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The Effect of Ease of Use and Security on QRIS Usage Intention Among MSMEs Fostered by KPW BI West Java

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ABSTRACT: This study investigates the influence of perceived ease of use and perceived security on the intention to use Quick Response Code Indonesian Standard (QRIS) among Micro, Small, and Medium Enterprises (MSMEs) fostered by Bank Indonesia's Central Java Regional Office (KPw BI Jawa Tengah). As digital payments continue to expand in Indonesia's financial ecosystem, understanding behavioral factors that drive MSMEs to adopt QRIS is crucial for inclusive economic transformation. This research employs a mixed-method approach, combining quantitative analysis based on a structured questionnaire (n = 57) selected through random sampling, and qualitative insights obtained from in-depth interviews with three representative MSME actors across various sectors. The results of multiple linear regression analysis reveal that both perceived ease of use (p = 0.009) and perceived security (p = 0.002) have a positive and statistically significant impact on the intention to use QRIS, supporting the theoretical framework of the Technology Acceptance Model (TAM). These findings are further enriched by interview responses indicating that user-friendly features, trust in system security, and institutional credibility (e.g., supervision by Bank Indonesia) play key roles in shaping MSMEs' willingness to integrate QRIS into their daily operations. The study provides both theoretical contributions and practical recommendations for policymakers, fintech developers, and financial institutions to promote sustainable digital adoption by enhancing usability and security frameworks targeted at MSMEs.

KEYWORDS: Intention to Use, Perceived Ease of Use, Perceived Security, MSMEs, QRIS, TAM

I. INTRODUCTION

The advancement of digital technology has significantly influenced the administrative and transactional models of businesses in Indonesia, particularly among micro, small, and medium enterprises (MSMEs) (Trinugroho et al., 2022). The rapid diffusion of internet access, smartphones, and cloud-based services has opened new opportunities for MSMEs to enhance operational efficiency, reach broader markets, and improve financial reporting. According to the latest report published by the Indonesian Chamber of Commerce and Industry, the total number of MSMEs in Indonesia reached approximately 66 million units in 2023, representing over 97% of all registered businesses nationwide (Kadin Indonesia, 2025). This vast and dynamic segment serves as the foundation of Indonesia's economic ecosystem, contributing not only to more than 60% of the nation's GDP but also playing a critical role in absorbing labor, stimulating innovation, and ensuring economic resilience at the regional level (Wati et al., 2024). MSMEs are deeply embedded across various sectors from agriculture, trade, and manufacturing to services and creative industries making them a key target for digital transformation initiatives. However, despite their importance, many MSMEs still face structural challenges such as limited access to finance, low digital literacy, and inefficient manual processes, which hinder their competitiveness in the digital era. Hence, fostering MSMEs through digital innovation is not only a strategic imperative but a crucial step toward inclusive economic growth and long-term national development.

As the country accelerates toward a digital economy, the integration of financial technology has become not only a competitive advantage but a necessity in enhancing efficiency, accountability, and transparency. Digital payment systems are one of the key enablers in this transformation, allowing MSMEs to streamline their financial administration, reduce cash-handling risks, and improve transaction traceability (Desiyanti, 2025). Among these innovations, the Quick Response Code Indonesian Standard (QRIS), launched by Bank Indonesia in 2019 serves as a unified standard for QR-based payments, designed to facilitate seamless, interoperable transactions across different payment service providers (Bank Indonesia, 2021). QRIS has been widely promoted as a digital solution to reduce the reliance on cash, empower small businesses, and expand the reach of financial services, especially during and after the COVID-19 pandemic (Desiyanti, 2025). By early 2025, QRIS adoption reached over 32 million merchants nationwide, with 92% comprising MSMEs, marking a significant shift toward inclusive digital finance (Nugraha, 2025). According to Katadata Databoks, the following are the top 10 provinces with the highest number of QRIS merchants as of March 2024:

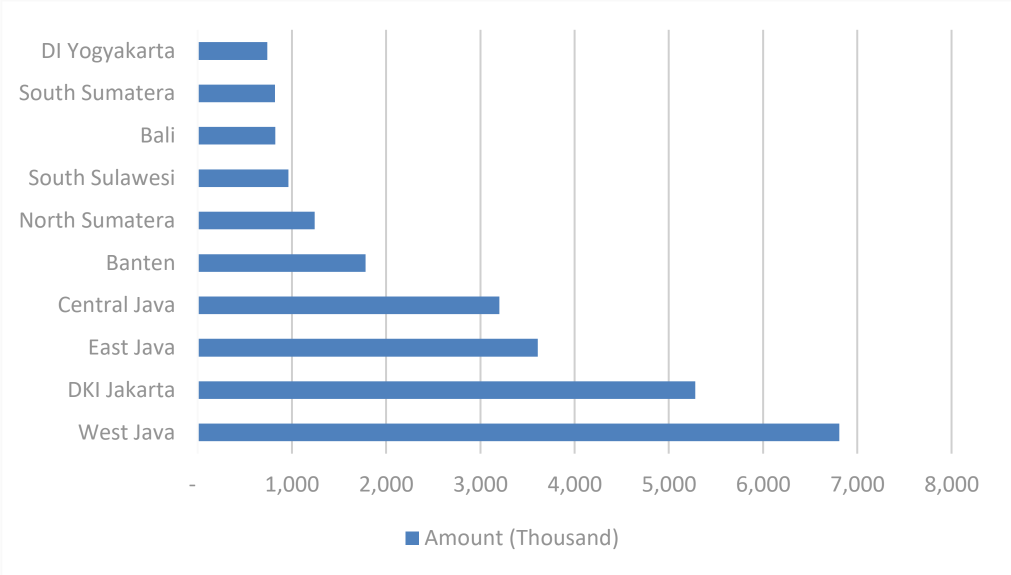

Figure 1. 10 Provinces with The Highest Number of QRIS Merchants
Source: Katadata Databoks (2024)

Among these provinces, West Java ranks first, recording the highest number of QRIS merchants in Indonesia with a total of 6.81 million registered merchants. This figure underscores West Java's robust digital payment ecosystem and reflects the province's significant engagement in Bank Indonesia's efforts to accelerate QRIS adoption, particularly among MSMEs and informal business actors. This widespread adoption also raises important questions about what drives the intention to use QRIS among MSMEs. In the context of digital technology acceptance, intention to use refers to Davis in 1989 as a user's conscious plan or willingness to engage with a particular system or technology in the near future (Rahman & Supriyanto, 2022). It serves as a key predictor of actual system usage and is widely employed in behavioral models such as the Technology Acceptance Model (TAM).

For MSMEs in West Java, the intention to use QRIS reflects not only a response to external encouragement from institutions like Bank Indonesia but also internal judgments about the system's practicality, trustworthiness, and added value to daily business operations. This construct becomes particularly relevant in digital payment adoption, where behavioral intent often hinges on the perceived ease of learning and using the platform, as well as confidence in the system's security and reliability. There are two critical factors influencing individuals' acceptance of new technologies: perceived ease of use and perceived security (Nuswantoro, 2024). Perceived ease of use refers to the extent to which MSME actors believe that using QRIS is effortless and convenient, especially in facilitating daily transactions and integrating with their operational processes (Pontoh et al., 2022). Perceived security, on the other hand, relates to users' confidence in the safety of financial transactions, including protection against fraud and misuse of data. Both of which are essential for building trust in digital payment platforms (Silaen et al., 2021).

In support of this digital shift, Bank Indonesia, through its Kantor Perwakilan Wilayah (KPw BI) in West Java, has taken an active role in fostering the development of local MSMEs (Sindonews, 2021). This support includes providing structured guidance, targeted training programs, and the provision of digital tools aimed at enhancing financial and operational capacity. One of the most significant initiatives in this regard is the widespread introduction of the QRIS, which has been promoted as a national standard for cashless payments (Zusrony, 2023). KPw BI West Java has consistently encouraged its curated MSMEs to adopt QRIS not only as a modern payment method but as an integral component of their overall digital transformation strategy. As of 2025, the number of MSMEs officially fostered by KPw BI West Java continues to grow, reflecting the institution's commitment to promoting digital financial inclusion at the regional level.

