	0.635		
QRIS Usage Decision (Y)	Y1.1	0.565	0.160	Valid
	Y1.2	0.582		
	Y1.3	0.684		
	Y1.4	0.621		
	Y1.5	0.577		
	Y1.6	0.535		
	Y1.7	0.595		
	Y1.8	0.637		
	Y1.9	0.606		

Source: Processed Data, 2026

Based on the validity test results in Table 1, all indicators of Digital Payment Technology Adoption, Digital Literacy, Transaction Security, and QRIS Usage Decision had r-count values exceeding the r-table value of 0.160. Therefore, all statement items were declared valid and could be used as research instruments.

b. Reliability Test

The reliability test aimed to ensure that the research instrument had an adequate level of consistency and could therefore be trusted to measure the variables under study. The reliability test results are presented in Table 2.

Table 2. Reliability Test Results

Variable	Cronbach's Alpha	N of Items	Description
Digital Payment Technology Adoption (X1)	0.811	12	Reliable
Digital Literacy (X2)	0.793	9	
Transaction Security (X3)	0.801	9	
QRIS Usage Decision (Y)	0.774	9	

Source: Processed Data, 2026

Based on the reliability test results in Table 2, all research variables had Cronbach's Alpha values above 0.60. These results indicate that the instrument met the reliability criteria and was suitable for data collection.

Classical Assumption Test

a. Normality Test

The normality test was used to determine whether the data or residuals in the regression model were normally distributed, thereby satisfying one of the assumptions of regression analysis. The normality test results are presented in Table 3.

Table 3. Normality Test Results

Test	Value
N (Sample)	150
Test Statistic	.055
Asymp.Sig.(2-tailed)	.200 ^c

Source: Processed Data, 2026

Based on the test results in Table 3, the Asymp. Sig. (2-tailed) value of 0.200 exceeded 0.05. Therefore, the research data were normally distributed.

b. Linearity Test

The linearity test aimed to ensure a linear relationship between each independent variable and the dependent variable. The test examined X1, X2, and X3 in relation to QRIS Usage Decision (Y). The results are presented in Table 4.

Table 4. Linearity Test Results

Variable	Linearity	Deviation from Linearity	Description
QRIS Usage Decision * Digital Payment Technology Adoption	.000	.060	Linear
QRIS Usage Decision * Digital Literacy	.000	.378	
QRIS Usage Decision * Transaction Security	.000	.407	

Source: Processed Data, 2026

The linearity test results in Table 4 show that Digital Payment Technology Adoption, Digital Literacy, and Transaction Security each had a linear relationship with the QRIS Usage Decision. This conclusion was supported by a Linearity significance value of 0.000 and Deviation from Linearity values of 0.060, 0.378, and 0.407, respectively, which met the linearity-testing criteria.

c. Multicollinearity Test

The multicollinearity test was used to identify excessively high correlations among the independent variables in the regression model. A sound model should not exhibit symptoms of multicollinearity. The multicollinearity test results are presented in Table 5.

Table 5. Multicollinearity Test Results

Model		Collinearity Statistics	
		Tolerance	VIF
	Digital Payment Technology Adoption	.601	1.664
	Digital Literacy	.627	1.595
	Transaction Security	.688	1.453

a. Dependent Variable: QRIS Usage Decision

Source: Processed Data, 2026

Based on the multicollinearity test results in Table 5, all independent variables had Tolerance values > 0.10 and VIF values < 10.00. Therefore, the research model was free from symptoms of multicollinearity.

Hypothesis Test

a. Multiple Linear Regression Analysis

Multiple linear regression analysis was used to examine the partial and simultaneous effects of the independent variables on the dependent variable. The SPSS test results are presented in Table 6.

Table 6. Multiple Linear Regression Analysis Results

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.435	.225		6.385	.000
	Digital Payment Technology Adoption	.334	.059	.407	5.609	.000
	Digital Literacy	.158	.052	.217	3.045	.003
	Transaction Security	.180	.048	.255	3.750	.000

a. Dependent Variable: QRIS Usage Decision (Y)

Source: Processed Data, 2026

Based on the multiple linear regression analysis results in Table 6, the following regression equation was obtained:

$$Y = 1.435 + 0.334X_1 + 0.158X_2 + 0.180X_3$$

The equation can be interpreted as follows:

- 1) The constant of 1.435 indicates that when Digital Payment Technology Adoption, Digital Literacy, and Transaction Security are equal to zero, the QRIS Usage Decision has a value of 1.435.
- 2) The coefficient of 0.334 for Digital Payment Technology Adoption indicates a positive direction of effect. A one-unit increase in this variable will increase the QRIS Usage Decision by 0.334 units.
- 3) The coefficient of 0.158 for Digital Literacy indicates that a one-unit increase in Digital Literacy will be followed by a 0.158-unit increase in the QRIS Usage Decision.

