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Analysis of Interest in Using the Indonesian Standard Quick Response Code (QRIS) as a Digital Payment Tool for Micro-Business Actors in the Jalan Raya Area North Ring Road of Tasikmalaya City

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Abstract

The development of digital technology has driven the transformation of payment systems, including the use of the Quick Response Code Indonesian Standard (QRIS) as a digital payment tool in Indonesia. Although QRIS adoption continues to increase nationally and regionally, the level of use by micro-businesses in the North Ring Road area of Tasikmalaya City still varies. This study aims to analyze the factors influencing QRIS usage intention among micro-businesses using a modified Technology Acceptance Model (TAM) framework, namely Perceived Usefulness (PU), Perceived Ease of Use (PEOU), Subjective Norm (SN), Trust (TR), and Perceived Security (PS). This study uses a quantitative approach with a survey method of 162 micro-businesses. Data were collected through questionnaires and analyzed using the Structural Equation Modeling–Partial Least Squares (SEM-PLS) method with the help of SmartPLS software. The results show that Perceived Ease of Use, Subjective Norm, and Perceived Security have a significant effect on QRIS usage intention. Meanwhile, Perceived Usefulness and Trust do not have a significant effect on QRIS usage intention. These results indicate that ease of use, social influence, and perceived security are the main factors in driving micro-business actors' interest in using QRIS.

1. Introduction

The development of digital technology has driven transformation in various sectors of life, including the global financial transaction system.(Ardianto et al., 2024; Qothrunnada et al., 2023). The World Bank (2021) report noted that in developing countries, the percentage of adults making or receiving digital payments increased from 35% in 2014 to 57% in 2021.(Demirgüç-Kunt et al., 2022).

At the national level, Indonesia also recorded rapid growth in digital transactions. According to Bank Indonesia data (2024), the value of transactions through QRIS grew significantly by

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194.06 percent (year-on-year) in April 2024, contributing to an increase of 34.5 billion digital transactions, with 48.90 million users and 31.86 million merchants.(Ministry of Communication and Digital, 2024). Digital financial transaction performance continues to show a positive trend until August 2025. During that period, QRIS transactions grew by 145.07 percent (yoy) and contributed to a total increase of 4.43 billion digital transactions in Indonesia. Furthermore, by 2025, QRIS had reached 57 million users and 39.3 million merchants, 93.16% of which were MSMEs. This growth was supported by the increasing number of active QRIS users and merchants, as well as the strengthening of national payment system infrastructure such as BI-FAST and BI-RTGS, which strengthen the digital economy ecosystem.(Bank Indonesia, 2025).

At the regional level, the development of payment system digitalization is also evident in West Java Province. In the first quarter of 2024, cash flow in West Java showed a net inflow of IDR 3.09 trillion, following a net outflow of IDR 2.77 trillion, reflecting improved economic activity following the 2023 Christmas and New Year (HBKN) holiday. The expansion of digitalization through the QRIS payment channel also played a significant role, with the number of merchants reaching 6.84 million and users reaching 10.72 million, driving a 23.13 percent year-on-year increase in QRIS transaction value over the same period.(Regulation of the Mayor of Tasikmalaya City, 2024).

At the regional level, BPS data (2024) shows that there are more than 28,248 MSMEs in Tasikmalaya City.(Ministry of Cooperatives, Micro, Small and Medium Enterprises, 2024). In addition, the volume of payment transactions using QRIS in Tasikmalaya City recorded a significant growth of 743 percent (year-on-year).(N. Nugraha, 2024)This fact confirms the government's strong support for financial inclusion through the use of digital technology. (Ministry of Communication and Digital, 2024).

Based on Bank Indonesia data (2024–2025), the growth in QRIS usage shows a positive trend, both nationally and regionally. This is reflected in the increasing number of users, merchants, and transaction value, which continues to rise annually. Details regarding QRIS development in Indonesia and Tasikmalaya City can be seen in Table 1 below.