For these MSMEs, adopting QRIS is not merely about keeping pace with emerging technological trends. Instead, it represents a strategic move to simplify and modernize business administration, particularly in areas such as financial reporting, sales tracking, and cash flow monitoring. By integrating QRIS into their operational routines, MSMEs gain the ability to process payments more efficiently, reduce the risks associated with manual transactions, and improve accuracy in recording revenue (Zusrony, 2023). This not only enhances their internal business processes but also strengthens their credibility in the eyes of financial institutions and potential investors. In regions like West Java where digital infrastructure is relatively well-developedsuch adoption can serve as a foundation for scaling up operations and accessing broader markets, both digitally and geographically.

However, the decision to adopt QRIS is not solely driven by institutional encouragement. It is also heavily influenced by the behavioral intention of the MSME actors themselves, which reflects their personal evaluations of the system's usability and trustworthiness. In this regard, two factors are especially critical, which are perceived ease of use and perceived security. Perceived ease of use relates to the extent to which MSMEs believe that QRIS is simple, intuitive, and compatible with their existing workflows, while perceived security reflects their confidence in the platform’s ability to protect sensitive financial information and prevent fraud. Understanding these factors is essential for policymakers and stakeholders who aim to design more effective, user-centered interventions. By identifying what drives or hinders QRIS adoption among MSMEs in West Java, stakeholders can develop tailored strategies that promote long-term, sustainable digital engagement across Indonesia’s entrepreneurial landscape.

II. LITERATURE REVIEW

The increasing adoption of digital payment systems among MSMEs has prompted researchers to investigate the psychological and behavioral factors that drive technology acceptance in business settings. In understanding the motivations behind the use of digital platforms such as QRIS, it is essential to examine the theoretical frameworks that explain user behavior in the context of new technology adoption. Among the most widely applied models in this field is the Technology Acceptance Model (TAM), which provides insights into how perceived ease of use and perceived security influence individuals’ willingness to embrace technological innovations. Within this framework, intention to use emerges as a key behavioral construct, serving as a predictor of whether a user will eventually adopt and continue using the system. The following subsections will explore both the theoretical foundation of TAM and the definition and relevance of intention to use in the context of MSMEs and QRIS adoption.

A. Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM), introduced by Davis in 1989, establishes a theoretical link between users’ beliefs and their behavioral intentions in adopting new technology (Nuswantoro, 2024). Derived from the Theory of Reasoned Action (TRA), TAM posits that intention to use a technology is primarily shaped by two key perceptions: perceived ease of use and perceived usefulness. The model suggests that when users perceive a technological system as easy to operate and beneficial in improving performance, they are more likely to adopt it. Technologies that minimize effort and learning time enable users to allocate more focus toward other productive activities, thereby enhancing overall efficiency (Wulansari, 2024).

In the context of non-cash payment systems such as QRIS, these perceptions play a critical role in shaping user behavior. To foster adoption, service providers must continuously innovate to improve usability ensuring that systems are intuitive, practical, and accessible to a broad user base. As highlighted by Budiwitjacksono & Septa (2023), the perception of ease directly influences users’ behavioral intentions toward adopting digital payment tools. Furthermore, the perception of security also emerges as a vital consideration. According to Silaen et al. (2021), security perception reflects a user’s confidence that their personal data will remain protected and not be misused, whether during storage or transmission. This sense of security significantly contributes to trust in digital systems.