- 4) The coefficient of 0.180 for Transaction Security indicates that a one-unit increase in Transaction Security will increase the QRIS Usage Decision by 0.180 units.

b. Correlation Coefficient Analysis (R)

Multiple correlation coefficient analysis was used to determine the strength and direction of the relationships among the variables in this study. The SPSS data-processing results are presented in Table 7.

Table 7. Correlation Coefficient Test Results (R)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.733 ^a	.537	.527	.13457
Predictors: (Constant), Transaction Security, Digital Literacy, Digital Payment Technology Adoption.				

Source: Processed Data, 2026

Based on the correlation analysis results in Table 7, the R value of 0.733 indicates a strong relationship between the three independent variables and the QRIS Usage Decision.

c. Coefficient of Determination (R²)

The coefficient of determination test results in Table 7 show an R Square value of 0.537, indicating that Digital Payment Technology Adoption, Digital Literacy, and Transaction Security explained 53.7% of the variation in the QRIS Usage Decision, while the remaining 46.3% was explained by factors outside the research model.

d. Simultaneous Test (F Test)

The simultaneous F test was conducted to determine whether all independent variables collectively affected the dependent variable. The test decision was based on the significance value and a comparison between the F-count and F-table. A summary of the results is presented in Table 8.

Table 8. Simultaneous Test Results (F Test)

Model	Sum of Squares	Mean Square	F	Significance
Regression	3.066	1.022	56.437	.000 ^b
Residual	2.644	.018		
Dependent Variable: QRIS Usage Decision (Y)				
Predictors: (Constant), Transaction Security, Digital Literacy, Digital Payment Technology Adoption.				

Source: Processed Data, 2026

Based on the simultaneous test (F test) results in Table 8, the F-count value of 56.437 was greater than the F-table value of 2.67, with a significance value of $0.000 < 0.05$. This result indicates that H4 was accepted; therefore, Digital Payment Technology Adoption, Digital Literacy, and Transaction Security simultaneously had a significant effect on the QRIS Usage Decision.

e. Partial Test (t Test)

The partial t test was used to assess the individual effect of each independent variable on the dependent variable. The SPSS test results are presented in Table 9.

Table 9. Partial Test Results (t Test)

Coefficients ^a					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		

1	(Constant)	1.435	.225		6.385	.000
	Digital Payment Technology Adoption	.334	.059	.407	5.609	.000
	Digital Literacy	.158	.052	.217	3.045	.003
	Transaction Security	.180	.048	.255	3.750	.000
a. Dependent Variable: QRIS Usage Decision (Y)						

Source: Processed Data, 2026

Based on the t test results in Table 9, the partial test results, using a t-table value of 1.655, can be summarized as follows.

- 1) Digital Payment Technology Adoption (X1) had a t-count value of 5.609 > 1.655 and a significance value of 0.000 < 0.05. This result indicates that H1 was accepted; therefore, X1 had a positive and significant effect on the QRIS Usage Decision.
- 2) Digital Literacy (X2) had a t-count value of 3.045 > 1.655 and a significance value of 0.003 < 0.05. This result indicates that H2 was accepted; therefore, X2 had a positive and significant effect on the QRIS Usage Decision.
- 3) Transaction Security (X3) had a t-count value of 3.750 > 1.655 and a significance value of 0.000 < 0.05. This result indicates that H3 was accepted; therefore, X3 had a positive and significant effect on the QRIS Usage Decision.