Table 1. Development of QRIS in Indonesia and Tasikmalaya City

Level	Year / Period	Instruments / Indicators	Value / Amount		Growth (YoY)
National	Apr-24	QRIS – Transaction Value	–		194.06%
		Total Digital Transactions	34.5 billion transactions		–
		QRIS – Users	48.90 million		–
		QRIS – Merchant	31.86 million		–
	August 2025	QRIS – Transaction Value	–		145.07%
		Total Digital Transactions	4.43 billion transactions		–
		QRIS – Users	57 million		–
		QRIS – Merchant	39.3 million		93.16% of MSMEs
West Java Province	First Quarter 2024	Net Cash Flow	Rp3.09 trillion (net-inflow)		–
		QRIS – Users	10.72 million		–
		QRIS – Merchant	6.84 million		–

Level	Year / Period	Instruments / Indicators	Value / Amount		Growth (YoY)
		QRIS – Transaction Value	–		23.13%
Tasikmalaya City	2024	Number of MSMEs	28,248 MSMEs		–
		QRIS – Transaction Volume	–		743%

Source: Bank Indonesia (2025); Ministry of Communication and Digital (2024); Mayor of Tasikmalaya City Regulation (2024)

Based on Table 1, it can be seen that growth in QRIS usage at the national level will remain high between 2024 and 2025, both in terms of the number of transactions and the number of users and merchants. At the regional level, West Java Province showed a positive trend with increasing net inflow, while Tasikmalaya City recorded extraordinary growth in QRIS transaction volume, reaching 743 percent, reflecting the government's strong support for digital-based financial inclusion.

QRIS offers a number of benefits for both businesses and consumers. For businesses, QRIS helps speed up transactions, reduces the risk of cash loss, and facilitates more transparent financial recording.(Anggarini, 2022; Fina et al., 2023)With QRIS, businesses can reach a wider consumer base, including the younger generation who are accustomed to using digital payments.(Hartono et al., 2025)For consumers, QRIS offers convenience because a single code can be used for multiple payment applications. Features include ease of use, transaction history and notifications, convenience, and guaranteed security through Bank Indonesia's monitoring system.(Hartono et al., 2025; Rizkiani et al., 2024)With these various benefits, QRIS deserves to be a top choice in modern payment systems.

To understand the factors influencing QRIS usage intention, a theoretical framework capable of explaining technology adoption behavior is needed. The Technology Acceptance Model (TAM), developed by Davis (1986), explains technology acceptance through two main constructs: Perceived Usefulness (PU) and Perceived Ease of Use (PEOU). Over time, the TAM has been modified by adding external variables to make it more relevant in various contexts, such as Subjective Norm.(Marikyan & Papagiannidis, 2025). In another theory, trust and perceived security influence the use of QRIS.(Tatian et al., 2024; Usman et al., 2024).

Previous studies found that Perceived Ease of Use (PEOU) and Enjoyment (PE) had a significant positive effect on attitudes towards mobile banking use.(Zakariah & Shariff, 2025). In addition, ease of use (PEOU) and perceived benefits (PU) significantly influence the acceptance and interest in using QRIS as a payment tool, along with transaction security factors.(Wiryawan et al., 2023). Tatian et al.'s (2024) research states that subjective norms and perceived security have a significant influence on the intention to use the Quick Response Indonesia Standard (QRIS).(Tatian et al., 2024). In addition, previous research also stated that trust and security perceptions influence the use of QRIS.(Tatian et al., 2024; Usman et al., 2024).

Although various studies have identified factors influencing QRIS adoption, there are inconsistencies in the results regarding the influence of subjective norms, trust, and perceived security. On the other hand, in the field, the adoption rate of QRIS by micro-businesses in the North Ring Road area of Tasikmalaya City remains low, despite its clear benefits in accelerating and simplifying digital transactions. This indicates a research gap: there has been no study that comprehensively analyzes the interest in using QRIS among MSMEs in this local context by integrating the variables of TAM, subjective norms, trust, and perceived security.

This research was conducted on micro-entrepreneurs located in the North Ring Road area of Tasikmalaya City, known as one of the regional economic centers with high trade activity, particularly in the culinary sector. Based on data from the Tasikmalaya City Cooperatives, Small and Medium Enterprises Office in 2024, the number of MSMEs in this area reached more than

28,248 units, but the number of vendors along the North Ring Road cannot be determined with certainty. In reality, vendors in this area only sell on certain days, especially in the afternoon, with peak activity occurring on Sunday mornings. Furthermore, vendors come from various sub-districts, so the characteristics and transaction patterns in this area are quite diverse. These conditions are important considerations in analyzing the interest in using QRIS among micro-entrepreneurs in this area.

The following is the transaction volume in the East Priangan region (Tasikmalaya City, Banjar City, Tasikmalaya Regency, Garut Regency, Ciamis Regency, Pangandaran Regency) showing a gradual increase in QRIS usage in 2024-2025.