- *Perceived Ease of Use*

Perceived ease of use is defined as the degree to which an individual believes that utilizing a particular technology will be free of effort (Pontoh et al., 2022). In the context of MSMEs and QRIS adoption, this concept reflects how seamlessly business owners perceive the QRIS system to integrate into their daily operational routines. When users find that a technology is easy to understand, simple to operate, and does not require extensive technical knowledge, they are more likely to adopt it. For MSME actors, perceived ease of use may be observed in how efficiently QRIS enables them to process transactions, track payments, and align with their bookkeeping systems. A system perceived as user-friendly reduces resistance, minimizes learning time, and improves task performance. That means factors could collectively enhance the likelihood of continued usage (Budiwitjacksono & Septa, 2023).

- *Perceived of Security*

Perceived security refers to an individual’s assessment of the safety and reliability of a technological system, particularly in terms of protecting personal and financial information during transactions (Maula & Sunarjo, 2023). Within digital payment systems such as QRIS, perceived security is a critical determinant of user trust and acceptance. It encompasses concerns related to data privacy, protection from fraud, system integrity, and resistance to cyberattacks. MSME users are more likely to adopt and continue using QRIS if they feel confident that their transactions are encrypted, monitored, and safeguarded from unauthorized access. As digital ecosystems grow increasingly complex, the assurance of strong security features becomes vital not only for functional trust but also for long-term engagement with the platform (Budiwitjacksono & Septa, 2023).

B. Intention to Use

Intention to use refers to an individual's conscious plan or readiness to engage with a particular technology in the near future (Silaen et al., 2021).. Within the framework of the TAM, it serves as a key predictor of actual system adoption, bridging the gap between users' attitudes and their real behavior. In the context of QRIS adoption among MSMEs, intention to use reflects business actors' willingness to incorporate QRIS into their daily transactions and financial operations. This intention is shaped by several factors, particularly the perceived ease of using the system and the perceived level of security it offers. When MSMEs view QRIS as both simple to operate and secure to use, they are more likely to express a strong intention to adopt it as a primary payment method. Therefore, intention to use becomes a crucial construct for understanding how behavioral, technological, and contextual factors collectively influence digital payment adoption in small business environments (Maula & Sunarjo, 2023).

Based on the literature review, two hypotheses are proposed to examine the influence of technological factors on MSMEs' adoption of QRIS:

H1: Perceived ease of use has a significant positive effect on the intention to use QRIS among MSMEs.

H2: Perceived security has a significant positive effect on the intention to use QRIS among MSMEs.

III. METHODOLOGY AND DATA

A. Research Variables

This study examines three primary variables: perceived ease of use and perceived security (independent variable) on intention to use QRIS (dependent variable). All variables were measured using a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Perceived ease of use refers to the extent to which MSME actors believe that using QRIS is easy and free from effort. This variable is assessed through indicators such as flexibility, simplicity in learning, ease of operation, and user control over transaction-related tasks (Budiwitjacksono & Septa, 2023). Perceived security measures how confident users feel that the system is secure, particularly in protecting personal and financial data. Indicators include perceptions of data safety, fraud protection, and system reliability during both storage and transaction processes (Budiwitjacksono & Septa, 2023). Intention to use reflects an individual's conscious plan to use a specific product in the future. In this context, it refers to the intention of MSMEs to adopt and continue using QRIS. Indicators include current utilization, frequency or intensity of use, and future expectations to continue using QRIS (Silaen et al., 2021).

B. Methodology and Data Collection

This research applies a mixed-method approach, combining both quantitative and qualitative techniques to provide a comprehensive analysis of QRIS adoption among MSMEs. Quantitative data were collected through a structured questionnaire distributed to a sample of MSME actors fostered by Bank Indonesia's Regional Representative Office (KPw BI) in West Java in 2025. A simple random sampling technique will be employed to ensure that each unit in the population has an equal probability of being selected, thereby increasing the representativeness and generalizability of the findings. The total sample size will be determined using the Slovin formula, based on the known population of curated MSMEs under the supervision of KPw BI West Java. According to Bank Indonesia's strategic development policy document, the regional office currently fosters 131 MSMEs and clusters as of early 2025. Assuming a margin of error of 10%, the estimated sample size can be calculated as follows:

$$n = \frac{N}{1 + N(e^2)}$$

$$n = \frac{131}{1 + 131(0{,}10^2)}$$

$n = 56{,}7\ or\ 57$ MSMEs

Qualitative data were gathered through in-depth interviews and field observations involving three MSME representatives. The interviews explored participants' experiences, perceptions, and challenges in using QRIS, while observations were conducted to examine real-life QRIS usage in daily business operations. This qualitative component was intended to enrich and contextualize the quantitative findings by providing deeper insights into behavioral and environmental factors influencing adoption.

C. Method of Analysis

For the quantitative data, analysis was conducted using STATA software. Descriptive statistics were used to profile the respondents. Validity and reliability check would be done to ensure the instrument. Correlation analysis was employed to examine the strength and direction of relationships among variables, followed by multiple linear regression analysis to test the effects of perceived ease of use and perceived security on the intention to use QRIS.

For the qualitative data, the analysis employed a thematic coding approach, where interview transcripts with five owner of MSMEs and observation notes were reviewed and categorized to identify recurring themes and patterns related to QRIS adoption. These findings provided supporting narratives and helped interpret the quantitative results within real business contexts.

IV. RESULTS

A. Descriptive Statistics Analysis

The first stage of analysis in this study is descriptive statistical analysis, which aims to identify the background characteristics of the respondents. This analysis focuses on three main aspects: gender, age, and the type of MSMEs operated by MSMEs fostered by the Regional Office of Bank Indonesia in West Java. Understanding these demographic and business profiles is essential for providing context to the study and for interpreting patterns in QRIS adoption within the target group.

Table 1. Gender of Respondents

No	Gender	Total	Percentage
1.	Man	29	50,88%
2.	Woman	28	49,12%
Total		**57**	**100,00%**

Source: Processed data, 2025.

The gender distribution among respondents is relatively balanced, with 50.88% male and 49.12% female participants. This near-equal representation suggests that QRIS adoption and participation in MSME programs fostered by Bank Indonesia in West Java involve both men and women equally. It reflects gender inclusivity in digital payment initiatives within the MSME sector.

Table 2. Age of Respondents

No	Gender	Total	Percentage
1.	21-30	8	14,04%
2.	31-40	19	33,33%
3.	41-50	17	29,82%
4.	51-60	13	22,81%
Total		**57**	**100,00%**

Source: Processed data, 2025.

The majority of respondents fall within the 31–40 years age group (33.33%), followed by those aged 41–50 years (29.82%). This indicates that middle-aged MSME actors dominate QRIS adoption, possibly due to their active involvement in digital transformation and business development. Meanwhile, younger respondents (21–30 years) comprise only 14.04%, which may reflect lower ownership of established MSMEs among that age group.

Table 3. Type of MSMEs

No	Gender	Total	Percentage
1.	Food and Beverage	12	21,05%
2.	Fashion	11	19,30%
3.	Crafts	10	17,54%
4.	Agribusiness	13	22,81%
5.	Service	11	19,30%
Total		**57**	**100,00%**

Source: Processed data, 2025.

Respondents operate MSMEs across a variety of sectors, with agribusiness (22.81%) and food and beverage (21.05%) being the most dominant. This suggests that QRIS is gaining traction in primary sectors with high transaction volume and public engagement.

The relatively even distribution across fashion, services, and crafts also indicates that QRIS adoption is spread across diverse industries, highlighting its versatility and relevance for various types of MSMEs in West Java.

B. Validity and Reliability

Validity and reliability are two fundamental criteria for evaluating the quality of research instruments. Validity refers to the extent to which an instrument accurately measures what it is intended to measure. A valid instrument ensures that the items in a questionnaire truly reflect the underlying theoretical constructs. Meanwhile, reliability refers to the consistency and stability of the measurement results when the instrument is used under similar conditions. A reliable instrument yields similar outcomes across different times, situations, or populations. In the context of this study, validity ensures that each indicator appropriately represents constructs such as perceived ease of use, perceived security, and intention to use, while reliability ensures that the responses are internally consistent and dependable for statistical analysis.