DISCUSSION

The Effect of Digital Payment Technology Adoption on the QRIS Usage Decision

The results show that Digital Payment Technology Adoption has a positive and significant effect on QRIS Usage Decisions among culinary MSMEs in Kubu Raya Regency, with a regression coefficient of 0.334, a t-value of 5.609, and a significance level of 0.000. The standardized beta value of 0.407 also indicates that this variable exerts the strongest influence compared with the other independent variables. This finding suggests that the greater the readiness of MSME actors to accept, understand, and operate digital payment technology, the stronger their decision to use QRIS in business transactions. For culinary MSMEs in Kubu Raya Regency, such readiness is important because QRIS is used directly in daily payment activities; therefore, ease of learning and operating the system can reduce barriers to technology adoption. This result is consistent with Sholihah and Nurhapsari (2023), who found that perceived usefulness and ease of use encourage the intention to use QRIS. The finding indicates that QRIS expansion should be accompanied by practical assistance so that MSME actors not only have access to QRIS but are also able to integrate it consistently into their business activities.

Effect of Digital Literacy on QRIS Usage Decisions

The results show that Digital Literacy has a positive and significant effect on QRIS Usage Decisions, with a regression coefficient of 0.158, a t-value of 3.045, and a significance level of 0.003. The standardized beta value of 0.217 indicates that improvements in MSME actors' ability to understand and use digital technology contribute to strengthening their decisions to use QRIS. For culinary MSMEs in Kubu Raya Regency, digital literacy is not limited to the ability to operate applications but also includes the ability to understand transaction information and adjust the use of technology to business needs. This finding is consistent with Ikwanto and Indriani (2024), who demonstrated that digital literacy plays an important role in QRIS adoption. Therefore, efforts to increase QRIS usage should be

accompanied by practical digital education to enable business actors to use digital payment technology independently rather than relying solely on basic operational skills.

Effect of Transaction Security on QRIS Usage Decisions

Transaction Security has a positive and significant effect on QRIS Usage Decisions, as indicated by a regression coefficient of 0.180, a t-value of 3.750, and a significance level of 0.000. The standardized beta value of 0.255 indicates that security plays a relatively strong role in shaping QRIS usage decisions. This finding suggests that the decision to use QRIS depends not only on the ability to operate the technology but also on confidence that data, transaction information, and received funds are protected from misuse. For culinary MSMEs, concerns about digital fraud, phishing, QR code misuse, and unverified transactions may hinder QRIS usage even when business actors are technically capable of operating the system. This finding is consistent with Nugraha and Mahadianto (2026), who found that security has a positive effect on QRIS usage decisions. The implication is that Bank Indonesia and local governments should direct QRIS development programs not only toward expanding the number of merchants but also toward digital security training, transaction verification, account and data protection, fraud awareness, and appropriate responses to suspicious transactions.

Effect of Digital Payment Technology Adoption, Digital Literacy, and Transaction Security on QRIS Usage Decisions

The simultaneous test results show that Digital Payment Technology Adoption, Digital Literacy, and Transaction Security jointly have a significant effect on QRIS Usage Decisions among culinary MSMEs in Kubu Raya Regency, with an F-value of 56.437 and a significance level of 0.000. The three variables explain 53.7% of the variation in QRIS Usage Decisions, while the remaining 46.3% is associated with factors outside the research model. This finding indicates that MSME actors' decisions to use QRIS are shaped by a combination of readiness to adopt digital payment technology, the ability to understand digital technology, and confidence in transaction security. Digital Payment Technology Adoption emerges as the most dominant factor based on the standardized beta value, although Digital Literacy and Transaction Security also contribute to strengthening usage decisions. Taken together, the findings demonstrate that QRIS usage decisions are not determined solely by technology acceptance but also by digital capabilities and transaction security. These results are consistent with Judijanto and Husnayetti (2024), who found that digital literacy and information security have positive and significant effects on QRIS adoption, as well as Sholihah and Nurhapsari (2023), who showed that technology acceptance through perceived usefulness and ease of use encourages the intention to use QRIS.

CONCLUSION AND RECOMMENDATIONS

The results show that Digital Payment Technology Adoption, Digital Literacy, and Transaction Security have positive and significant effects on QRIS Usage Decisions among culinary MSMEs in Kubu Raya Regency, both partially and simultaneously. Digital Payment Technology Adoption provides the strongest relative contribution, followed by Transaction Security and Digital Literacy. These findings indicate that QRIS usage decisions are determined not only by the readiness of business actors to accept and operate digital payment technology

but also by their ability to understand the digital environment and their confidence in transaction security. The three variables explain 53.7% of the variation in QRIS Usage Decisions.

The practical implications of this study highlight the need to strengthen QRIS usage through assistance that focuses not only on operational aspects but also on improving digital literacy and transaction security. MSME actors need a better understanding of QRIS usage, transaction verification, data protection, and the prevention of digital fraud risks. Support from Bank Indonesia, local governments, and other relevant stakeholders should therefore be directed toward improving the quality of QRIS usage so that MSME actors can use digital payment systems safely, independently, and sustainably.