Table 2. QRIS Transaction Volume in the East Priangan Region

Month	2024	2025
January	1,304,775	17,486,805
February	1,132,217	15,910,577
March	1,467,249	25,393,457
April	1,698,574	27,969,603
May	3,043,986	20,482,349
June	2,938,212	18,978,548
July	2,862,028	36,769,540
August	6,883,726	31,298,711
September	10,129,220	31,996,747
October	11,112,436	—
November	10,196,793	—
December	10,152,517	—
Total	**62,921,734**	**226,286,337*** (Jan–Sep)

Source: Bank BI Tasikmalaya (2025)

The table above shows that transactions peaked at 11,112,436 in October, with an annual total of 62,921,734, indicating strong economic growth throughout the year. Entering 2025, transaction activity increased significantly compared to the previous year. In January alone, transaction volume reached 17,486,805, and continued to rise, reaching a temporary peak of 36,769,540 transactions in July.

Based on data from Bank BI Tasikmalaya, the number of QRIS users in West Java showed consistent growth from January to September 2025. In January, QRIS users were recorded at 10,368,218, and this number continued to increase monthly. By September 2025, the number of users had reached 11,810,722.(Bank BI Tasikmalaya, 2025). Thus, there was an increase of more than 1.4 million new users during the nine months. Meanwhile, the number of merchants using QRIS in West Java Province in the first quarter of 2025 was recorded at 8.24 million.(Yonatan, 2025), with the number of MSMEs in Tasikmalaya City reaching 28,248 units(Ministry of Cooperatives, Micro, Small and Medium Enterprises, 2024)However, there is currently no official data on the number of merchants using QRIS in Tasikmalaya City.

Based on a preliminary study conducted on 10 MSMEs in the North Ring Road area, Tasikmalaya City, the results showed that 60% of respondents stated that QRIS was useful for speeding up transactions (Perceived Usefulness). However, 40% of respondents considered QRIS quite complicated to use, especially regarding the operation of banking applications (Perceived Ease of Use). 70% of respondents stated that they would use QRIS if there was encouragement from customers or fellow traders (Subjective Norm). In addition, 50% of respondents still doubted the security and trust aspects of digital transactions (Trust), and 50% of respondents also still doubted the security aspects of digital transactions (Perceived Security). Therefore, researchers are interested in researching the Analysis of Interest in Using the Quick Response Code Indonesian Standard (QRIS) as a Digital Payment Tool among Micro Business Actors in the North Ring Road Area of Tasikmalaya City.

2. Methods

The subjects of this study were Micro, Small, and Medium Enterprises (MSMEs) in the North Ring Road area of Tasikmalaya City that use or have the potential to use the Quick Response Code Indonesian Standard (QRIS) as a digital payment method. MSMEs were selected because they are an active transaction sector, but their adoption rates for QRIS vary, necessitating an analysis of the factors influencing their interest in using it.

The study was conducted by distributing questionnaires to measure MSMEs' perceptions regarding perceived usefulness, perceived ease of use, subjective norm, trust, and perceived security. Data analysis used Structural Equation Modeling–Partial Least Square (SEM-PLS) based on a modified Technology Acceptance Model (TAM) framework. The independent variables of this study were perceived usefulness, perceived ease of use, subjective norm, trust, and perceived security, with interest in using QRIS as the dependent variable. This study was a quantitative study using a survey method, a type of research that aims to determine the relationship between the variables studied. The selection of the survey method was based on the consideration that this method is appropriate for identifying and analyzing causal relationships between variables in the study population. The study design used was cross-sectional, namely a data collection technique carried out only at a specific point in time.(Sugiyono, 2021).Through this research design, researchers can obtain a comprehensive picture of the influence of perceived usefulness, perceived ease of use, subjective norms, trust, and perceived security on the interest in using QRIS among MSMEs in the North Ring Road area of Tasikmalaya City.

Population is a generalization area consisting of: objects/subjects that have certain qualities and characteristics that are determined by researchers to be studied and then conclusions drawn.(Sugiyono, 2021)The population in this study was 272 MSMEs. The sample represents a subset of the population's size and characteristics. Therefore, the sample must be representative and drawn from the population.(Sugiyono, 2021)The sample size is calculated using the Slovin formula. The following is the sample size calculation:

$$n \frac{N}{1 + N.e^2}$$

n= number of samples
N= population size
e= desired error tolerance or precision (usually 5% = 0.05)

$$n = \frac{272}{1 + 272.0{,}0025}$$

$$n = \frac{272}{1 + 272.0{,}0025}$$

$$n = \frac{272}{1{,}68}$$

n= 161.90

Therefore, the number of samples in this study was 162 respondents.