Table 4. Validity and Reliability of Items

Items	Validity	Reliability
Y.1	0,8282	
Y.2	0,7334	
Y.3	0,7179	0,7863
Y.4	0,7179	
Y.5	0,7251	
X1.1	0,6548	
X1.2	0,8230	
X1.3	0,8942	0,8118
X1.4	0,5557	
X1.5	0,6032	
X2.1	0,7640	
X2.2	0,5207	
X2.3	0,3622	0,7848
X2.4	0,4867	
X2.5	0,6631	

Source: Processed data, 2025.

Table 4 presents the results of the validity and reliability tests for each item used to measure the variables in this study. The validity values, represented by Pearson correlation coefficients, indicate that most items show strong and significant correlations with their respective total scores, with coefficients above the commonly accepted threshold of 0.30. All items measuring intention to use (Y) and perceived ease of use (X1) are considered valid, with correlation values ranging from 0.5557 to 0.8942. For perceived security (X2), although most items meet the validity threshold, one item (X2.3) shows a relatively low correlation (0.3622), suggesting the need for cautious interpretation. Reliability was assessed using Cronbach's Alpha, and the results show that each construct exceeds the minimum threshold of 0.70, indicating good internal consistency: 0.7863 for intention to use, 0.8118 for perceived ease of use, and 0.7848 for perceived security. Overall, the measurement instruments used in this study can be considered both valid and reliable for further analysis.

C. Linearity Diagnostics

Validity and reliability are two fundamental criteria for evaluating the quality of research instruments. Validity refers to the extent to which an instrument accurately measures what it is intended to measure. A valid instrument ensures that the items in a questionnaire truly reflect the underlying theoretical constructs. Meanwhile, reliability refers to the consistency and stability of the measurement results when the instrument is used under similar conditions. A reliable instrument yields similar outcomes across different times, situations, or populations. In the context of this study, validity ensures that each indicator appropriately represents constructs such as perceived ease of use, perceived security, and intention to use, while reliability ensures that the responses are internally consistent and dependable for statistical analysis.

Table 5. Linearity diagnostics

Variable	VIF	1/VIF
Perceived Ease of Use	1,94	0,515525
Perceived of Security	1,94	0,515525
Mean VIF	1,94	

Source: Processed data, 2025.

The results of the multicollinearity test using the Variance Inflation Factor (VIF) show that both independent variables—perceived ease of use and perceived security have identical VIF values of 1.94. These values are well below the commonly accepted threshold of 10, indicating that there is no multicollinearity problem within the regression model. The corresponding 1/VIF values of 0.5155 further support this conclusion, as they are comfortably above the minimum tolerance level of 0.10. The low and equal VIF values also suggest that the two predictors are not highly correlated with each other and can independently explain the variance in the dependent variable. Therefore, the model satisfies the assumption of multicollinearity, ensuring the reliability of the regression coefficients.

D. Linear Regression Test

The multiple linear regression analysis was conducted to examine the effect of perceived ease of use and perceived security on the intention to use QRIS among MSMEs fostered by KPw BI West Java.

Table 6. Linear Regression Test

Variable	Coefficient	Std. Error	t	P > t
_cons	5,6606	1,9589	2,89	0,006
Perceived Ease of Use	0,3513	0,1288	2,73	0,009
Perceived of Security	0,3709	0,1137	3,26	0,002
F (2, 54)	29,54			
Prob > F	0,0000			
R-Squared	0,5225			
Adj R-Squared	0,5048			

Source: Processed data, 2025.