Future research is recommended to develop an extended QRIS adoption model by integrating perceived transaction cost, customer trust, and the quality of regional internet infrastructure. These factors are important to examine because QRIS usage decisions may be influenced not only by technological readiness, digital literacy, and transaction security, but also by business actors' perceptions of transaction costs, customers' level of trust in digital payments, and the availability and stability of internet connectivity in MSMEs' operating areas. Incorporating these factors is expected to provide a more comprehensive understanding of the determinants of QRIS usage decisions among MSMEs across regions with different characteristics.

REFERENCES

- ANTARA News. (2025, February 23). *Bank Indonesia catat transaksi QRIS Rp80,88 triliun pada Januari 2025*. <https://www.antaranews.com/berita/4668501/bank-indonesia-catat-transaksi-qris-rp8088-triliun-pada-januari-2025>
- Archie, A., Madepo, M. A., Arninda, & Budiarti, L. (2025). Pendekatan integratif literasi digital siswa Madrasah Aliyah Negeri 1 Pontianak melalui edukasi e-commerce, e-wallet, dan paylater di era Revolusi Industri 4.0. *Jurnal Pengabdian Masyarakat Nusantara*, 5(2), 119–125. <https://doi.org/10.35870/jpmn.v5i2.5084>
- Biro Perekonomian Sekretariat Daerah Provinsi Kalimantan Barat. (2024). *Jumlah merchant QRIS di Provinsi Kalimantan Barat tahun 2021–2023* [Data set]. Satu Data Provinsi Kalimantan Barat. <https://data.kalbarprov.go.id/dataset/jumlah-merchant-qris-di-provinsi-kalimantan-barat-tahun-2021-2023>
- Dinas Koperasi, Usaha Kecil dan Menengah Provinsi Kalimantan Barat. (2024). *Laporan perkembangan koperasi UMKM (Semester I–Tahun 2024)*. <https://diskopukm.kalbarprov.go.id/file/nHh2FwBFxBQ9BLK3n1LL.pdf>
- Ekaputra, P. S., Ciptosari, F., & Halim, T. (2024). Adoption of QRIS digital payment technology among Labuan Bajo MSMEs: Challenges and opportunities. *Jurnal Akademisi Vokasi*, 3(2), 1–13. <https://doi.org/10.63604/javok.v3i2.138>
- Featherman, M. S., & Pavlou, P. A. (2003). Predicting e-services adoption: A perceived risk facets perspective. *International Journal of Human-Computer Studies*, 59(4), 451–474. [https://doi.org/10.1016/S1071-5819\(03\)00111-3](https://doi.org/10.1016/S1071-5819(03)00111-3)
- Ghozali, I. (2016). *Aplikasi analisis multivariete dengan program IBM SPSS 23* (Edisi ke-8). Badan Penerbit Universitas Diponegoro.
- Ikwanto, A. N. P., & Indriani, F. (2024). The impact of perceived usefulness, perceived ease of use, and digital literacy on QRIS adoption. *Research Horizon*, 4(6), 281–290. <https://doi.org/10.54518/rh.4.6.2024.422>