The sampling technique used in this study is purposive sampling, this technique is a sampling method with certain considerations or criteria that have been previously determined by the researcher so that the samples obtained are relevant to the research objectives and can provide more accurate information.(Sugiyono, 2021)This technique was chosen to ensure that the selected respondents were truly business actors who had the capacity to use digital payment technology. Data analysis in this study was conducted using PLS-SEM through SmartPLS. The analysis aims to obtain a descriptive overview of the data, test the validity and reliability of indicators, and assess the relationship between latent variables. The analysis was conducted to examine the causal relationship between dependent and independent variables according to the research model. The method used was PLS-SEM (Partial Least Squares Structural Equation Modeling) through SmartPLS software. There are three main stages in conducting data analysis with PLS: outer model analysis, inner model analysis, and hypothesis testing.(Siregar et al., 2023; Waluyo & Rachman, 2020).

3. Results and Discussion

Hypothesis Testing

Structural model evaluation is conducted by analyzing the path coefficient values of the relationships between variables, which aims to explain the strength and direction of the relationships in the research model. This testing is conducted after the design of the relationships between variables (inner model) is theoretically formed. Next, the structural model is tested using a t-test (t-statistic), and hypothesis testing of the direct effect is obtained from the path coefficient output generated by the SEM-PLS application. A relationship is considered statistically significant if the t-statistic value exceeds 1.96 and the p-value is less than 0.05 at the 5% significance level.(Asari et al., 2023; Rahadi, 2023). Below, the results of the analysis of the direct influence hypothesis testing will be outlined in Table 3 below.

Table 3. Results of the Analysis of Direct Influence Relationships

Relationship Path	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values	Information
PU -> Interest in Using QRIS	0.004	0.001	0.113	0.031	0.488	Results are not supported by data
PEOU -> Interest in Using QRIS	0.316	0.314	0.119	2,654	0.004	Results supported by data
SN -> Interest in Using QRIS	0.27	0.275	0.092	2,923	0.002	Results are supported by data
TR -> Interest in Using QRIS	0.01	0.012	0.079	0.133	0.447	Results are not supported by data
PS -> Interest in Using QRIS	0.399	0.403	0.073	5,485	0.000	Results are supported by data

Source: Researcher Processed Results (2025)

Each relationship generated in this statistical test in PLS was hypothesized through simulation. The bootstrap method used was intended to minimize data abnormality issues in the study. The following are the results of the hypothesis analysis:

(1) The Influence of Perceived Usefulness (PU) on Interest in Using QRIS
The first hypothesis in this study is "Perceived Usefulness (PU) has a positive effect on QRIS Usage Intention". The results of the analysis show that the path coefficient value for the relationship between PU and QRIS Usage Intention is 0.004, with a T-statistic value of 0.031 and a p-value of 0.488. Because the p-value is greater than the significance limit of 0.05 and the T-statistic value <1.96, this relationship is declared statistically insignificant. So it can be concluded that H1 is rejected, which means that Perceived Usefulness does not have a significant effect on QRIS Usage Intention in this study.

(2) The Influence of Perceived Ease of Use (PEOU) on Interest in Using QRIS
The second hypothesis in this study is "Perceived Ease of Use (PEOU) has a positive effect on QRIS Usage Intention". The results of the analysis show that the path coefficient value for the relationship between PEOU and QRIS Usage Intention is 0.316, with a T-statistic value of 2.654 and a p-value of 0.004. Because the p-value is smaller than the significance limit of 0.05 and the T-statistic value is > 1.96, this relationship is declared to have a positive and statistically significant effect. So it can be concluded that H2 is accepted, which means that the higher the perceived ease of use, the higher the QRIS Usage Intention.

(3) The Influence of Subjective Norm (SN) on Interest in Using QRIS
The third hypothesis in this study is "Subjective Norm (SN) has a positive effect on the Intention to Use QRIS". The results of the analysis show that the path coefficient value for the relationship between SN and Intention to Use QRIS is 0.270, with a T-statistic value of 2.923 and a p-value of 0.002. Because the p-value is smaller than the significance limit of 0.05 and the T-statistic value is > 1.96, this relationship is declared positive and statistically significant. So it can be concluded that H3 is accepted, which means Subjective Norm or subjective norms have a positive effect on Intention to Use QRIS.