From the table 6, the regression equations could be writen:

Intention to Use = 5,6606 + 0,3513 Perceived of Use + 0,3709 Perceived of Security + e

The results of the multiple linear regression analysis show that both Perceived Ease of Use and Perceived Security have a positive and statistically significant effect on the Intention to Use QRIS among MSMEs fostered by KPw BI West Java. The coefficient for Perceived Ease of Use is 0.3513 ($p = 0.009$), indicating that for every one-unit increase in perceived ease, the intention to use QRIS increases by 0.3513 units, holding other variables constant. The coefficient for Perceived Security is 0.3709 ($p = 0.002$), meaning that for every one-unit increase in perceived security, the intention to use QRIS increases by 0.3709 units.

The model's F-statistic value of 29.54 with a p-value of 0.000 indicates that the regression model as a whole is statistically significant, meaning the independent variables together have a meaningful effect on the dependent variable. The R-squared value of 0.5225 implies that approximately 52.25% of the variation in intention to use QRIS can be explained by perceived ease and perceived security. The Adjusted R-squared value of 0.5048, which adjusts for the number of predictors in the model, confirms that the model fits the data well and avoids overestimation. These results support the Technology Acceptance Model by demonstrating that ease and security perceptions are key determinants of behavioral intention toward adopting digital payment systems like QRIS.

E. Discussion

- **The Effects of Perceived Ease of Use to Intention to Use QRIS**

The results of the multiple linear regression analysis indicate that Perceived Ease of Use has a positive and statistically significant effect on the Intention to Use QRIS among MSMEs fostered by KPw BI West Java. This is evidenced by a regression coefficient of 0.3513 with a p-value of 0.009 ($p < 0.05$), indicating that the easier QRIS is perceived to use, the higher the intention of MSME actors to adopt and continue using it in their business operations. Based on this result, Hypothesis 1 (H1), which states that perceived ease of use positively influences the intention to use QRIS, is accepted. This finding supports the Technology Acceptance

Model (TAM), which emphasizes that ease of use is a critical factor in influencing users' behavioral intentions toward adopting new technologies.

This finding is in line with previous studies that have consistently shown the importance of perceived ease of use in influencing individuals' intention to adopt digital payment systems such as QRIS. Maula & Sunarjo (2023) found that perceived ease of use significantly affects behavioral intention and overall customer satisfaction in the context of non-cash transactions through mobile banking applications. Similarly, Budiwitjacksono & Septa (2023) emphasized that the ease of using QRIS plays a vital role in encouraging users to transition toward a cashless society, particularly when supported by secure and user-friendly features. Additionally, Pontoh et al. (2022) revealed that perceived ease of use is one of the dominant factors affecting merchant intention to adopt QRIS as a preferred payment method, alongside consumer trust and perceived risk. These findings reinforce the notion that simplifying the user experience is essential to accelerating the adoption of QRIS among MSMEs.

One of the clearest insights supporting the statistical finding that perceived ease of use significantly affects the intention to use QRIS came from Widji, a 47-year-old culinary business owner. She expressed how simple the process was after initial training from Bank Indonesia.

"At first I was unsure, but over time I got used to it. Now, I just put the QR code on the table, and buyers scan it. It's not complicated at all."

Her experience reflects how user-friendly features can reduce hesitation, especially among older or less tech-savvy business owners. The ease she felt in adopting the system increased her willingness to continue using it for everyday transactions.

Similarly, Zaga, a 43-year-old agribusiness entrepreneur, emphasized the operational advantages of using QRIS in his supply chain activities.

"Now when customers scan, I get the notification directly, no need to prepare change, and everything goes into the report automatically,"

His positive response to the simplicity and seamless integration of QRIS into his daily business routines illustrates how perceived ease translates into real behavioral intention. Not only does he find the system convenient, but he also plans to apply QRIS in other branches of his distribution network, reinforcing the role of ease as a trigger for long-term adoption.

For younger entrepreneurs like Bela, a 29-year-old fashion business owner, digital adoption feels natural, but convenience remains a decisive factor.