- Judijanto, L., & Husnayetti. (2024). The effect of financial literacy, digital literacy, and information security on QRIS adoption among students in Banten. *West Science Accounting and Finance*, 2(2), 310–320. <https://doi.org/10.58812/wsaf.v2i02.1049>
- Kalbar News. (2024, August 12). *Bank Indonesia gelar Pekan QRIS Nasional 2024 di Kalimantan Barat*. <https://www.kalbarnews.co.id/2024/08/bank-indonesia-gelar-pekan-gris.html>
- Kamila, A., Alwi, N. H., Anugerah, S., Autinsa, T., & Nurbaiti. (2026). Analisis kemudahan dan keamanan data dalam meningkatkan kepercayaan pada transaksi pembayaran QRIS. *Journal of Golden Generation Economic*, 1(2), 436–449. <https://doi.org/10.65244/jggeconomic.v1i2.235>
- Kamilah, L. K., Haryati, D., Arlita, W., Noviansyah, R. R., & Kustina, L. (2024). Pengaruh kemudahan penggunaan, manfaat, dan risiko terhadap penggunaan QRIS untuk transaksi pembayaran pada UMKM. *GLOBAL: Jurnal Lentera BITEP*, 2(1), 16–21. <https://doi.org/10.59422/global.v2i01.241>
- Kotler, P., & Armstrong, G. (2023). *Principles of marketing* (19th ed., Global ed.). Pearson.
- Martin, A. (2008). Digital literacy and the “digital society.” In C. Lankshear & M. Knobel (Eds.), *Digital literacies: Concepts, policies and practices* (pp. 151–176). Peter Lang.
- Nasution, A. (2020). Transformasi digital dan dampaknya terhadap kehidupan masyarakat Indonesia. *Jurnal Sosial Humaniora*, 11(1), 23–34.
- Nugraha, E., & Mahadianto, M. Y. (2026). The effect of financial literacy, security and accounting information system quality on QRIS usage decision among MSMEs in Cirebon Regency. *Journal of Accounting and Finance Management*, 7(2), 306–318. <https://doi.org/10.38035/jafm.v7i2.3206>
- Otoritas Jasa Keuangan. (2024, October 17). *Survei Nasional Literasi dan Inklusi Keuangan 2024*. <https://ojk.go.id/id/Fungsi-Utama/Perilaku-Pelaku-Usaha-Jasa-Kuangan/SNLIK/Pages/Survei-Nasional-Literasi-dan-Inklusi-Kuangan-2024.aspx>
- Peraturan Pemerintah Republik Indonesia Nomor 7 Tahun 2021 tentang Kemudahan, Pelindungan, dan Pemberdayaan Koperasi dan Usaha Mikro, Kecil, dan Menengah. (2021).
- Perpustakaan Nasional Republik Indonesia. (2024). *Laporan akhir kajian Indeks Pembangunan Literasi Masyarakat (IPLM) tahun 2024*. Perpustakaan Nasional Republik Indonesia.
- Pratama, D., & Wibowo, A. (2023). Pengaruh keamanan dan kepercayaan terhadap keputusan penggunaan QRIS oleh UMKM. *Jurnal Riset Manajemen dan Bisnis*, 8(2), 97–108.
- Purnomo, R. A. (2016). *Analisis statistik ekonomi dan bisnis dengan SPSS*. Wade Group bekerja sama dengan UNMUH Ponorogo Press.
- Purwatiningsih, A. P., Fitria, S., Indriani, A., & Kuriawan, C. S. (2025). Adoption of QRIS digital payment in Indonesia and Malaysia: A technology acceptance and knowledge perspective. *International Journal of Innovative Research and Scientific Studies*, 8(6), 704–713. <https://doi.org/10.53894/ijirss.v8i6.9670>
- Rogers, E. M. (2003). *Diffusion of innovations* (5th ed.). Free Press.
- Sholihah, E., & Nurhapsari, R. (2023). Percepatan implementasi digital payment pada UMKM: Intensi pengguna QRIS berdasarkan Technology Acceptance Model. *Nominal Barometer Riset Akuntansi dan Manajemen*, 12(1), 1–12. <https://doi.org/10.21831/nominal.v12i1.52480>

- Siregar, S. (2017). *Statistik parametrik untuk penelitian kuantitatif: Dilengkapi dengan perhitungan manual dan aplikasi SPSS versi 17*. Bumi Aksara.
- Sugiyono. (2019). *Metode penelitian kuantitatif, kualitatif, dan R&D*. Alfabeta.
- Sunyoto, D. (2013). *Metodologi penelitian akuntansi*. Refika Aditama.
- Syamsul, N. Z., Rayyani, W. O., & Amin, A. R. S. (2024). Pengaruh literasi keuangan dan kemudahan penggunaan terhadap keputusan menggunakan sistem transaksi digital QRIS pada UMKM di Kabupaten Pinrang. *Indonesian Journal of Management and Accounting*, 5(2), 303–311. [https://doi.org/10.21927/ijma.2024.5\(2\).303-311](https://doi.org/10.21927/ijma.2024.5(2).303-311)
- Tamyiz, U. M. H., Munir, Furqon, C., & Dirgantari, P. D. (2025). Literasi digital di UMKM: Tinjauan sistematis dan pengembangan kerangka teoretis terintegrasi menggunakan metode PRISMA. *Jurnal Algoritma*, 22(2), 412–421. <https://doi.org/10.33364/algoritma/v.22-2.2308>