(4) The Influence of Trust (TR) on Interest in Using QRIS
The fourth hypothesis in this study is "Trust (TR) has a positive effect on QRIS Usage Intention". The analysis results show that the path coefficient value for the relationship between TR and QRIS Usage Intention is 0.010, with a T-statistic value of 0.133 and a p-value of 0.447. Because the p-value is greater than the significance limit of 0.05 and the T-statistic value <1.96, this relationship is declared statistically insignificant. Therefore, it can be concluded that H4 is rejected, which means that Trust does not have a significant effect on QRIS Usage Intention in this model.

(5) The Influence of Perceived Security (PS) on Interest in Using QRIS
The fifth hypothesis in this study is "Perceived Security (PS) has a positive effect on QRIS Usage Intention". The results of the analysis show that the path coefficient value for the relationship between PS and QRIS Usage Intention is 0.399, with a T-statistic value of 5.485 and a p-value of 0.000. Because the p-value is smaller than the significance limit of 0.05 and the T-statistic value is > 1.96, this relationship is declared to have a positive and statistically significant effect. So it can be concluded that H5 is accepted, which means Perceived Security has a strong positive influence on QRIS Usage Intention.

The influence of Perceived Usefulness (PU) on the interest in using QRIS among MSMEs in the North Ring Road area of Tasikmalaya City.

The results of the study indicate that Perceived Usefulness (PU) has a positive but insignificant influence on the Intention to Use QRIS among MSMEs in the North Ring Road area of Tasikmalaya City. This is evidenced by the path coefficient value of 0.004, the T-statistic value of 0.031, and the p-value of 0.488. These values do not meet the criteria for statistical significance,

where the T-statistic value is far below 1.96 and the p-value is far above 0.05. Thus, the perceived benefits felt by MSMEs have not been proven to significantly influence their interest in using QRIS in the area. These results indicate that although MSMEs have recognized the benefits of QRIS, such as ease of transactions and payment efficiency, these benefits have not been a primary consideration in making decisions to use QRIS. In practice, MSMEs tend to consider other factors that are perceived as more direct and relevant, such as ease of use of the system, the level of transaction security, and the influence of the social environment and fellow business actors, rather than purely functional benefits.

The results of this study are supported by previous research which stated that Perceived Usefulness does not influence the interest of MSMEs in accepting payments via QRIS.(Khan & Fitriasari, 2025). Similar results were also presented byRamadan & Dawn (2025)which states that Perceived Usefulness has no effect on MSMEs' interest in accepting payments via QRIS. Conversely, this study does not align with the researchTian et al., (2023)found that Perceived Usefulness (PU) is the strongest factor in influencing interest in using digital payment services.

The differences in the results of this study can be explained through the Technology Acceptance Model (TAM) approach, which is a theoretical framework for understanding and predicting the acceptance and use of technology by users.(Musa et al., 2024)In TAM, Perceived Usefulness is defined as the extent to which a person believes that using a technology can improve his or her performance or productivity.(Marikyan & Papagiannidis, 2025)However, the insignificant effect of Perceived Usefulness on QRIS usage intention in this study may be due to the fact that QRIS has been considered a general and standard digital payment system by MSMEs. When a technology becomes a basic need or market demand, the benefits it offers are no longer perceived as added value that can drive usage intention. Furthermore, the long-term and indirect benefits of QRIS lead MSMEs to prioritize other factors such as ease of use, transaction security, and trust in running a business.

In the context of field implementation, the use of digital payment technology is not only influenced by perceived benefits but also occurs within specific social and operational environments. Therefore, contextual factors such as the digital literacy level of MSMEs, business environment support, and government policies and outreach can act as supporting factors that strengthen or weaken the influence of Perceived Usefulness on QRIS adoption interest.(Barthwal, 2025; Dudu et al., 2024; Moaz et al., 2025).

The influence of Perceived Ease of Use (PEOU) on the interest in using QRIS among MSMEs in the North Ring Road area of Tasikmalaya City.