"It's super easy. Just generate the QR, display it, and the customer can scan it. Even my staff figured it out quickly,"

Her comfort in using QRIS, combined with her team's quick adaptability, shows that even among digitally literate users, the simplicity of a system enhances intention to use. Her decision to integrate QRIS as part of her store's SOP (standard operating procedure) further validates the TAM theory, where ease of use positively influences behavioral commitment.

- **The Effects of Perceived Security to Intention to Use QRIS**

The results of the regression analysis show that Perceived Security has a positive and statistically significant effect on the Intention to Use QRIS among MSMEs fostered by KPw BI West Java. The coefficient value for perceived security is 0.3709, with a p-value of 0.002 ($p < 0.01$), indicating a strong relationship between the feeling of transactional safety and the desire to continue using QRIS in business operations. This suggests that the more confident MSME actors are in the security of QRIS such as data protection, fraud prevention, and transaction accuracy, the more likely they are to use it consistently. Therefore, Hypothesis 2 (H2), which posits that perceived security positively influences the intention to use QRIS, is supported.

This finding aligns with the study by Budiwitjacksono & Septa (2023), which concluded that the sense of security is a critical driver in encouraging QRIS adoption in Indonesia's transition toward a cashless society. Similarly, Silaen et al. (2021) found that perceived security significantly affects merchant interest in adopting QRIS, especially in mitigating perceived risk in digital transactions. These studies reinforce the idea that when users feel secure knowing their personal and financial data are protected. They are more likely to adopt and continue using financial technology solutions like QRIS. Thus, enhancing user trust through robust cybersecurity and transparent policies is essential for broader and sustained digital payment adoption among MSMEs.

The quantitative findings regarding perceived security are also supported by qualitative insights from the interviews. Widji, a culinary MSME owner, highlighted how the notification system and traceability of each QRIS transaction give her a sense of safety:

"Every transaction is recorded, so if anything happens, I can track it. It's safer than handling cash all the time."

She explained. Her statement reflects the importance of transaction traceability and accountability in building user trust, particularly for MSMEs that traditionally rely on manual and cash-based systems. The ability to monitor every incoming payment increased her comfort and willingness to continue using QRIS.

Similarly, Zagawho operates in the agribusiness sector, shared a strong belief in the safety of using QRIS, especially due to the institutional credibility of Bank Indonesia.

"As long as we keep our account safe and don't share passwords, I think QRIS is secure. I haven't experienced any issues so far,," His trust stems from both the system's reliability and the educational support provided during onboarding. For entrepreneurs like him who manage supply chains and larger volume transactions, having confidence that their payment system is protected against fraud or data breaches is essential for long-term usage.

For younger entrepreneurs like Bela, a young fashion entrepreneur, echoed the same trust, noting that security was one of the key reasons she decided to fully integrate QRIS into her business.

"It's super easy. Just generate the QR, display it, and the customer can scan it. Even my staff figured it out quickly,"
Her experience shows that security isn't just about preventing threats it also includes users' ability to oversee and manage their transactions independently. Her preference for a secure and transparent payment method reinforces the idea that perceived security is not only a technical factor but also a psychological enabler that shapes behavioral intention among MSME actors.

CONCLUSIONS

This study concludes that both perceived ease of use and perceived security significantly influence the intention of MSMEs fostered by KPw BI West Java to adopt QRIS as a digital payment method. The findings from quantitative regression analysis, supported by qualitative interviews, indicate that the simplicity of operating QRIS and the users' confidence in its security systems are crucial determinants for sustained usage. These results reinforce the Technology Acceptance Model (TAM) and highlight the importance of user-centric digital design and institutional trust in fostering technology adoption in the MSME sector.

Future initiatives by policymakers and Bank Indonesia should focus on expanding digital literacy training for MSMEs, particularly emphasizing system security and technical ease to increase adoption rates. Additionally, future research can explore the role of other psychological and contextual variables such as digital self-efficacy, institutional support, and peer influence to provide a more comprehensive understanding of QRIS adoption behavior, using broader samples across provinces or comparative models between rural and urban MSME environments.

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