The results of the study indicate that Perceived Ease of Use (PEOU) has a positive and significant effect on the Interest in Using QRIS among MSMEs in the North Ring Road area of Tasikmalaya City. This is evidenced by the path coefficient value of 0.316, the T-statistic value of 2.654, and the p-value of 0.004, which have met the criteria for statistical significance. These values indicate that the higher the perceived ease of use by MSMEs in operating QRIS, the higher their interest in using this payment technology in their business transactions. These results indicate that the ease of learning, operating, and understanding the use of QRIS is an important factor in shaping the interest of MSMEs in adopting digital payment systems. MSMEs who have limited time and resources tend to be more receptive to technology that is easy to use, so the perception of ease of use can reduce psychological and technical barriers in the QRIS adoption process.

The results of this study are in line with various previous studies which state that PEOU significantly influences the perception of usefulness and user satisfaction, which in turn encourages the continued use of QRIS among MSMEs.(Tarigan et al., 2025; Wicaksono et al., 2024). Research resultFauziah et al. (2024)shows that perceived ease of use has a significant influence on QRIS usage in MSMEs. In addition, the researchFirdausi & Antonio (2025)states that perceived ease of use has an indirect effect on usage intention through perceived usefulness which causes increased productivity and transaction security.

Theoretically, the results of this study strengthen the role of Perceived Ease of Use as an important construct in the Technology Acceptance Model (TAM) in explaining QRIS usage intention. TAM is a theoretical framework used to understand and predict technology acceptance and use by users.(Musa et al., 2024)In TAM, PEOU is a key factor in technology adoption. The easier a system is to use, the more likely users are to form a positive attitude and intend to continue using it.(Marikyan & Papagiannidis, 2025)This study supports the consistency of TAM as a theoretical framework in the study of financial technology adoption.

Perceived Ease of Use(PEOU) plays an important role in shaping interest and intention to use QRIS, especially when combined synergistically with other variables such as Perceived Usefulness and Attitude Toward Use, as outlined in the Technology Acceptance Model.(Firdausi & Antonio, 2025; Husrizal, 2022; Yuliani & Pertiwi, 2025). The indirect effect of PEOU through increased perceived usability is particularly important in dynamic business environments such as MSMEs, where repeated use and training strengthen perceived ease of use and adoption intention.(Firdausi & Antonio, 2025; Tarigan et al., 2025)Therefore, the Technology Acceptance Model remains relevant as a primary framework, with its application tailored to the characteristics and needs of MSMEs.

The influence of Subjective Norm on the interest in using QRIS among MSMEs in the North Ring Road area of Tasikmalaya City.

The results of the study indicate that Subjective Norm (SN) has a positive and significant effect on the Interest in Using QRIS among MSMEs in the North Ring Road area of Tasikmalaya City. This is indicated by a path coefficient value of 0.270, a T-statistic value of 2.923, and a p-value of 0.002. These results indicate that the influence of the social environment, such as fellow business actors, consumers, family, and other related parties, has an important role in encouraging interest in using QRIS. The greater the support or social pressure felt by MSMEs, the higher their interest in adopting QRIS. Encouragement and recommendations from the surrounding environment can shape positive perceptions towards the use of QRIS, so that the decision to adopt technology among MSMEs is not only individual, but also influenced by social norms and expectations.

Results This research is in line with the research results of ResearchMangudu (2025)found that SN had a positive effect on interest in using QRIS. Similar research byPutro et al. (2023)stated that SN has a positive effect on the interest in using QRIS. Furthermore, the researchWijaya et al. (2024)states that the modified Technology Continuity Theory Model identifies government regulations and subjective norms as the main factors influencing QRIS adoption by MSMEs in the Smart Economy.

Theoretically, these results support the expansion of the use of the Technology Acceptance Model by including social aspects through the Subjective Norm construct.(Marikyan & Papagiannidis, 2025)Subjective Norms describe the social pressure felt by individuals to perform or not perform a certain behavior.(Nayanajith & Damunupola, 2020).The existence of subjective norms shows that the acceptance of technology by MSME actors is not only determined by individual perceptions of technology, but also by social pressure and support.(Marikyan & Papagiannidis, 2025; Nayanajith & Damunupola, 2020)Overall, the incorporation of subjective norms enriches TAM by emphasizing the social dimension in technology adoption

decisions.(Granić, 2022; Mustofa et al., 2025). Thus, the integration of subjective norms can strengthen the model's ability to explain QRIS adoption behavior in the MSME environment.

A supportive business environment, including support from local governments, MSME associations, and consumer preference for cashless transactions, plays a crucial role in accelerating the adoption of QRIS by MSMEs. These social factors serve as an external stimulus that encourages businesses to adapt to developments in digital payment systems, thereby increasing interest in using QRIS.(Avrianto et al., 2023; Muchtar et al., 2024; Zanra & Sufnirayanti, 2024)Therefore, the use of a technology acceptance theoretical framework that considers social aspects remains relevant in explaining QRIS adoption behavior among MSMEs.

The influence of trust on the interest in using QRIS among MSMEs in the North Ring Road area of Tasikmalaya City.

The results of the study indicate that Trust (TR) does not significantly influence the Intention to Use QRIS among MSMEs in the North Ring Road area of Tasikmalaya City. This is evidenced by the path coefficient value of 0.010, the T-statistic value of 0.133, and the p-value of 0.447. These values do not meet the criteria for statistical significance because the T-statistic is far below 1.96 and the p-value is far above 0.05. These results indicate that although MSMEs have a level of trust in the QRIS system, this factor has not been the main determinant in forming usage intention. Trust in digital payment systems has likely been considered a basic standard, so it is no longer a differentiating factor in the decision to use QRIS.

The results of this study are in line with previous research which stated that trust does not have a significant direct influence on the interest in using QRIS, and does not moderate the relationship between perceived ease of use, perceived usefulness, and intention to use.(Musyarief et al., 2025). StudyNabila et al. (2025)also found that trust had no significant effect on QRIS usage intention among users in Bandung City. Conversely, the results of this study are inconsistent with researchFaisal et al. (2024)which states that trust was found to positively influence attitudes towards the use of QRIS.

Theoretically, these results show that trust functions as a supporting variable that complements the Technology Acceptance Model in explaining interest in using QRIS.(Marikyan & Papagiannidis, 2025). Based on Trust Transfer Theory, trust can move from a trusted source to another party through certain institutional relationships or associations.(Koç & Çevik, 2022)In the context of digital payments, trust reflects user confidence in the integrity, security, and accountability of the transaction system.(Hesselman et al., 2020; Ling et al., 2025).

The low direct influence of trust in this study is likely due to the perception among MSMEs that trust has become a fundamental standard inherent in provider authorities, such as Bank Indonesia. Thus, trust in QRIS has been institutionalized within the national banking system and is no longer a differentiating factor in shaping user interest. The focus of MSMEs in the North Ring Road area of Tasikmalaya City tends to shift from the credibility of service providers to aspects of technical functionality and operational ease. Practically, trust functions as a hygiene factor, a factor whose presence is considered normal but does not directly increase user interest. MSMEs prioritize clear transaction evidence and balance security over mere trust in the system.

MSMEs' trust in QRIS is generally built through consistent user experience and support from official institutions, such as the government and digital payment service providers. Continuous outreach, information transparency, and guaranteed transaction security play a role in maintaining business trust in QRIS. (Feogeok et al., 2025; Husain et al., 2025; Usman et al.,

2024)However, because this level of trust has been relatively met, the variation in trust among MSMEs is low and not strong enough to significantly influence differences in interest in using QRIS.

The influence of Perceived Security (PS) on the interest in using QRIS among MSMEs in the North Ring Road area of Tasikmalaya City.

The results of the study indicate that Perceived Security (PS) has a positive and significant effect on the Intention to Use QRIS among MSMEs in the North Ring Road area of Tasikmalaya City. This is indicated by a path coefficient value of 0.399, a T-statistic value of 5.485, and a p-value of 0.000, which indicates a very strong level of significance. These results indicate that MSMEs' perceptions of QRIS system security, such as data protection and transaction security, are the main considerations in their usage decisions. With the assurance of perceived security, MSMEs will feel more comfortable and confident in using QRIS in their daily transaction activities.

Previous studies have stated that perceived security significantly influences user trust and intention to adopt digital payment systems, including QRIS, because higher perceived security increases user trust in transaction security.(Fakriah et al., 2025; Poudel, 2022; Primadineska & Jannah, 2021)Previous research also suggests that perceived privacy and security risks directly impact consumer trust, which in turn influences their willingness to use digital payment platforms.(Mashatan et al., 2022; Poudel, 2022). Thus, this study strengthens previous empirical results while providing contextual evidence on MSME actors in the North Ring Road area of Tasikmalaya City.

Theoretically, these results indicate that Perceived Security can function as a supporting variable that complements the Technology Acceptance Model framework in the context of digital payment systems.(Marikyan & Papagiannidis, 2025; Zhang, 2024). Perceived Security (PS) or perceived risk in technology adoption refers to the extent to which individuals believe that the use of a technology may result in potential harm or negative consequences, which generally lowers their intention to adopt it.(Appiah & Agblewornu, 2025; Xie et al., 2021). Perceived Security is a major factor influencing Trust and behavioral intention, especially in biometric technologies such as facial recognition, because facial data is unique and sensitive.(Zhang, 2024). Therefore, these results enrich the understanding of technology acceptance theory without reducing the relevance of the core constructs in TAM.

Perceptions of security related to QRIS (Quick Response Indonesia Standard) can be improved through ongoing education and outreach targeted at MSMEs, which helps increase knowledge and trust while reducing perceived risks. Clear communication about security systems, data protection, and risk management mechanisms strengthens user trust, as does providing a safe and seamless user experience.(Anggraini et al., 2024; Ma'arif et al., 2025; Rambe et al., 2025). Risk perception is also shaped by factors such as knowledge, social influence, and perceived benefits, with higher perceived benefits and trust lowering risk perception and encouraging adoption.(Kenesei et al., 2025; Li & Li, 2023)Thus, Perceived Security works synergistically with other factors to encourage interest in QRIS use among MSMEs.

Managerial Implications

Research implications elucidate the meaning and utility of research results, both in the context of practice and the development of science. Through these implications, research results are not only conceptually understood but can also serve as a basis for decision-making and the development of further studies. These research implications are divided into three aspects: practical implications, theoretical implications, and methodological implications.

1) Practical Implications

The results of this study provide practical implications for micro-businesses, local governments, and QRIS service providers in efforts to increase the adoption of digital payment systems. The finding that Perceived Ease of Use, Subjective Norm, and Perceived Security significantly influence QRIS Usage Intention suggests that strategies to increase QRIS usage need to focus on operational ease, transaction security assurance, and strengthening social influence. In practice, these implications can be implemented through routine, community-based QRIS outreach and mentoring programs for MSMEs, with an emphasis on hands-on QRIS usage and transaction security education. This approach is expected to encourage sustainable QRIS usage among micro-businesses.

2) Theoretical Implications

Theoretically, this study contributes to the development of literature on the adoption of digital payment technology, particularly in the context of MSMEs. The results show that not all constructs in the technology adoption model, such as Perceived Usefulness and Trust, have a significant influence on QRIS Use Intention. These results indicate that in the context of micro-enterprises, factors such as ease of use, security, and social influence are more dominant than the perception of functional benefits alone. Thus, this study enriches the understanding of technology adoption theory by demonstrating that the relevance and strength of each construct can vary depending on the user context and the type of technology studied.

3) Methodological Implications

From a methodological perspective, this study demonstrates the effectiveness of the SEM-PLS method in analyzing the relationships between variables in a technology adoption model with a relatively limited sample size. This approach allows researchers to simultaneously test the structural model and the direct effects between variables. Furthermore, the use of bootstrapping in hypothesis testing helps address potential data abnormalities, resulting in more robust analysis results. These methodological implications provide a reference for future research exploring similar topics with similar characteristics of MSME respondents or data sets.

4. Conclusion

Based on the results of data analysis using the SEM-PLS method, it can be concluded that Perceived Usefulness (PU) does not significantly influence QRIS usage intention, indicating that the perceived benefits of QRIS have not yet become a primary determinant for micro-business owners to adopt the system. In contrast, Perceived Ease of Use (PEOU) has a positive and significant effect on QRIS usage intention, suggesting that the simplicity and convenience of using QRIS play a crucial role in encouraging micro-businesses to adopt this digital payment system. Similarly, Subjective Norm (SN) also shows a positive and significant influence on QRIS usage intention, meaning that social influences—such as encouragement from the surrounding environment, business partners, and consumers—contribute to increasing the intention of micro-business owners to use QRIS. Meanwhile, Trust (TR) does not significantly affect QRIS usage intention, indicating that the level of trust in the QRIS system among micro-business owners is not yet strong enough to substantially drive their intention to use it. Finally, Perceived

Security (PS) has a positive and significant effect on QRIS usage intention, demonstrating that the perception of transaction security is the most dominant factor influencing micro-business owners' interest in adopting QRIS as a digital payment tool.

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